

Exhibit No. 403

Exhibit No.: 403
Issue(s): High Prairie Wind Farm/PISA/
Voltage Optimization/Rate Design and Class Cost of
Service Studies/Advertising/Low-Income Programs/
Late Fees
Witness/Type of Exhibit: Marke/Surrebuttal
Sponsoring Party: Public Counsel
Case No.: ER-2021-0240

SURREBUTTAL TESTIMONY

OF

GEOFF MARKE

Submitted on Behalf of the Office of the Public Counsel

**UNION ELECTRIC COMPANY
D/B/A AMEREN MISSOURI**

FILE NO. ER-2021-0240

November 5, 2021

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

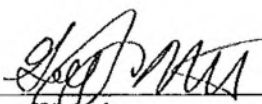
In the Matter of the Union Electric)
Company d/b/a Ameren Missouri's)
Tariffs to Increase its Revenues for) Case No. ER-2021-0240
Electric Service)
)

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 surrebuttal 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.

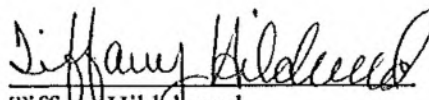


Geoff Marke
Chief Economist

Subscribed and sworn to me this 5th day of November 2021.



TIFFANY HILDEBRAND
My Commission Expires
August 8, 2023
Cole County
Commission #15637121



Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2023.

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SURREBUTTAL TESTIMONY

OF

GEOFF MARKE

UNION ELECTRIC COMPANY

D/B/A AMEREN MISSOURI

CASE NO. ER-2021-0240

1 **I. INTRODUCTION**

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

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

5 **Q. Are you the same Dr. Marke that filed direct and rebuttal testimony in ER-2021-0240?**

6 A. I am.

7 **Q. What is the purpose of your surrebuttal testimony?**

8 I am responding to the rebuttal testimony of other parties' witnesses on select topics. The
9 following is a list of those topics and the witnesses:

- 10 • High Prairie Wind Farm
 - 11 ○ Ameren Missouri witness Ajay Arora and John J. Reed; and
 - 12 ○ Missouri Industrial Energy Consumers ("MIEC") witness Greg Meyer
- 13 • Plant-In-Service Accounting ("PISA")
 - 14 ○ Ameren Missouri witnesses Mark C. Birk
- 15 • Voltage Optimization
 - 16 ○ Ameren Missouri witness James D. Huss
- 17 • Rate Design and Class Cost of Service Studies
 - 18 ○ Ameren Missouri witnesses Ahmad Faruqui, Ph.D. and Michael W.
19 Harding;
- 20 • Advertising
 - 21 ○ Ameren Missouri witness Trina Muniz
- 22 • Low Income Programs

- 1 ○ Ameren Missouri witness Page Selby;
- 2 ○ Staff witness Kory Boustead; and
- 3 ○ Renew Missouri witness James Owen
- 4 • Late Fees
- 5 ○ Ameren Missouri witness Tom Byrne

6 My silence regarding any issue should not be construed as an endorsement of, agreement
7 with, or consent to any other party's filed position.

8 **II. HIGH PRAIRE WIND FARM**

9 **Q. What was Ameren Missouri's response to your recommendation in light of the prolonged**
10 **curtailments related to excess taking of federally endangered and protected species at the**
11 **High Prairie Wind Farm?**

12 **A.** Ameren Missouri witnesses Ajay Arora and John J. Reed rejected my recommendation
13 regarding cost recovery of the High Prairie Wind Farm.

14 Mr. Arora's testimony generally focused on the issue of managerial prudence as he presents a
15 retrospective examination of the High Prairie Certificate of Convenience of Necessity ("CCN")
16 Case where he accuses me of "reneging" on the stipulation and agreement that OPC entered
17 into.

18 Mr. Reed's testimony takes on a different approach by providing a history with select
19 abbreviated case studies of two variations of the "used and useful" and the "prudence" principle
20 and his opinion on their appropriateness as it applies to this case. I will respond to each in turn.

1 **Response to Mr. Arora**

2 **Q. Mr. Arora accuses you of “reneging” on the stipulation and agreement OPC entered into.**
3 **What is your response?**

4 A. To be clear, I am challenging the lack of output of the High Prairie Wind Farm, not the
5 prudence of Ameren’s decision to acquire it.¹ Customers paid for a fully operational wind farm
6 not 75% of an operational wind farm. My direct testimony described the facts surrounding the
7 current situation Ameren Missouri alone has created and was brought to my attention shortly
8 before testimony was due. My recommendation is based on facts that are still in development
9 but are grounded on an adherence to the regulatory compact and the used and useful principle.
10 I also have a great deal of concern about risk exposure moving forward regarding this asset.
11 As Mr. Arora (and many others) has pointed out, I can’t make, nor am I making a prudence
12 argument. Any contextual information I provided (or will provide) is just that—contextual
13 information for the Commission to consider in weighing the balancing act inherent in
14 supporting the regulatory compact and setting rates that are just and reasonable for an asset that
15 was not needed to meet load and that will seemingly fail (conceded by Mr. Arora in rebuttal
16 testimony) in producing enough renewable energy credits to meet the Missouri Renewable
17 Energy Standard requirement as it was set out to do. As it presently stands, the High Prairie
18 Wind Farm:

- 19 • Has killed more Indiana Bats (federally protected endangered species) than any wind
20 farm operating in the world in less than a year of limited operation;
- 21 • Is only operating 75% of the year;
- 22 • Is not needed to serve its load or MISO reserve margin;
- 23 • Was put forward to meet RES requirements but will fail to cover its projected amount;
- 24 • Is losing out on production tax credits that should be flown back to customers;

¹ It is worth noting that multiple state agencies raised the issue with the siting of this farm with Ameren Missouri, who operates with asymmetrical information, doubling-down throughout the process as to the assurance of the location.

- 1 • Will continue to incur future costs related to mitigation measures, be exposed to
- 2 increased public scrutiny, and possible future legal challenges; and
- 3 • Will be included in rate base in this case where the Company will earn a return on an
- 4 investment that is neither fully operational nor necessary to provide safe and adequate
- 5 service.

6 **Q. Why did OPC sign onto a stipulation and agreement that forfeited its future rights to**
7 **challenge the managerial prudence of siting a wind farm in the middle of the roosting**
8 **habitat of an endangered species?**

9 A. I have no idea. I was not involved in the drafting of that stipulation. Regardless, the stipulation
10 and agreement has no bearing on the basis of the recommendation I have put forward.

11 **Q. To be clear you are not raising a prudency argument?**

12 I am not raising a prudency disallowance argument. My argument rests on adhering to the
13 principle supporting the regulatory compact and the used and useful principle. The issue before
14 the Commission is one of equity and fairness surrounding a long-term capital investment that
15 (barring some extraordinary technological breakthrough) will almost assuredly get worse over
16 time.

17 **Q. What do you mean get worse?**

18 A. My understanding is that Ameren Missouri presently does not know whether or not they have
19 killed more Indiana Bats then they were allowed to. The U.S. Fish & Wildlife Service will
20 examine the deaths and variables surrounding the sample plot of the High Prairie Wind Farm
21 and then input those variables into an algorithm to generalize a “total take amount” across the
22 60,000+ acres. If (and/or when) the amount of endangered dead bats is exceeded, the Company
23 will have to renegotiate with US Fish and Wildlife for new mitigation efforts (habitat plans and
24 incidental take permits). This process presumably repeats *ad nauseam* with greater and greater
25 imposed mitigation actions/restrictions until A.) the wind farm stops killing endangered bats
26 (or at least enough of them to reach the end of the wind farms useful life); or B.) the wind farm
27 stop running with progressively longer periods of full curtailment.

1 There will almost assuredly be many more mitigation efforts in an attempt to obtain option A
2 and this will no doubt cost more and more money that Ameren Missouri will ask ratepayers to
3 shoulder in an attempt to stop killing this almost extinct species.

4 **Q. Is this the “Parade of Horribles” that Mr. Arora accuses your testimony of saying?**

5 A. A words search of my direct testimony resulted in no examples of me using that phrase, but I
6 would agree that is an apt description of the situation Ameren Missouri and its ratepayers find
7 themselves in. I would add to the “Parade of Horribles” threat list, the risk of outside legal
8 action for violation of the Endangered Species Act of 1974 by a third party (non-governmental
9 organization (NGO), individual, or other). The Commission need look no further than the many
10 lawsuits brought forward related to alleged Clean Air and Clean Water Act violations as
11 evidence that this is not just some off-handed concern. Remember this is year one of operation.
12 It remains to be seen what will follow over the decades this wind farm is supposed to be
13 operational.

14 **Q. Mr. Arora accuses you of writing “I told you so” testimony. Do you have a response?**

15 A. Despite Mr. Arora’s contention, I take no satisfaction in Ameren Missouri curtailing its wind
16 farms due to the excess taking of an endangered and protected species. I am genuinely
17 concerned about the fate of the endangered species, the Indiana Bats, moving forward as a
18 result of the High Prairie Wind Farm, the possibility of more prolonged curtailments and the
19 threat of outside legal actions that may arise from excess taking. I am also concerned that the
20 short-run legacy of High Prairie will have negative repercussions on future wind investments
21 in the Midwest. It is an absolutely awful situation for all involved. Hopefully, if there is a lesson
22 to be learned it would be to take greater precautions over proper siting of large-scale wind
23 investments. Especially, when said investment is not needed to meet the resource or reserve
24 needs of the customers it serves.

1 **Response to Mr. Reed**

2 **Q. Mr. Reed accuses you of making a flawed prudence argument. What is your response?**

3 A. As I already explained above to Mr. Arora's argument, I am not making a prudency argument.
4 My argument rests on adhering to the principle supporting the regulatory compact and the used
5 and useful principle. The issue before the Commission is one of equity and fairness
6 surrounding a long-term capital investment that (barring some extraordinary technological
7 breakthrough) will almost assuredly get worse over time.

8 **Q. Mr. Reed attempts to draw a distinction between "used and useful" and "economic used
9 and useful." Do you agree with this distinction?**

10 A. No. Mr. Reed argues for a new regulatory principle "economic used and useful," cites to select
11 worst-case scenario utility disallowance situations where other state commissions later had to
12 walk back on their disallowances as the basis for said principle, and then says we (Mr. Meyer
13 and myself) created this. This is a straw man argument he invented and then gives me credit
14 for.

15 To be clear, there is only a single, broad "used and useful" regulatory principle. The term is
16 not bifurcated nor should it be allowed to be distorted to fit a convenient narrative. My
17 argument is not an economic used and useful argument—especially as Mr. Reed defines it.

18 **Q. Mr. Reed claims that "used and useful" is defined exclusively by Missouri Revised
19 Statute section 393.135. Is Mr. Reed correct?**

20 A. Neither Mr. Reed nor I are attorneys. With that said, this is entirely a too narrow interpretation
21 of a generalized regulatory construct. First, the phrase "used and useful" appears nowhere in
22 that statute. 393.135 is the anti-CWIP statue passed by voter initiative in response to cost-
23 overruns related to nuclear projects, specifically Callaway. It is designed to prevent recovery
24 of expenditures of plant before the plant is providing any benefit to customers. The statute was
25 never meant to replace the regulatory construct of "used and useful." Second, the statute only
26 applies to electric utilities and only applies before the plant can be put into rate base. If "used
27 and useful" was defined by this statute then the "used and useful" methodology would only

1 apply to electric corporations; however, the used and useful principle has been applied to non-
2 electric utilities by both the Commission and Missouri courts. Therefore, the “used and useful”
3 principle *must* be something more than just applying 393.135.

4 **Q. Then how do you define the “used and useful” principle?**

5 A. Simply put, ratepayers should not have to pay for plant that is not providing them a benefit.
6 It’s not limited to CWIP-like scenarios and it is certainly not limited to cherry-picked outcomes
7 from other states where used and useful disallowance negatively impacted the utility in such a
8 prohibitive manner that those commissions were forced to walk-back on their decisions. The
9 situation before the Commission is not Callaway nor will it come close to somehow
10 bankrupting the Company. In fact, the Company will still be better off financially with 75% of
11 the wind farm in rate base than if the Company had merely purchased RECs to meet RES
12 compliance. The fact that the Company will still likely have to purchase RECs to meet
13 compliance should not be lost on this Commission. My request consists of a 25% disallowance
14 that represents the portion of the Wind Farm that is not used and useful for its calendar year
15 operations.

16 The Commission has found in the past that even plant that has already been built and partially
17 placed in service but is not fully being used should still not be completely included in rate base.

18 **Q. Do you have any examples?**

19 A. I do.

20 Case No: WR-2000-0281: The “New” St. Joseph Plant—Capacity

21 The Staff contends that not all of the capacity of the new plant and related facilities is
22 presently used and useful and that the sum of \$2,271,756 should consequently be
23 excluded from rate base. Public Counsel proposes that 19.55 percent of the cost of the
24 new St. Joseph plant and related facilities should be excluded from rate base, based on
25 Mr. Biddy’s estimate that only 80.45 percent of the new plant is used and useful. . . . It
26 is within the province of the Commission to determine the methodology used for rate-
27 making. . . . The Commission concludes that the method proposed by Staff is the better

1 method, because not all items included in rate base are equally susceptible to a straight-
2 line percentage reduction for excess capacity. The amount of \$2,271,756 shall be
3 deduced from the value of the new St. Joseph plant included in rate base.²

4 In this case, the Commission said you have a plant that is in-service, but there is a portion that
5 is just not needed. The Commission ruled that customers should not have to pay for the excess
6 capacity. In the present case, you have a situation where the Company built a Wind Farm that
7 is also not being used at its full capacity. The only difference is the reason behind the
8 underutilized capacity. In St. Joseph it was overbuilt. For High Prairie it's because bats are
9 being taken. But that minor difference doesn't negate the underlying principle that customers
10 shouldn't pay for what is not being used. The irony here is that the bat problem isn't going
11 away. St. Joseph could have very well gained more customers. High Prairie's operation is
12 dependent on the bats no longer "existing" in that locale.

13 Case No: ER-85-265: Arkansas Power & Light Company Rate Increase
14

15 No matter what the origin of capacity the simple fact remains that the Company
16 intentionally overbuilt its generating needs to improve its fuel diversification. The
17 question for the Commission's resolution is whether the ratepayers suffer for the
18 unfortunate results of increased capacity costs if the expansion was not originally
19 imprudent. In the Commission's opinion a substantial portion of the Company's
20 generating plant is not **used and useful** for public service.

21 This is the heart of any excess capacity determination. It means, among other things,
22 that the company's alternative definitions of "reliability" as fuel diversity or
23 available capacity are peripheral. If there is excess capacity in the primary reliability
24 sense, then the threshold condition for an adjustment has been satisfied. (Id. at 43) .
25

² 9 Mo. P.S.C. 3d 254, 283-284

1 Public Counsel's brief cites extensive authority for the proposition that the
2 requirement that property must be **used and useful** in public service to be included
3 in rate base has been followed in a long line of cases commencing with *Smyth v.*
4 *Ames*, 69 U.S. 466 (1898). In the instant case, the generating capacity in question
5 simply is incapable of being **used** for the necessity or convenience of the ratepaying
6 public

7 This case resulted in effectively the same scenario. The Company overbuilt capacity and the
8 Commission disallowed the exact megawatt capacity not being used to serve customers---1,096 MW.
9 The Commission has made disallowances based on used and useful arguments before and it can
10 certainly do so again. This is in line with my recommendation to disallow 25% to recognize the fact
11 that they are not running $\frac{1}{4}$ of the year.

12 **Q. Would you elaborate?**

13 A. High Prairie is not operating as it was designed to do. As more Indiana Bats are found dead the
14 mitigation measures and operating constraints will become tighter. Again, the operation of
15 High Prairie has resulted in the largest number of "taken" Indian Bats by a wind farm in North
16 America to date while only operating at $\frac{3}{4}$'s of the time in under a year. The large and quick
17 recordings of these deaths resulted in a self-imposed forced curtailment of approximately 28%
18 of its operation throughout the calendar year to date. There is no guarantee that Ameren
19 Missouri will be able to negotiate a successful mitigation measure that will allow greater
20 operation or that the implementation would be successful if it was put into service. All we can
21 go off is what occurred in the test year—which is a wind farm designed to operate at 100% of
22 the year operated at 72% because of its negative conservation impact.

23 **Q. Mr. Reed argues that prudent actions can produce uneconomic outcomes but that**
24 **shareholders should not shoulder these costs. What is your response?**

25 A. Again, I am not making a prudency argument.

26 With respect to actions with uneconomic outcomes, prudent or not, the Commission has a
27 range of options, from full recovery plus profit, to no recovery and no profit, and all points in

1 between. What matters constitutionally, is honoring shareholders' and ratepayers legitimate
2 expectations—as those expectations are influenced by regulatory actions.

3 **Q. What expectations have Ameren Missouri's management signaled to its shareholders on**
4 **this explicit issue (curtailment from excessive takes)?**

5 A. Look no further than Ameren Missouri's 2021 10-K statement:

6 **Our electric generation, transmission, and distribution facilities are subject to**
7 **operational risks.**

8 Our financial performance depends on the successful operation of electric
9 generation, transmission, and distribution facilities. Operation of electric generation,
10 transmission, and distribution facilities involves many risks, including: . . . the level
11 of wind and solar resources; **inability to operate wind generation facilities at full**
12 **capacity resulting from requirements to protect natural resources, including**
13 **wildlife**;³

14 Operational risks associated with the inability to operate wind generation at full capacity
15 resulting from requirements concerning protected natural resources, including wildlife is
16 articulated to Ameren's shareholders and acknowledged by Ameren's management as an
17 explicit risk factor that can impact the Company's valuation and is fully publicly disclosed. In
18 short, prudence does not guarantee recovery. As *Duqense Light Co. v. Barash*, 488 U.S. 299
19 (1989) affirmed, the Constitution does not insulate a utility from uneconomic outcomes,
20 whether in the form of market forces, obsolescence, bad luck, or, in this case, potential
21 violations of the US Endangered Species Act, even when the utility's managerial prudence is
22 not being challenged. If an asset is not "used and useful," the Commission does not have to
23 force customers to pay shareholders as if the asset is fully used and useful.

24 According to a leading authority on utility ratemaking and published author Scott Hempling:

³ Ameren Corporation (2021)10-K <https://d18rn0p25nwr6d.cloudfront.net/CIK-0001002910/d81565a4-cc58-4751-8932-dc8706ae3d21.pdf> p. 24-25.

1 *Barasch* and its ancestors tell us that, faced with a non-used and useful asset, the
2 regulator can choose among three results (And points in between, all dependent on
3 the facts):

- 4 1.) Full amortization plus return of the unamortized amount;
5 2.) Amortization only; and
6 3.) No amortization and no return

7 These and various hybrids between them can satisfy both the statutory command of
8 “just and reasonable” rates and the constitutional command of “just compensation.”⁴

9 Despite Mr. Reed’s examples and assertions to the contrary:

10 [T]he Supreme Court’s opinion in *Hope* and *Barash*, subsequent court of appeals
11 decisions have declined to reject or anoint any specific rule. The courts will review the
12 regulator’s inclusion or exclusion of costs based on the facts, subject to the requirement
13 that the regulator’s decision be “based on substantial evidence and ... adequately
14 balance the interests of investors and ratepayers.”⁵

15 Remember, “just and reasonable” rates give the utility a reasonable opportunity to earn a fair
16 return (not a guarantee) on prudent, used and useful investments, while not imposing wasteful
17 cost on customers. In my opinion, Ameren Missouri has failed the second part. Stated different,
18 if we accept Ameren Missouri’s argument the question should be, “are we going to pay the
19 correct amount for what we got?” The answer is no. Worse, customers will likely be exposed
20 to greater costs moving forward.

21 In areas of retail competition, prices for service will drive marginal cost of production and
22 returns toward the cost of capital; alternatively, unchecked market power seen with regulated

⁴ Hempling, S. (2013) *Regulating Public Utility Performance: The Law of Market Structure, Pricing and Jurisdiction*. ABA. P. 252-253

⁵ *Ibid.* 254.

1 utilities will allow service to suffer and prices to creep higher than efficient levels, resulting in
2 both windfalls to the firm and welfare losses to society.

3 **Q. What expectations did Ameren Missouri signal to ratepayers on this specific issue?**

4 A. A wind farm that would be operating as designed and not killing protected endangered species.
5 According to David Meiners, Ameren Missouri Manager of Renewable Operations:

6 It [High Prairie Wind Farm] will just sit there and, all day long, follow the direction
7 of the wind as it moves around, and pitch the blades to spin in a controlled manner
8 to generate.⁶

9 And, Terry VanDeWalle, Senior Biologist for Stantec, the third-party Company charged
10 with studying the impact on bats due to High Prairie for Ameren Missouri:

11 If the project [High Prairie Wind Farm] comes to fruition, it will have to be good for
12 bats, too.⁷

13 **The Regulatory Compact**

14 **Q. What is the regulatory compact?**

15 A. Often argued in regulatory settings, the regulatory compact constitutes an agreement between
16 the utility and the government. The utility accepts an obligation to serve in return for the
17 government's promise to set rates that will compensate it for the prudently incurred costs it
18 incurs to meet that obligation. Regulated utilities should not be viewed as entirely different
19 from private firms operating in the competitive environment—and a legitimate proxy in this
20 case, would be a merchant generator. Utilities operating under the regulatory compact are not

⁶ Miller, A. (2021) 'It has been performing as designed': High Prairie wind farm up and running in northeast Missouri. *Kirksville Daily Express*. <https://www.kirksvilledailyexpress.com/story/news/2021/04/29/it-has-been-performing-designed-high-prairie-wind-farm-up-and-running-northeast-missouri/7401992002/>

⁷ Hunsicker, J. (2018) Proposed wind farm could drive economic development. *Kirksville Daily Express*. <http://www.kirksvilledailyexpress.com/news/20180727/proposed-wind-farm-could-drive-future-economicdevelopment>

1 supposed to be shielded from all economic or business risks nor denied the rewards that come
2 with effective risk management or the repercussions from failed risk management.

3 **Q. What would happen if the Commission were to ignore the economic realities facing High**
4 **Prairie and the future risks associated with the farm?**

5 A. It would effectively be shifting all risk (today and future) to ratepayers, guaranteeing full
6 recovery of all costs incurred and ensuring realization of authorized returns, and such a ruling
7 would absolutely negate the value of a structural model centered on private investment and
8 provide support for those that argue the state should instead assume public ownership and
9 operation of the utility. Why mess with paying a premium when no such risks exists? Again,
10 under the compact, utility regulation returns (profits) are authorized but not guaranteed.
11 Ignoring risk fundamental in the regulatory context can be perilous as it will result in shifting
12 risk from utility investors (who are richly awarded for said "risks") to utility ratepayers through
13 unjust increases to the overall cost of service. Lower (or no) risks to shareholders result in
14 higher prices to ratepayers, a decrease in economic efficiency, and ultimately regulatory
15 failure. Given the anti-competitive nature of monopolies, regulators are the only protection the
16 public has from unfair and overly burdensome utility prices.

17 **Response to Mr. Meyer**

18 **Q. Do you agree with Mr. Meyer's recommendations regarding RESRAM and FAC**
19 **Adjustments as a result of the self-imposed curtailments by High Prairie?**

20 A. I do. Mr. Meyer makes a strong case by noting that Ameren's uneconomic actions impact
21 multiple mechanisms and should be adjusted accordingly.

22 **Q. Do you have any further comments on this topic?**

23 A. I recommend that the Company only be allowed to recover 75% of the return of and return on
24 its High Prairie Investment.

25 The Company and shareholders are still better off financially with a 75% return on and of a
26 multi-hundred million dollar investment than they would be if no such investment was made
27 and RECs were bought in its place. Shareholders, especially Ameren Missouri shareholders

1 are doing very well by any measurable metric (the same cannot be said for all of Ameren
2 Missouri's customers) and have every reason to be optimistic moving forward. The Company
3 has favorable legislation, works well (for the most part) with their regulators, has many
4 opportunities for future investment and as the rebuttal testimony of Staff witness John Cassidy
5 articulated—faces virtually no risk. The Company should count its blessings that things are not
6 worse and move on both from an operational, regulatory and public perspective.

7 If the Commission elects to dismiss my recommendation I highly recommend they support Mr.
8 Meyer's portion of a "no return" recommendation. Finally, if that too is dismissed I implore
9 the Commission into factoring the prolonged curtailments, excess deaths and enormous future
10 cost uncertainty that the Company is placing on ratepayers in how it sets rates in this case and
11 especially the Company's ROE. If this is approved, what risk is the Company exposed to? I
12 for one cannot come up with a legitimate answer.

13 **III. PLANT-IN-SERVICE ACCOUNTING**

14 **Q. Did Ameren Missouri provide evidence of cost-effective analyses and/or performance**
15 **metrics to benchmark its investments in addressing the problems they are attempting**
16 **to solve through their billion+ dollar PISA investments?**

17 **A.** Not in any meaningful manner. Ameren Missouri witness Mark C. Birk responded to my
18 request/criticism by questioning the value of the Commission having this information and
19 rejected the idea of the Commission compelling such a request. His testimony can be
20 summarized as follows:

- 21 • A brief history in how SB 564 which was designed, in part, to reduce regulatory lag
22 and to spend a lot of ratepayer funds in a short-amount of time on grid modernization;
- 23 • Affirms that PISA investments are neither "gold plated" or "just nice to have";
- 24 • Cites to a specific event where investments "paid off";
- 25 • Suggests that I implied the Company should not invest in PISA because customers
26 found themselves in the middle of a recession during this pandemic;

- 1 • Suggests I am confused by Ameren’s undergrounding investments;
- 2 • That quantifying benefits for these investments is neither appropriate or even possible;
- 3 • Is critical of my suggestion to utilize performance metrics;
- 4 • Is critical of my suggestion to encourage the Commission to order more information in
- 5 future PISA dockets;
- 6 • Finally, Mr. Birk attaches previous PISA excel sheet filings as evidence of
- 7 transparency in filing.

8 I will attempt to respond to his arguments in total.

9 **Q. Do you agree that PISA reduces 85% of regulatory lag and enables Ameren Missouri to**
10 **spend a lot of money in a short time on grid modernization?**

11 **A.** That is what it does.

12 Ameren now has considerably less risk and an enhanced window of opportunity to spend large
13 amounts of capital and increase profit. PISA has no doubt impacted Ameren’s “surprise”
14 earnings as characterized by Zacks Equity Research on 11/4/2021:

15 **Ameren Corporation’s AEE** third-quarter 2021 earnings of \$1.65 per share from
16 continuing operations exceeded the Zacks Consensus Estimate of \$1.62 by 1.9%.
17 Moreover, the reported figure improved 12.2% from \$1.47 reported in the year-ago
18 quarter.

19 The year-over-year bottom-line improvement can be attributed to factors like
20 higher earnings generated from increased infrastructure investments made
21 across all business segments due to a change in seasonal electric rate design at
22 Ameren Missouri and higher electric retail sales driven by a recovering economy.
23 Warmer-than-normal summer temperatures in the third quarter along with a higher
24 allowed return on equity at Ameren Illinois Electric Distribution also boosted
25 quarterly earnings.

26 **Total Revenues**

1 Total revenues came in at \$1,811 million in the reported quarter, which improved
2 11.2% year over year due to higher electric as well as natural gas revenues. Revenues
3 also beat the Zacks Consensus Estimate of \$1,787 million by 1.3%.⁸

Ameren Corporation Price, Consensus and EPS Surprise



4
5 **Q. What is your response to Mr. Birk that PISA investments are neither “gold plated” or**
6 **just “nice to have?”**

7 **A. Mr. Birk quotes my rebuttal testimony from ER-2019-0335 which I have reprinted here as**
8 **follows:**

9 In short, I would want to see some (or any) justification that ratepayers \$5 billion +
10 spend on “customer-driven focus” distribution investments will result in customer
11 benefits and not just **gold plating** a utility’s distribution system. Certainly, PISA
12 accounting treatment can produce benefits beyond paperless billing.⁹ (emphasis
13 added here)

⁸ Zacks Equity Research (2021) Ameren (AEE) Tops Q3 Earnings Estimates, Raises EPS View. *NASDAQ*.
<https://www.nasdaq.com/articles/ameren-aee-tops-q3-earnings-estimates-raises-eps-view-2021-11-04>

⁹ ER-2019-0335 Rebuttal Testimony of Geoff Marke p. 5, 12-23 to p. 6.
I was unable to locate any testimony where I used the phrase “nice to have.”

1 As to my response to comments I made January 21, 2020, I still want to know the answer to
2 my question. What are customers getting for their rate increase? If the answer is, “they are
3 getting what they had before only with newer equipment” then say it and let me know the delta
4 between the replacements and the assumed useful life (and depreciation balance) of the assets
5 being replaced. Much of SB 564 was premised, in part, on buzz words like “smart”
6 investments. How much is “smart?” What exactly is smart about said investment? And how
7 are smart investments producing benefits for customers? Among other basic inquiries to
8 appropriately gauge what PISA has accomplished.

9 **Q. Do you have a response to the single event Mr. Birk identified where PISA investments**
10 **“paid off?”**

11 **A.** Great. Such an event will serve as a valuable data point to verify savings for customers.

12 **Q. What is your response to Mr. Birk’s assertion that your testimony implied Ameren**
13 **shouldn’t provide safe and reliable service because a recession is taking place?**

14 **A.** Let me be crystal clear, I believe it is incumbent upon Ameren Missouri to provide safe and
15 reliable service at just and reasonable rates.

16 The implications behind the inclusion of my data is that Ameren Missouri households are
17 suffering and Ameren Missouri, by comparison, is doing better than it ever has. These are facts
18 that are empirically supported. They provide appropriate context for what is currently taking
19 place during Ameren’s PISA investments. It is what it is.

20 What I am currently missing are the facts pertaining to the appropriateness of Ameren
21 Missouri’s investments and how said investments will produce benefits to customers into the
22 future.

23 **Q. Mr. Birk claims you’re confused about the undergrounding investments. Please respond.**

24 **A.** I believe I am. Mr. Birk states in his testimony:

1 Dr. Marke appears to confuse the replacement of 400 miles of existing but old, and
2 as I discussed earlier degraded and flawed underground cable, with a plan that does
3 not exist to take existing overhead circuits and instead underground them.¹⁰

4 To be clear, my concern surrounding Ameren Missouri undergrounding overhead circuits
5 stems from Ameren Missouri's witness Warren Wood's attachment to his direct testimony
6 in the previous rate case. Which states:

7 And we're [Ameren Missouri] installing more than 400 miles of new underground
8 cable and equipment to create a more efficient underground energy delivery
9 system.¹¹

10 I am now led to believe that Ameren Missouri is merely replacing more than 400 miles of
11 existing underground cable with "new" underground cable. This raises different questions
12 for me, particularly what was the remaining useful life of the existing underground cables
13 that were replaced. Putting that question aside for the moment, my concern about
14 undergrounding existing overhead cables is appeased as I have yet to see a cost effective
15 argument by any utility for such an approach outside of extreme hurricane-prone service
16 areas (and even then I believe it can be questionable).

17 **Q. Mr. Birk includes several years' worth of Ameren Missouri PISA filings as attachments**
18 **as evidence that the Company has provided all the information the Commission needs.**
19 **What is your response?**

20 A. The inclusion of a utility Christmas wish list is not evidence that the projects are prudent, cost-
21 effective, solving legitimate problems or enabling any degree of monitoring to show said
22 investments are effective relative to the Company's baseline.

23 **Q. How do you respond to Mr. Birk's assertion that quantifying benefits related to PISA is**
24 **not an appropriate exercise for the Commission to consider?**

25 A. I absolutely disagree. Of course it is appropriate. Otherwise it is a blank check.

¹⁰ Case No: ER-2021-0240 Rebuttal Testimony of Mark C. Birk p. 21, 7-9.

¹¹ See GM-1.

1 No doubt the Commission is familiar with the phrase “just and reasonable.” The term is thrown
2 around so often in regulatory filings that it has almost certainly lost its meaning. I would like
3 to revisit that phrase though an explanation from Scott Hempling, Hempling defines the term
4 as follows:

5 “Just” aligns benefits with cost bearers; “Reasonable” requires cost-effectiveness.¹²

6 Now consider for a moment that for many state commissions, pre-approval for large capital
7 projects (like grid modernization) is the norm. Those filings are accompanied by detailed plans
8 and cost benefit analyses that attempt to demonstrate benefits for said investments. In contrast,
9 in Missouri, the utility comes forward for cost recovery after the investments are put into
10 service and deemed used and useful. From my vantage point, the immediate problem from a
11 consumer advocate perspective is that the benefit to building out rate base for greater earnings
12 is obvious to the shareholder. What is not obvious to me is the benefit to ratepayers of the sunk
13 costs made and they are left on the hook for (as well as the return on). My request is merely
14 attempting to get out of Ameren what so many utilities have done in other dockets around the
15 country—demonstrate why their specific grid modernization investments are appropriate.
16 Submitting an excel sheet with a list of project names and calling it a day with the regulators
17 is not appropriate oversight and Ameren Missouri should be held to some standard.

18 **Q. Mr. Birk asserts that you can’t quantify PISA investments (and/or the Company doesn’t**
19 **know how to). How do you respond?**

20 **A.** To quote the opening of Douglas Hubbard’s best-selling *How to Measure Anything*:

21 Anything can be measured. If a thing can be observed in any way at all, it lends itself
22 to some type of measurement method. No matter how “fuzzy” the measurement is, it’s
23 still a measurement if it tells you more than you knew before. And those very things

¹² Hempling, C. (2010) "SMART GRID" SPENDING: A COMMISSION’S PITCH-PERFECT RESPONSE TO A UTILITY’S SEVEN ERRORS. Scott Hempling Law. <https://www.scotthemplinglaw.com/essays/smart-grid-spending>

1 most likely to be seen as immeasurable are, virtually always, solved by relatively
2 simple measurement methods.¹³

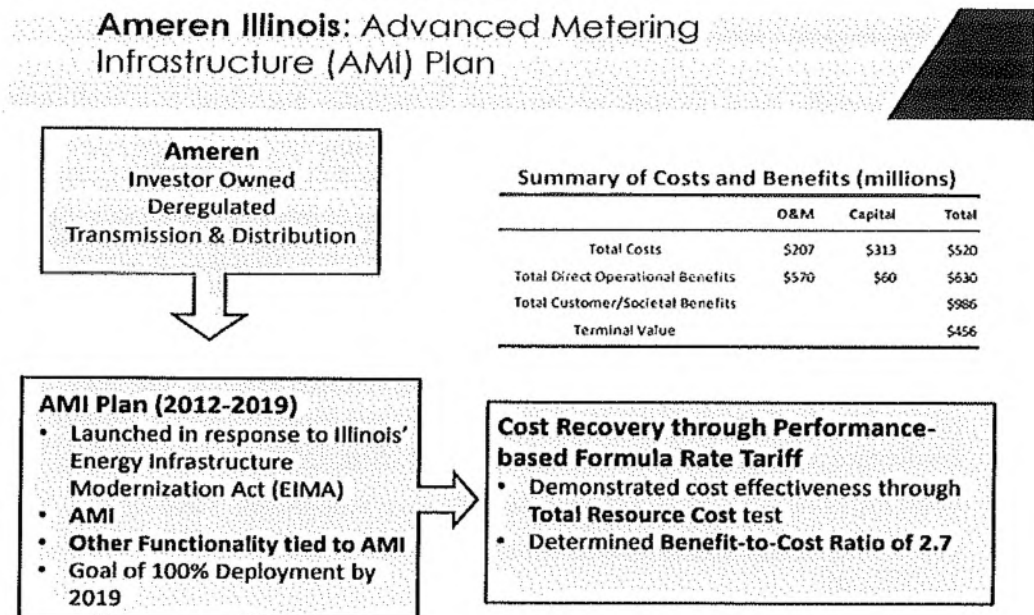
3 Hubbard's specific book focuses on business intangibles but there is a well-documented
4 science of many established measurement methods that are seemingly available to the
5 Company to lean into. But there exists many online 3rd-party papers on this topic and, no doubt,
6 many regulatory filings (including from its affiliate Ameren Illinois). A non-exhaustive list
7 includes the following:

- 8 • Woolf, Tim, Havumaki, Ben, Bhandari, Divita, Whited, Melissa, and Schwartz, Lisa C.
9 (2021) Benefit-Cost Analysis for Utility-Facing Grid Modernization Investments: Trends,
10 Challenges, and Considerations. United States: <https://www.osti.gov/biblio/1764567> .
- 11 • EPRI (2015) The Integrated Grid: A Benefit-Cost Framework. Final Report, 3002004878
12 [https://www.ftc.gov/system/files/documents/public_comments/2016/06/00151-](https://www.ftc.gov/system/files/documents/public_comments/2016/06/00151-128392.pdf)
13 [128392.pdf](https://www.ftc.gov/system/files/documents/public_comments/2016/06/00151-128392.pdf)
- 14 • Alvarez, P. & D. Stephens (2019) Modernizing the Grid in the Public Interest: Getting a
15 smarter grid at the least cost for South Carolina customers. [http://gridlab.org/wp-](http://gridlab.org/wp-content/uploads/2019/04/GridLab_SC_GridMod.pdf)
16 [content/uploads/2019/04/GridLab_SC_GridMod.pdf](http://gridlab.org/wp-content/uploads/2019/04/GridLab_SC_GridMod.pdf)
- 17 • NARUC & Grid Modernization Laboratory Consortium (2019) A Valuation Framework
18 for Informing Grid Modernization Decisions: Guidelines.
19 <https://pubs.naruc.org/pub/E5D88DC3-B521-3FBB-F489-6D8E89C8C16F>
- 20 • And the hundreds of hyperlinks listed under the NARUC webpage titled: Comprehensive
21 Electricity Planning Library: [https://www.naruc.org/taskforce/comprehensive-](https://www.naruc.org/taskforce/comprehensive-electricity-planning-library/)
22 [electricity-planning-library/](https://www.naruc.org/taskforce/comprehensive-electricity-planning-library/)

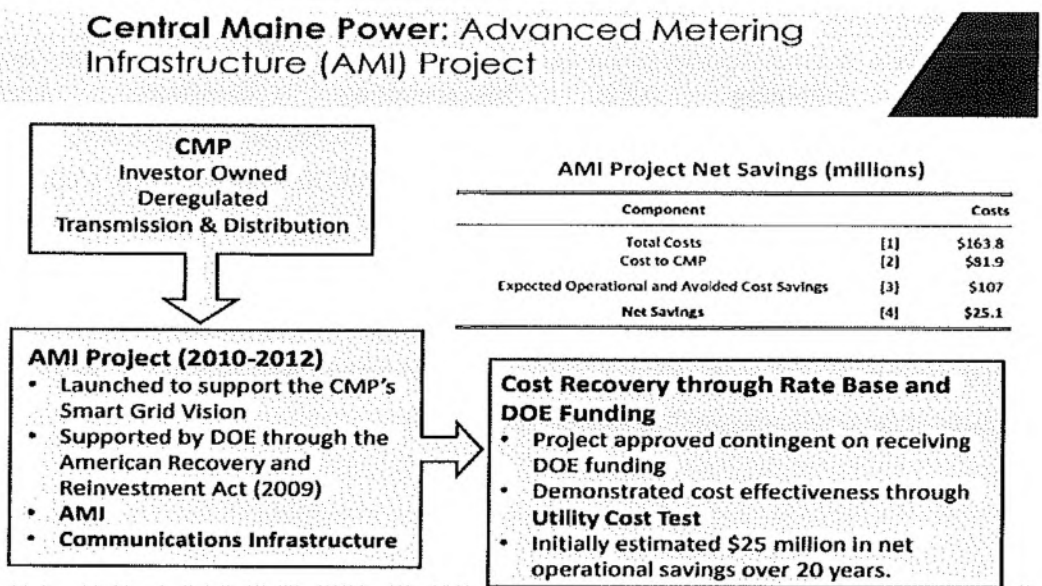
23 The idea that cost-benefit analyses is somehow a foreign concept for Grid Modernization flies
24 in the face of the following slides highlighted in a Brattle Presentation titled "Reviewing Grid
25 Modernization Investments" in Figures 1-7 below:

¹³ Hubbard, D.W. (2014) *How to Measure Anything: Finding the Value of Intangibles in Business* 3rd Edition. John Wiley & Sons. p. 3

1 Figure 1: Ameren Illinois AMI Cost-Benefit Summary¹⁴



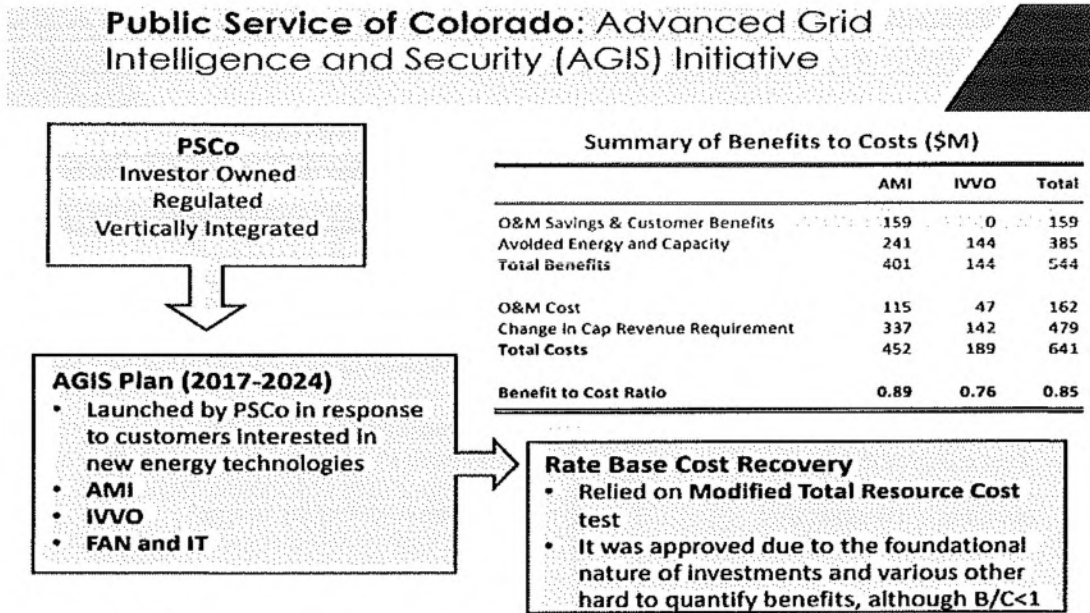
2
 3 Figure 2: Central Main Power AMI Cost-Benefit Summary¹⁵



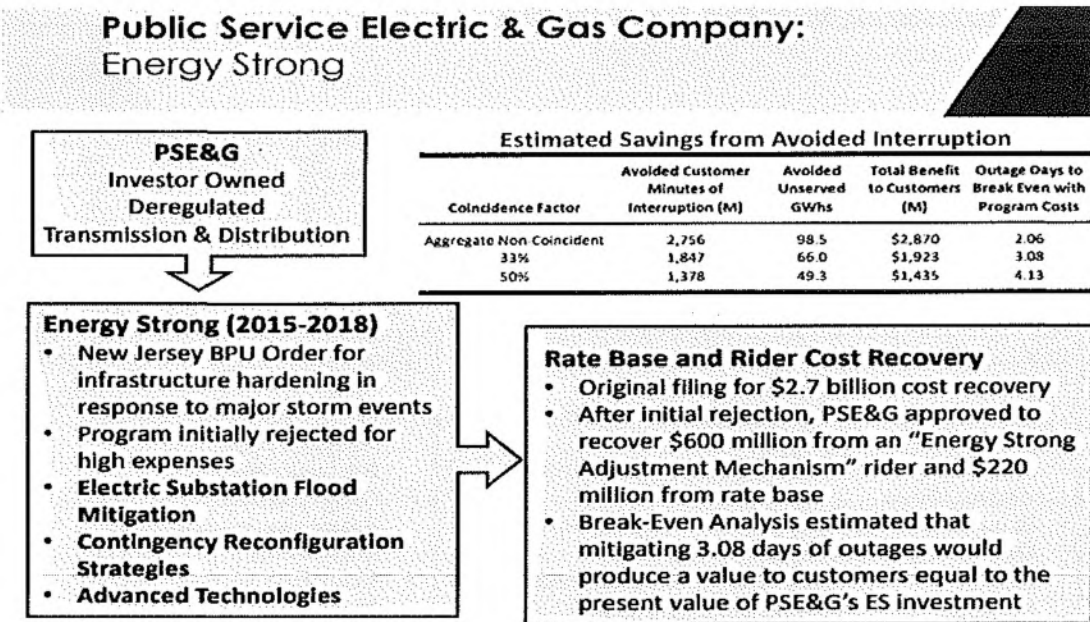
¹⁴ Sergici, S. (2018) Reviewing Grid Modernization Investments: Summary of Recent Methods and Projects. *The Brattle Group*. http://files.brattle.com/files/15440_sergici_nema_grid_mod_report_presentation_12042018.pdf

¹⁵ Ibid.

1 Figure 3: Public Service of Colorado Advanced Grid Intelligence & Security Cost-Benefit¹⁶



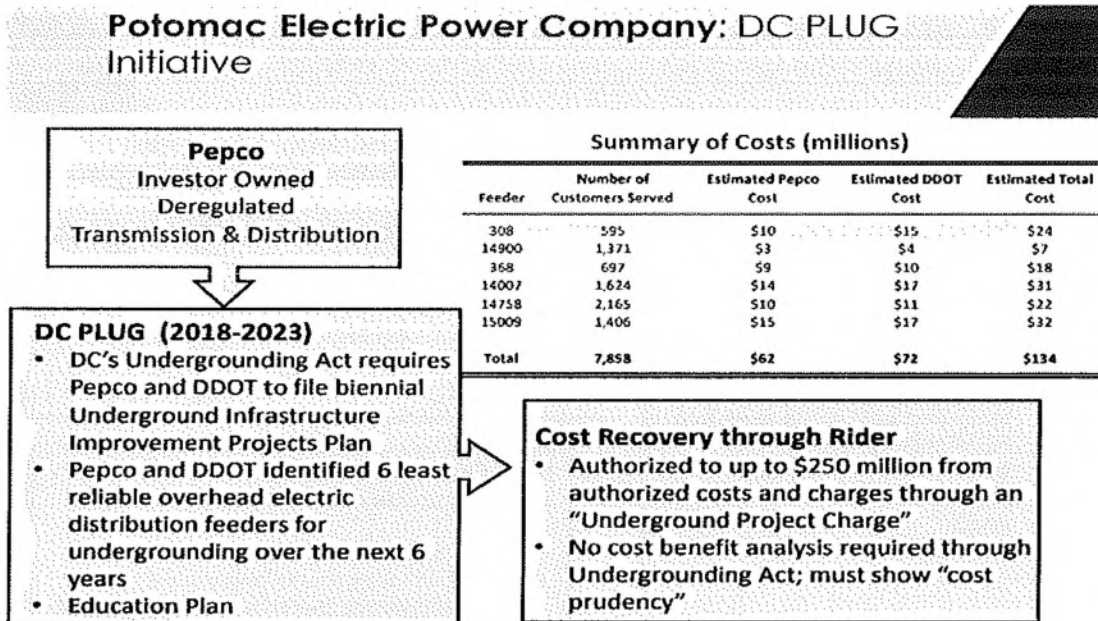
3 Figure 4: Public Service Electric & Gas Company Energy Strong Cost-Benefit Summary¹⁷



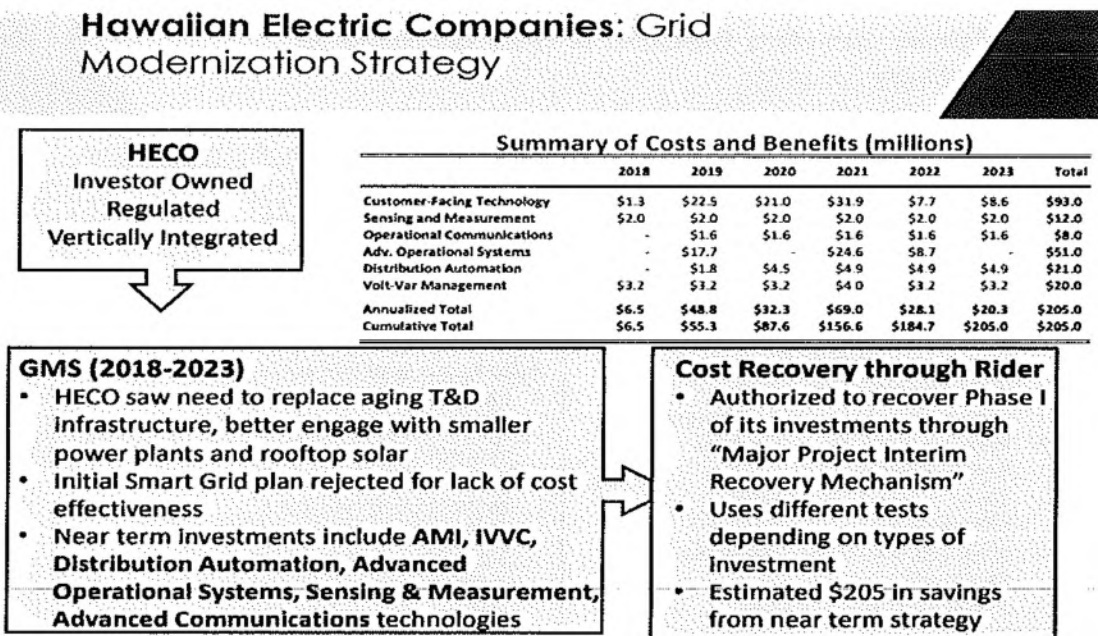
16 Ibid.

17 Ibid.

1 Figure 5: Potomac Electric Power Company: DC Plug Initiative Cost-Benefit Summary¹⁸



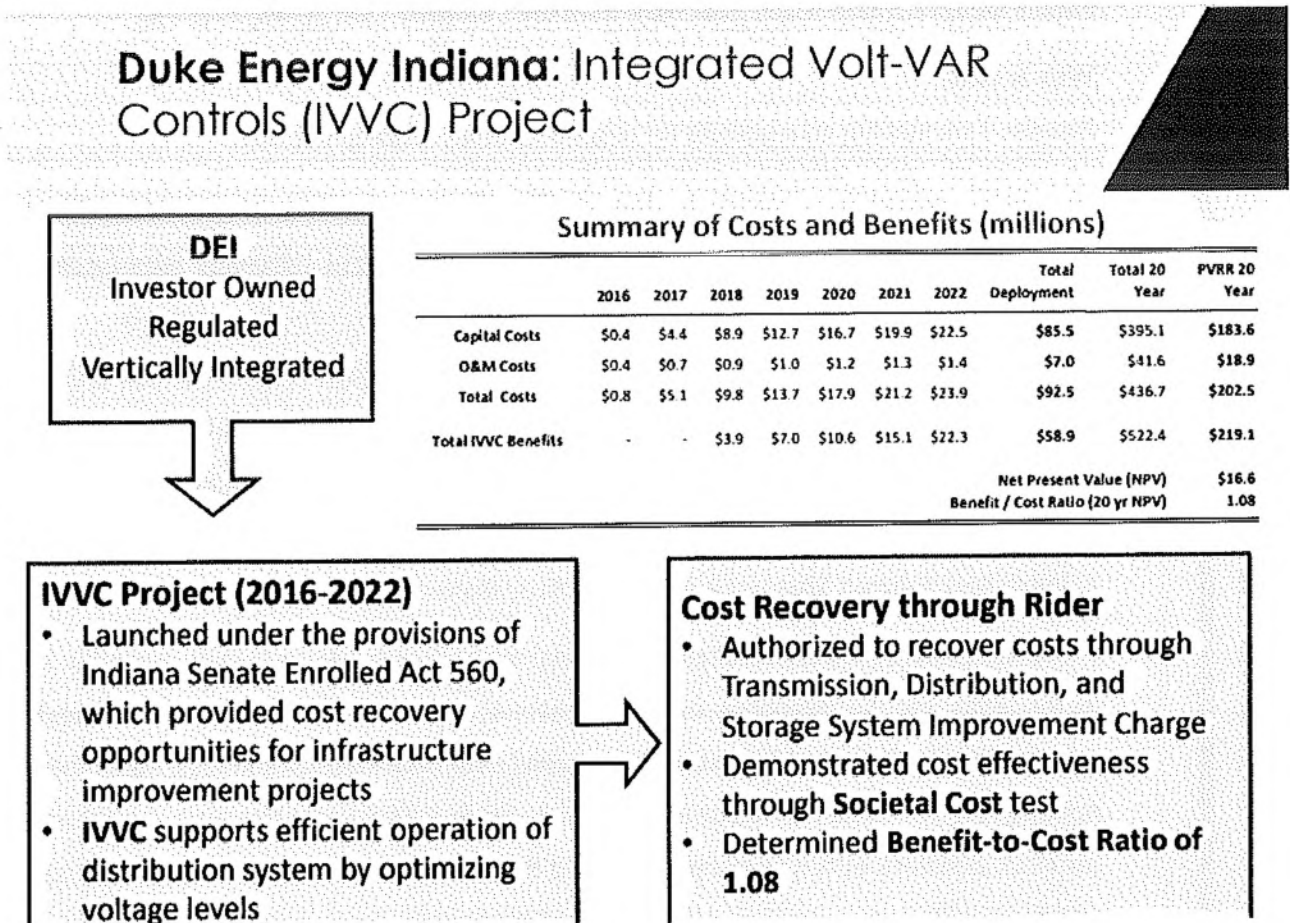
2
 3 Figure 6: Hawaiian Electric: Grid Modernization Cost-Benefit Summary¹⁹



18 Ibid.

19 Ibid.

1 Figure 7: Duke Energy Indiana: Integrated Volt-VAR Controls Cost-Benefit Summary²⁰



2
 3 **Q. Are you implying there are no benefits to Ameren Missouri's PISA investments?**

4 **A.** Of course not. I will observe that I believe nothing was preventing Ameren Missouri from
 5 making timely investments in the past that produced safe and reliable service. The only
 6 empirical change I have been able to gauge from this filing compared to previous rate cases is

²⁰ Ibid.

The Commission should take note of this summary describing a Duke Energy Indiana's grid modernization investment in voltage optimization. This is a topic I raised in direct testimony as a grid modernization feature that is absent from Ameren Missouri's PISA plan to date. I will be speaking in greater length later in this testimony on this topic.

1 that Ameren Missouri's earnings are at all time-highs under PISA. The irony here is that I am
2 frankly amazed at how much push back from the Company I am getting over this.

3 **Q. Why is that?**

4 **A.** Because I am making no argument for cost disallowance related to PISA.

5 I am merely asking the Company to show me they did their due diligence in making the most
6 appropriate investments possible with the finite amount of money ratepayers have for solving
7 the seemingly endless amounts of problems plaguing the modern electric company.

8 Stated differently, I have very little doubt that Ameren Missouri could solve just about any
9 perceived or actual "problem" from a variety of perspectives (affordability, reliability, clean
10 generation, etc...) but I don't believe Ameren Missouri can solve every problem to everyone's
11 preferred level of comfort without compromising some other ideal. There's tradeoffs. I want
12 to know how Ameren Missouri is managing those tradeoffs.

13 PISA represents an enormous amount of capital expenditure under extremely favorable terms
14 to the utility and the legislation is up for potential renewal in the near future. I struggle to
15 understand why Ameren Missouri is not bending over backwards to show the value they are
16 bringing (or will bring) to ratepayers like they did in lobbying for the passage of this (and
17 previous iterations of this) legislation. Instead the Company is not just actively rejecting my
18 call to provide some empirical justification of the benefits being realized for the costs their
19 captive customers are incurring but also claiming they don't know how they could even do
20 that.

21 After billions in investment.

22 **Q. Mr. Birk believes that performance metrics are not appropriate in considering PISA**
23 **(outside of a narrow set of reliability data). Do you have a response?**

24 **A.** To be clear. No cost-benefit analysis. No performance metrics. Just billions in expedited
25 investment with categorically reduced regulatory lag and inflated requested ROE. That's Mr.
26 Birk's position. I encourage the Commission and their advisors to seek out colleagues at

1 NARUC next week in Louisville and ask them whether or not utility-created cost benefit
2 analyses and benchmark performance metrics are a reasonable ask from a consumer advocate
3 to justify billions in expedited capital investment. Or is, just “trust us” a good enough answer.

4 **Q. Do you have any final comments on this topic?**

5 A. As stated earlier, perhaps the most disconcerting thing about this entire back and forth exercise
6 is that I am not accusing Ameren Missouri’s of imprudence over the PISA investments nor
7 requesting any cost disallowances related to PISA. I repeat, I am merely requesting that
8 Ameren Missouri measure their performance and ensure their investments have a positive
9 return for the *ratepayers* who will bear paying for these investments. In the private sector, if
10 customers don’t believe they are getting the value for their money, they walk. Not so for a
11 regulated utility. “Regulation” is supposed to be a proxy for competition. To state the obvious,
12 “what gets measured gets done.” I would be shocked to learn there are any Fortune 500
13 companies that don’t perform the due diligence to ensure key performance indicators are met
14 for the projects they invest capital in. Why Ameren Missouri, a Fortune 500 company, is
15 different, can singularly be tied to the fact that they have no competition. It is incumbent upon
16 the Commission to hold Ameren Missouri to a reasonable market proxy standard and consider
17 this information in light of Ameren Missouri’s 12% rate increase request, it’s awarded ROE,
18 and especially its future PISA renewal.

19 Finally, it is disappointing that Ameren Missouri has taken the position that it has. Frankly, I
20 expected better from this utility and I can guarantee that Evergy Metro, Evergy West and
21 Empire will take their cue from how the Commission deals with Ameren Missouri which
22 underscores both my frustration and anxiety regarding this situation.

23 **IV. VOLTAGE OPTIMIZATION**

24 **Q. Did Ameren Missouri respond to your recommendation for a Voltage Optimization**
25 **(“VO”) plan for its future PISA investments to date?**

26 A. Yes, and they advised against it. Ameren Missouri witness James D. Huss was critical of my
27 suggestion and provided various arguments against the Commission pursuing voltage

1 optimization plans on Ameren Missouri's distribution system. I will respond to Mr. Huss's
2 arguments in turn.

3 **Q. Mr. Huss claims you did not provide proper context for the Ameren Illinois' Voltage**
4 **Optimization (VO) plan/pilot? What is your response?**

5 A. I filed 32-pages of direct testimony with various recommendations (including VO). I
6 supplemented my testimony with 11 attachments. Of those eleven attachments, GM-4 includes
7 a 31-page Ameren Illinois Voltage Optimization Plan, which discusses the origins of the VO
8 from statute to pilot to subsequent years in full operation to expected results for eight-years
9 projected into the future. I also included GM-5, the Order approving the Plan from the Illinois
10 Commerce Commission. This would seem to be more than enough "context" for how and why
11 Ameren Illinois' VO plan come to fruition, its success and the projected benefits into the future.

12 The Illinois statute explicitly called out for a voltage optimization pilot. The Missouri PISA
13 statute does not. Instead the Missouri statute enables broad utility discretion to invest in cost-
14 effective distribution investments and be allowed timely recovery. This rate case represents the
15 first opportunity for parties to review said investments. The absence of transparent cost
16 effective justification for its PISA investments, the omission of any performance metrics from
17 which to gauge success, and the consistent slow to non-response to discovery have been
18 consistent themes throughout this rate case. My recommendation was put forward first because
19 VO is low-hanging fruit for grid modernization and a commonplace for many utilities across
20 the country. It was put forward secondly to prove that yes, an Ameren affiliate (Ameren
21 Illinois) is capable of producing a cost benefit study and plan to justify its grid modernization
22 investments, Ameren Missouri has just elected not to do that and/or claim they don't know
23 how to do it.

24 Finally, it is worth pointing out that when Mr. Huss highlights the Illinois process he
25 emphasizes the "pilot" feature and the four circuits it examined. He omits any mention of the
26 VO plan's post-pilot, full roll-out, and the subsequent years projected into the future. Again, I
27 encourage the Commission to review Ameren Illinois' results, plan and projected features.

1 Based on general direction from the Commission in multiple dockets, a cleaner, more efficient
2 grid needs to be emphasized. A comprehensive voltage optimization plan would accomplish
3 exactly that.

4 **Q. Does Ameren Illinois utilize a different control system than Ameren Missouri? And is**
5 **that important?**

6 A. Could efficiency gains be different between the two utilities? Almost certainly. This does not
7 negate the fact that there can be profound savings from optimally managing voltage levels and
8 reactive power to achieve a more efficient grid operation by reducing system losses, peak
9 demand and energy consumption. A properly sized and planned VO initiative should result in
10 reduced costs associated with distribution (substations, feeders), transmission and even
11 generation investments. Of course no two utility systems are going to be the same, but to
12 dismiss out-of-hand that the Commission should not be holding its regulated utilities to
13 reasonable cost-effective investment options during said utility's billion dollar grid
14 modernization investments is wrong and not in the customers' best interest.

15 **Q. Mr. Huss points to the fact that Ameren Missouri used VO twenty-two years ago on**
16 **generation shortfalls and "only" got half of what Ameren Illinois saw today. How do you**
17 **respond?**

18 A. First, even in this isolated example, there were legitimate savings. Second, comparing an
19 isolated example twenty-years ago to VO results in Ameren Illinois seems hardly like a fair
20 comparison. Finally, one isolated example does not constitute a study let alone a good faith
21 examination of Ameren Missouri's distribution system as a whole. The costs and benefits of
22 any VO plan are going to vary by type of operation, time, and other confounding variables
23 (COVID-19, weather, the economy, etc...).

1 **Q. How do you respond to the assertion that Ameren Illinois has different space heating**
2 **characteristics than Ameren Missouri and thus won't be as effective?**

3 A. That does not negate the fact that cost-effective savings can be obtained from a comprehensive
4 voltage optimization plan. I am also not willing to concede that VO is less beneficial in
5 Missouri than Illinois based on one generalization that I have been unable to confirm.

6 **Q. Mr. Huss claims that Ameren Missouri would need to install devices downstream on the**
7 **circuits, primarily line voltage regulators and capacitor banks to further reduce voltage**
8 **at the substation level. How do you respond?**

9 A. That's correct. That's what voltage optimization is. According to the Electric Power Research
10 Institute ("EPRI") seven-year Smart Grid Demonstration Initiative Team:

11 Installing voltage control and management equipment and systems requires additional
12 capital expenditures and O&M costs. These costs should offset generation,
13 transmission and distribution capital improvement projects, reduce fuel costs and
14 emissions from fossil-fuel generation, and increase affected feeders' real-power
15 throughout capabilities.²¹

16 **Q. Mr. Huss is critical of your recommendation to target VO on circuits with low-to-**
17 **moderate customers as not feasible and discriminatory. What is your response?**

18 A. I never made this argument.

19 **Q. Mr. Huss asserts that a voltage optimization plan would (back-of-the-envelope**
20 **calculation) cost \$100M and \$2M annually and primarily consist of OPEX expense. What**
21 **is your response?**

22 A. Perhaps Mr. Huss could include the expected savings as well and more than a "back of the
23 envelope" calculation. Specifically, the realized annual energy and demand savings as well as

²¹ Green, J., Roark, J. and J. Parks (2015). Determining the impacts of volt/VAR optimization: a tale of two approaches. *Power-Grid*. <https://www.power-grid.com/energy-efficiency/determining-the-impacts-of-volt-var-optimization-a-tale-of-two-approaches/#gref>

1 future deferral of CAPEX.²² All things being equal, I am certainly not opposed to increased
2 job creation through OPEX spend in exchange for reduced CAPEX.

3 **Q. Mr. Huss claims that the drop in incandescent lighting is more than enough energy loss**
4 **and does not necessitate a VO plan. What is your response?**

5 A. He essentially argues that the back of the envelope calculation assumes that savings would not
6 be as pronounced then if Ameren Missouri had performed the VO earlier (pre-LED), but this
7 again does not negate the benefits that can be obtained.

8 As an aside, Illinois has had a far, far more robust historical DSM spend than Missouri yet
9 Ameren Illinois is still seeing great measurable VO savings. This calls into question Mr. Huss's
10 argument that a drop of incandescent lighting in Missouri negates VO. Instead this argument
11 appears to be around-about way of saying that Ameren Missouri is long on capacity and losing
12 load. That being said, Ameren Missouri is also in multiple lawsuits over its fossil-fuel plants
13 and operating under a federal executive administration that is taking a strong carbon free future
14 stance. The latter points should not be lost on this Commission as Ameren Missouri navigates
15 exactly how it is going to maintain affordability for its customers.

16 Mr. Huss provides two anecdotal examples and a generalization about the lack of incandescent
17 light bulbs as the basis for his comparison to dismiss my recommendation. It could very well
18 be that the biggest impact is that VO is cost effective on fewer circuits in Missouri. That does
19 not mean that VO, as a concept, is not cost-effective. Simply put, Ameren Missouri should
20 rank its circuits by loads and voltage; circuits with the biggest loads (MWh) and highest
21 voltages (V) would obviously deliver the best benefit-to-cost ratios for VO.

22 **Q. Do you have any additional comments to provide the Commission on Ameren's rebuttal?**

23 A. Although not discussed in any detail to date, it is important to note that most utilities who
24 undertake grid modernization programs do so under the pretense of peak demand savings,

²² I say realized, as I have more confidence in a comprehensive VO plan combined with continuous monitoring and performance evaluations than I am in MEEIA savings that can induce a rebound effect in consumption and infinitely more difficult to evaluate, measure and verify.

1 energy savings or both. I highly recommend that Ameren Missouri examine and pursue a
2 voltage optimization plan that looks at both—energy and demand savings.

3 **Q. What is your recommendation to the Commission?**

4 A. The Commission should order Ameren Missouri to undertake a neutral third-party feasibility
5 study regarding a voltage optimization plan that includes input from stakeholders, and
6 presentation of the findings to the Commission before the end of calendar year 2022 with
7 specific recommendations as to its future inclusion in Ameren Missouri’s annual PISA plans.
8 Alternatively, I recommend the Commission consider the omission of a VO plan in Ameren
9 Missouri’s grid modernization expenditures in setting its return on equity.

10 **V. RESIDENTIAL RATE DESIGN & CLASS COST OF SERVICE**
11 **STUIDES**

12 **Time-of-Use Name Change**

13 **Q. Ameren Missouri witness Dr. Faruqui points to Arizona Public Service (“APS”) as a**
14 **successful company with attractive names such as Saver Choice and Saver Choice Plus**
15 **as evidence to keep Ameren Missouri’s TOU names. Do you have a response?**

16 A. I agree that attracting customers to participate in TOU plans means appealing to customers in
17 ways that appeal to things they value, such as saving money on their electric bill, but he
18 neglects to mention that with greater customer reward comes greater customer risk. Consider
19 APS, a utility that Dr. Faruqui highlights as a utility that was successful in implementing
20 attractive rate plan names. A closer look at the utility shows that in 2020, Arizona
21 Commissioners punished APS because they:

1 [M]isguided thousands of customers about their cheapest energy rate plan [and had to]
2 credit those people \$25 for their trouble, plus whatever they overpaid for choosing the
3 recommended plan.²³

4 Admittedly, the names associated with the APS TOU plans are not the primary concern of the
5 report (there were *many* problems with the Company's TOU roll-out), but the report does
6 express concern that names like "SAVER" and "PREMIER" may not be fully understood or
7 reflect the key attributes of the rate plan.

8 **Q. Did the Arizona Corporation Commission utilize an expert third-party to evaluate APS**
9 **customer education plan and TOU implementation?**

10 A. Yes, they did. Barbara Alexander Consulting LLC conducted an investigation that identified
11 many issues that could be germane to Ameren Missouri roll-out. I have included the APS report
12 in full in GM-2.

13 **Q. Why are you including this report?**

14 A. To serve as a guidepost for Ameren Missouri, regulators and other stakeholders regarding
15 education, implementation and measurement metrics by a third party for a utility that was
16 ordered to impose rate design changes for all of its residential customers. APS failed and was
17 punished. There are lessons to be learned here and more work to be done on Ameren Missouri's
18 part moving forward.

19 **Class Revenue Allocations**

20 **Q. What was Ameren Missouri's response to the positions submitted in direct testimony on**
21 **class revenue allocations?**

22 A. Ameren Missouri witness Michael W. Harding continues to recommend that revenues should
23 shift between the two lighting service offerings and offers the following comment in regard to
24 MIEC and MECG's recommendations:

²³ Randazzo, R. (2020) APS will give \$25 to customers who were on wrong rate plan, plus reimbursements *AZ Central*. <https://www.azcentral.com/story/money/business/energy/2019/12/12/arizona-public-service-co-give-25-customers-misled-plans/4384877002/>

1 Additionally, the Company does not oppose the general direction of the proposed
2 revenue neutral shifts proposed by MIEC and MECG should the Commission decide
3 to order these adjustments in this case.²⁴

4 **Q. What is your response?**

5 A. I would not characterize Mr. Harding’s testimony as a ringing endorsement of MIEC or
6 MECG’s recommendations and suspect a lack of a submitted CCOS by OPC has at least a
7 little influence on this “we wouldn’t oppose position.”

8 I would advise against any revenue neutral shift in the context of the rate increase that is
9 being contemplated due to the overall size and lack of reliable data supporting the various
10 CCOS’s. As such I continue to recommend an equivalent percentage increase in rates across
11 all classes consistent with Staff recommendations.

12 **X. ADVERTISING**

13 **Q. How did Ameren Missouri respond to Staff’s cost disallowance related to advertising?**

14 A. Ameren Missouri witness Trina Muniz disagreed with Staff’s recommendation and offered up
15 the following arguments:

- 16 • Mass media marketing channels (in particular digital media like Facebook) are
17 essential to relay Ameren Missouri’s messages;
- 18 • Recommended against the Staff preferred ad-by-ad analysis instead favoring a 51%
19 “allowable content” campaign level approach to prudence;
- 20 • Argued that surveyed customers want more information about what Ameren is doing
21 to make service reliable and affordable; and she
- 22 • Identified two programs Louie the Lightning Bug and the Power Play Goals for Kids
23 (“PPGK”) as examples of campaigns that should be approved in total.

24 I will respond to these points in turn.

25

²⁴ Case No. ER-2019-0240 Rebuttal Testimony of Michael W. Harding p. 3, 18-20.

1 **Q. Why do utilities advertise when they have no competition?**

2 A. They do it for enhanced brand recognition to maintain the good will and cooperation of the
3 public, as well as maintain (or enhance) their political backing.²⁵ Lots of things utilities do are
4 inherently disruptive, controversial, and self-serving, such as construction work, eminent
5 domain seizures and increasing profits. Advertising is one way to put a good face on all this.

6 Of course, an argument could be (and has been) made that educational advertisements for
7 safety related issues (i.e., downed power lines) serve a public good and marketing demand-
8 side management programs (“DSM”) promotes explicit policy goals.

9 **Q. Should utility companies advertise?**

10 A. Minimally. Preferably in very narrowly defined areas like safety and commission-approved
11 demand side management programs. When safety and public policy goals shift into brand
12 recognition—costs should shift to shareholders.

13 **Q. Are mass media marketing channels essential for Ameren Missouri’s message?**

14 A. Yes. But this is a slippery slope. Staff is not recommending that all radio ads be declared
15 imprudent, rather certain contextual advertisements that are self-serving should be disallowed.
16 In contrast, Ms. Muniz is effectively arguing that the medium is the message.²⁶ That is, any
17 positive earned or paid advertising is effectively supporting all of Ameren Missouri’s
18 messages.

19 **Q. Do you agree?**

20 A. In a sense, I agree with both. I absolutely agree that mass advertisement can impact perception.
21 I also believe it *is* in Ameren Missouri’s best interest to advertise as much (or more) than they

²⁵ Although not explicitly advertising, a close cousin is lobbying. Consider for a moment that Ameren Missouri, employed 132 lobbyists collectively in 2019 and 2020, which was easily the largest spender in the electric sector, according to the Missouri Ethics Commission.

Monnay, T. & S. Dingmann. (2021) Missouri News Network May 11, 2021.

<https://www.newstribune.com/news/local/story/2021/may/11/electric-utility-sector-largest-lobbyist-force-in-state/870631/>

²⁶ “The medium is the message” is a deliberately paradoxical statement coined by former Saint Louis University professor and philosopher Marshall McLuhan who argued that what has been communicated (message) has been less important than the particular medium through which people communicate.

1 already are given their public exposure on a number of sensitive issues (killing of endangered
2 species and mining cryptocurrency come to mind in this case alone).

3 However, I disagree that ratepayers should be funding self-serving promotional endeavors.

4 **Q. Should an ad-by-ad or 51% “allowable content” campaign be the standard for prudence**
5 **reviews?**

6 A. Ad-by-ad. The parameters around a campaign, let alone how to determine the ratio of
7 “allowable” to “unallowable” content would be inherently arbitrary and easily distorted. More
8 to the point, why should ratepayers be charged *any* costs for self-serving promotional
9 advertisements?

10 **Q. Why is an ad-by-ad standard superior?**

11 A. I would liken it to former Supreme Court Justice Potter Stewart’s description of his threshold
12 test for obscenity.

13 I shall not today attempt further to define the kinds of material I understand to be
14 embraced within that shorthand description ["hard-core pornography"], and perhaps
15 I could never succeed in intelligibly doing so. But **I know it when I see it**, and the
16 motion picture involved in this case is not that.²⁷

17 It should be readily obvious whether or not the advertisement is in the public interest or not.
18 As a general rule, if one would need to think about it too long, it likely is not in the public
19 interest and should be recognized as self-serving brand recognition that should be borne
20 through Ameren Missouri’s profits not its captive customers.

21 On an equally relevant note, a generalized 51% allowable content standard is inferior in quality
22 and accuracy compared to a neutral Staff auditor who took the time to examine the Company’s
23 marketing ad-by-ad. Why dismiss this level of specificity in favor of one that generalizes and
24 most certainly results in some level of customer payment for ads that should not be allowed.

²⁷ Wikipedia (2021) I know it when I see it. https://en.wikipedia.org/wiki/I_know_it_when_I_see_it cited to 378 U.S. at 197 (Stewart, J., concurring)

1 **Q. Do customers want to know how Ameren Missouri is making their service reliable and**
2 **affordable?**

3 A. I have never heard or been approached by customers requesting this information. If customers
4 are prompted in a survey or by an Ameren Missouri employee I could easily see them agreeing
5 they would like to know more about this information. But I struggle to believe a customer is
6 fraught with a sense of ignorance at home right now because they have no way to know what
7 Ameren Missouri's year-over-year SAIDI, SAIFI scores are or why a 12% rate increase should
8 still be considered "affordable." Such a hypothetical ratepayer could always utilize neutral
9 third-party resources like the U.S. Energy Information Administration ("EIA") on the internet
10 to see how Ameren Missouri compares relative to its peers—and at no additional cost to their
11 electric bill.

12 **Q. But doesn't Ameren Missouri have empirical data (survey results) showing that's what**
13 **customers want to know?**

14 A. I would direct the Commission to Ameren Missouri's response to Staff DR 0152 that asked if
15 Ameren Missouri's surveys contained any questions asking if its customers were willing to
16 pay for advertising as part of the Missouri electric rates.

17 The answer:

18 Ameren Missouri did not conduct any surveys where they asked their customers if they
19 were willing to pay for advertising.²⁸

20 Ameren Missouri would have a better argument if they had positive empirical evidence to
21 substantiate a large number of customers who positively confirmed they wanted to pay more
22 to receive advertisements from their utility company on how good said utility company is. Such
23 data would go a long way in changing my opinion.

24 **Q. Who is Louie the Lightning Bug?**

25 A. According to the Alabama News Center:

²⁸ See GM-3.

1 The Louie the Lightning Bug character was developed for Alabama Power in 1983
2 to introduce electrical safety to children. He was so successful in encouraging kids
3 to “play it safe around electricity,” that Georgia Power, Mississippi Power and Gulf
4 Power adopted his television spots the following year.

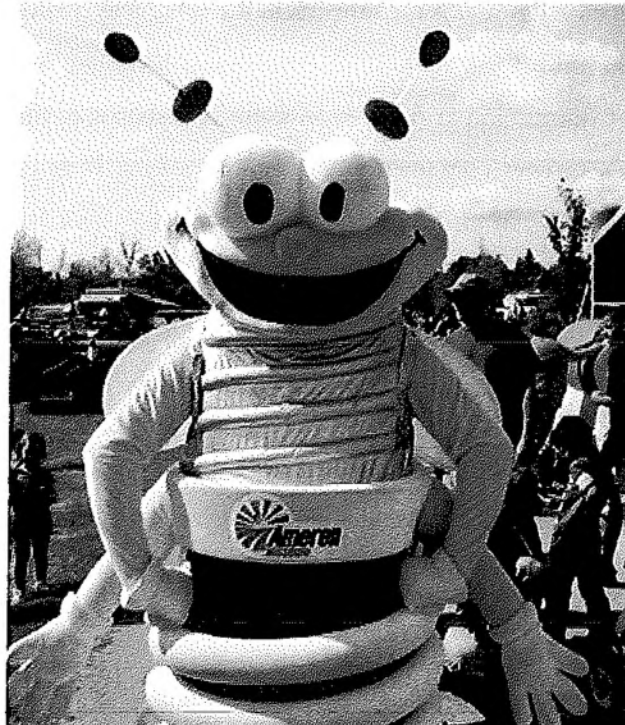
5 Through the years, Louie’s popularity expanded across the U.S. and abroad.

6 “Currently, there are about 50 utilities who license the character, but many more
7 who use the books and materials,” said Pam Moore, owner of Moore Syndication,
8 who has administered the trademark and syndication since 1984.

9 “In fact, Louie the Lightning Bug is even international,” Moore said. “There are
10 Canadian and Caribbean utilities that use Louie to share electric safety
11 messaging.”²⁹

12 Figure 8 includes a snapshot of the Ameren Missouri Louis the Lightning Bug

13 Figure 8: Louis the Lightning Bug (Ameren Missouri-version)



14

²⁹ Alabama News Center Staff (2020) Alabama Power-created Louie the Lightning Bug offers at-home learning
<https://alabamane.wscenter.com/2020/04/08/alabama-power-created-louie-the-lightning-bug-offers-at-home-learning/>

1 **Q. Do you have a position on the Louis the Lightning Bug Campaign?**

2 A. I think it's prudent. It falls into a clear safety category, is not overly cost excessive
3 (\$12,187.79), and it seems like an appropriate campaign for its intended target—children. The
4 costs should be included in rates.

5 **Q. What is the Ameren Missouri & STL Blues Power Play Goals for Kids?**

6 A. According to the National Hockey League's St. Louis Blue's webpage for the 2020-2021
7 season:

8 When the Blues score, kids win!

9 The St. Louis Blues and Ameren Missouri awarded \$21,000 to four local nonprofits
10 as part of the sixth annual Power Play Goals for Kids program. The program supports
11 local charities focused on improving the lives of kids throughout our community.

12 For every power play goal the Blues scored during the regular season (Jan. 13 to
13 May 13), Ameren Missouri donated \$500 to a children's charity selected by fans via
14 an online vote that concluded on April 3. This season, the four worthy nonprofits
15 were CASA St. Louis, Central Missouri Foster Care and Adoption Association,
16 LifeWise STL, and Youth In Need.³⁰

17 More to the point, the PPKG is a \$246,859.84 advertising campaign that consists of a roughly
18 20 second musical and flashing goal light interlude on the Enterprise Arena's scoreboard
19 between when a penalty is called against an opposing Blues team and play resumes.³¹ The
20 Blues arena announcer states publically that "this power play is sponsored by Ameren
21 Missouri." Figure 9 shows said advertising campaign in action.

³⁰ St. Louis Blues (2021) Blues and Ameren Missouri award \$21,000 to local charities
<https://www.nhl.com/blues/news/blues-and-ameren-missouri-award-21000-to-local-charities/c-325012238>

³¹ The PPKG song is the 1992 hit "Twilight Zone" by 2 Unlimited which was remixed as the main theme of the first
movie adaptation of Mortal Kombat (1995).

1 Figure 9: Ameren Ratepayer-Sponsored Power-Play Goals for Kids³²



2 Ameren UE Power Play St. Louis Blues dance song

3 The PPGK also consists of viral videos, a devoted webpage for fans to vote and a large check
4 award ceremony. The Ameren Missouri and STL Blues partnership culminates in a \$200 or
5 \$500 donation for every power play goal scored by a STL Blues player during the season.³³
6 The pool of money is then given to a fan voted kids charity.

7 **Q. Do you have a position on the Power Play Goals for Kids Campaign?**

8 **A.** The partnership with the Blues and the long-standing PPGK campaign is arguably one of
9 Ameren's most successful advertisements.³⁴ I would argue the Company should continue it as
10 a fair amount of Ameren Missouri's service territory consists of Blues fans, but it is absolutely
11 not a prudent use of ratepayer funds. The campaign is clearly in the self-serving category, cost
12 excessive (\$246,859.84), and is a horribly inefficient way to help kids in need. The costs should
13 be disallowed in its entirety.

³² Ameren UE Power Play St. Louis Blue dance song. <https://www.youtube.com/watch?v=BwTwwbssC9k>

³³ Typically it is \$200 a season; however, the 2020-2021 season was abbreviated due to the COVID-19 pandemic. As such, the end result still culminates in approximately \$20K a season in charity. I do not know whether or not the approximate \$20K is sponsored by ratepayers, shareholders or how much (if any) the STL Blues contribute.

³⁴ There are a fair amount of online videos devoted to the Blues Power Play dance.

1 **Q. How is the campaign self-serving?**

2 A. The campaign's goal is clearly to induce a halo effect through positive association with the St.
3 Louis Blues and kids charities. What these three things have in common outside of this
4 campaign or how this is promoting safety or public policy objectives (or anything electric
5 service related) I cannot identify.

6 **Q. What do you mean that this is a horribly inefficient way to help kids in need?**

7 A. Ratepayers are spending a quarter of a million dollars annually to "give away" approximately
8 \$20K to one of four kids charities that a couple thousand fans vote as most worthy. Stated
9 differently, ratepayers are roughly spending \$12.34 for every dollar donated and three charities
10 full of kids in need go away without a giant cardboard check and perhaps the knowledge they
11 were not chosen. Stated out loud the entire set up is ethically questionable and it is frankly
12 surprising to me that this program has been in rates for as long as it has been.³⁵

13 **XI. LOW-INCOME PROGRAMS**

14 **Q. What was your recommendation to the Commission regarding low-income programs in**
15 **direct testimony?**

16 A. I had five specific recommendations:

- 17 1. Keeping Current/Cool minimum payment: Modify tariff to allow customers to
18 receive a Keeping Current benefit despite two non-payments and/or up to four
19 payments of a minimum of \$25 for up to four consecutive billing cycles (e.g., non-
20 payment, non-payment, \$25, \$25; or \$25, non-payment, \$25, \$25.; or \$25, \$25, \$25,
21 \$25, etc...);
- 22 2. Keeping Current/Cool Non-Payment: I support the APPRISE recommendation that
23 the tariff be modified to allow Keeping Current participants to remain in the program
24 as long as they are not terminated due to nonpayment;

³⁵ I don't know exactly when ratepayers started paying for the Blues Power Play sponsorship, but YouTube highlights of Ameren's sponsorship go back at least ten years. Assuming \$250K a year for ten years that's \$2.5 million in advertising and \$200K in charitable donations.

- 1 3. CSR Weatherization Referral: Direct Ameren Missouri's CSR's who receive calls
2 from customers struggling to pay bills to ask for consent from that customer to
3 forward their contact information to the relevant Community Action Agency
4 ("CAA") so that a representative from a CAA may contact them about weatherizing
5 their home free of charge and other assistance if eligible;
- 6 4. Re-Housing & Returning Customer Pilot Program: Conduct a three-year pilot
7 program (\$500K 50/50 ratepayer/shareholder) that coordinates with non-profit
8 shelters and VA and VA non-profit supporting agencies in clearing bad debt for
9 former homeless customers re-housing in Ameren Missouri's service territory.
- 10 5. Critical Needs Pilot Program: Conduct a three-year pilot program (\$500K 50/50
11 ratepayers/shareholders) consistent with the framework originally designed by
12 BG&E (known currently as the Maryland Critical Needs Program) and adopted in
13 the non-unanimous stipulation and agreement in Spire's most recent rate case;

14 **Q. Did Staff support these recommendations?**

15 **A. Yes.**

16 **Q. Did Ameren Missouri support these recommendations?**

17 **A. Ameren Missouri witness Page Selby supported the CSR weatherization referral but rejected**
18 **the rest of my recommendations. Ms. Selby also confused my testimony with Ms.**
19 **Hutchinson's at various points. I will attempt to address Ms. Selby's objections in their entirety**
20 **as I ultimately supported Ms. Hutchinson's testimony in my rebuttal.**

21 **Keeping Current**

22 **Q. Both Staff and Ameren Missouri reject CCM's recommendation to increase Keeping**
23 **Current funding to \$5M split evenly between ratepayers and shareholders. You**
24 **supported that position. Have you changed your opinion on this funding level?**

25 **A. No, I believe Keeping Current should be scaled up. The APPRISE Study suggests as much and**
26 **provides multiple paths forward. Staff and Ameren Missouri point to the 2020 funding not**

1 being spent down as the evidence to reject further investment in this program. I would counter
2 by pointing out that 2020 was an unusual year due to the shock to the economy, the temporary
3 emergence of the Clean Slate program, and federal funding from multiple sources (CARES
4 Act, LIHEAP, etc...).

5 I would further counter by pointing out that Ameren Missouri is requesting a 12% rate increase,
6 inflation is at 30-year high, and the recovery has been grossly uneven across economic groups.
7 Furthermore, moving forward, there is considerable cost uncertainty surrounding a large
8 undepreciated power plant without sulfur scrubbers, and billions of dollars in near-term
9 distribution investment. I believe the funds can be spent down and the various rate increases
10 will certainly put greater pressure on households across Ameren Missouri's service territory.

11 Finally, the "ask" here in revenue requirement (\$2.5M) is approximately \$1m less than what
12 Ameren Missouri spends annually on advertising to customers who have no choice in their
13 electric provider.

14 **Q. What are the parties' position on the eligibility level for Keeping Current?**

15 **A.** The Keeping Current tariff was recently modified to expand eligibility to 200% of the federal
16 poverty level ("FPL") to account for the uncertainty facing many families during the COVID-
17 19 pandemic through December 31, 2021. Presently:

- 18 • Ameren Missouri has put forward that a 300% FPL would be acceptable;
- 19 • Consumer Council has recommended an increase to 250% FPL;
- 20 • Staff recommends the program return to 150% FPL at the start of the year; and
- 21 • I supported Consumer Council's position (250% FPL) in my rebuttal testimony.

22 **Q. Has your position changed?**

23 **A.** In part. Normally I would side with Staff's position—focus funding on households with the
24 greatest need for assistance benefit; however, given the uncertainty surrounding COVID-19 I
25 have effectively been talked into supporting a 250% FPL level. But this is conditioned on the

1 Keeping Current budget increasing per Ms. Hutchinson's recommendation. Absent that
2 budget increase, I would recommend the Keeping Current threshold remain at the experimental
3 200% FPL for an additional year to be revisited by the collaborative with recommendations to
4 the Commission before the start of the 2023 calendar year.

5 **Q. Renew Missouri witness James Owen recommends that all Keeping Current customers**
6 **been directed to Ameren Missouri PAYS program. Do you agree?**

7 A. No. The program is designed to target the most financially distressed households. Admittedly,
8 we have expanded the eligibility in light of COVID-19, but this should be temporary. 200%
9 FPL, the current threshold level, is also the eligibility threshold for the free Low-Income
10 Weatherization Assistance Program ("LIWAP"). Given the option between free and 3%
11 interest, I would recommend free. I have been a big advocate for the PAYS model, but the
12 program is literally in the process of being scaled up. Adding this additional recommendation
13 to Ameren Missouri and Ameren Missouri's implementers is not appropriate at this time.

14 **Re-Housing & Returning Customer Pilot Program**

15 **Q. Does Ms. Selby oppose your recommendation for a Re-Housing & Returning Pilot**
16 **Program?**

17 A. No. Ms. Selby suggests that Keeping Current and the Clean Slate Program can accomplish the
18 same outcomes without further emphasis.

19 **Q. What is your response?**

20 A. I disagree. This is a modest ask for a long neglected and difficult subset of "customers." Unless
21 specific funds are put aside to target this demographic I have no faith that the homeless
22 transition population will be targeted in a meaningful manner. Simply put, the parameters
23 surrounding Keeping Current are not conducive to customers attempting to no longer be
24 homeless. I believe a much greater partnership with the shelters I referenced in my direct
25 testimony are necessary than what Ameren Missouri is currently capable of putting forward
26 with the budget and scope of Keeping Current as presently designed.

1 Finally, as far as the Clean Slate program is concerned. These funds are a result of settlement
2 over alleged affiliate transaction violations from Ameren Missouri's last rate case. These funds
3 are finite and fleeting and should not be put forward as an appropriate response to a long-term
4 problem.

5 **Critical Needs Program**

6 **Q. Does Ms. Selby oppose your recommendation for a Critical Needs Program like the one**
7 **approved in the most recent Spire case?**

8 A. It's not entirely clear. Based on my reading of her testimony, it appears as though she supports
9 the idea but not the funding.

10 **Q. What is your response?**

11 A. The Baltimore Gas and Electric ("BGE") pilot program that has been adopted by Spire
12 Missouri is considered a best-in-class, low-income outreach program and I have received
13 positive verbal feedback from all major utilities in the state about partnering up for this
14 network.

15 The BGE pilot framework as well as the on-site "navigator" training of professionals as to the
16 availability of utility related assistance is not an outreach endeavor Ameren Missouri currently
17 provides. My experience facilitating the COVID-19 weekly utility calls and the success that
18 was made through coordinated outreach with local public health authorities, meals-on-wheels-
19 like programs, and mental health registers further supports my confidence in the need and likely
20 success of a BGE-like pilot program.

21 Both Staff and Ms. Selby have pointed out that the Keeping Current budget was not fully
22 expended this past year. Although, I believe that is simply a product of the COVID-19
23 pandemic and underscore the importance of a more coordinated outreach that utilizes existing
24 networks to enable appropriate assistance. Given Ameren Missouri's overall size, its
25 participation in such a network moving forward is essential. It is true that I consider Ameren
26 Missouri's outreach arguably the best in the state, but it is important to note that the bar is

1 comparatively low.³⁶ We can and should do better given the seemingly endless rate increases
2 in the near future coupled with the uncertainty surround the economy and the onslaught of
3 inflation.

4 **Q. What if the Company just doesn't want to support funding?**

5 A. My "start-up" ask for this program was an annual budget of \$500K split 50/50 between
6 ratepayers and shareholders. Any unspent annual funding would get redirected to the Keeping
7 Current/ Keeping Cool programs—which is money that is going right back to Ameren
8 Missouri.

9 This total ask amounts to a rounding error for a Company seeking to increase base rate annual
10 revenues by \$300 million. It also matches what Spire Missouri and its ratepayers are
11 contributing and what I am requesting of the other large utilities in the state moving forward.
12 If Ameren Missouri fails in its corporate social responsibility efforts I have little faith that
13 Evergy Metro/West or Empire will cooperate. That leaves the program dependent on Spire
14 alone with any other participating utilities effectively functioning as free riders (if they
15 participate at all). I fear that a lack of "skin-in-the-game" (i.e., a nominal financial
16 contribution), will deter Ameren Missouri from taking the program seriously, will minimize
17 the potential for success, and negate the economies of scale that can be created by a cost-
18 effective "all-utilities" program.

19 The requested amount of shared funding is necessary to ensure program set-up and future
20 continuity. I am confident that as more utilities file for rate cases and join the network the
21 program pilot should have enough funding in place to successfully execute its goal of
22 streamlining, what to date, is a time consuming, confusing and stress-induced process in
23 applying for assistance. All things being equal, if the pilot proves successful, perhaps it could
24 follow the same path as Maryland and become a law where it is ultimately administered by the
25 Department of Social Services and does not require any future ratepayer or shareholder

³⁶ See my direct testimony under "Cost and Quality of Service" in Empire Missouri's most recent rate case, Case No: ER-2021-0312.

1 funding. In the meantime, I believe the template and the initial funding are necessary to ensure
2 timely and reasonable success.

3 To put it another way, I am more confident in allocating funds to a trained professional that is
4 working one-on-one with a client in crisis in how to navigate the administrative process of
5 securing available utility assistance than say a marketing campaign at a Blues Game that
6 amounts to a 20 second dance number to 2 Unlimited's song "Twilight Zone."

7 **Other Recommendations**

8 **Q. Ms. Selby says she would like to know more about your recommendation regarding a**
9 **more transparent and easily accessible medical registry for Ameren Missouri customers.**
10 **Did you make this recommendation?**

11 A. No. CCM witness Jackie Hutchinson made this recommendation. My understanding is that
12 Ms. Hutchinson recommended that Ameren Missouri create an easily accessible portal for
13 medical professionals to utilize on the Company's website. I supported the general idea, but
14 cannot speak to the specifics. I do believe such a recommendation would complement and be
15 in line with my recommendation surrounding the Critical Needs Program.

16 **XII. LATE FEES**

17 **Q. What was your recommendation to the Commission regarding late fees in direct**
18 **testimony?**

19 A. I recommended that Ameren Missouri's late fees be lowered to match the short term debt
20 recommendations made by OPC witness David Murray, which is 0.25% annually. Such an
21 amount would more accurately reflect the cost of service, minimize the punitive pressure
22 on struggling customers and still incentivize timely payments by having the "threat" of late
23 payment.

24 **Q. Did Ameren Missouri support this recommendation?**

25 A. No. Ameren Missouri witness Tom Byrne made the following arguments:

- 1 • The Commission should punt this to rulemaking docket so a late fee policy could be
- 2 applied uniformly across the state;
- 3 • Everybody else does it “incentivizes payments” (e.g., other utilities, credit card
- 4 companies, car loans, etc...);
- 5 • If late fees were eliminated they would need to be collected by all customers
- 6 volumetrically;
- 7 • During COVID-19 Ameren Missouri saw arrears increase when there was a
- 8 moratorium in place;
- 9 • Customers will have less incentive to pursue energy assistance dollars that are available
- 10 to them and run up larger balances as a result

11 I will respond to each in turn.

12 **Q. Should the Commission open a rulemaking docket over late fees?**

13 A. No. I did not recommend the elimination of a fee. Merely that it reflect the actually cost
14 incurred. The short-term debt over other utilities could very well be different Why should
15 Ameren Missouri over-charge for any of its services? Mr. Byrnes is silent on this.

16 **Q. Does the fact that credit card (and other) companies enforce a late fee provide a sound**
17 **basis for maintaining Ameren Missouri’s late fee penalty?**

18 A. No. Again, we should not be over-charging customers for any of Ameren Missouri’s
19 services—including late fees. In fact, many services are moving away from late fees entirely
20 (a policy that I am not advocating for in this case). For example, the New York Public Library
21 System announced the elimination of all late fines going forward and all prior late fines and
22 replacement fees have been cleared. According to Anthony W. Marx the President of the New
23 York Public Library:

24 Research shows that fines are not effective in ensuring book returns—New Yorkers
25 are quite reliable and responsible, clearly respecting our collections and the need for
26 them to be available for others to borrow. But, unfortunately, fines are quite effective
27 at preventing our most vulnerable communities from using our branches, services,

1 and books. That is the antithesis of our mission to make knowledge and opportunity
2 accessible to all, and needed to change. As New York grapples with the inequities
3 laid bare by the pandemic, it is all the more urgent that we ensure the public library
4 is open and freely available to all.³⁷

5 If late fees effectively incentivizes timely payments Ameren Missouri would never collect late
6 fees.

7 **Q. Mr. Byrne argues that if late fees were eliminated those revenues would need to collected**
8 **from other customers. What is your response?**

9 A. First, my recommendation is that late fees should be set at short-term debt not a higher number.
10 Charge customers the cost of the service incurred. The current policy does not do that. It is
11 regressive and unfairly and disproportionately impacts low-income customers. Second, the
12 revenues Mr. Byrne refers to (amounts above the short-term cost of debt) *should* be recovered
13 from all customers because those revenues recover a portion of the cost of service for all
14 customers, not just customers struggling to pay their bill.

15 **Q. Can you respond to the argument that the COVID-19 moratorium proves late fees should**
16 **be maintained?**

17 A. Arrears increased during the COVID-19 pandemic because of historic job loss and a recession.
18 I would recommend that the Commission dismiss this argument out-of-hand. There would be
19 a lot of “noise” in any statistical relationship between timely payments, late fees and a global
20 recession/pandemic. Of course, Mr. Byrne provides no data to substantiate this implied
21 relationship.

³⁷ Marx, Tony (2021) New York Public Library. <https://www.nypl.org/spotlight/fines>

1 **Q. How do you respond to the argument that larger late fees incentivize customers to pursue**
2 **energy assistance funds and that customers would run up larger balances without late**
3 **fees in place?**

4 A. Mr. Byrne is wrong. The threat of disconnection for a necessary service is a far greater
5 incentive for customers to pursue energy assistance funding than the 1.5% late fee.

6 Regarding the second part of this argument, the 1.5% punitive late fee literally increases the
7 balance the customer is already struggling to pay.

8 **Q. Do you have any additional comments on this topic?**

9 A. I continue to see zero evidence to support that late payment fees are an appropriate deterrent
10 to non-payment, and I believe that any additional fee added to an already financially
11 struggling customer will increase the likelihood of disconnection.

12 I believe the threat of disconnection is the primary deterrent to incentivize timely payments,
13 and that Ameren Missouri should be doing everything in its power to provide an affordable
14 service, which should include minimizing punitive charges that make it more likely for
15 already struggling customers to fall off.

16 **Q. Does this conclude your testimony?**

17 A. Yes.

STABLE RATES. GREATER RELIABILITY.



The Smart Energy Plan supports our mission to power the quality of life for Missouri families and businesses, making our state an even better place to live and do business. Here's what our infrastructure investments will deliver for you over the next several years.

SMART TECHNOLOGY, FASTER SERVICE RESPONSE

New, smart technology will help reduce or eliminate power outages and more quickly restore your power in the event of a service disruption. For example, our expanded wireless footprint with fiber-enabled cell sites will allow us to respond to some outages without having to send a crew. Smart Grid sensors, switches and self-healing equipment will more rapidly detect and isolate outages.

RELIABLE SERVICE

High winds and severe storms wreak havoc on aging power lines and utility poles. We're replacing both. Smarter, automated equipment and 12,000 stronger, fortified poles are designed to better withstand severe weather and high winds. More than 70 new or upgraded substations will increase energy service reliability. And we're installing more than 400 miles of new underground cable and equipment to create a more efficient underground energy delivery system.

CLEANER, RENEWABLE ENERGY SOURCES

Planned investments in solar and wind generation will provide you with energy from cleaner, renewable sources. These projects help Ameren Missouri meet its goal to reduce carbon emissions by 80 percent. New projects across the state combine solar energy with battery storage and will boost reliability, particularly in rural areas.

STABLE AND PREDICTABLE RATES

Your rates were cut by 6% in August 2018. Your base electric rates won't change before April 2020 because the Ameren Missouri Smart Energy Plan includes a rate freeze. And, for the first time ever, rate caps will limit the size of any future rate increases for the life of the plan, making your energy costs stable and predictable.



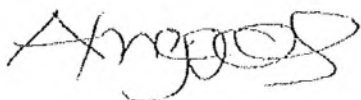
Keeping You Informed at:
AmerenMissouri.com/SmartEnergyPlan



MEMORANDUM

TO: Docket Control

FROM: Elijah O. Abinah
Director
Utilities Division



DATE: May 19, 2020

RE: IN THE MATTER OF THE RATE REVIEW AND EXAMINATION OF THE BOOKS AND RECORDS OF ARIZONA PUBLIC SERVICE COMPANY AND ITS AFFILIATES, SUBSIDIARIES AND PINNACLE WEST CORPORATION. (DOCKET NO. E-01345A-19-0003)

In Decision No. 77270, dated June 27, 2019, the Arizona Corporation Commission ("Commission") directed Arizona Public Service Company ("APS") to fund and implement a Customer Outreach and Education Program that was to be developed and administered by the Commission's Utilities Division Staff ("Staff"). In Finding of Fact 39, Staff was directed to hire, and APS was directed to pay for, an independent consultant to complete this task.

Attached is the evaluation completed by Staff's consultant, Barbara R. Alexander. This report is being docketed in the APS Rate Review Docket No. E-01345A-19-0003 and the APS Rate Case Docket No. E-01345A-19-0236.

EOA:RSP:elr

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Attachments

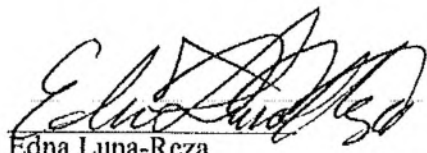
On this 19th day of May 2020, the foregoing document was filed with Docket Control as a Utilities Division Memorandum, and copies of the foregoing were mailed on behalf of the Utilities Division to the following who have not consented to email service. On this date or as soon as possible thereafter, the Commission's eDocket program will automatically email a link to the foregoing to the following who have consented to email service.

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**AN EVALUATION OF ARIZONA PUBLIC SERVICE
COMPANY'S CUSTOMER EDUCATION PLAN AND ITS
IMPLEMENTATION**

Barbara R. Alexander
Barbara Alexander Consulting LLC

May 19, 2020

PREPARED ON BEHALF OF THE STAFF OF THE ARIZONA CORPORATION COMMISSION

DOCKET NO. E-01345A-19-0236
And
DOCKET NO. E-01345A-19-0003

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I. EXECUTIVE SUMMARY

NOTE: This Executive Summary does not include the footnotes and citations provided in the body of the Report.

BEST PRACTICES. This Report relies on the Marketing, Education, and Outreach (ME&O) plans developed by the California investor owned electric utilities to implement the Time of Use rate mandate for residential customers as the basis for comparing the APS Plan to “best practices.” While no other U.S. investor owned utility has been ordered to impose rate design changes for all its residential customers similar to that ordered by the Commission in its August 2017 Order for APS, the California experience reflects the closest comparison.

The Table of Contents for the Southern California Edison (similar to those in effect for Pacific Gas & Electric and San Diego Gas & Electric) ME&O plan includes the following key issues and attributes, most of which are missing from the APS Education Plan:

- ME&O Messaging Strategy
- Current Market Overview
- Research Results and Implications/Challenges
- Risks and Barriers to Achieve Goals
- Specific Marketing Actions and Timeline
- Ongoing Research on messaging, customer satisfaction, awareness
- Marketing Objectives: specific with each phase
- Target Audience and Segmentation: customer demographics; low income; relationship to solar customers
- Specific messages and timing for all outbound communications
- New/Transfer Customer Engagement
- Partner and Community Based Organization Strategy
- Measurement and Metrics: goals; ongoing tracking surveys; measurement plan; accountability and enforcement
- Budget

HOW APS DEVELOPED ITS EDUCATION PLAN. The Commission required APS to file a draft Customer Education and Outreach Plan pursuant to Decision 76295 that was subject to Stakeholder review over a 10-day calendar period. APS filed its final Plan on September 29, 2017 consisting of 15 pages. The purpose of this Plan was to educate customers about the Commission’s approval of a Settlement agreement to migrate all non-solar residential customers to one of five new rate plans starting February 2018 and concluding by May 1, 2018, a period of 4-5 months from the submittal of the Plan. This Settlement was the result of APS’s 2016 rate case filing in which APS had recommended that all residential customers move to time of use and/or demand rates. The Education Plan was to be funded by a \$5 million transfer of unallocated Demand Side Management funds.

APS submitted its draft plan to Stakeholders. However, most of the comments from consumer organizations were ignored in the final version of the Plan. Several consumer representatives reported that they attempted to get more detailed information from APS about how this Plan would be implemented, including information on messaging, reporting, and performance metrics. All the major consumer organizations submitted a detailed letter to APS pointing out the deficiencies of the draft plan and identifying specific content that should be included in the Plan.

APS's filing letter that accompanied the submission of the Final Plan stated that the Stakeholder input resulted in improvements to the Plan in only three areas and that APS had adopted these recommendations: (1) Spanish language messaging; (2) allowing customers to opt out of text messaging at any time; and (3) demand side management messaging. Therefore, APS ignored the comments of the consumer organizations and failed to even describe or reference those comments in its cover letter accompanying the Final Plan to the Commission on September 29th.

In this Plan APS promised to notify customers through a variety of channels, including bill messages, web portal, text messages, social media posts, and formal TV and newspaper media, of their "best rate, a rate plan that provides them with the lowest electricity bill based on the analysis of the customer's most recent 12-months usage data." This information was to be accompanied with messages and education to encourage "further awareness, understanding, and cost saving opportunities through customer touchpoints." Further, APS proposed to use customer segmentation analytics to educate customers on their "best rate" and how to manage electricity to save on their electric bill. This customer segmentation process would depend on analysis of the customer's historical usage. Overall, APS promised to use customer usage patterns, various levels of engagement, and various communication methods to achieve their objectives.

APS stated its "goals" as (1) drive awareness of new rate structures and "best rate" choices; (2) acknowledge customer interest and answer customer questions; (3) educate customers on opportunities to save through the core message of "shift, stagger, and save," and demand side management programs; (4) encourage customers to "engage" with their electricity usage and learn how usage can affect their total bill; and (5) increase customer adoption of tools and resources to "facilitate their electricity usage awareness and control."

A critical aspect of the APS Plan is that the messages focused on "saving" on a plan, but that calculation was not based on promises of saving on lower future electricity rates by reducing peak or demand usage. Nor was it based on comparing a customer's new plan with the customer's old plan, but rather on comparing the customer's usage profile to each of the new plans. As a result of the strict limitations associated with service under the flat rate options due to their annual usage limitations, it was assumed that the vast majority of customers who had not voluntarily selected a time of use or demand charge plan in the past would be moved to a time of use or demand side for the first time.

NO IDENTIFICATION OF RISKS AND BARRIERS IN PLAN. The APS Plan failed to identify risks and barriers to achieve its intended goals and objectives:

- Rate design changes for all customers;
- Changes in rate design with increase in rates;
- Short time period for education;
- No significant change in bill presentation, especially for demand charges;
- Customers pay monthly bills not annual bills and all bill impact projections based on annual costs;
- No bill protections or exemptions for low income customers or those with special needs.

The following table shows the residential customer enrollment in the legacy rate plans at the time of the 2016 rate case and the enrollment of non-solar residential customers in the new rate plans in December 2018:

Rate Class	2015 Test Year	2018 Actual	% Change (2015 to 2018)
Basic Rate Plans (R-XS, R-Basic, R-Basic Legacy)	420,207	456,301	9%
Time of Use-Energy (R-TOU-E)	329,997	372,869	13%
Time of Use-Demand (R-2, R-3, R-TECH)	263,930	192,225	(27%)
Total	1,046,990	1,100,816	

APS PERFORMANCE TRACKING WAS INSUFFICIENT: APS's Customer Education Plan did not include any performance metrics or methodology to allow an objective determination of its success or failure in meeting its stated objectives. When later asked how the Company determined the success or value of its Plan, the response primarily took the form of compiling the volume of its various customer communications.

While APS's response touted its success or "effectiveness" in a later communication to the Commission based, in part, on the fact that 22.8% of residential customers voluntarily switched to a new service plan during the transition period, the actual Plan itself does not establish any goals or objectives to reflect customer switch rates. As a result, it is not possible to determine if this switch rate was reasonable or not.

APS later presented information about how it internally decided to track the plan's implementation through the number of advertisements it published, the number of social media posts published, the number of web pages visited, the number of meetings with APS personnel as speakers, and the number of bill inserts and customer communications it issued.