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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. ET-2021-0020

DIRECT TESTIMONY

OF

STEVEN M. WILLS

ON

BEHALF OF

UNION ELECTRIC COMPANY

d/b/a Ameren Missouri

St. Louis, Missouri

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DIRECT TESTIMONY

OF

STEVEN M. WILLS

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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. What is your position with Ameren Missouri?

A. I am the Director of Rates & Analysis.

Q. Please describe your educational background and employment experience.

A. I received a Bachelor of Music degree from the University of Missouri-Columbia in 1996. I subsequently earned a Master of Music degree from Rice University in 1998, then a Master of Business Administration ("MBA") degree with an emphasis in Economics from St. Louis University in 2002. While pursuing my MBA., I interned at Ameren Energy in the Pricing and Analysis Group. Following completion of my MBA. in May 2002, I was hired by Laclede Gas Company as a Senior Analyst in its Financial Services Department. In this role, I assisted the Manager of Financial Services in coordinating all financial aspects of rate cases, regulatory filings, rating agency studies and numerous other projects.

In June 2004, I joined Ameren Services as a Forecasting Specialist. In this role, I developed forecasting models and systems that supported the Ameren operating companies' involvement in the Midwest Independent Transmission System Operator, Inc.'s ("MISO")[1] Day 2 Energy Markets. In November 2005, I moved into the Corporate Analysis Department of Ameren Services, where I was responsible for performing load research activities, electric and gas sales forecasts, and assisting with weather normalization for rate cases. In January 2007, I accepted a role I briefly held with Ameren Energy Marketing Company as an Asset and Trading Optimization Specialist before returning to Ameren Services as a Senior Commercial Transactions Analyst in July 2007. I was subsequently promoted to the position of Manager, Quantitative Analytics, where I was responsible for overseeing load research, forecasting and weather normalization activities, as well as developing prices for structured wholesale transactions.

In April 2015, I accepted a position with Ameren Illinois as its Director, Rates & Analysis. In this role I was responsible for the group that performed Class Cost of Service, revenue allocation and rate design activities for Ameren Illinois, as well as maintained and administered that company's tariffs and riders. In December 2016, I accepted a position with the same title at Ameren Missouri.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your direct testimony in this proceeding?

A. My testimony addresses certain elements of the Company's proposed efficient electrification program ("Program"). I will discuss some of the benefits of efficient electrification, including the effects it can have on the overall affordability of electric

[1] Now known as the Midcontinent Independent System Operator, Inc.

service for all customers. I will next discuss the analysis of Program cost effectiveness conducted by the Company specific to the instant proposal. Finally, I will discuss the Company's request for authorization to track Program expenses for consideration for cost recovery in a future rate review, and the effect that such accounting treatment would have on the Program's impact on overall affordability of service.

Q. Please describe generally the Program the Company is proposing in this case.

A. The Program is described more completely in the testimony of Company witness Pat Justis. But at a high level, the Program is a small efficient electrification pilot that involves providing incentives to Ameren Missouri's business customers for the adoption of certain high capacity electric lift trucks and truck refrigeration unit ("TRU") electric ports. The nature of the Program is very analogous to energy efficiency programs that the Commission is familiar with under the Missouri Energy Efficiency Investment Act ("MEEIA"), with a couple of notable exceptions. First, the focus of electrification programs on energy efficiency crosses fuels to consider a reduction in energy consumption on the basis of the total British Thermal Units ("BTU") of energy expended for a particular end use, given both an increase electric energy consumed and a decrease in the direct combustion of fossil fuels like diesel fuel. Second, because *electric* energy consumption increases under the efficient electrification Program, despite a decline in total energy consumption on an equivalent BTU basis, the Program promotes affordability of electric service for all customers in the form of lower rates. I will discuss this characteristic of the Program at more length below.

Q. What are some of the benefits of efficient electrification?

A. Again Mr. Justis provides more detail on this topic, but broadly speaking, efficient electrification is increasingly recognized as an important part of transforming and decarbonizing energy systems for the future, and provides benefits including:

- A reduction of total energy consumption across fuels on a total BTU basis for a given end use service;
- A reduction in total emissions across all fuels associated with a given end use service;
- A reduction in total energy and related expenditures across all fuels for a given end use service;
- Elimination of all onsite emissions, promoting health and safety of workers and local populations;
- Improved performance of many electrified end uses that boosts overall productivity;
- Introduction of demand that is often more flexible than other loads on the system, which can help integrate increasing penetrations of intermittent renewable generating resources on the system; and
- More affordable electric service in the form of lower retail electric rates for all customers in the future.

It is this last benefit – affordability of electric service – that I will focus on primarily.

Q. First, will you please comment on Ameren Missouri's commitment to promoting affordability of electric service for its customers?

A. I recently discussed this in written direct testimony in File No. ET-2021-0082, the Company's request for approval of a new residential surge protection service, and what I said there is equally applicable here. In that testimony, I said:

> Ameren Missouri is proud of its longstanding position as a low cost energy provider, and has been focused on maintaining that position by considering customer affordability in all aspects of its business. Customer affordability is in fact considered a key strategic initiative across all Ameren Corporation subsidiaries. As a result, the Company is focused on innovation, both in terms of finding new ways to leverage technology and data to reduce the levels of its more traditional utility operating costs, but also in developing new sources of revenue that can contribute to covering some of the Company's revenue requirement and keeping rates low.
>
> Cost savings affordability initiatives focus on reducing the ongoing level operations and maintenance ("O&M") expenses of the Company and include efforts such as providing new digital tools to employees in the field to increase the efficiency of their work, increasing automation to reduce repetitive manual office tasks, implementing efficient preventative maintenance strategies, and transforming corporate support services operations to promote efficiency. These cost reductions are eventually passed dollar for dollar through to customers in the form of lower O&M expense in the revenue requirement used to set rates in each rate review.
>
> As I have discussed, initiatives to increase revenues also promote affordability, as these new revenues can displace the need for some amount of retail electric service revenues otherwise required of the basic rate classes. This Program is a perfect example of the type of innovation that can create revenues that cover some of the revenue requirement and favorably contributes to overall affordability of basic electric service. Other affordability initiatives focused on increasing revenues include the Company's economic development and electrification activities (including the Charge Ahead Electric Vehicle program approved by the Commission in 2019), all of which are designed to encourage new loads that provide revenues above the marginal cost of serving them, and therefore contribute to covering fixed costs and ultimately reduce rates for all customers from levels that would otherwise be required to cover those fixed costs.

This efficient electrification Program, though small in scale, is a significant step in demonstrating the effectiveness of electrification activities in promoting affordability, as I referenced in that testimony.

Q. Can you please elaborate on how efficient electrification promotes the affordability of electric service?

A. Efficient electrification results in the adoption of targeted new electricity consuming end uses, such as the lift trucks and TRU electric ports that are the measures associated with the Program proposed in this case. Business customers that adopt such measures as a result of the Program will consume more electricity than they otherwise would,[2] which will result in retail charges on their bills for that electricity. Those charges become incremental revenue to the utility. As long as that incremental revenue exceeds the incremental cost incurred by the utility to provide the electricity to the customer, those excess revenues contribute to covering some of the fixed costs in the Company's revenue requirement, and therefore displace the need for some amount of revenues that would otherwise be required of other customers.[3] This is manifest as a rate that is lower than it otherwise would be.

I spoke about this phenomenon at some length in testimony in File No. ET-2018-0132, which the Company referred to as its "Charge Ahead" proposal. That proposal included two related but distinct programs promoting efficient electrification. One of the Charge Ahead programs related to electric vehicle ("EV") charging infrastructure, and the other, referred to in that case as "Business Solutions", related to measures that businesses might adopt, such as forklifts, TRUs, and other similar electric equipment. Charge Ahead was approved in part and rejected in part by the Commission. But my understanding is that

[2] This increased electric consumption is more than offset on a total energy basis by a reduction in the direct combustion of fossil fuels like diesel fuel.

[3] Measures are screened with a number of cost effectiveness tests that I will describe later to ensure that there is a high degree of confidence that the incremental revenues will exceed the incremental cost incurred in providing electric service to the participating customer.

the Business Solutions program was rejected because of certain specific details of that proposal, and was not the result of a rejection of the notion that efficient electrification measures can have affordability – and other - benefits.

Q. Is there any evidence from the Charge Ahead case that the parties to it - and the Commission itself - recognized the potential affordability benefits of efficient electrification?

A. Yes. In that case, Dr. Geoff Marke of the Office of Public Counsel ("OPC") criticized several specific elements of the Business Solutions proposal, but generally acknowledged the potential benefits of the affordability concept underpinning it. Dr. Marke stated with respect to Business Solutions:

> Putting aside the aforementioned flaws that OPC found in this application, Mr. Wills makes a reasonable argument for ratepayer subsidized load building and the potential positive impact on fixed cost recovery.[4]

While Dr. Marke certainly did not give a full-throated endorsement of that particular program design, as the first clause in the quote suggests, he did go on to acknowledge the potential for benefits from a program of this nature.

The Commission, in its Report and Order in that case, also affirmed the validity of this concept. Specifically, in its Findings of Fact related to the Charge Ahead EV program found the following:

> Financial benefits from an EV charging network accrue to both the utility and the ratepayers. ***Utilities and ratepayers benefit economically from the improved utilization of fixed assets*** when charging is done in off-peak times. EVs are considered to be a flexible load that can charge during periods when demand is low.
>
> The financial benefits to the utility and to the ratepayer from an EV charging network are not merely from the additional electricity sales at the charging

[4] File No. ET-2018-0132, Marke Rebuttal, Page 11, Line 24 – Page 12, Line 2.

> stations, but are also obtained through additional electric sales from charging at home and creating more efficient utilization of the electric grid. ***All ratepayers ultimately will receive those benefits from the spreading of fixed costs over a greater amount of usage creating rates that are lower than if there was less usage.***[5]

While the Commission agreed with some of the criticisms of Dr. Marke as to the specific program design of the Business Solutions part of that filing, and therefore did not approve it, they again acknowledged the basic affordability principle that underlies efficient electrification. The Commission's rationale in approving the Charge Ahead EV program is equally applicable to a well-designed business electrification program. The key is the last sentence in that finding of fact from the order, "*All ratepayers ultimately will receive those benefits from the spreading of fixed costs over a greater amount of usage creating rates that are lower than if there was less usage.*"

As Mr. Justis explains in part, and I explain in part later in this testimony, the Company believes that it has made Program adjustments that remedy the issues that gave rise to Dr. Marke's – and ultimately the Commission's - concerns with the Charge Ahead - Business Solutions proposal with its new, more limited, proposal in this case. What is common between the two is the underlying principle of increasing usage in a targeted way, where that usage will produce more retail revenues than it will incremental costs, and ultimately improve the affordability of electric service.

Q. How have you assessed the cost effectiveness of this proposed Program?

A. As I mentioned previously, there are many analogies between efficient electrification programs and more traditional electric energy efficiency ("EE") programs.

[5] File No. ET-2018-0132, Report and Order, Pages 16-17, Paragraphs 26 and 27, emphasis added.

As such, it is useful to adapt some of the common cost effectiveness tests used to evaluate the economics of EE programs to efficient electrification. In the Charge Ahead - Business Solutions proceeding, the Company had adapted the cost effectiveness metrics from the EE paradigm to the electrification measures. I have utilized that concept to test the cost effectiveness of the current proposal. Specifically, I calculate the modified Total Resource Cost test ("mTRC"),[6] the Participant Cost Test ("PCT"), and the Rate Impact Measure ("RIM"). These tests are benefit/cost ratios which weigh the incremental benefits of the Program versus its incremental costs, each from a different perspective. When a ratio is greater than one (1.0), the benefits exceed the costs from the perspective of that test.

The mTRC is an overall view, which weighs the total incremental benefits and costs of the energy services provided, regardless of who those benefits and costs accrue to. The PCT measures the program economics from the Participant's perspective, while the RIM measures the program economics from non-participants' perspective. It is this last view – the *Rate Impact Measure* – which considers non-participant impacts, that indicates whether the Program is expected to promote overall affordability of service for all customers in the form of future rates that are lower than they otherwise would be – i.e., the benefits that impact rates exceed the costs that impact rates.

Q. Is the Program expected to be cost effective?

A. Yes. As I will discuss further below, all metrics exceed 1.0, meaning benefits are expected to outweigh costs. As pertains to the focus on affordability, the RIM

[6] The modification to the TRC is necessary because EE programs do not typically feature savings from alternative fuels like diesel, which are a feature of this Program. Additionally, O&M savings associated with lower maintenance costs typical of electric equipment relative to internal combustion engines is also reflected in the mTRC as a part of the overall economic impact of the adoption of the electric measure.

test results, across measures and scenarios tested, range from 1.3 to 1.92, suggesting that these Programs should lower rates for all customers in the future.

Q. Please describe the inputs you used in performing these cost effectiveness tests.

A. The cost effectiveness tests require inputs related to the expected costs and benefits that will arise from the Program. Specific inputs include:

- the electric energy used by the measure (lift truck or TRU electric port) – both the amount and timing of usage in order to assess peak demand impacts;
- the amount of diesel energy used by the internal combustion alternative being displaced and its cost;
- the incremental cost of electric energy and capacity supply needed to serve the new electric load;
- incremental upfront capital costs and ongoing operations and maintenance ("O&M") cost savings associated with the electric measures relative to their internal combustion counterparts; and
- the retail revenues that are expected to be generated by the incremental electric usage associated with the measures delivered by the Program.

For both Program measures (lift trucks and TRU electric ports), the Company developed reasonable assumptions for all of these key parameters, informed by qualitative and quantitative information gathered through numerous sources, including:

- discussions with customers and vendors that are familiar with the equipment;

- research developed by the consultant that assisted the Company's preparation of the Charge Ahead case;
- the Electric Power Research Institute ("EPRI"), an industry group that has been active in compiling electrification knowledge and data;
- the Company's Integrated Resource Plan; and
- certain market information.

Additional reasonable assumptions – including some with ranges associated with the uncertainty around them - were employed where data was lacking based on subjective judgment consistent with the way we understand that these measures are typically utilized. These judgment-based assumptions are a reasonable starting place to use for an initial small scale pilot program, especially where one of the objectives can be to gather additional data about these measures to enhance our understanding as we determine if the Program is effective and worthy of being broadened and/or scaled up in the future.

For the RIM test, I have created an "optimistic" and a "conservative" case based on one of the test parameters that was largely informed by subjective judgment in order to ensure that the Program should be expected to promote affordability across a range of values for that variable. Specifically, the incremental retail revenues associated with the measures were calculated based on different levels of potential impact on key billing parameters that will determine how much revenue the utility receives from the electrified end uses.

This is important because of the interaction between the customer's existing usage and the new load, and the complex nature of large Commercial and Industrial customer rates that depend on the customer's peak usage in each billing month. The extent to which

the new usage occurs at a time that drives up the customer's peak usage – i.e., the coincidence between the measure's peak load and the customer's existing peak load – will drive the level of revenues that are expected to arise from the Program. I have tested scenarios where the demand of the measures contributes relatively more or less to the customer's peak load, since that is a data point that we do not currently have a good external source to estimate.[7] If both the optimistic and conservative version of the RIM test exceed one, it is a good bet that measures will contribute favorably toward affordability of service.

I would also note that, despite the steps taken to reduce potential free ridership under the Program that are described by Mr. Justis, out of an attempt to maintain a conservative estimate of cost effectiveness, the mTRC and RIM tests reflect an assumption of an 80% net-to-gross adjustment, to account for some level of free ridership still occurring. Based on the currently low level of market saturations of the targeted electric lift trucks and TRU electric ports discussed by Mr. Justis, my expectation is that the 80% net-to-gross assumption is in fact a *quite* conservative estimate of free ridership – meaning actual free ridership should be less than this, and the cost effectiveness is therefore likely to be even higher than my estimates.

Q. Are there any changes that you made to the development of the cost effectiveness metrics calculated for the Program, relative to the similar calculations from the Charge Ahead - Business Solutions case, that were intended to address concerns identified by the Commission in that case?

[7] For the optimistic case, 90% of the measure demand is assumed to be coincident with the customers' billing demands and for the conservative case, the coincidence is assumed to be 50%. The Company also tested a "break even" case to see how low the coincidence would have to be for the RIM test to essentially break even (achieve a RIM of 1, where the benefits and costs are equal). This analysis demonstrated that for coincidence of approximately 25%, the RIM will be approximately 1 and the Program will effectively "break even" and have no impact, positive or negative, on overall affordability of electric service.

A. Yes. In the Charge Ahead - Business Solutions case, the RIM analysis had utilized a certain mix of measures that were assumed to result from the program, but the program tariff allowed for that mix of measures to vary based on customer demand and the success of the program marketing efforts. This was a point of contention in that case. Ultimately, the Commission's findings of fact stated:

> The tariff provides that the program funds can be used on any of the equipment types and does not limit the amount of incentives that can be spent on any one type of equipment. No analysis was provided showing what the RIM result would be if a different number of each of these equipment types is installed. Since the amount of power consumed varies greatly with each type of equipment and the entire program budget could be spent on one type of equipment, it is unreasonable to rely on the limited cost benefit analysis to determine if the benefits of electrification will be realized.[8]

The proposed Program tariff in this case does not prescribe the mix of measures that the Program will deliver. However, I would note that I have performed the cost effectiveness tests at the individual measure level (i.e., independently for lift trucks and TRU electric ports), and included both incentive costs *and Program administration costs* in each measure's RIM calculation. As a result, if the Commission's prior concern related to the entire Program budget being utilized on only one of the measure types came to pass, the RIM for that measure - which again, includes administration costs - will be the proper metric to assess the overall cost effectiveness of the Program. To the extent that there is some of each measure delivered in the Program, the full Program RIM will necessarily be somewhere between, and mathematically will have to be bounded by, the RIM results associated with lift trucks and the RIM results associated with TRU electric ports. So we

[8] File No. ET-2018-0132, Report and Order, pages 39-40, Paragraph 13.

know the range of Program RIM results that can be expected to be achieved regardless of the actual mix of measures that ultimately results from the Program.

As discussed by Mr. Justis, administration costs are proposed to be capped at a quarter of the entire Program budget. In order to reflect the maximum amount of administrative costs that could be experienced in delivering any particular measure for purposes of the RIM test, I simply grossed up the incentive costs by a factor of 133% - which is the maximum total Program cost for a given level of incentive costs.[9] Again, favorable RIM test results at the measure level for each eligible measure - while fully reflecting administrative costs in that RIM calculation – will verify that, regardless of the mix of measures delivered to customers, the Program should be expected to promote overall affordability of service in the form of future rates lower than they otherwise would be.

Q. Please report the results of the cost effectiveness tests that you performed.

A. Please see Table 1 below for the mTRC, RIM, and PCT for lift trucks and TRUs, under the optimistic and conservative scenarios I described above.

[9] If administrative costs cannot be more than one fourth of the budget, then incentive cost must make up three-fourths of the budget. So the administrative costs would be no more than one third of the incentive costs ((1/4) / (3/4) = 1/3) in that case, hence the appropriateness of grossing up the incentive costs by one-third to assess the total Program costs including the maximum amount of administrative costs.

Table 1 – Benefit/Cost Ratio Results

Optimistic Case	RIM	mTRC	PCT
Lift Truck	1.78	2.79	1.69
TRU	1.92	4.14	2.39
Combined	1.83	3.21	N/A
Conservative Case			
Lift Truck	1.3	2.79	1.96
TRU	1.37	4.14	2.97
Combined	1.33	3.21	N/A

Note that in all cases, the benefit/cost ratios exceed 1, indicating that the Program is cost effective overall (mTRC), and also specifically from the unique perspectives of participants (PCT) and all customers including non-participants (RIM). And the RIM is particularly important in suggesting that, even in the conservative case, for every dollar of Program cost that is recovered, $1.33 in benefits are expected to be generated. The net benefits, when reflected in revenue requirements in future rate cases, will result in rates lower than they otherwise would be, enhancing the affordability of the Company's retail electric service.

Q. Are there other Program provisions reflected in the tariff filed with this case that you would like to highlight as providing additional assurance that the Program economics will play out as expected?

A. Yes, there are two. First, the tariff prohibits customers taking service under, or applying for, an Economic Development Incentive ("EDI") rate from the Company and also receiving incentives under the Program. EDI incentives are also tools to help attract cost effective new load (and the regional economic benefits that go with it) to the system, which can also promote long term affordability of electric service. However, "double-dipping" that would potentially occur if customers sought and received both EDI and electrification incentives for the same load could make the additional load no longer cost

effective. The tariff prohibition on both incentives being offered to the same load addition mitigates the risk of such "double dipping."

Second, customers adopting electric lift trucks and/or TRU electric ports might require infrastructure upgrades on the Company's side of the meter in order to serve the demand associated with the new load. Those infrastructure upgrades are subject to the terms of the Company's line extension tariff provisions, which provide for an "extension allowance," or an amount of infrastructure upgrades for which the customer does not have to contribute any funds up front, based on the amount of benefits that the new load would create in terms of its contributions toward covering the Company's fixed costs (i.e., affordability). Again, providing the customer with no charge infrastructure upgrades *and* electrification incentives for the same load would create the potential to "double-dip" against the benefits of the new load. The Program tariff requires that any Program incentives received by the customer be used as an offset to the extension allowance under the line extension tariff related to any new load that results from the Program, effectively ensuring against such a "double dipping" based on the benefits of the new load. Both of these provisions are intended to protect non-participant customers from being impacted by customers leveraging multiple incentives that, in total, result in a situation that no longer promotes, but rather detracts from, affordability of electric service for non-participating customers.

Q. Is the Company asking for any special accounting consideration for Program costs?

A. Yes. Filed along with the tariffs and testimony supporting the Program proposal is an application for authority from the Commission to track and defer the

Program costs for consideration of recovery in a future rate review. Absent the ability to track Program costs, the Company is unlikely to have an opportunity to recover the costs of the Program from customers, despite the fact that the benefits – other than a small amount impacted by regulatory lag – will accrue to customers. The Commission recognized this problem when it approved parts of the Company's Charge Ahead program related to EV charging infrastructure incentives that I discussed previously. In its Report and Order in File No. ET-2018-0132, the Commission's findings of fact included the following:

> 14. The Commission has approved deferral accounting on many occasions without a finding of an "extraordinary event." The Commission has often authorized a deferral mechanism when it is authorizing a new program that is beneficial to customers, but where without the deferral mechanism in place, it could be financially detrimental to the utility to pursue.
>
> 15. If the Commission uses normal accounting procedures for the EV Charging Corridor Sub-Program, the costs of the program will be charged as an expense in the year that they occur. The only way for this type of cost to be included in the Company's revenue requirement for ratemaking would be for the expense to occur in the test year. If Ameren Missouri files a rate case in 2019, these expenses are not likely to fall within the test year.
>
> 16. Without a deferred accounting mechanism, Ameren Missouri would "lose" the opportunity to request recovery of a portion of the program costs if it chose to implement that program before it files a rate case. Thus, the loss of this portion of the program costs may cause Ameren Missouri to delay innovative ideas and new programs until rate case proceedings. This will slow innovation and further complicate rate cases.
>
> 17. Given the need for and benefits of the EV Charging Corridor Sub-Program (both financial and public interest benefits) and Ameren Missouri providing the financing costs associated with the incentive costs, it is reasonable to authorize a tracker.

To the extent that the Commission finds the proposed Program in this case beneficial - and is interested in advancing the many well documented benefits of efficient electrification in a low risk pilot scale setting with the opportunity to learn more about such programs - the Commission's logic in approving the tracking of EV Charging Corridor costs applies equally here. The Company's ability to innovate and deliver new programs

and customer offerings is dependent on its ability to recover the costs of them, and tracking the costs is the clearest way to ensure that the opportunity to recover the costs will exist in a reasonable manner that is not dependent on the happenstance of the timing of costs and the timing and frequency of rate cases.

As in the Charge Ahead case, the Company again will commit to not seeking a "recovery on" deferred balances, but only a "recovery of" them. This means that the Company would seek to recover its investment in the form of an amortization of the regulatory asset in a future rate case. But the Company still believes, as it first described in Charge Ahead, that sharing in the positive regulatory lag of increasing retail revenues due to efficient electrification is a sufficient return on its investment in the Program.

Q. Are there other benefits of using a deferral mechanism (i.e., tracker) for cost recovery of a Program like this?

A. Yes. The Program is designed to create long lasting benefits. The lift trucks and TRU electric ports delivered by the Program have expected lives of approximately 12 years. As such the RIM (affordability) benefits play out over the years of the lives of those measures. By deferring and amortizing the Program costs, the recovery of costs is aligned with timing during which customers also realize the Program benefits. The Company studied this phenomenon in detail in support of the Charge Ahead case in File No. ET-2018-0132, and demonstrated that deferral aligns the costs and benefits for a smoother rate impact over the life of the Program. Absent such a mechanism (but assuming the Company managed to achieve cost recovery in a rate case timed perfectly with the incurrence of the Program costs), customers would potentially see an initial rate increase, followed by a

lagging affordability benefit. In fact, the Commission also noted this in its findings of fact in the Report and Order in File No. ET-2018-0132, saying:

> Under Ameren Missouri's proposal, deferring the program cost recovery also serves to "sync up" the costs of the program with the benefits or revenues of the added load and provides "a smoother pattern of rate impacts to" ratepayers. ***This is a benefit to the ratepayers.*** (Emphasis added)

Again, this phenomenon would also be true as applied to the Program in this case.

III. SUMMARY AND CONCLUSIONS

Q. Please summarize your testimony.

A. Efficient electrification has many benefits, and is increasingly being recognized as an integral part of the future of cleaner energy systems. The Program proposed by the Company is a small scale opportunity to gain experience with some additional electrification measures in a low risk pilot setting. The lift trucks and TRU electric ports that are the subject of the Program are expected to be cost effective and generally promote the affordability of the electric service provided by the Company. This is one of many prongs of Ameren Missouri's commitment to maintaining the greatest level of affordability it can for its customers. I encourage the Commission to support this Program and begin to advance the benefits of efficient electrification, including enhanced affordability, for customers in Missouri.

Q. Does this conclude your direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Union	)	
Electric Company d/b/a Ameren Missouri	)	File No. ET-2021-0020
for Approval of Efficient Electrification Program.	)	

AFFIDAVIT OF STEVEN M. WILLS

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

Steven M. Wills, being first duly sworn on her oath, states:

1. My name is Steven M. Wills. I work in the City of St. Louis, Missouri, and I am employed by Ameren Services Company as Director of Rates & Analysis.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Union Electric Company d/b/a Ameren Missouri consisting of 19 pages, of which have been prepared in written form for filing in the above-referenced docket.

3. Further, under the penalty of perjury I hereby swear and affirm that the information contained in the attached testimony to the questions therein propounded is true and correct.

/s/ Steven M. Wills
Steven M. Wills

Sworn to on this 27th day of October, 2020.