BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of	)	
Union Electric Company d/b/a	)	Case No. ET-2021-0082
Ameren Missouri for Approval of	)	Tracking No. YE-2021-0081
Its Surge Protection Program.	)	

MOTION FOR LEAVE TO FILE CORRECTED
SURREBUTTAL TESTIMONY

COMES NOW Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri"), and for its motion to file corrected surrebuttal testimony, states as follows:

1. On March 19, 2021, Ameren Missouri filed the Surrebuttal Testimony of Steven M. Wills in accordance with the Commission's *Order Adopting Procedural Schedule.*

2. In the course of reviewing case materials, Mr. Wills discovered that he had picked up numbers from the wrong column in one of Staff's rebuttal testimony workpapers, leading to the presentation of inaccurate information on page 20 of his surrebuttal testimony.

3. Attached hereto is Mr. Wills' corrected surrebuttal testimony, which reflects the corrections necessary to make the material on page 20 of the original surrebuttal testimony accurate. It is being provided at this time to give the parties' the earliest possible notice of the correction and in lieu of making corrections on the witness stand. For ease of reference, a compare version showing changes from the original version is also attached.

4. No party will be prejudiced by the filing of the corrected testimony insofar as the evidentiary hearings in this case do not begin for more than two weeks from now and all parties have been in possession of Staff's workpaper since shortly after Staff's rebuttal testimony was filed on February 19, 2021.

WHEREFORE, Ameren Missouri requests leave to file the attached Corrected Surebuttal Testimony of Steven M. Wills

.

Respectfully submitted,

***/s/ James B. Lowery*________**

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served by electronic mail, or First Class United States Postal Mail, postage prepaid, on this 26th day of March, 2021, to all counsel of record.

/s/ *James B. Lowery*

Exhibit No.:	
Issue(s):	Surge Protection Program
Witness:	Steven M. Wills
Type of Exhibit:	Surrebuttal Testimony
Sponsoring Party:	Union Electric Company
File No.:	ET-2021-0082
Date Testimony Prepared:	March 26, 2021

MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ET-2021-0082

CORRECTED SURREBUTTAL TESTIMONY

OF

STEVEN M. WILLS

ON

BEHALF OF

UNION ELECTRIC COMPANY

d/b/a Ameren Missouri

St. Louis, Missouri
March, 2021

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CORRECTED SURREBUTTAL TESTIMONY

OF

STEVEN M. WILLS

FILE NO. ET-2021-0082

I. INTRODUCTION

Q. Please state your name and business address.

A. Steven M. Wills, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company"), One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. Are you the same Steven M. Wills who filed Direct Testimony in this proceeding?

A. Yes, I am.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your Surrebuttal Testimony in this proceeding?

A. My surrebuttal testimony responds to certain issues raised in the rebuttal testimony of Missouri Public Service Commission Staff ("Staff") witnesses Sarah Lange and Lisa Ferguson, and also highlights an inaccurate statement that mischaracterizes a likely outcome of the Company's Surge Protection Program ("Program") in the rebuttal testimony of Office of Public Counsel ("OPC") witness Keri Roth.

Specifically, Ms. Lange and Ms. Ferguson question the basis of the pricing of the Program, as well as certain expected financial outcomes of the Program. I will describe how the pricing of the Program is 1) just and reasonable based on sound regulatory and economic principles, and 2) extremely likely to require no ongoing (and at most, de minimis and transient) "subsidization" by non-participants, and in fact is expected to provide substantial long-term benefits to non-participants in the form of improved affordability.

Q. How would you generally characterize Staff's positions to which you are responding?

A. Company witness Tom Byrne elaborates on the problems with Staff's overly narrow reading of the Commission's jurisdiction to approve regulated programs like this Program, and how that interpretation prevents customers from having more choice and control over the services that they may take from the utility. I would go a step further to observe that Staff's positions are so focused on the delving into complex analyses and interpretations, that they miss the forest for the trees. The Program concept proposed by the Company is quite simple and straightforward, and is highly likely to benefit subscribers and non-subscribers alike. Some of Staff's specific contentions, as I will directly address later in this testimony, are accurate, and some are inaccurate. But the overarching issue is that Staff is apparently so risk averse and bound to a very traditional and outdated view of what utilities can and should do (and what customers expect them to do), that Staff fails to appreciate the opportunity to provide enhanced service levels in a forward thinking manner that benefit both participants and non-participants alike.

III. NON-SUBSCRIBER ECONOMIC IMPACTS OF THE PROGRAM

Q. Ms. Lange presents a lot of highly complex hypothetical economic analyses, purporting to show significant non-subscriber risk arising from the nature of the Program pricing. Can you please clarify what you understand her concern to be?

A. Ms. Lange's hypothetical – and I want to emphasize it is nothing more than a hypothetical – is covered in pages 4 through 12 of her rebuttal testimony. It features many complicated charts and dense discussions of regulatory lag and its potential implications on cross-subsidies between participants and non-participants and utility earnings impacts. The crux of her concern that is being addressed in her hypothetical appears to be that the revenue requirement associated with offering the Program will change over time – i.e., there are Program startup costs and more upfront investment in not-yet-depreciated assets that depreciate to lower the revenue requirement as time passes, but the Program pricing proposed by the Company is flat – and that this is a flaw in the program since the pricing does not change along with, or in response to, changes in the revenue requirement. Based on that premise, she asserts that there are timing mismatches between Program costs and revenues that have disparate impacts on subscribers, non-subscribers, and the utility's bottom line.

Q. Is her hypothetical analysis a valid representation of effects that may arise from the pricing of the Company's proposed Program?

A. No, for several reasons. While there are multiple issues to discuss, none are more impactful than a statement she makes on page 4 in the introduction of this analysis, which sets up the entire (flawed) premise of her argument. Ms. Lange states:

> Essentially, any program based on the levelization of the revenue requirement of providing a service over time will result in anomalies due to the presence of regulatory lag.[1]

It is inaccurate to use her statement to judge this Program, because her stated concern over basing a program on a levelized revenue requirement simply has no

[1] Rebuttal Testimony of Sarah L. K. Lange, p. 4, lines 15-17.

applicability to, or bearing on, the proposed Program in this case whatsoever. That is because the pricing of the Program == intentionally -- is *not based on the levelization of the revenue requirement of the service*. I will save for another case – where it might have relevance to whatever proposal might be at issue in that case – any debate over whether pricing a service based on its levelized cost is appropriate. Certainly, there are times and places where I think it is. But, that is neither here nor there for purposes of this Program, because the price is not based on the levelized cost of the service, nor should it be.

Q. Why does Ms. Lange get the impression that the price is based on the levelized cost of the Program?

A. I do not know. The Company's financial analysis did include calculations of the levelized cost of the Program over a period of time and under a variety of scenarios for purposes of analyzing the benefits of the Program versus its costs. However, the levelized cost calculated for the scenarios ranges from a low of $1.95 per month to a high of $7.23 per month.[2] Neither of those values are close to, or really related in any way, to the proposed $9.95 per month subscription price of the Program.

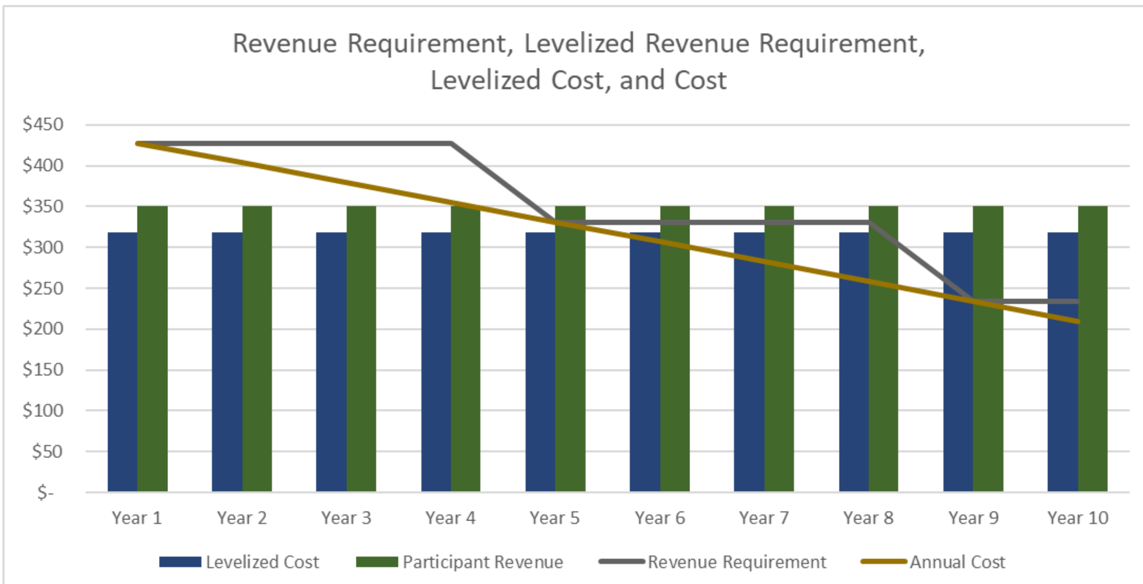
Ms. Lange goes on to present charts and graphs and discussions of all of the reasons she thinks it is inappropriate to use the levelized cost for Program pricing. It is telling that those analyses are based on a hypothetical program design devised by Ms. Lange – they had to be based on a hypothetical because the actual Program proposed by the Company does not follow the design that Ms. Lange apparently wanted to illustrate.

[2] Based on calculations reflected in the response to DR MPSC 0028. The levelized cost for the expected economic case for the Program is $3.00/month.

Q. Can you provide some context of how financial results of the Program based on its actual proposed pricing would fit into the view that Ms. Lange constructs?

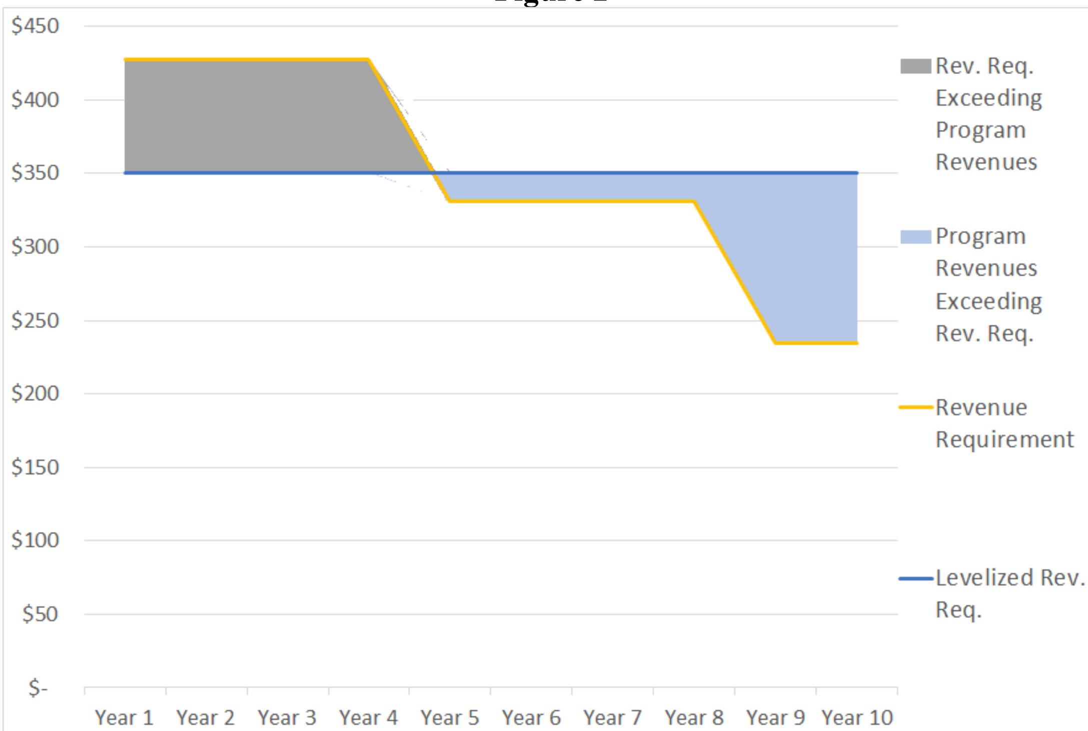
A. Yes. I will start by replicating, an unchanged graph that Ms. Lange presents on the top of page 8 in her rebuttal testimony as Figure 1 below:

Figure 1



Ms. Lange's Figure 1 is not easy to interpret because of all the different pieces that Ms. Lange is trying to show at the same time and in the same place. To remove some of this noise, I would suggest that it is helpful to take another look at just her comparison of the revenue requirement of her hypothetical over time compared to the participant revenue that would result from pricing this hypothetical program at the levelized revenue requirement as calculated by Ms. Lange. I have done this in Figure 2 on the following page by simply picking one set of numbers – the *exact same* numbers in Ms. Lange's Figure 1 - to compare and analyze, and reorganizing the graph slightly to simplify the view. I want to emphasize, however, that Figure 2 uses Ms. Lange's hypothetical assumptions and numbers – all from her workpapers – but presents them in a different view:

Figure 2



Ms. Lange's expressed concern – the mismatch between program costs and revenues that results in a period of time where the program revenues fail to cover its revenue requirement and non-participants may potentially be subsidizing participants – is all about the grey area that I have filled in on this graph. The grey area represents the dollars that, under her hypothetical scenario, may impact non-subscriber rates with higher costs. It is also important to note, though, that the blue shaded region represents the period where the program costs are lower than the program revenues, and during which non-subscriber rates would be lower than they would without the program. The fact that this period of non-subscriber benefits is in the later years of the program – based on her hypothetical assumptions – appears to be a part of Ms. Lange's concern.

Now, recall that I mentioned that the pricing of the Program at issue in this case – unlike Ms. Lange's hypothetical – is substantially higher than the Program's levelized cost. In fact, at $9.95 per month, it is more than three times higher than the calculated levelized cost in the Expected Case financial analysis performed by the Company. So let's update the graph – as Figure 3 – to replace the program revenues featured in Ms. Lange's hypothetical case, which is based on a program priced using its levelized revenue requirement which does not reflect the program that has been proposed, with revenues on a scale that is more representative of the Company's Program – i.e. with revenues based on a price that is three times its expected levelized revenue requirement. Figure 3 below updates Ms. Lange's hypothetical with these revenues that convert her hypothetical into a more realistic – although still very hypothetical – representation of the Company's Program.

Figure 3

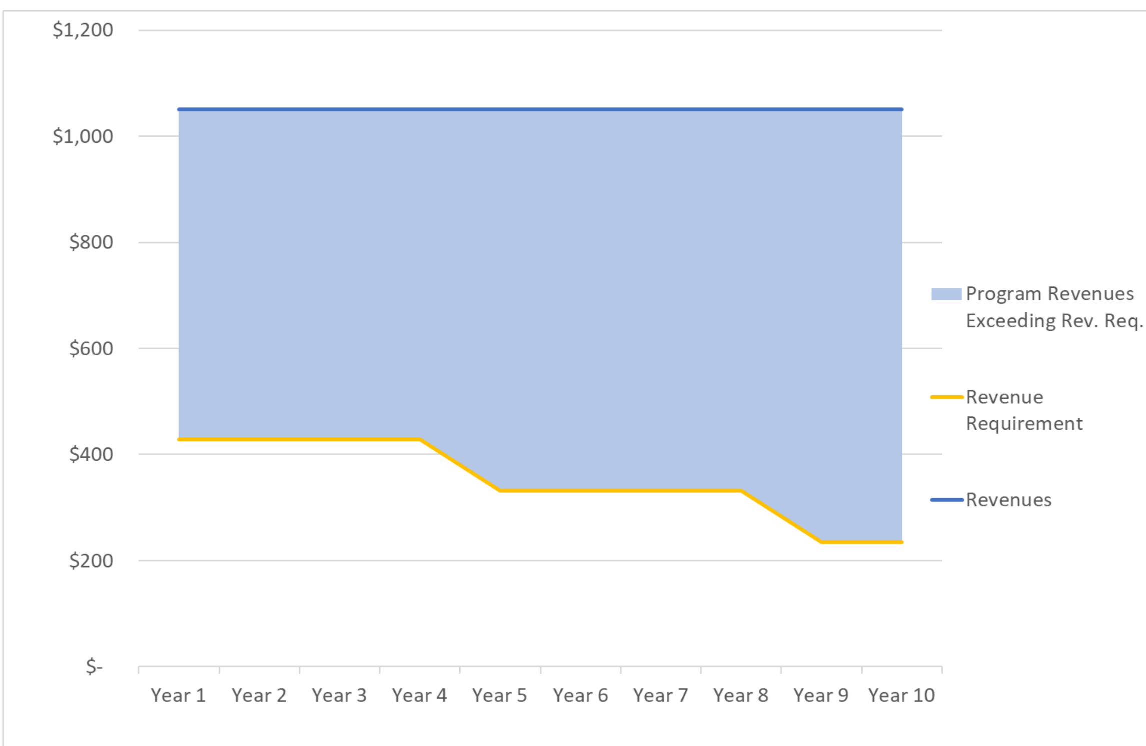


Figure 3 uses the same color and naming conventions for the graph as did Figure 2. What is notable in Figure 3 is the *complete absence of any grey shading*, which you will recall in Figure 2 represented periods when the program revenues failed to cover the revenue requirement. Also notable in Figure 3 is the dominance of the light blue shading, representing the area where the program revenues exceed the revenue requirement, and therefore contribute to affordability for all customers. This simple illustration – created by extending Ms. Lange's hypothetical to a scenario that is actually somewhat representative of the Program the Company has proposed – should help clearly demonstrate the minimal risk – and in fact the creation of substantial benefits that can cover other risks – to non-subscribers that arises from the pricing design of the Program. It bears stating that the price selected for the Program by the Company was deliberately set high enough to produce a very low likelihood that non-participants would end up subsidizing participants in the Program. In fact, the real goal is to give customers who voluntarily want the surge protection service the ability to obtain the service while producing revenues in excess of its costs to lower bills for all customers over time.

Q. Do you have any other comments related to Ms. Lange's hypothetical scenario?

A. Yes. She goes on to produce a series charts and graphs that portray outcomes of her hypothetical from different perspectives. The most important observation with all of them is that the outcomes they portray *will never result from the Company's proposal*, because as discussed above, they do not reflect the structure of the Program that the Company has proposed. Ms. Lange's testimony describing her charts caveats her conclusions repeatedly with the same introduction: "<u>If</u> all assumptions used to set the rate in my example are correct and [if] the levelized revenue requirement is used to set the participant rate…"[3] (Lange rebuttal, Page 9, Lines 8-9, Lange rebuttal, Page 10, Lines 4-5) (emphasis added). The fact is, though, neither of those conditions that caveat her conclusions exists. The assumptions are hypothetical and do not reflect the Program and, as I have stated, the levelized revenue requirement was not used to set its rate. Instead, the rate was set intentionally at a level expected to significantly exceed the levelized revenue requirement so that it is expected to fully cover the Program costs over time and produce incremental revenues that will lower rates for all customers. Therefore, the conclusions that follow her caveats are simply not applicable to the Company's Program.

To briefly touch on each chart more specifically, the graph on the top of page 9 shows a series of annual outcomes where the hypothetical participant is providing revenue (based on the levelized revenue requirement) that fails to cover the actual current revenue requirement in the early years of the program. In her scenario non-participants must provide excess revenues to make up for that shortfall. That shortfall, however, would certainly not exist in the hypothetical if its rate was triple the expected levelized revenue requirement of the program, as is the case with the Company's Program. So, that chart is not a reasonable representation of outcomes under the Company's proposal.

I will skip page 10 for a moment to note that the charts on page 11 simply combine the information from the charts on the prior two pages into a summary view, but introduce no additional information that needs to be addressed to understand the points that Ms. Lange is attempting to make. But the same conclusion applies to them – they simply don't

[3] Rebuttal Testimony of Sarah L.K. Lange, p. 9, lines 8-9 and p. 10, lines 4-5.

reflect outcomes that should be associated with the Program that the Company has proposed.

Now I will return to the chart on the bottom of page 10, which purports to show excessive shareholder returns arising from regulatory lag coupled with a pricing structure that relies on the levelized revenue requirement. Again, this is not consistent with the pricing structure of the Company's proposal, and therefore does not reasonably reflect the Company's proposal. But moreover, her hypothetical also employs extreme and over-simplified assumptions about regulatory lag such that – even if the pricing of the hypothetical were representative of the proposed pricing of the Program, which it is not – the results amplify the effect she is trying to illustrate to a greatly exaggerated level.

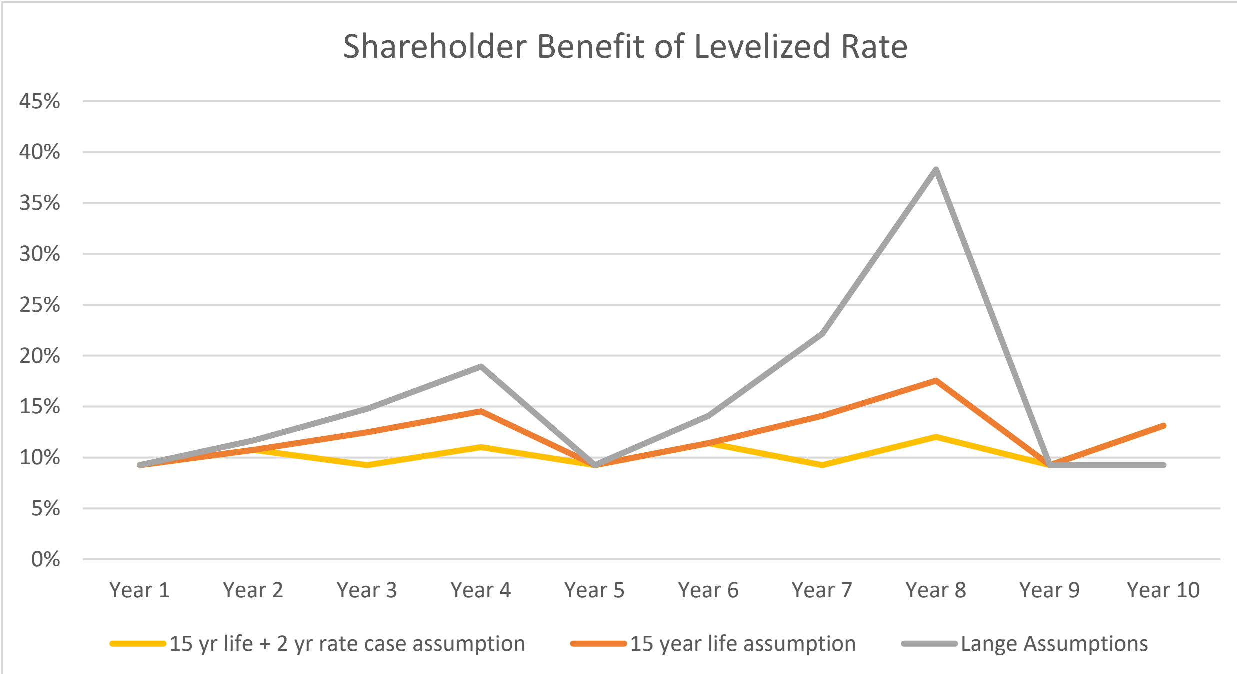
Ms. Lange's hypothetical uses an assumed 10-year life of the surge protection collar investment, despite the actual proposal being based on a device that will be depreciated over 15 years because of its 15-year life. She also assumes a four-year interval between rate cases, which, as I will discuss further later, is an unrealistically long interval to expect for the frequency of Company general rate cases. The juxtaposition of these two assumptions – a more rapidly declining revenue requirement due to the assumed shorter depreciable life of the Program assets, which makes the relative change in the revenue requirement each year in the hypothetical much greater than would happen in the actual Program proposed by the Company, and her use of a longer period between rate cases amplifies the effect she is attempting to illustrate such that the magnitude of the values in her chart significantly exceed any plausible outcomes related to shareholder returns under even her hypothetical program design.[4]

Q. Can you illustrate the impact that these choices of assumptions had on the graph on page 10 of Ms. Lange's rebuttal testimony?

A. Yes. Figure 4 below shows three versions of the "Effective ROE %" data series from Ms. Lange's graph. I first just reproduce the Effective ROE % line from Ms. Lange's graph *exactly as she showed it* on page 10 of her rebuttal testimony. Next, using her workpaper from which she produced this chart, I changed just one number in one input cell. Specifically, I replaced Ms. Lange's assumption that the program assets have a 10 year useful life with the assumption that they have a 15 year useful life – the *actual expected life* of the surge collars in the Company's Program. I would note that no party has questioned the Company's expectation that these devices will last 15 years, so why Ms. Lange chose to model her hypothetical based on an asset with a 10 year life is unclear. But what is clear from this second line on the chart is that the difference between those assumptions is *powerfully impactful* in the hypothetical results. Finally, I change the formula in two additional cells in Ms. Lange's spreadsheet such that rate cases are assumed to occur every two years instead of every four years (as I have testified, over the past 15 years, ignoring the rate decrease due to federal tax reform, the Company has filed electric rate cases at an average interval of just 22 months). The final line in the chart shows how her hypothetical shareholder returns would have looked with both of these much more reasonable assumptions related to the asset life and rate case frequency.

[4] Using a shorter than expected life span to depreciate the devices creates a greater gap between the revenue requirement in any one year and levelized rate she uses; the use of longer than expected rate case intervals unrealistically increases the cumulative effect of the regulatory lag she attempts to depict.

Figure 4 – Hypothetical Shareholder Returns under Different Assumptions



It is striking to see that Ms. Lange's decision to assume that her hypothetical asset would have a ten-year life caused the highest year's hypothetical return to the utility in her example to *more than double* from what it would have been if she had simply used the *actual useful life* of the asset in the Program being evaluated in the case. The other assumption of a four year rate case cycle despite 15 years of history suggesting the cycle is likely to be much shorter also has a major impact on her results.

It is commonly understood by most in the industry that regulatory lag will cause realized returns to vary slightly around the level of the return authorized by the regulator between rate cases. In the example with a 15-year life and a two-year rate case interval (the yellow line), that is just what happens. And it is what is likely to happen in practice with the Program proposed by the Company. By selecting just a couple of more extreme assumptions for critical and impactful variables, Ms. Lange portrayed a hypothetical return *exceeding 35%* in one year. That number is simply not even *remotely* representative of what should be expected from the Company's proposal.

Q. Is there another way – besides this flawed hypothetical example – to assess the likely economic impacts of the Program on non-subscribers and the Company's bottom line?

A. Yes. Rather than look to a hypothetical premised on a pricing approach that is not at issue at all because the Company is not proposing such an approach, I would refer the Commission instead to my direct testimony, where I applied regulatory lag concepts and rate case assumptions to the financial analysis of the Program in order to assess expected impacts on non-subscribers and the Company. I would note that Staff correctly pointed out that I omitted the impact of Plant-in-Service Accounting ("PISA") in that analysis reflected in my direct testimony. I would observe that this inadvertent omission had a relatively small impact on the overall results of the analysis, and the Company has updated its analysis to correct this in response to a Staff Data Request in this case, and also to add about $660,000 of property tax expense that was originally omitted from the analysis inadvertently. With these corrections, the Company's analysis makes reasonable estimations of regulatory lag on *every single cost and revenue driver* of that lag that has been identified in the case, in a detailed and robust month by month analysis of Program economics. This is in contrast to Ms. Lange's oversimplified hypothetical with unrealistic assumptions that does not even accurately represent the Program proposed by the Company to begin with. When Ms. Lange says at page 11 lines 3-4 that "[t]he Ameren Missouri testimony glosses over positive regulatory lag that the Company anticipates,"[5] she is

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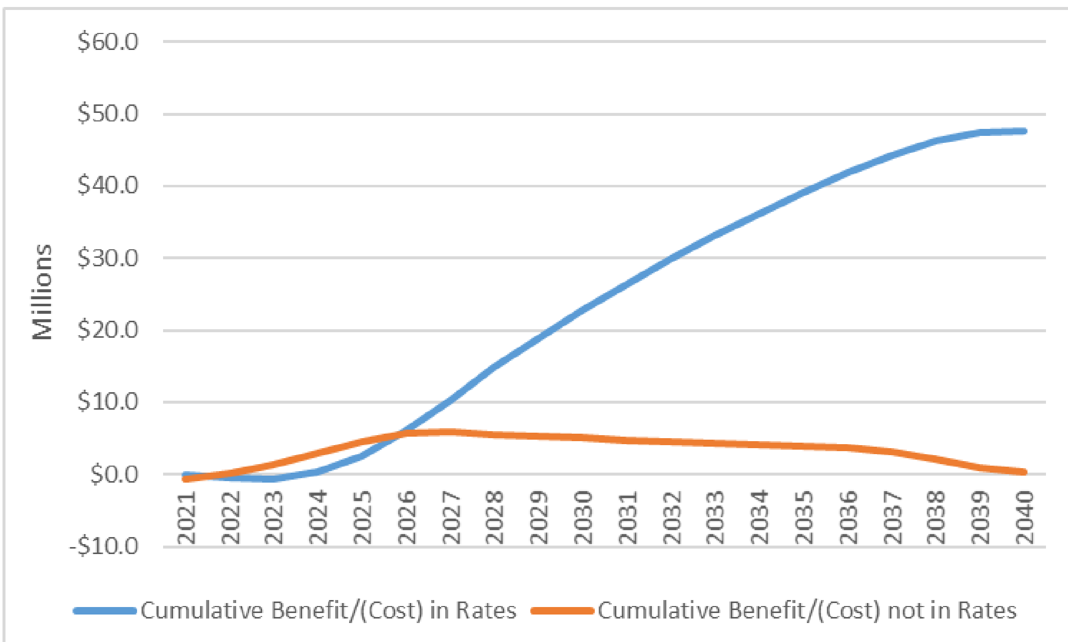
[5] Rebuttal Testimony of Sarah L.K. Lange, p. 11, lines 3-4.

simply incorrect. The Company's original analysis (from my direct testimony) presents an accurate and balanced view of both positive and negative sources of regulatory lag, save the minor errors related to the impact of PISA and property tax expense which I mentioned above.

I will provide an updated graphical version of the cumulative impacts of the analysis featured in Table 1 from my direct testimony that shows the results of the two small corrections I have made to the Company's analysis, as Figure 5 below.

Figure 5 – Cumulative Net Program Benefits/(Costs)



Recall from the description of Table 1 in my direct testimony that the net benefits *in rates* (blue line) reflect the total (cumulative in this view) benefits over the lifetime of the Program that have served to actually reduce rates for all customers due to their inclusion in the test year revenue requirement in a rate case. The cumulative benefits *not in rates* (orange line) are an artifact of regulatory lag and impact the Company's bottom line. Table

1 in my direct testimony showed benefits in rates of $48.7 million. Updating this information for the effects of PISA and property taxes, the benefits in rates still equal $47.7 million, very close (a mere approximately 2% lower) to the original number reflected in my direct testimony. Of this change, the majority related to the addition of property tax expense, such that the impact of the PISA omission accounted for an extremely small – approximately $300,000 – increase in cost to customers associated with the Program. So yes, I acknowledge that deferring 85% of the depreciation and return on the surge protection devices between rate cases slightly reduced the total expected benefits of the program that would flow to all customers – non-subscribers included – when rates are reset, but clearly my overall conclusion was sound and still holds: the program is expected to be very beneficial to all customers.[6]

Q. Does the fact that the view that includes PISA shows an approximately $300,000 net benefit to the Company that accrues due to regulatory lag reveal a problem with or flaw in the Program?

A. Not at all. It would certainly be possible to meticulously track every penny in the Program and ensure each one went to customers or the Company on some prescribed basis. But for a Program with substantial benefits such as this, it can be viewed as a win-win that there is at least some amount of value created for customers and the Company. The fact that the Program net benefits are not tracked – and the Company has an opportunity to retain a very small share of the Program benefits through regulatory lag – in fact aligns the Company's incentives with that of its customers to grow the total pool of benefits as much and as quickly as possible. In my opinion, it is far more important to

[6] Attached as Schedule SMW-S1 is the Supplemental Data Request response that provides these corrected results (without the detailed spreadsheet that accompanied it).

ensure that Program structures are set up in ways that create this kind of alignment where favorable outcomes benefit everyone, than it is to delve into the weeds to try to parse each dollar of benefit to a targeted recipient. All of that said, I can assure you that the Company's motivation to develop this Program was not to obscure the issue of regulatory lag so that we could achieve $300,000 of cumulative benefits due to PISA treatment over a period of several years. The motivation relates entirely to the tens of millions of dollars of cumulative benefits that flow directly to offset customer rates and improve the affordability of electric service.

I would further note on the issue of tracking Program costs and revenues, that there are distinctions between this Program and others for which the Company has proposed trackers – specifically, I am thinking of the Charge Ahead Program relating to electric vehicle charging incentives[7]– that make trackers more appropriate and necessary in some cases than others. Specifically, this case features a program with costs that are primarily capital investments, which will be incurred over many years in the form of depreciation expense, along with ongoing levels of Program administration expenses. The costs will therefore almost certainly be reflected in test years, revenue requirements, and rates in order to ensure a reasonably accurate recovery of them. This is in contrast to the incentives from Charge Ahead that would be paid once and immediately expensed, and therefore whose potential for recovery without a tracker are totally subject to the happenstance of the timing of expenditures versus rate filings.

[7] File No. ET-2018-0132, *Charge Ahead – Efficient Electrification*, filed February 22, 2018

Q. Does Ms. Lange comment on the version of the analysis reflected in Figure 5 above that was included in your direct testimony?

A. Yes. She questions several of the assumptions that underlie my analysis. But I would note that she adopts the framework of my analysis to run her own economic analysis sensitivities, so apparently, the mechanics of the analysis,[8] if not the assumptions employed, were not the source of her objection to the Company's proposal.

I would comment, however, on Ms. Lange's specific criticisms of my analysis. She refers to my assumptions as "wildly unreliable". Her characterization is as exaggerated as it is inflammatory. As evidence of this "wild unreliability", she cites four issues: 1) the omission of PISA, 2) mixing "life cycle analysis" with "revenue requirement analysis", 3) the fact that my assumed rate case test year calculations do not feature annualizations of Program costs and revenues, and 4) my assumed timing of rate cases. I will respond to each criticism in turn to demonstrate that the Company's analysis was far from unreliable, let alone wildly so.

1) The inadvertent omission of PISA has already been addressed above, accounting for a $300,000 difference in the Program impacts experienced by customers over the entire program life versus those retained by the Company through the operation of regulatory lag. With or without PISA, the Program is expected to be highly beneficial in terms of the impact on customer affordability.

[8] Ms. Lange noted one formula error in my spreadsheet, which she corrected before adapting my analysis framework to her assumptions. I have also corrected that formula in the spreadsheet used to support the figures in this surrebuttal testimony, and updated the DR response to Staff. The error had in fact overstated the costs of PISA treatment, and therefore the analysis of PISA provided in the original DR response reflected too few net benefits arising from the Program. As noted above, a supplemental data request response has been provided correcting these minor errors, none of which materially impact any of the conclusions reflected in the Company's direct testimony.

2) Ms. Lange criticizes the fact that the Company analyzed the Program from the perspective of a "life cycle analysis", which only looks at experience of the first five years' worth of enrolling customers. But I would observe that she does adopt my analytical framework for some of her own analysis without making any of her own changes to the analysis in order to address this issue. That said, there is nothing that needs to be fixed because had we made the assumptions necessary to model the Program continuing on indefinitely, such an analysis could have only *added* to the net benefits that would accrue in a manner that further enhances affordability, and likely significantly so. This is because any assumption of additional enrollment, or re-enrollment, of customers beyond the first five years would necessarily continue to add new revenues that far exceed the costs of providing the service to customers, as has been illustrated in my discussion of the fact that the price is well above the incremental cost of serving those customers. So this assumption was in fact a *very conservative* way to model the Program from a non-participant perspective. If our approach was "unreliable" at all, it was unreliable in way that if it were made more reliable, it would improve the results in the non-subscribers' favor.

3) With respect to the third issue – that my rate case assumptions do not account for Program costs and benefits to be annualized – again, I would observe that she adopts my analysis framework without correcting for this issue. But on this topic, I would further suggest that my assumption was not unreliable at all. There are myriad costs and revenues in a rate case test year that do get normalized or annualized, and myriad costs and revenues that do not. It is

common for costs to get either treatment, so it hardly warrants being considered even a little unreliable, let alone wildly so, to pick either option regarding whether to annualize those costs or not for modeling purposes. In a rate case that includes impacts of the Program in the test year, parties will be free to propose to annualize its impacts or not as they prefer. I would further note that, if the costs and benefits were annualized in my analysis, my expectation is that it would *accelerate* the rate at which the abundant net benefits impacted customer rates. This is because we know that over time this Program's revenues quickly grow to exceed costs. Annualization of those revenues and costs in rate case test years would only serve to accelerate the reflection of the underlying trend in costs and revenues – a trend that favors growth in revenues - into rates earlier and more fully than would otherwise occur. As such, my analysis can again be viewed as *conservative* on this point from the perspective of customer benefits.

4) Her final point relates to the rate case timing assumptions I employed. On this point, Ms. Lange states that I employed a "generally reasonable" method to assess rate case frequency, but that she would have chosen to exclude the rate change that was associated with the tax rate reduction that occurred in 2018 from the calculation of the rate case frequency interval. While that one thing she would treat slightly differently does not sound to me like a source of wild unreliability, it is still very worthwhile to investigate the scenarios that Ms. Lange goes on to develop that she presumably considers to be more reliable than the one offered by the Company in its direct testimony.

On this point, I would encourage the Commission to actually look carefully at the first graph on page 22 of Ms. Lange's rebuttal testimony where she compares her rate case timing scenarios to the Company's. In her chart, she actually overlays the rate impact scenarios that she developed on top of the scenarios that the Company developed in its direct case, and as updated to reflect the impact of PISA, so that they are all comingled in the same graphic (the Company's lines are green and red for the original and "with PISA" analyses, respectively). Her assertion that the Company's rate case assumptions are wildly unreliable is substantially undermined by the fact that there is no visible separation at all between the green/red lines[9] representing the Company's analyses and the blue/yellow lines representing Ms. Lange's "more reliable" scenarios. One can perceive some differences between those four (2 Company and 2 Staff) scenarios in the second, magnified version of a part (roughly the first five years) of the first chart on that page, but even then the separation is minimal, especially when comparing the three scenarios that are reasonably close to the Company's historical rate case timing interval. Plainly there was nothing unreliable about the Company's assumptions, nor are her assumptions materially more reliable.

I would also draw attention to the more extreme scenario on this graph on page 22 in Ms. Lange's rebuttal testimony, represented by the purple line, which reflects an assumption of rate cases occurring every 48 months. First of all, I

[9] The red line – which depicts the Company's analysis including PISA entirely obscures the green line (which is the Company's analysis without the impact of PISA), because of how similar the with and without PISA scenarios are, but they are located in the same spot on the graph.

would note that the last time the Company filed a rate case that was at least 48 months after the preceding case was in 2006, and given the investments the Company is making in modernizing its grid, it is probably a good bet that it will be a while before we go four years without a rate case again. The Company has already indicated it will file another general rate case in the near term (having filed a 60-day notice to do so on January 28 of this year). Accounting for that upcoming case (assuming it were filed roughly 60 days after the notice) plus the eight filed since 2006 (excluding the 2018 tax reduction case), produces an average rate case interval of approximately 22 months, quite close to the assumption used in my direct testimony; there is no reason to believe that the future frequency of cases will be far different. Clearly, the facts suggest that it is highly unlikely that Ms. Lange's scenario is "more reliable."

That said, again, I would ask the Commission to look at her graph carefully. The purple line, representing the scenario that Staff is presumably trying to protect customers against by asking for the Program to be rejected by the Commission, shows the Program providing $*46 million of cumulative net benefits to customers over its life*. And while it does show a net cost in early years, *the* ***cumulative*** *net cost never exceeds $2.2 million, which is less than 0.1% of the Company's current annual revenue requirement*. So Staff is trying to protect customers against a scenario where they theoretically *may* have to bear a net cost causing a *less than 0.1% rate impact* for a couple of years, before receiving *$46 million in cumulative benefits* over the next approximately 15 years.

This last point, where Staff's argument is that we should not even *potentially* subject customers to a *0.1% rate impact* in order to achieve tens of millions of dollars of eventual benefits, is why I said early in my testimony that a key issue to observe in Staff's position is its extreme risk aversion. If such risk aversion were allowed to prevent this Program from moving forward, the likely outcome will be the denial to subscribers and non-subscribers alike of the opportunity to receive substantial benefits from an innovative and forward-thinking Program.

Q. Do you have any other observations about Ms. Lange's testimony about regulatory lag and its impact on Program financials?

A. Yes. In addition to the issues I have already discussed, Ms. Lange goes on to add a number of additional charts to her testimony to try to further illustrate certain facts about how the Program financial impacts on non-subscribers change over time. To be clear, as would be expected of any customer Program the Company could initiate, the startup costs cause a short "ramp-up" period at the initiation of the Program where the overall Program is not yet producing net benefits, simply because costs have to be incurred to get a Program off the ground before it has created much if any revenue. This is to be expected. And yet, Ms. Lange presents a cost benefit chart that shows that, in the first rate case after Program inception which would be well within this "ramp-up" period, the *ratio* of costs and benefits (with no context whatsoever of the magnitude of those costs and benefits) will be quite high. On page 24 of her rebuttal testimony, she devotes an entire large chart to illustrating that costs exceed benefits in this assumed rate case by more than a factor of 2 (in 3 out of 5 scenarios).

A close examination of the calculations behind her page 24 chart reveals that the point she is apparently trying to make with this chart is seriously overblown. In the three most extreme scenarios that she is trying to draw attention to in this chart – again, illustrating that the costs exceed the benefits of the Program by more than a factor of 2 at the time of the first rate case after Program inception – the total net cost of the Program is $44,000 dollars per month. This represents approximately *0.02%* of the Company's revenue requirement, or *well under 4 cents per customer per month*. And this continues for only that amount of time that passes until the second rate case is filed after Program inception (26 to 48 months, depending on the scenario). In each scenario of rate case timing analyzed by Ms. Lange, the second rate case reflects net benefits that enhance affordability for all customers. That effect continues, such that the net benefit quickly grows to a point where, cumulatively, it completely overcomes the small upfront net cost she focuses on.

My concerns about Ms. Lange's analysis and arguments are not intended to suggest that there are no worthwhile, important regulatory policy discussions to be had in this case. There are, and our entire case filing presents those issues for the Commission's consideration. Staff is certainly free to argue, from a policy perspective, that only the very traditional services that have historically been provided should ever be provided by a utility unless the service is below the line. But Staff's rebuttal case does not stay well focused on the policy debate. To the contrary, an examination of much of Staff's rebuttal case reflects the Staff focusing on minutiae that will effectively have essentially no discernable impact on any customer. Staff's rebuttal case also portrays all these details but fails to adequately put them in context, a context that had it been provided would have shown how trivial they are.

Charts like the one on page 24 of Ms. Lange's rebuttal testimony, as just discussed, is exactly the kind of thing that I was referring to when I said in the introduction of my surrebuttal testimony that Staff is so far into the trees that it cannot see – or is choosing not to see – the forest. I hope the Commission keeps this perspective in mind so that we can discuss the Program proposal on its merits, rather than on a foray into minutiae with little to no discernable customer impact, even in the short-term.

Q. Ms. Lange presents an alternative framework at pages 12-19 of her rebuttal testimony that she suggests the Commission might consider if they are inclined to approve the Program over Staff's opposition. Can you please comment on her suggestion?

A. Ms. Lange's testimony in this section amounts to a completely different program proposal from that brought forward by the Company. The question in this case is whether to approve the Company's proposal, not whether a totally different program could exist.

Q. Is the Company willing to pursue a program with the alternative structure proposed by Ms. Lange?

A. No. Her proposal is inconsistent with the business model under which utility services are generally offered, where utilities incur costs (which may include investments) and then reflect those costs in their revenue requirements. In addition, her alternative structure bears no resemblance to the peer surge protection programs upon which the Company's proposal is based because it is intentionally designed to produce not a single dollar of incremental revenues above costs.[10] What that means is that her alternative eliminates most or all the benefits to non-subscribers associated with enhanced affordability of basic electric service – an important objective of the Program. Although potential impacts (positive or negative) to non-subscribers would be very small under Ms. Lange's proposed structure, they would have a much greater probability of being negative impacts than the Program the Company has proposed.

Q. How is Ms. Lange's proposal inconsistent with the utility business model?

A. She proposes that the entire investment the utility makes to serve the customer be essentially pre-paid by the subscribing customer, with that revenue treated as a Contribution in Aid of Construction ("CIAC") that offsets the investment in a productive asset. Utilities – and most businesses for that matter - typically invest in assets upfront, and cover the costs of those investments over their useful lives, the time period where customers benefit from them through the service received from them, through the customers' payment for those services received. CIACs are generally used when unique circumstances arise where the costs of an investment that is required to serve a customer is not expected to be covered by the incremental revenues that that customer will provide when paying for service at the utility's offered rates. It is antithetical to this model to just deliberately set the rate for service too low to pay for the cost of the service over the time period that the asset that provides that service in order to then require pre-payment of the asset in the form of a CIAC.

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[10] The peer programs are designed to do exactly what Ameren Missouri's proposed Program is designed to do: generate revenues in excess of costs over time, with the key difference in Ameren Missouri's program being that Ameren Missouri proposes to reflect those excess revenues in rates to the benefit of all customers instead of retaining them all for shareholders.

Q. Why do you say that Ms. Lange's proposal would be more likely to negatively impact non-subscribers, even if by only very small amounts?

A. She has removed all of the premium from the price that is designed to cover the risks of the Program. Therefore those risks that remain – such as whether the ongoing monthly fee for service would cover the ongoing program expenses – would immediately impact non-subscribers, rather than being offset by additional revenues that are available to cover those risks under the Company's proposal.

IV. PRICING POLICY CONSIDERATION

Q. What overarching standard governs the Commission's approach to setting regulated prices, and is the Company's proposed price for the Program consistent with that standard?

A. The Commission is tasked with setting rates, or prices, for the services and companies that it regulates that are just and reasonable, and free from undue discrimination. The pricing of the Program is just and reasonable, and is not unduly discriminatory. While cost of service analysis is the primary tool used to assess what constitutes just and reasonable rates in the regulatory context, I am aware of nothing that dictates that it be the only tool; there are additional considerations that can and do, even traditionally, factor into the assessment. The proposed pricing of the Program is sufficient to cover its costs, thereby avoiding subsidization by other customers, and it is established at a level that is commensurate with similar services offered by other companies. And critically, no customer is required to pay the program price if they do not find that price to be commensurate with the value the program brings to them. Simply put, in my opinion, the concept of what is just and reasonable is simply different when the customer paying the rate has a choice of whether to take the service and pay the rate in the first place.

Q. In your direct testimony, you discussed giving consideration to the *value* that customers place on a service like that proposed in this Program in determining its regulated price. Ms. Ferguson questions both the appropriateness of this, and the process for assessing this concept of value. Please comment.

A. I very much agree in general with Ms. Ferguson's focus on cost of service being the primary consideration for regulated ratemaking. In fact, when it comes to the charges for the basic essential electric service that our customers must rely exclusively on their utility for, I have argued, and will continue to argue, for more cost reflective rates and rate structures. Cost of service is a fundamental of utility ratemaking and is nearly universally recognized standard for establishing just and reasonable rates. This is also an accurate general characterization of conclusions of the rate design text of Dr. James Bonbright, which I cited in my direct testimony and which is one of the most respected and authoritative treatises on utility ratemaking. Such a cost focus is important to promote economically efficient use of the system, as well as to promote fairness between customers in how they contribute to covering the costs of the system. Dr. Bonbright, as I highlighted in my direct testimony, does however indicate that value of service is a valid *ancillary* standard – which suggests it can be given weight in the determination of just and reasonable rates in the right context. This innovative Program has clear elements that distinguish its pricing from charges for connecting to the grid, and for taking kilowatt-hours and kilowatts of power, and which provides a context that warrants consideration of the value of the service to customers.

Q. What distinguishes this Program and the considerations that should guide its pricing?

A. The Program is distinguished by the fact that it offers a voluntary service to customers, which provides customer value above and beyond the services reflected in base rates. Customers need not take this service if they do not value the protection that it offers, so even to the extent that the price is higher than the embedded cost of providing the service, no customer is being required to pay that higher-than-cost price. And I would also note that, as Staff witness Alan Bax points out, customers may have other options for protecting their homes from electrical surges as alternatives to the Program, such that they do not need to rely solely on the Company to obtain such service, particularly if they do not like the price point at which it is offered. No customer, nor potential competitor for that matter, is negatively impacted by the existence of the voluntary Program at a price point that exceeds the basic costs of supplying the service. The same thing could not be said if the pricing of basic electric service exceeded the cost of supplying it for some or all of the utility's customers.

I would like to add that the existence of competitive alternatives that I just mentioned does not obviate the need for the Program. These devices are appropriate and logical extensions of the Company's service – as Mr. Byrne points out, they provide a service that meets the legislative definition of utility plant because the service is provided directly *in connection with* the delivery of electricity to retail customers. And as Mr. Byrne also points out, by the utility offering it, customers have more choices – including choices to get this service in a convenient manner from a trusted provider. But – and this is a point I agree generally with Staff on – it would not be just and reasonable in my opinion if the price of this voluntary enhanced service level was designed in a manner that was likely to require subsidies from other customers in order for subscribers to take it. And as a new service with no history in the service territory, there is some uncertainty as to the ultimate level of adoption of the service, and as to the costs of delivering it, which creates uncertainty regarding the ultimate cost per unit of providing the service. To achieve the very low likelihood of subsidization that is appropriate for a voluntary service with some inherent unit cost uncertainty - rather than building complex Program rules of what can and cannot be reflected in rates when, and developing detailed tracking of every transient Program cost impact on the revenue requirement – the Company took a far simpler and more straightforward approach – price it at a level that makes it *highly unlikely* to require non-participant subsidies, which, in so doing, will also provide some offset to the fixed revenue requirement that benefits other customers.

As Mr. Byrne also discusses, the Commission has on many occasions approved programs in which a subset of all customers may participate, and for which there is some chance that non-participant subsidies could occur, but has made the judgment based on the evidence that a subsidy is sufficiently unlikely that the program should be approved because of its expected benefits to participants and non-participants alike. This is exactly what was at play, to use one of Mr. Byrne's examples, when the Commission approved pre-MEEIA electric energy efficiency programs or when it approves gas energy efficiency programs. There is no guarantee that those programs will always "make money" (i.e., that there is no chance of a subsidy), but that's not the question. The question is whether the Commission has a reasonable basis to conclude that those subsidies will not exist and otherwise concludes that the program at issue is one that should be offered.

Q. Is this concept of pricing a product higher than the direct cost of delivering it in order to offset certain risks associated with its delivery a common way to establish product pricing?

A. Yes. An increase in the price at which a product or service is offered is, in fact, a common means to compensate for risk associated with the delivery of that product or service. Clearly from Staff's testimony in this case, they perceive risk in the proposed Program. While I do not agree with all of Staff's characterizations of the level of riskiness of this Program, I do agree that this type of Program being included in the revenue requirement cannot be said to pose absolutely no risk for non-subscribers. This is particularly true if it is priced exactly at the cost level that is anticipated prior to initiating program activities in earnest. However, the price of this Program features enough of a premium that, under an overwhelming majority of foreseeable circumstances, the Program will provide benefits to non-subscribers, rather than impose higher costs on them. The premium in the price is a fair compensation from subscribers for any risk that does arise from the Program, and that premium will help maintain affordability of basic electric services in all cases where those risks do not materialize. In this regard, I believe the price is not discriminatory, and certainly not unduly so.

Q. Ms. Ferguson questions how to quantitatively determine the value of service in order to use this ancillary standard as a part of the pricing philosophy. How should the Commission think about that?

A. It is a good question raised by Ms. Ferguson, and one that even Dr. Bonbright wrestles with in his text to some degree. Value of service is a less readily observable standard than cost, and can inherently include some subjectivity – this is among the many reasons that value is only considered an ancillary standard of regulated pricing. But ultimately, the value of service really represents an attempt to measure customers' willingness to pay, or said another way, it's determined by what the market will bear. The best ways to measure that are the methods that the Company undertook and described in its direct testimony, including the Company's review of mature offerings of similar programs in other jurisdictions to see what prices were charged in those programs and what corresponding levels of enrollment were realized at those prices, indicating the willingness of actual subscribers to pay those prices. Whether those other programs that were included in that review are regulated or unregulated makes no difference to the simple task of observing customers' willingness to pay for the service, so those data points associated with unregulated programs provide useful and relevant information to determine the value of service.

However, Ms. Ferguson goes on to discuss value of service in a variety of somewhat confusing ways that conflate the concept of value with measurement of cost. Just to be clear on this point, value of service as discussed by Dr. Bonbright is *not* about measuring or assigning costs – the cost of service is its own standard with its own measurement. In this section of her testimony, Ms. Ferguson seems to have misunderstood a point I made in my direct testimony relating value of service to cost of service ratemaking treatment of overhead costs.

Q. Can you please clarify what your point was in your direct testimony related to overheads and value of service?

A. Yes. In so doing, I will also address another concern of Staff, expressed in numerous places including the original recommendation the Staff filed with the

Commission on this Program as well as in the testimonies of Ms. Lange and Ms. Ferguson. Staff appears to be very concerned that the Company, in calculating the economic impacts of the Program, only evaluated the *incremental* costs of delivering the Program, but did not include allocations of other corporate costs that would normally be reflected in determining the *embedded* cost of service for ratemaking purposes. Just to be completely clear, the distinction here is that the incremental costs analyzed by the Company are costs that will only be incurred if the Program happens – they will never exist if the Program does not go forward. Embedded costs include allocations of costs of overhead associated with necessary corporate functions, but those will not materially change in level whether or not the Program ever exists. For example, the Company will not hire new accounting personnel to make journal entries related to the Program – existing workers will fit those activities into their existing workload and the level of Company labor and related expense in the accounting department will not change if the Program goes forward. In calculating the embedded cost of a program, it is appropriate to recognize that the Program benefits from those accounting activities, and allocate a share of those costs to it. And if the Program was priced based on its embedded cost, the Company would have performed those allocations and included the resulting share of costs in the price. However, the pricing was based in large part on the value of the service to subscribers. As I have discussed, this was done in order to dramatically reduce the risk that the Program would require subsidies from non-participants, and to ensure that it would instead be likely to promote affordability of basic utility service for non-participants. From that perspective, it is not only acceptable, but *necessary* to exclude the overhead costs from the cost benefit analysis of the Program. It is a basic tenet of economics that cost benefit analyses to support decision-making should only be made based on incremental costs and benefits that arise or may arise as a result of that decision. In assessing the affordability benefit of the Program, the overhead costs that exist at materially the same level regardless of the Program's existence are completely irrelevant to determining the forward looking impact of the Program on non-subscribers, and therefore to decision making about whether to approve or pursue the Program.

Q. Did the value of service point you made in your direct testimony have anything to do with measuring these overhead costs?

A. No, but perhaps in retrospect I could have been clearer on what I meant when I discussed value of service and overhead costs. To be clear, to the extent that the embedded cost of service is higher than the incremental cost of service of the Program that the Company calculated for its benefit/cost analysis due to allocations of overheads, and to the extent the *price* is *also* higher than that incremental cost of service by at least a commensurate amount, the effect of the price premium is to provide revenues that will be *sufficient to cover those overheads*. My point was not in any way intended to suggest that the value of service principle was a way to *measure* overhead costs, as Ms. Ferguson seemed to take it. It was simply to say that the Program is designed to cover overhead costs, not because we went through a strict allocation process of overhead costs to develop the price, but simply because *the revenues will be sufficient (more than sufficient) to cover those costs*.

Q. Since you did not perform an allocation of overhead costs, how can you be confident that the premium in the price above the incremental cost of providing the service is at least commensurate with the additional costs that could potentially be allocated to the Program through a full embedded cost of service study?

A. It is relatively obvious from just a superficial review of the Expected Case financial analysis performed by the Company, and presented in direct testimony, that any conceivable level of overheads would be covered by Program revenues under actual Program outcomes that meet or exceed the subscription levels that are defined in that scenario. Recall that I mentioned earlier that the price of the Program is more than three times the levelized cost the Company calculated for the Program in its Expected Case analysis – based on an assessment of the incremental costs of the Program. It is virtually inconceivable that allocations of corporate costs could triple the cost of the Program relative to the incremental costs already calculated.

Q. What about scenarios with lower Program adoption and therefore fewer net benefits, like the Worst Case scenario that the Company presented in direct testimony?

A. The Worst Case scenario was analyzed to stress test the economics of the Program assuming low levels of enrollment. In that scenario only 2% of the Company's customers are assumed to subscribe. And yet even at the very modest enrollment levels associated with that scenario, the price of $9.95 per month exceeds the average cost per customer per month of $7.23 by 38%.

Now for perspective, let's consider the category of the revenue requirement often referred to as Administrative and General ("A&G") costs. This category of costs includes a variety of costs such as salaries of administrative functions like accounting, human resources, and the like, office supplies and expenses, outside services employed, and employee pensions and benefits. The A&G category is one of the specific categories of costs – and perhaps the most material category in terms of magnitude - that Staff identified as a concern with respect to this overhead allocation issue in a response to a Data Request issued by the Company.[11]

I made a quick comparison of the total A&G costs from the Company's filed revenue requirement in its last electric rate case to the rest of the revenue requirement (excluding those A&G costs) in the same case. The A&G costs are approximately 8 % of that remainder of the revenue requirement. What this suggests to me is that the process of allocating A&G costs to classes in that case increased the calculated embedded cost of service of the various rate classes, on average, by 8% in order to reflect these overheads. Let us use that 8 percent as a proxy for the amount of increase in the cost that may be calculated for this Program if such overheads are allocated to it on top of the costs already included in the Company's incremental cost analysis. Given the fact that there is 38% of "head room" in the rate to cover such costs, an allocated increase of 8% of the base cost due inclusion of A&G costs would still result in a price that is 30% higher than the Program's embedded cost. While there are some other cost categories that would potentially be subject to allocation, there is little chance they could absorb all of the "head room" in the Program rate.

I will return briefly to my initial point on this topic – and that is that overhead costs that exist at materially the same level whether the Program exists or not – are not appropriate to consider in an economic decision making exercise of determining whether a Program would be beneficial in terms of affordability of service – i.e., whether it is beneficial to non-subscribers. Non-subscribers will benefit from any contribution that this program makes to such overhead costs. But – even if those allocations of overhead are

[11] Staff response to DR 0031

contemplated, and even if they are taken alongside relatively modest Program adoption assumptions – it is still *highly unlikely* for a subsidy from non-participants to result.

V. RESPONSE TO OPC REBUTTAL TESTIMONY

Q. What issue will you be addressing with respect to the rebuttal testimony of OPC witness Keri Roth?

A. In her rebuttal testimony, Ms. Roth states that Ameren Missouri's customers will pay $11 million more than they otherwise would as a result of this Program. Based on the footnote, it appears that Ms. Roth's comment is based on a number that Staff included in the initial recommendation that they provided to the Commission with respect to this Program. In response to a Company Data Request, and later in a footnote in the rebuttal testimony of Ms. Lange.[12] Staff has acknowledged that the number Ms. Roth is quoting was based on an erroneous calculation, where a series of calculated annual Program financial impacts were inadvertently treated as monthly, which caused the calculation to be misstated by a factor of 12. When corrected, the calculation referenced by Ms. Roth is really related to the transient and de minimis (less than 0.1%) rate impact in the first rate case after Program inception that I responded to in my discussion of Ms. Lange's modeling above. As Ms. Roth has no independent analysis that suggests an impact of $11 million, and Staff has acknowledged the error in their original calculation, Ms. Roth's citation to the $11 million should similarly be considered erroneous, and not be relied on as evidence of an expected Program impact.

[12] See footnote 6 on page 20 of Ms. Lange's rebuttal testimony.

Q. Ms. Roth's rebuttal testimony also includes what amounts to a warning to the Commission that approving the Program would lead to a situation where "customers may believe the Commission has vetted it, supports it, and customers may believe that they are not being taken advantage of."[13] Do you have any comments?

A. Yes. Ms. Roth's implication that by approving the Program the Commission may be complicit in customers being taken advantage of is completely without merit. The Company stands by the quality of product and experience that it will provide in this Program, and also by its track record of delivering valuable and quality products and services to its customers in other Commission-approved Programs. The Company has no desire or incentive to tarnish its own, or the Commission's, standing with customers by delivering a poor customer experience. I believe the Commission has the information it needs in this docket to make its own assessment of the value that this service will provide for subscribers, as well as the likely benefits that it will produce for non-subscribers, and feel confident when arriving at the conclusion that it is a worthwhile Program that will create significant benefits for Missouri customers.

Q. Does this conclude your Surrebuttal Testimony?

A. Yes, it does.

[13] Rebuttal Testimony of Keri Roth, p. 11, lines 19-21.

Exhibit No.:
Issue(s): Surge Protection Program
Witness: Steven M. Wills
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: Union Electric Company
File No.: ET-2021-0082
Date Testimony Prepared: March 26, 2021

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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ET-2021-0082

CORRECTED SURREBUTTAL TESTIMONY

OF

STEVEN M. WILLS

ON

BEHALF OF

UNION ELECTRIC COMPANY

d/b/a Ameren Missouri

St. Louis, Missouri
March, 2021

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CORRECTED SURREBUTTAL TESTIMONY

OF

STEVEN M. WILLS

FILE NO. ET-2021-0082

I. INTRODUCTION

Q. Please state your name and business address.

A. Steven M. Wills, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company"), One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. Are you the same Steven M. Wills who filed Direct Testimony in this proceeding?

A. Yes, I am.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your Surrebuttal Testimony in this proceeding?

A. My surrebuttal testimony responds to certain issues raised in the rebuttal testimony of Missouri Public Service Commission Staff ("Staff") witnesses Sarah Lange and Lisa Ferguson, and also highlights an inaccurate statement that mischaracterizes a likely outcome of the Company's Surge Protection Program ("Program") in the rebuttal testimony of Office of Public Counsel ("OPC") witness Keri Roth.

Specifically, Ms. Lange and Ms. Ferguson question the basis of the pricing of the Program, as well as certain expected financial outcomes of the Program. I will describe how the pricing of the Program is 1) just and reasonable based on sound regulatory and economic principles, and 2) extremely likely to require no ongoing (and at most, de minimis and transient) "subsidization" by non-participants, and in fact is expected to provide substantial long-term benefits to non-participants in the form of improved affordability.

Q. How would you generally characterize Staff's positions to which you are responding?

A. Company witness Tom Byrne elaborates on the problems with Staff's overly narrow reading of the Commission's jurisdiction to approve regulated programs like this Program, and how that interpretation prevents customers from having more choice and control over the services that they may take from the utility. I would go a step further to observe that Staff's positions are so focused on the delving into complex analyses and interpretations, that they miss the forest for the trees. The Program concept proposed by the Company is quite simple and straightforward, and is highly likely to benefit subscribers and non-subscribers alike. Some of Staff's specific contentions, as I will directly address later in this testimony, are accurate, and some are inaccurate. But the overarching issue is that Staff is apparently so risk averse and bound to a very traditional and outdated view of what utilities can and should do (and what customers expect them to do), that Staff fails to appreciate the opportunity to provide enhanced service levels in a forward thinking manner that benefit both participants and non-participants alike.

III. NON-SUBSCRIBER ECONOMIC IMPACTS OF THE PROGRAM

Q. Ms. Lange presents a lot of highly complex hypothetical economic analyses, purporting to show significant non-subscriber risk arising from the nature of the Program pricing. Can you please clarify what you understand her concern to be?

A. Ms. Lange's hypothetical – and I want to emphasize it is nothing more than a hypothetical – is covered in pages 4 through 12 of her rebuttal testimony. It features many complicated charts and dense discussions of regulatory lag and its potential implications on cross-subsidies between participants and non-participants and utility earnings impacts. The crux of her concern that is being addressed in her hypothetical appears to be that the revenue requirement associated with offering the Program will change over time – i.e., there are Program startup costs and more upfront investment in not-yet-depreciated assets that depreciate to lower the revenue requirement as time passes, but the Program pricing proposed by the Company is flat – and that this is a flaw in the program since the pricing does not change along with, or in response to, changes in the revenue requirement. Based on that premise, she asserts that there are timing mismatches between Program costs and revenues that have disparate impacts on subscribers, non-subscribers, and the utility's bottom line.

Q. Is her hypothetical analysis a valid representation of effects that may arise from the pricing of the Company's proposed Program?

A. No, for several reasons. While there are multiple issues to discuss, none are more impactful than a statement she makes on page 4 in the introduction of this analysis, which sets up the entire (flawed) premise of her argument. Ms. Lange states:

> Essentially, any program based on the levelization of the revenue requirement of providing a service over time will result in anomalies due to the presence of regulatory lag**.** [1]

It is inaccurate to use her statement to judge this Program, because her stated concern over basing a program on a levelized revenue requirement simply has no

[1] Rebuttal Testimony of Sarah L. K. Lange, p. 4, lines 15-17.

applicability to, or bearing on, the proposed Program in this case whatsoever. That is because the pricing of the Program == intentionally -- is *not based on the levelization of the revenue requirement of the service*. I will save for another case – where it might have relevance to whatever proposal might be at issue in that case – any debate over whether pricing a service based on its levelized cost is appropriate. Certainly, there are times and places where I think it is. But, that is neither here nor there for purposes of this Program, because the price is not based on the levelized cost of the service, nor should it be.

Q. Why does Ms. Lange get the impression that the price is based on the levelized cost of the Program?

A. I do not know. The Company's financial analysis did include calculations of the levelized cost of the Program over a period of time and under a variety of scenarios for purposes of analyzing the benefits of the Program versus its costs. However, the levelized cost calculated for the scenarios ranges from a low of $1.95 per month to a high of $7.23 per month.[2] Neither of those values are close to, or really related in any way, to the proposed $9.95 per month subscription price of the Program.

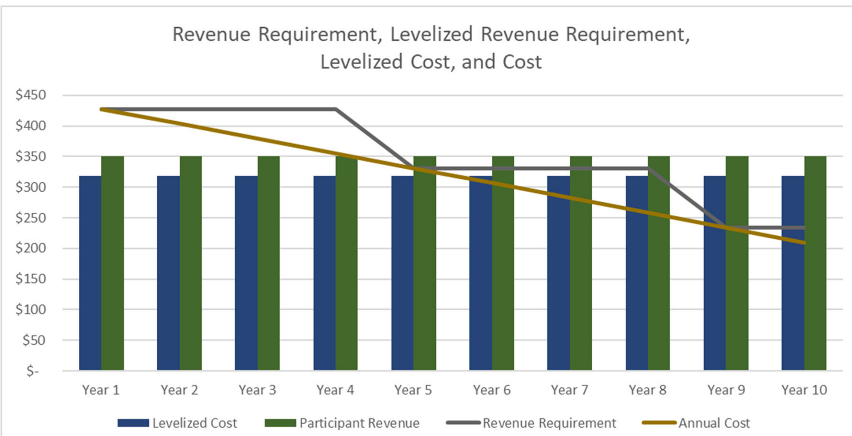
Ms. Lange goes on to present charts and graphs and discussions of all of the reasons she thinks it is inappropriate to use the levelized cost for Program pricing. It is telling that those analyses are based on a hypothetical program design devised by Ms. Lange – they had to be based on a hypothetical because the actual Program proposed by the Company does not follow the design that Ms. Lange apparently wanted to illustrate.

[2] Based on calculations reflected in the response to DR MPSC 0028. The levelized cost for the expected economic case for the Program is $3.00/month.

Q. Can you provide some context of how financial results of the Program based on its actual proposed pricing would fit into the view that Ms. Lange constructs?

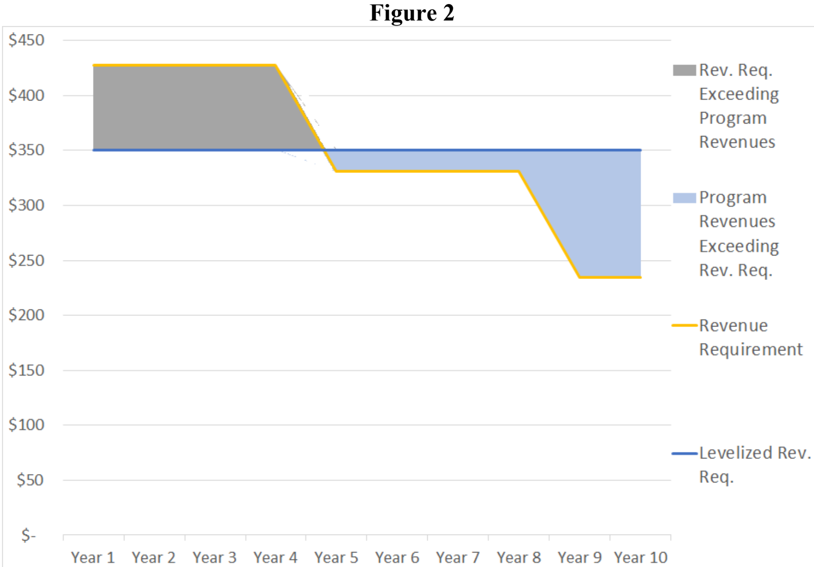
A. Yes. I will start by replicating, an unchanged graph that Ms. Lange presents on the top of page 8 in her rebuttal testimony as Figure 1 below:

Figure 1



Ms. Lange's Figure 1 is not easy to interpret because of all the different pieces that Ms. Lange is trying to show at the same time and in the same place. To remove some of this noise, I would suggest that it is helpful to take another look at just her comparison of the revenue requirement of her hypothetical over time compared to the participant revenue that would result from pricing this hypothetical program at the levelized revenue requirement as calculated by Ms. Lange. I have done this in Figure 2 on the following page by simply picking one set of numbers – the *exact same* numbers in Ms. Lange's Figure 1 - to compare and analyze, and reorganizing the graph slightly to simplify the view. I want to emphasize, however, that Figure 2 uses Ms. Lange's hypothetical assumptions and numbers – all from her workpapers – but presents them in a different view:

Figure 2



Ms. Lange's expressed concern – the mismatch between program costs and revenues that results in a period of time where the program revenues fail to cover its revenue requirement and non-participants may potentially be subsidizing participants – is all about the grey area that I have filled in on this graph. The grey area represents the dollars that, under her hypothetical scenario, may impact non-subscriber rates with higher costs. It is also important to note, though, that the blue shaded region represents the period where the program costs are lower than the program revenues, and during which non-subscriber rates would be lower than they would without the program. The fact that this period of non-subscriber benefits is in the later years of the program – based on her hypothetical assumptions – appears to be a part of Ms. Lange's concern.

Now, recall that I mentioned that the pricing of the Program at issue in this case – unlike Ms. Lange's hypothetical – is substantially higher than the Program's levelized cost. In fact, at $9.95 per month, it is more than three times higher than the calculated levelized cost in the Expected Case financial analysis performed by the Company. So let's update the graph – as Figure 3 – to replace the program revenues featured in Ms. Lange's hypothetical case, which is based on a program priced using its levelized revenue requirement which does not reflect the program that has been proposed, with revenues on a scale that is more representative of the Company's Program – i.e. with revenues based on a price that is three times its expected levelized revenue requirement. Figure 3 below updates Ms. Lange's hypothetical with these revenues that convert her hypothetical into a more realistic – although still very hypothetical – representation of the Company's Program.

Figure 3

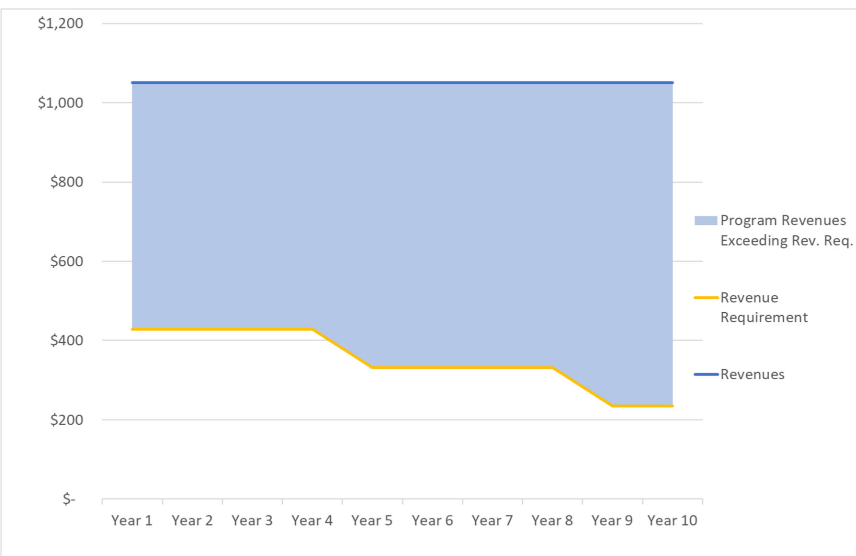


Figure 3 uses the same color and naming conventions for the graph as did Figure 2. What is notable in Figure 3 is the *complete absence of any grey shading*, which you will recall in Figure 2 represented periods when the program revenues failed to cover the revenue requirement. Also notable in Figure 3 is the dominance of the light blue shading, representing the area where the program revenues exceed the revenue requirement, and therefore contribute to affordability for all customers. This simple illustration – created by extending Ms. Lange's hypothetical to a scenario that is actually somewhat representative of the Program the Company has proposed – should help clearly demonstrate the minimal risk – and in fact the creation of substantial benefits that can cover other risks – to non-subscribers that arises from the pricing design of the Program. It bears stating that the price selected for the Program by the Company was deliberately set high enough to produce a very low likelihood that non-participants would end up subsidizing participants in the Program. In fact, the real goal is to give customers who voluntarily want the surge protection service the ability to obtain the service while producing revenues in excess of its costs to lower bills for all customers over time.

Q. Do you have any other comments related to Ms. Lange's hypothetical scenario?

A. Yes. She goes on to produce a series charts and graphs that portray outcomes of her hypothetical from different perspectives. The most important observation with all of them is that the outcomes they portray *will never result from the Company's proposal*, because as discussed above, they do not reflect the structure of the Program that the Company has proposed. Ms. Lange's testimony describing her charts caveats her conclusions repeatedly with the same introduction: "If all assumptions used to set the rate in my example are correct and [if] the levelized revenue requirement is used to set the participant rate…"[3] (Lange rebuttal, Page 9, Lines 8-9, Lange rebuttal, Page 10, Lines 4-5) (emphasis added). The fact is, though, neither of those conditions that caveat her conclusions exists. The assumptions are hypothetical and do not reflect the Program and, as I have stated, the levelized revenue requirement was not used to set its rate. Instead, the rate was set intentionally at a level expected to significantly exceed the levelized revenue requirement so that it is expected to fully cover the Program costs over time and produce incremental revenues that will lower rates for all customers. Therefore, the conclusions that follow her caveats are simply not applicable to the Company's Program.

To briefly touch on each chart more specifically, the graph on the top of page 9 shows a series of annual outcomes where the hypothetical participant is providing revenue (based on the levelized revenue requirement) that fails to cover the actual current revenue requirement in the early years of the program. In her scenario non-participants must provide excess revenues to make up for that shortfall. That shortfall, however, would certainly not exist in the hypothetical if its rate was triple the expected levelized revenue requirement of the program, as is the case with the Company's Program. So, that chart is not a reasonable representation of outcomes under the Company's proposal.

I will skip page 10 for a moment to note that the charts on page 11 simply combine the information from the charts on the prior two pages into a summary view, but introduce no additional information that needs to be addressed to understand the points that Ms. Lange is attempting to make. But the same conclusion applies to them – they simply don't

[3] Rebuttal Testimony of Sarah L.K. Lange, p. 9, lines 8-9 and p. 10, lines 4-5.

reflect outcomes that should be associated with the Program that the Company has proposed.

Now I will return to the chart on the bottom of page 10, which purports to show excessive shareholder returns arising from regulatory lag coupled with a pricing structure that relies on the levelized revenue requirement. Again, this is not consistent with the pricing structure of the Company's proposal, and therefore does not reasonably reflect the Company's proposal. But moreover, her hypothetical also employs extreme and over-simplified assumptions about regulatory lag such that – even if the pricing of the hypothetical were representative of the proposed pricing of the Program, which it is not – the results amplify the effect she is trying to illustrate to a greatly exaggerated level.

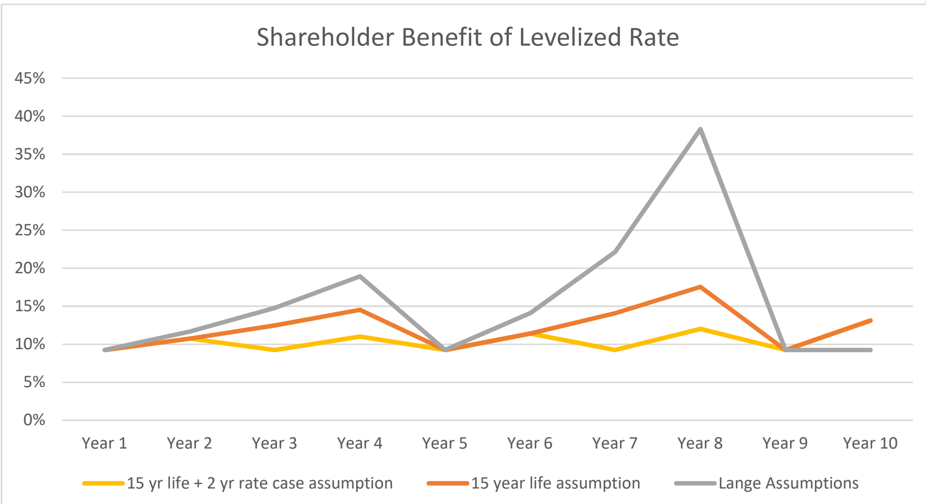
Ms. Lange's hypothetical uses an assumed 10-year life of the surge protection collar investment, despite the actual proposal being based on a device that will be depreciated over 15 years because of its 15-year life. She also assumes a four-year interval between rate cases, which, as I will discuss further later, is an unrealistically long interval to expect for the frequency of Company general rate cases. The juxtaposition of these two assumptions – a more rapidly declining revenue requirement due to the assumed shorter depreciable life of the Program assets, which makes the relative change in the revenue requirement each year in the hypothetical much greater than would happen in the actual Program proposed by the Company, and her use of a longer period between rate cases amplifies the effect she is attempting to illustrate such that the magnitude of the values in her chart significantly exceed any plausible outcomes related to shareholder returns under even her hypothetical program design.[4]

Q. Can you illustrate the impact that these choices of assumptions had on the graph on page 10 of Ms. Lange's rebuttal testimony?

A. Yes. Figure 4 below shows three versions of the "Effective ROE %" data series from Ms. Lange's graph. I first just reproduce the Effective ROE % line from Ms. Lange's graph *exactly as she showed it* on page 10 of her rebuttal testimony. Next, using her workpaper from which she produced this chart, I changed just one number in one input cell. Specifically, I replaced Ms. Lange's assumption that the program assets have a 10 year useful life with the assumption that they have a 15 year useful life – the *actual expected life* of the surge collars in the Company's Program. I would note that no party has questioned the Company's expectation that these devices will last 15 years, so why Ms. Lange chose to model her hypothetical based on an asset with a 10 year life is unclear. But what is clear from this second line on the chart is that the difference between those assumptions is *powerfully impactful* in the hypothetical results. Finally, I change the formula in two additional cells in Ms. Lange's spreadsheet such that rate cases are assumed to occur every two years instead of every four years (as I have testified, over the past 15 years, ignoring the rate decrease due to federal tax reform, the Company has filed electric rate cases at an average interval of just 22 months). The final line in the chart shows how her hypothetical shareholder returns would have looked with both of these much more reasonable assumptions related to the asset life and rate case frequency.

[4] Using a shorter than expected life span to depreciate the devices creates a greater gap between the revenue requirement in any one year and levelized rate she uses; the use of longer than expected rate case intervals unrealistically increases the cumulative effect of the regulatory lag she attempts to depict.

Figure 4 – Hypothetical Shareholder Returns under Different Assumptions



It is striking to see that Ms. Lange's decision to assume that her hypothetical asset would have a ten-year life caused the highest year's hypothetical return to the utility in her example to *more than double* from what it would have been if she had simply used the *actual useful life* of the asset in the Program being evaluated in the case. The other assumption of a four year rate case cycle despite 15 years of history suggesting the cycle is likely to be much shorter also has a major impact on her results.

It is commonly understood by most in the industry that regulatory lag will cause realized returns to vary slightly around the level of the return authorized by the regulator between rate cases. In the example with a 15-year life and a two-year rate case interval (the yellow line), that is just what happens. And it is what is likely to happen in practice with the Program proposed by the Company. By selecting just a couple of more extreme assumptions for critical and impactful variables, Ms. Lange portrayed a hypothetical return *exceeding 35%* in one year. That number is simply not even *remotely* representative of what should be expected from the Company's proposal.

Q. Is there another way – besides this flawed hypothetical example – to assess the likely economic impacts of the Program on non-subscribers and the Company's bottom line?

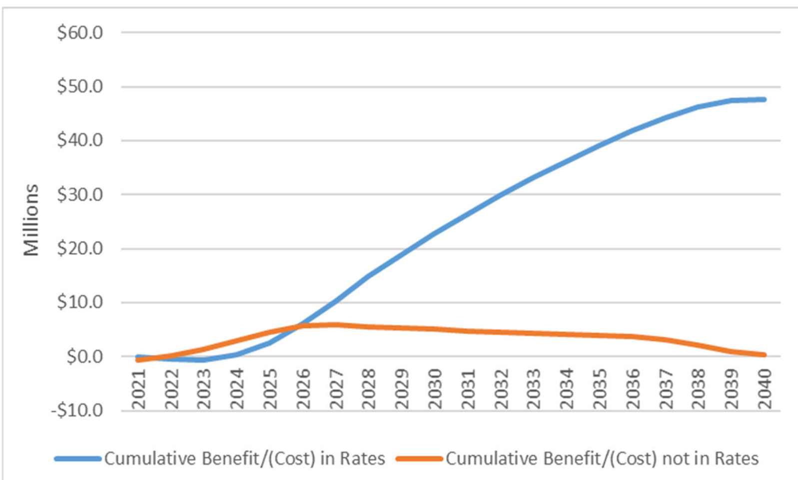
A. Yes. Rather than look to a hypothetical premised on a pricing approach that is not at issue at all because the Company is not proposing such an approach, I would refer the Commission instead to my direct testimony, where I applied regulatory lag concepts and rate case assumptions to the financial analysis of the Program in order to assess expected impacts on non-subscribers and the Company. I would note that Staff correctly pointed out that I omitted the impact of Plant-in-Service Accounting ("PISA") in that analysis reflected in my direct testimony. I would observe that this inadvertent omission had a relatively small impact on the overall results of the analysis, and the Company has updated its analysis to correct this in response to a Staff Data Request in this case, and also to add about $660,000 of property tax expense that was originally omitted from the analysis inadvertently. With these corrections, the Company's analysis makes reasonable estimations of regulatory lag on *every single cost and revenue driver* of that lag that has been identified in the case, in a detailed and robust month by month analysis of Program economics. This is in contrast to Ms. Lange's oversimplified hypothetical with unrealistic assumptions that does not even accurately represent the Program proposed by the Company to begin with. When Ms. Lange says at page 11 lines 3-4 that "[t]he Ameren Missouri testimony glosses over positive regulatory lag that the Company anticipates,"[5] she is simply

[5] Rebuttal Testimony of Sarah L.K. Lange, p. 11, lines 3-4.

incorrect. The Company's original analysis (from my direct testimony) presents an accurate and balanced view of both positive and negative sources of regulatory lag, save the minor errors related to the impact of PISA and property tax expense which I mentioned above.

I will provide an updated graphical version of the cumulative impacts of the analysis featured in Table 1 from my direct testimony that shows the results of the two small corrections I have made to the Company's analysis, as Figure 5 below.

Figure 5 – Cumulative Net Program Benefits/(Costs)



Recall from the description of Table 1 in my direct testimony that the net benefits *in rates* (blue line) reflect the total (cumulative in this view) benefits over the lifetime of the Program that have served to actually reduce rates for all customers due to their inclusion in the test year revenue requirement in a rate case. The cumulative benefits *not in rates* (orange line) are an artifact of regulatory lag and impact the Company's bottom line. Table 1 in my direct testimony showed benefits in rates of $48.7 million. Updating this information for the effects of PISA and property taxes, the benefits in rates still equal $47.7 million, very close (a mere approximately 2% lower) to the original number reflected in my direct testimony. Of this change, the majority related to the addition of property tax expense, such that the impact of the PISA omission accounted for an extremely small – approximately $300,000 – increase in cost to customers associated with the Program. So yes, I acknowledge that deferring 85% of the depreciation and return on the surge protection devices between rate cases slightly reduced the total expected benefits of the program that would flow to all customers – non-subscribers included – when rates are reset, but clearly my overall conclusion was sound and still holds: the program is expected to be very beneficial to all customers.[6]

Q. Does the fact that the view that includes PISA shows an approximately $300,000 net benefit to the Company that accrues due to regulatory lag reveal a problem with or flaw in the Program?

A. Not at all. It would certainly be possible to meticulously track every penny in the Program and ensure each one went to customers or the Company on some prescribed basis. But for a Program with substantial benefits such as this, it can be viewed as a win-win that there is at least some amount of value created for customers and the Company. The fact that the Program net benefits are not tracked – and the Company has an opportunity to retain a very small share of the Program benefits through regulatory lag – in fact aligns the Company's incentives with that of its customers to grow the total pool of benefits as much and as quickly as possible. In my opinion, it is far more important to ensure that Program structures are set up in ways that create this kind of alignment where

[6] Attached as Schedule SMW-S1 is the Supplemental Data Request response that provides these corrected results (without the detailed spreadsheet that accompanied it).

favorable outcomes benefit everyone, than it is to delve into the weeds to try to parse each dollar of benefit to a targeted recipient. All of that said, I can assure you that the Company's motivation to develop this Program was not to obscure the issue of regulatory lag so that we could achieve $300,000 of cumulative benefits due to PISA treatment over a period of several years. The motivation relates entirely to the tens of millions of dollars of cumulative benefits that flow directly to offset customer rates and improve the affordability of electric service.

I would further note on the issue of tracking Program costs and revenues, that there are distinctions between this Program and others for which the Company has proposed trackers – specifically, I am thinking of the Charge Ahead Program relating to electric vehicle charging incentives[7]– that make trackers more appropriate and necessary in some cases than others. Specifically, this case features a program with costs that are primarily capital investments, which will be incurred over many years in the form of depreciation expense, along with ongoing levels of Program administration expenses. The costs will therefore almost certainly be reflected in test years, revenue requirements, and rates in order to ensure a reasonably accurate recovery of them. This is in contrast to the incentives from Charge Ahead that would be paid once and immediately expensed, and therefore whose potential for recovery without a tracker are totally subject to the happenstance of the timing of expenditures versus rate filings.

[7] File No. ET-2018-0132, *Charge Ahead – Efficient Electrification*, filed February 22, 2018

Q. Does Ms. Lange comment on the version of the analysis reflected in Figure 5 above that was included in your direct testimony?

A. Yes. She questions several of the assumptions that underlie my analysis. But I would note that she adopts the framework of my analysis to run her own economic analysis sensitivities, so apparently, the mechanics of the analysis,[8] if not the assumptions employed, were not the source of her objection to the Company's proposal.

I would comment, however, on Ms. Lange's specific criticisms of my analysis. She refers to my assumptions as "wildly unreliable". Her characterization is as exaggerated as it is inflammatory. As evidence of this "wild unreliability", she cites four issues: 1) the omission of PISA, 2) mixing "life cycle analysis" with "revenue requirement analysis", 3) the fact that my assumed rate case test year calculations do not feature annualizations of Program costs and revenues, and 4) my assumed timing of rate cases. I will respond to each criticism in turn to demonstrate that the Company's analysis was far from unreliable, let alone wildly so.

1) The inadvertent omission of PISA has already been addressed above, accounting for a $300,000 difference in the Program impacts experienced by customers over the entire program life versus those retained by the Company through the operation of regulatory lag. With or without PISA, the Program is expected to be highly beneficial in terms of the impact on customer affordability.

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[8] Ms. Lange noted one formula error in my spreadsheet, which she corrected before adapting my analysis framework to her assumptions. I have also corrected that formula in the spreadsheet used to support the figures in this surrebuttal testimony, and updated the DR response to Staff. The error had in fact overstated the costs of PISA treatment, and therefore the analysis of PISA provided in the original DR response reflected too few net benefits arising from the Program. As noted above, a supplemental data request response has been provided correcting these minor errors, none of which materially impact any of the conclusions reflected in the Company's direct testimony.

2) Ms. Lange criticizes the fact that the Company analyzed the Program from the perspective of a "life cycle analysis", which only looks at experience of the first five years' worth of enrolling customers. But I would observe that she does adopt my analytical framework for some of her own analysis without making any of her own changes to the analysis in order to address this issue. That said, there is nothing that needs to be fixed because had we made the assumptions necessary to model the Program continuing on indefinitely, such an analysis could have only *added* to the net benefits that would accrue in a manner that further enhances affordability, and likely significantly so. This is because any assumption of additional enrollment, or re-enrollment, of customers beyond the first five years would necessarily continue to add new revenues that far exceed the costs of providing the service to customers, as has been illustrated in my discussion of the fact that the price is well above the incremental cost of serving those customers. So this assumption was in fact a *very conservative* way to model the Program from a non-participant perspective. If our approach was "unreliable" at all, it was unreliable in way that if it were made more reliable, it would improve the results in the non-subscribers' favor.

3) With respect to the third issue – that my rate case assumptions do not account for Program costs and benefits to be annualized – again, I would observe that she adopts my analysis framework without correcting for this issue. But on this topic, I would further suggest that my assumption was not unreliable at all. There are myriad costs and revenues in a rate case test year that do get normalized or annualized, and myriad costs and revenues that do not. It is

common for costs to get either treatment, so it hardly warrants being considered even a little unreliable, let alone wildly so, to pick either option regarding whether to annualize those costs or not for modeling purposes. In a rate case that includes impacts of the Program in the test year, parties will be free to propose to annualize its impacts or not as they prefer. I would further note that, if the costs and benefits were annualized in my analysis, my expectation is that it would *accelerate* the rate at which the abundant net benefits impacted customer rates. This is because we know that over time this Program's revenues quickly grow to exceed costs. Annualization of those revenues and costs in rate case test years would only serve to accelerate the reflection of the underlying trend in costs and revenues – a trend that favors growth in revenues - into rates earlier and more fully than would otherwise occur. As such, my analysis can again be viewed as *conservative* on this point from the perspective of customer benefits.

4) Her final point relates to the rate case timing assumptions I employed. On this point, Ms. Lange states that I employed a "generally reasonable" method to assess rate case frequency, but that she would have chosen to exclude the rate change that was associated with the tax rate reduction that occurred in 2018 from the calculation of the rate case frequency interval. While that one thing she would treat slightly differently does not sound to me like a source of wild unreliability, it is still very worthwhile to investigate the scenarios that Ms. Lange goes on to develop that she presumably considers to be more reliable than the one offered by the Company in its direct testimony.

On this point, I would encourage the Commission to actually look carefully at the first graph on page 22 of Ms. Lange's rebuttal testimony where she compares her rate case timing scenarios to the Company's. In her chart, she actually overlays the rate impact scenarios that she developed on top of the scenarios that the Company developed in its direct case, and as updated to reflect the impact of PISA, so that they are all comingled in the same graphic (the Company's lines are green and red for the original and "with PISA" analyses, respectively). Her assertion that the Company's rate case assumptions are wildly unreliable is substantially undermined by the fact that there is no visible separation at all between the green/red lines[9] representing the Company's analyses and the blue/yellow lines representing Ms. Lange's "more reliable" scenarios. One can perceive some differences between those four (2 Company and 2 Staff) scenarios in the second, magnified version of a part (roughly the first five years) of the first chart on that page, but even then the separation is minimal, especially when comparing the three scenarios that are reasonably close to the Company's historical rate case timing interval. Plainly there was nothing unreliable about the Company's assumptions, nor are her assumptions materially more reliable.

I would also draw attention to the more extreme scenario on this graph on page 22 in Ms. Lange's rebuttal testimony, represented by the purple line, which reflects an assumption of rate cases occurring every 48 months. First of all, I

[9] The red line – which depicts the Company's analysis including PISA entirely obscures the green line (which is the Company's analysis without the impact of PISA), because of how similar the with and without PISA scenarios are, but they are located in the same spot on the graph.

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Deleted: being identical in result to her "more reliable" scenario.

would note that the last time the Company filed a rate case that was at least 48 months after the preceding case was in 2006, and given the investments the Company is making in modernizing its grid, it is probably a good bet that it will be a while before we go four years without a rate case again. The Company has already indicated it will file another general rate case in the near term (having filed a 60-day notice to do so on January 28 of this year). Accounting for that upcoming case (assuming it were filed roughly 60 days after the notice) plus the eight filed since 2006 (excluding the 2018 tax reduction case), produces an average rate case interval of approximately 22 months, quite close to the assumption used in my direct testimony; there is no reason to believe that the future frequency of cases will be far different. Clearly, the facts suggest that it is highly unlikely that Ms. Lange's scenario is "more reliable."

That said, again, I would ask the Commission to look at her graph carefully. The purple line, representing the scenario that Staff is presumably trying to protect customers against by asking for the Program to be rejected by the Commission, shows the Program providing $*46 million of cumulative net benefits to customers over its life*. And while it does show a net cost in early years, *the* ***cumulative*** *net cost never exceeds $2.2 million, which is less than 0.1% of the Company's current annual revenue requirement*. So Staff is trying to protect customers against a scenario where they theoretically *may* have to bear a net cost causing a *less than 0.1% rate impact* for a couple of years, before receiving *$46 million in cumulative benefits* over the next approximately 15 years.

This last point, where Staff's argument is that we should not even *potentially* subject customers to a *0.1% rate impact* in order to achieve tens of millions of dollars of eventual benefits, is why I said early in my testimony that a key issue to observe in Staff's position is its extreme risk aversion. If such risk aversion were allowed to prevent this Program from moving forward, the likely outcome will be the denial to subscribers and non-subscribers alike of the opportunity to receive substantial benefits from an innovative and forward-thinking Program.

Q. Do you have any other observations about Ms. Lange's testimony about regulatory lag and its impact on Program financials?

A. Yes. In addition to the issues I have already discussed, Ms. Lange goes on to add a number of additional charts to her testimony to try to further illustrate certain facts about how the Program financial impacts on non-subscribers change over time. To be clear, as would be expected of any customer Program the Company could initiate, the startup costs cause a short "ramp-up" period at the initiation of the Program where the overall Program is not yet producing net benefits, simply because costs have to be incurred to get a Program off the ground before it has created much if any revenue. This is to be expected. And yet, Ms. Lange presents a cost benefit chart that shows that, in the first rate case after Program inception which would be well within this "ramp-up" period, the *ratio* of costs and benefits (with no context whatsoever of the magnitude of those costs and benefits) will be quite high. On page 24 of her rebuttal testimony, she devotes an entire large chart to illustrating that costs exceed benefits in this assumed rate case by more than a factor of 2 (in 3 out of 5 scenarios).

A close examination of the calculations behind her page 24 chart reveals that the point she is apparently trying to make with this chart is seriously overblown. In the three most extreme scenarios that she is trying to draw attention to in this chart – again, illustrating that the costs exceed the benefits of the Program by more than a factor of 2 at the time of the first rate case after Program inception – the total net cost of the Program is $44,000 dollars per month. This represents approximately *0.02%* of the Company's revenue requirement, or *well under 4 cents per customer per month*. And this continues for only that amount of time that passes until the second rate case is filed after Program inception (26 to 48 months, depending on the scenario). In each scenario of rate case timing analyzed by Ms. Lange, the second rate case reflects net benefits that enhance affordability for all customers. That effect continues, such that the net benefit quickly grows to a point where, cumulatively, it completely overcomes the small upfront net cost she focuses on.

My concerns about Ms. Lange's analysis and arguments are not intended to suggest that there are no worthwhile, important regulatory policy discussions to be had in this case. There are, and our entire case filing presents those issues for the Commission's consideration. Staff is certainly free to argue, from a policy perspective, that only the very traditional services that have historically been provided should ever be provided by a utility unless the service is below the line. But Staff's rebuttal case does not stay well focused on the policy debate. To the contrary, an examination of much of Staff's rebuttal case reflects the Staff focusing on minutiae that will effectively have essentially no discernable impact on any customer. Staff's rebuttal case also portrays all these details but fails to adequately put them in context, a context that had it been provided would have shown how trivial they are.

Charts like the one on page 24 of Ms. Lange's rebuttal testimony, as just discussed, is exactly the kind of thing that I was referring to when I said in the introduction of my surrebuttal testimony that Staff is so far into the trees that it cannot see – or is choosing not to see – the forest. I hope the Commission keeps this perspective in mind so that we can discuss the Program proposal on its merits, rather than on a foray into minutiae with little to no discernable customer impact, even in the short-term.

Q. Ms. Lange presents an alternative framework at pages 12-19 of her rebuttal testimony that she suggests the Commission might consider if they are inclined to approve the Program over Staff's opposition. Can you please comment on her suggestion?

A. Ms. Lange's testimony in this section amounts to a completely different program proposal from that brought forward by the Company. The question in this case is whether to approve the Company's proposal, not whether a totally different program could exist.

Q. Is the Company willing to pursue a program with the alternative structure proposed by Ms. Lange?

A. No. Her proposal is inconsistent with the business model under which utility services are generally offered, where utilities incur costs (which may include investments) and then reflect those costs in their revenue requirements. In addition, her alternative structure bears no resemblance to the peer surge protection programs upon which the Company's proposal is based because it is intentionally designed to produce not a single dollar of incremental revenues above costs.[10] What that means is that her alternative eliminates most or all the benefits to non-subscribers associated with enhanced affordability of basic electric service – an important objective of the Program. Although potential impacts (positive or negative) to non-subscribers would be very small under Ms. Lange's proposed structure, they would have a much greater probability of being negative impacts than the Program the Company has proposed.

Q. How is Ms. Lange's proposal inconsistent with the utility business model?

A. She proposes that the entire investment the utility makes to serve the customer be essentially pre-paid by the subscribing customer, with that revenue treated as a Contribution in Aid of Construction ("CIAC") that offsets the investment in a productive asset. Utilities – and most businesses for that matter - typically invest in assets upfront, and cover the costs of those investments over their useful lives, the time period where customers benefit from them through the service received from them, through the customers' payment for those services received. CIACs are generally used when unique circumstances arise where the costs of an investment that is required to serve a customer is not expected to be covered by the incremental revenues that that customer will provide when paying for service at the utility's offered rates. It is antithetical to this model to just deliberately set the rate for service too low to pay for the cost of the service over the time period that the asset that provides that service in order to then require pre-payment of the asset in the form of a CIAC.

[10] The peer programs are designed to do exactly what Ameren Missouri's proposed Program is designed to do: generate revenues in excess of costs over time, with the key difference in Ameren Missouri's program being that Ameren Missouri proposes to reflect those excess revenues in rates to the benefit of all customers instead of retaining them all for shareholders.

Q. Why do you say that Ms. Lange's proposal would be more likely to negatively impact non-subscribers, even if by only very small amounts?

A. She has removed all of the premium from the price that is designed to cover the risks of the Program. Therefore those risks that remain – such as whether the ongoing monthly fee for service would cover the ongoing program expenses – would immediately impact non-subscribers, rather than being offset by additional revenues that are available to cover those risks under the Company's proposal.

IV. PRICING POLICY CONSIDERATION

Q. What overarching standard governs the Commission's approach to setting regulated prices, and is the Company's proposed price for the Program consistent with that standard?

A. The Commission is tasked with setting rates, or prices, for the services and companies that it regulates that are just and reasonable, and free from undue discrimination. The pricing of the Program is just and reasonable, and is not unduly discriminatory. While cost of service analysis is the primary tool used to assess what constitutes just and reasonable rates in the regulatory context, I am aware of nothing that dictates that it be the only tool; there are additional considerations that can and do, even traditionally, factor into the assessment. The proposed pricing of the Program is sufficient to cover its costs, thereby avoiding subsidization by other customers, and it is established at a level that is commensurate with similar services offered by other companies. And critically, no customer is required to pay the program price if they do not find that price to be commensurate with the value the program brings to them. Simply put, in my opinion, the concept of what is just and reasonable is simply different when the customer paying the rate has a choice of whether to take the service and pay the rate in the first place.

Q. In your direct testimony, you discussed giving consideration to the *value* that customers place on a service like that proposed in this Program in determining its regulated price. Ms. Ferguson questions both the appropriateness of this, and the process for assessing this concept of value. Please comment.

A. I very much agree in general with Ms. Ferguson's focus on cost of service being the primary consideration for regulated ratemaking. In fact, when it comes to the charges for the basic essential electric service that our customers must rely exclusively on their utility for, I have argued, and will continue to argue, for more cost reflective rates and rate structures. Cost of service is a fundamental of utility ratemaking and is nearly universally recognized standard for establishing just and reasonable rates. This is also an accurate general characterization of conclusions of the rate design text of Dr. James Bonbright, which I cited in my direct testimony and which is one of the most respected and authoritative treatises on utility ratemaking. Such a cost focus is important to promote economically efficient use of the system, as well as to promote fairness between customers in how they contribute to covering the costs of the system. Dr. Bonbright, as I highlighted in my direct testimony, does however indicate that value of service is a valid *ancillary* standard – which suggests it can be given weight in the determination of just and reasonable rates in the right context. This innovative Program has clear elements that distinguish its pricing from charges for connecting to the grid, and for taking kilowatt-hours and kilowatts of power, and which provides a context that warrants consideration of the value of the service to customers.

Q. What distinguishes this Program and the considerations that should guide its pricing?

A. The Program is distinguished by the fact that it offers a voluntary service to customers, which provides customer value above and beyond the services reflected in base rates. Customers need not take this service if they do not value the protection that it offers, so even to the extent that the price is higher than the embedded cost of providing the service, no customer is being required to pay that higher-than-cost price. And I would also note that, as Staff witness Alan Bax points out, customers may have other options for protecting their homes from electrical surges as alternatives to the Program, such that they do not need to rely solely on the Company to obtain such service, particularly if they do not like the price point at which it is offered. No customer, nor potential competitor for that matter, is negatively impacted by the existence of the voluntary Program at a price point that exceeds the basic costs of supplying the service. The same thing could not be said if the pricing of basic electric service exceeded the cost of supplying it for some or all of the utility's customers.

I would like to add that the existence of competitive alternatives that I just mentioned does not obviate the need for the Program. These devices are appropriate and logical extensions of the Company's service – as Mr. Byrne points out, they provide a service that meets the legislative definition of utility plant because the service is provided directly *in connection with* the delivery of electricity to retail customers. And as Mr. Byrne also points out, by the utility offering it, customers have more choices – including choices to get this service in a convenient manner from a trusted provider. But – and this is a point I agree generally with Staff on – it would not be just and reasonable in my opinion if the price of this voluntary enhanced service level was designed in a manner that was likely to require subsidies from other customers in order for subscribers to take it. And as a new service with no history in the service territory, there is some uncertainty as to the ultimate level of adoption of the service, and as to the costs of delivering it, which creates uncertainty regarding the ultimate cost per unit of providing the service. To achieve the very low likelihood of subsidization that is appropriate for a voluntary service with some inherent unit cost uncertainty - rather than building complex Program rules of what can and cannot be reflected in rates when, and developing detailed tracking of every transient Program cost impact on the revenue requirement – the Company took a far simpler and more straightforward approach – price it at a level that makes it *highly unlikely* to require non-participant subsidies, which, in so doing, will also provide some offset to the fixed revenue requirement that benefits other customers.

As Mr. Byrne also discusses, the Commission has on many occasions approved programs in which a subset of all customers may participate, and for which there is some chance that non-participant subsidies could occur, but has made the judgment based on the evidence that a subsidy is sufficiently unlikely that the program should be approved because of its expected benefits to participants and non-participants alike. This is exactly what was at play, to use one of Mr. Byrne's examples, when the Commission approved pre-MEEIA electric energy efficiency programs or when it approves gas energy efficiency programs. There is no guarantee that those programs will always "make money" (i.e., that there is no chance of a subsidy), but that's not the question. The question is whether the Commission has a reasonable basis to conclude that those subsidies will not exist and otherwise concludes that the program at issue is one that should be offered.

Q. Is this concept of pricing a product higher than the direct cost of delivering it in order to offset certain risks associated with its delivery a common way to establish product pricing?

A. Yes. An increase in the price at which a product or service is offered is, in fact, a common means to compensate for risk associated with the delivery of that product or service. Clearly from Staff's testimony in this case, they perceive risk in the proposed Program. While I do not agree with all of Staff's characterizations of the level of riskiness of this Program, I do agree that this type of Program being included in the revenue requirement cannot be said to pose absolutely no risk for non-subscribers. This is particularly true if it is priced exactly at the cost level that is anticipated prior to initiating program activities in earnest. However, the price of this Program features enough of a premium that, under an overwhelming majority of foreseeable circumstances, the Program will provide benefits to non-subscribers, rather than impose higher costs on them. The premium in the price is a fair compensation from subscribers for any risk that does arise from the Program, and that premium will help maintain affordability of basic electric services in all cases where those risks do not materialize. In this regard, I believe the price is not discriminatory, and certainly not unduly so.

Q. Ms. Ferguson questions how to quantitatively determine the value of service in order to use this ancillary standard as a part of the pricing philosophy. How should the Commission think about that?

A. It is a good question raised by Ms. Ferguson, and one that even Dr. Bonbright wrestles with in his text to some degree. Value of service is a less readily observable standard than cost, and can inherently include some subjectivity – this is among the many reasons that value is only considered an ancillary standard of regulated pricing. But ultimately, the value of service really represents an attempt to measure customers' willingness to pay, or said another way, it's determined by what the market will bear. The best ways to measure that are the methods that the Company undertook and described in its direct testimony, including the Company's review of mature offerings of similar programs in other jurisdictions to see what prices were charged in those programs and what corresponding levels of enrollment were realized at those prices, indicating the willingness of actual subscribers to pay those prices. Whether those other programs that were included in that review are regulated or unregulated makes no difference to the simple task of observing customers' willingness to pay for the service, so those data points associated with unregulated programs provide useful and relevant information to determine the value of service.

However, Ms. Ferguson goes on to discuss value of service in a variety of somewhat confusing ways that conflate the concept of value with measurement of cost. Just to be clear on this point, value of service as discussed by Dr. Bonbright is *not* about measuring or assigning costs – the cost of service is its own standard with its own measurement. In this section of her testimony, Ms. Ferguson seems to have misunderstood a point I made in my direct testimony relating value of service to cost of service ratemaking treatment of overhead costs.

Q. Can you please clarify what your point was in your direct testimony related to overheads and value of service?

A. Yes. In so doing, I will also address another concern of Staff, expressed in numerous places including the original recommendation the Staff filed with the

Commission on this Program as well as in the testimonies of Ms. Lange and Ms. Ferguson. Staff appears to be very concerned that the Company, in calculating the economic impacts of the Program, only evaluated the *incremental* costs of delivering the Program, but did not include allocations of other corporate costs that would normally be reflected in determining the *embedded* cost of service for ratemaking purposes. Just to be completely clear, the distinction here is that the incremental costs analyzed by the Company are costs that will only be incurred if the Program happens – they will never exist if the Program does not go forward. Embedded costs include allocations of costs of overhead associated with necessary corporate functions, but those will not materially change in level whether or not the Program ever exists. For example, the Company will not hire new accounting personnel to make journal entries related to the Program – existing workers will fit those activities into their existing workload and the level of Company labor and related expense in the accounting department will not change if the Program goes forward. In calculating the embedded cost of a program, it is appropriate to recognize that the Program benefits from those accounting activities, and allocate a share of those costs to it. And if the Program was priced based on its embedded cost, the Company would have performed those allocations and included the resulting share of costs in the price. However, the pricing was based in large part on the value of the service to subscribers. As I have discussed, this was done in order to dramatically reduce the risk that the Program would require subsidies from non-participants, and to ensure that it would instead be likely to promote affordability of basic utility service for non-participants. From that perspective, it is not only acceptable, but *necessary* to exclude the overhead costs from the cost benefit analysis of the Program. It is a basic tenet of economics that cost benefit analyses to support decision-making should only be made based on incremental costs and benefits that arise or may arise as a result of that decision. In assessing the affordability benefit of the Program, the overhead costs that exist at materially the same level regardless of the Program's existence are completely irrelevant to determining the forward looking impact of the Program on non-subscribers, and therefore to decision making about whether to approve or pursue the Program.

Q. Did the value of service point you made in your direct testimony have anything to do with measuring these overhead costs?

A. No, but perhaps in retrospect I could have been clearer on what I meant when I discussed value of service and overhead costs. To be clear, to the extent that the embedded cost of service is higher than the incremental cost of service of the Program that the Company calculated for its benefit/cost analysis due to allocations of overheads, and to the extent the *price* is *also* higher than that incremental cost of service by at least a commensurate amount, the effect of the price premium is to provide revenues that will be *sufficient to cover those overheads*. My point was not in any way intended to suggest that the value of service principle was a way to *measure* overhead costs, as Ms. Ferguson seemed to take it. It was simply to say that the Program is designed to cover overhead costs, not because we went through a strict allocation process of overhead costs to develop the price, but simply because *the revenues will be sufficient (more than sufficient) to cover those costs*.

Q. Since you did not perform an allocation of overhead costs, how can you be confident that the premium in the price above the incremental cost of providing the service is at least commensurate with the additional costs that could potentially be allocated to the Program through a full embedded cost of service study?

A. It is relatively obvious from just a superficial review of the Expected Case financial analysis performed by the Company, and presented in direct testimony, that any conceivable level of overheads would be covered by Program revenues under actual Program outcomes that meet or exceed the subscription levels that are defined in that scenario. Recall that I mentioned earlier that the price of the Program is more than three times the levelized cost the Company calculated for the Program in its Expected Case analysis – based on an assessment of the incremental costs of the Program. It is virtually inconceivable that allocations of corporate costs could triple the cost of the Program relative to the incremental costs already calculated.

Q. What about scenarios with lower Program adoption and therefore fewer net benefits, like the Worst Case scenario that the Company presented in direct testimony?

A. The Worst Case scenario was analyzed to stress test the economics of the Program assuming low levels of enrollment. In that scenario only 2% of the Company's customers are assumed to subscribe. And yet even at the very modest enrollment levels associated with that scenario, the price of $9.95 per month exceeds the average cost per customer per month of $7.23 by 38%.

Now for perspective, let's consider the category of the revenue requirement often referred to as Administrative and General ("A&G") costs. This category of costs includes a variety of costs such as salaries of administrative functions like accounting, human resources, and the like, office supplies and expenses, outside services employed, and employee pensions and benefits. The A&G category is one of the specific categories of costs – and perhaps the most material category in terms of magnitude - that Staff identified as a concern with respect to this overhead allocation issue in a response to a Data Request issued by the Company.[11]

I made a quick comparison of the total A&G costs from the Company's filed revenue requirement in its last electric rate case to the rest of the revenue requirement (excluding those A&G costs) in the same case. The A&G costs are approximately 8 % of that remainder of the revenue requirement. What this suggests to me is that the process of allocating A&G costs to classes in that case increased the calculated embedded cost of service of the various rate classes, on average, by 8% in order to reflect these overheads. Let us use that 8 percent as a proxy for the amount of increase in the cost that may be calculated for this Program if such overheads are allocated to it on top of the costs already included in the Company's incremental cost analysis. Given the fact that there is 38% of "head room" in the rate to cover such costs, an allocated increase of 8% of the base cost due inclusion of A&G costs would still result in a price that is 30% higher than the Program's embedded cost. While there are some other cost categories that would potentially be subject to allocation, there is little chance they could absorb all of the "head room" in the Program rate.

I will return briefly to my initial point on this topic – and that is that overhead costs that exist at materially the same level whether the Program exists or not – are not appropriate to consider in an economic decision making exercise of determining whether a Program would be beneficial in terms of affordability of service – i.e., whether it is beneficial to non-subscribers. Non-subscribers will benefit from any contribution that this program makes to such overhead costs. But – even if those allocations of overhead are

[11] Staff response to DR 0031

contemplated, and even if they are taken alongside relatively modest Program adoption assumptions – it is still *highly unlikely* for a subsidy from non-participants to result.

V. RESPONSE TO OPC REBUTTAL TESTIMONY

Q. What issue will you be addressing with respect to the rebuttal testimony of OPC witness Keri Roth?

A. In her rebuttal testimony, Ms. Roth states that Ameren Missouri's customers will pay $11 million more than they otherwise would as a result of this Program. Based on the footnote, it appears that Ms. Roth's comment is based on a number that Staff included in the initial recommendation that they provided to the Commission with respect to this Program. In response to a Company Data Request, and later in a footnote in the rebuttal testimony of Ms. Lange.[12] Staff has acknowledged that the number Ms. Roth is quoting was based on an erroneous calculation, where a series of calculated annual Program financial impacts were inadvertently treated as monthly, which caused the calculation to be misstated by a factor of 12. When corrected, the calculation referenced by Ms. Roth is really related to the transient and de minimis (less than 0.1%) rate impact in the first rate case after Program inception that I responded to in my discussion of Ms. Lange's modeling above. As Ms. Roth has no independent analysis that suggests an impact of $11 million, and Staff has acknowledged the error in their original calculation, Ms. Roth's citation to the $11 million should similarly be considered erroneous, and not be relied on as evidence of an expected Program impact.

[12] See footnote 6 on page 20 of Ms. Lange's rebuttal testimony.

Q. Ms. Roth's rebuttal testimony also includes what amounts to a warning to the Commission that approving the Program would lead to a situation where "customers may believe the Commission has vetted it, supports it, and customers may believe that they are not being taken advantage of."[13] Do you have any comments?

A. Yes. Ms. Roth's implication that by approving the Program the Commission may be complicit in customers being taken advantage of is completely without merit. The Company stands by the quality of product and experience that it will provide in this Program, and also by its track record of delivering valuable and quality products and services to its customers in other Commission-approved Programs. The Company has no desire or incentive to tarnish its own, or the Commission's, standing with customers by delivering a poor customer experience. I believe the Commission has the information it needs in this docket to make its own assessment of the value that this service will provide for subscribers, as well as the likely benefits that it will produce for non-subscribers, and feel confident when arriving at the conclusion that it is a worthwhile Program that will create significant benefits for Missouri customers.

Q. Does this conclude your Surrebuttal Testimony?

A. Yes, it does.

[13] Rebuttal Testimony of Keri Roth, p. 11, lines 19-21.