Exhibit No.:	
Issue(s):	Renewable Solutions Participation, Program Structure, and Economics
Witness:	Lindsey J. Forsberg
Type of Exhibit:	Direct Testimony
Sponsoring Party:	Union Electric Company
Case No.:	EA-2022-0245
Date Testimony Prepared:	July 14, 2022

MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. EA-2022-0245

DIRECT TESTIMONY

OF

LINDSEY J. FORSBERG

ON

BEHALF OF

UNION ELECTRIC COMPANY

d/b/a Ameren Missouri

*****DENOTES HIGHLY CONFIDENTIAL INFORMATION*****

St. Louis, Missouri

July 14, 2022

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DIRECT TESTIMONY

OF

LINDSEY J. FORSBERG

FILE NO. EA-2022-0245

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Lindsey J. Forsberg and my business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. What is your position with Ameren Missouri?

A. I am a Strategy Consultant, Renewable Energy Development for Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or the "Company").

Q. Please describe your educational background and employment experience.

A. I received a Bachelor of Science in Electrical Engineering from the University of Notre Dame in 2014. After graduating, I joined a rotational program for engineering graduates at Pacific Gas & Electric Company ("PG&E") within electric operations. While at PG&E, I rotated through the Transmission System Planning, Integrated Resource Planning – Renewable Integration, and Portfolio Management departments, assisting on a variety of projects such as transmission-level load forecasting, demand response program analysis, and resource adequacy filing preparation. In December 2015, I left PG&E to join ZOLA Electric as a Project Coordinator. ZOLA Electric designs, manufactures, and distributes off-grid, pay-as-you-go solar home systems for the African market. As a Project Coordinator, I supported the Hardware Development Team on design, testing, and sourcing. I was later promoted to Engineering Project Manager, a role which involved coordinating a product development team spread across three continents.

In June 2017, I left ZOLA Electric to pursue a Master of Science degree in Science, Technology, and Environmental Policy at the University of Minnesota's Humphrey School of Public Affairs. During the two-year graduate program, I worked as a Graduate Research Assistant under Dr. Gabe Chan on research topics including community solar program design, electric cooperative and municipal utility perceptions of distributed energy resources, and gender-climate linkages. I also completed several internships and fellowships while pursuing my graduate degree including work as a Policy & Market Analysis intern with M.A. Mortenson Company, and as an Energy Policy Research Fellow at Minnesota-based non-profit Fresh Energy.

After completing my graduate degree in May 2019, I relocated to St. Louis, Missouri and started a fellowship through the U.S. Department of Energy's Solar Energy Innovators Program. The fellowship program, which was recently expanded and rebranded as the Clean Energy Innovators Fellowship, "funds recent graduates and energy professionals to work with critical energy organizations to advance clean energy solutions."[1] Ameren Missouri served as my host institution for the fellowship. In February 2021, I ended the fellowship and transitioned into a full-time role with Ameren Missouri as a Senior Renewable Energy Analyst on the Energy Solutions team. Later that year, I moved into an expanded role as a Strategy Consultant on Ameren Missouri's Renewable Development team. In this role, I work jointly between Renewable Development and Electric Resource Planning to support Ameren Missouri's fleet transformation efforts through project modeling, regulatory compliance and approvals, and strategy development.

[1] https://www.energy.gov/eere/clean-energy-innovator-fellowship

II. SUMMARY OF TESTIMONY

Q. Please summarize your testimony.

A. The proposed Renewable Solutions Program ("Renewable Solutions" or "Program") is a voluntary renewable energy purchasing program which will a) satisfy meaningful, existing demand for renewable energy from Ameren Missouri's larger customers; b) lower the cost of renewable energy projects that support Ameren Missouri's transition to clean energy resources; and c) reduce the underperformance risk for planned renewable energy resource additions. For Phase 1 of the Program, which is supported by the Boomtown Solar Project ("Project"), in our base case the combined Project and Program would provide approximately $12.8 million of net benefits on a net present value ("NPV") basis for all Ameren Missouri customers. These net benefits derive primarily from the competitive economics of the Project and expected net contributions to the Project costs made by subscribing customers.

Demand for the Program is strong, as evidenced by the submission by ten customers of binding Renewable Solutions Program Agreements ("RSP Agreements") through which those ten customers sought to subscribe to 269 megawatts ("MW") of renewable energy. As provided for in those RSP Agreements, since the newly constructed solar resource for Phase 1 of the Program has a capacity of 150 MW, each such customer will receive their pro-rata share of the 150 MW resource. The Program pricing structure and tariff have been carefully constructed to minimize uncertainties in a way that creates a high likelihood that the Program will create a net benefit for all customers by reducing the cost of the Project while contributing to the Company's implementation of its 2022 Change in Preferred Resource Plan. The Program represents an ideal opportunity to provide subscribers with an option to meet their near-term sustainability goals while reducing the costs and risks of renewable generation for all customers.

III. BACKGROUND

Q. Please provide the background associated with Ameren Missouri's voluntary renewable energy subscription programs.

A. Ameren Missouri has been offering renewable subscription programs for over fifteen years to meet customers' requests for renewable energy options.

- Pure Power: Ameren Missouri's first voluntary renewable energy pilot program, Pure Power, launched in 2007. Pure Power allows customers to purchase renewable energy credits ("RECs") to match their usage, and approximately 4,500 customers currently participate in the Pure Power Pilot. However, in the Company's 2019 electric rate review, the settlement agreement resolving that case included a requirement that Ameren Missouri phase out the Pure Power program and replace it with a "future Community Solar program of sufficient size to transition existing Pure Power Customers to that program."[2] Therefore, at this time new customers cannot enroll in Pure Power.
- Community Solar Pilot: In 2018, Ameren Missouri received approval to implement a Community Solar Pilot Program and opened pre-enrollment for its first facility, a 1 MW solar resource. This initial resource was fully subscribed within two months and began serving subscribers in August 2019 when it came online. In May 2020, the Commission approved an approximately 6 MW expansion of the pilot program to accommodate waitlisted customers, and the 5.7 MW-AC Montgomery County Solar Facility came online in March 2022 to meet the waitlist demand.[3]

[2] File No. ER-2019-0335, Corrected Non-Unanimous Stipulation and Agreement, p. 14, paragraph 38, filed March 2, 2020.
[3] File No. ET-2020-0022.

- Community Solar Full Program: Within the Company's last electric rate review, Ameren Missouri received approval for a permanent Community Solar Program featuring a variety of improvements, based on learnings from the pilot, to enhance the participation experience for customers.[4] The Community Solar Pilot and Program are open to both residential and small general service customers.
- Renewable Choice: Renewable Choice is a market-based voluntary renewable energy purchasing program designed for larger commercial, industrial, and governmental customers, approved by the Commission in 2018 but has yet to be implemented.[5] Company witness Steven Wills' Direct Testimony addresses the Renewable Choice program, and how it relates to the Program at issue in this docket.

Q. Please explain why Ameren Missouri is seeking Commission approval of a new voluntary renewable energy program.

A. Many of Ameren Missouri's large customers have corporate sustainability policies and goals to achieve significant near- and intermediate-term reductions in carbon emissions. As of 2020, 95% of major corporations in North America track and report on sustainability, up from 88% in 2017.[6] In addition, more than 170 cities and towns across the United States have joined the Sierra Club's "Ready For 100" campaign and indicated their commitment to a transition to clean energy. This includes the City of St. Louis, the largest city in Ameren Missouri's electric service territory.[7] Customers expect Ameren Missouri to help them meet their carbon reduction goals—as

[4] File No. ER-2021-0240, Direct Testimony of Annemarie Nauert.
[5] File No. ET-2018-0063.
[6] https://assets.kpmg/content/dam/kpmg/xx/pdf/2020/11/the-time-has-come.pdf
[7] https://www.sierraclub.org/ready-for-100

their energy provider, these customers look to Ameren Missouri for the regional energy services they need. Many of the Company's large corporate customers have a national or even global footprint, and some may take their business elsewhere if they do not see a clear, near-term path to reducing the carbon emissions of their Missouri operations. To this point, Ameren Missouri's business development team is seeing an increasing number of economic development proposals that include a requirement for renewable energy access, across a variety of industry sectors. Economic development is good for the state generally, and can also be good for all of Ameren Missouri's electric customers because it allows the Company to spread fixed costs over more sales, lowering rates for all.

Ameren Missouri has also adopted a net zero carbon reduction goal by 2045. However, as discussed in more detail in Company witness Ajay Arora's Direct Testimony as well as the Direct Testimony of Company witness Matt Michels, Ameren Missouri's transition to clean energy cannot happen overnight and instead needs to start now and proceed steadily for a variety of reasons, including practical issues with replacing a large amount of non-renewable generation capacity with renewable generation in a timeframe spanning just a few years. The transition also needs to take place over time to preserve system reliability and customer affordability. This Program aims to offer Ameren Missouri's commercial, industrial, and governmental customers a solution to meet their current clean energy goals while also reducing the cost of the clean energy transition that must occur for all customers.

Finally, offering our larger customers an option to purchase renewable energy is critical to keep these customers on the grid. Without the Program, many of these customers have indicated they are considering other options, including behind-the-meter solar, to meet their clean energy goals. If those customers do move forward with behind-the-meter renewable energy options, the

resulting loss of load could shift millions of dollars of fixed costs of the system to other customers. By offering the Program, Ameren Missouri can help protect all customers from the risk of additional grid defection.

Q. How does Renewable Solutions fit within the Company's portfolio of voluntary renewable energy purchasing programs?

A. Moving forward, the Company anticipates Renewable Solutions and Community Solar will comprise a major portion of the portfolio of voluntary renewable energy purchasing programs for Ameren Missouri. Although the programs are similar, each has been tailored to meet the needs of its respective target customer classes most effectively. Community Solar provides a renewable energy option for residential and small general service customers, while Renewable Solutions provides a renewable energy option for large general service, small primary service, large primary service, and governmental entities of all sizes. Larger customers who qualify for Renewable Solutions can also include any smaller affiliated accounts in their subscription. Approval of Renewable Solutions as a compliment to the already-approved Community Solar program will create comprehensive coverage for all Ameren Missouri customers seeking a renewable energy option and will enable the phase out of the Pure Power Program.

IV. DESCRIPTION OF RENEWABLE SOLUTIONS

Q. Please summarize the Renewable Solutions Program.

A. Renewable Solutions is a voluntary renewable energy purchasing program for commercial, industrial, and governmental customers. The Program features a fixed monthly charge rate, the Renewable Resource Rate, per kilowatt ("kW"), and a fixed credit rate, the Renewable Benefits Rate, per kilowatt-hour ("kWh") for access to either wind or solar resources. Subscribing customers commit to the Program for a fifteen-year contract term, and the RECs for the portion of renewable energy that their subscribed kilowatts produce are retired on their behalf. Table 1 summarizes the Renewable Solutions offering:

Table 1. Summary of Renewable Solutions Program Offering

Item	Renewable Solutions
Billing Implementation	Rider
Resource Type	Solar or Wind
Program Size	Phase 1: 150 MW-AC Solar
Eligible Customers	Large commercial, industrial, and governmental customers (3M, 4M, 11M, and their affiliated accounts; Governmental entities)
Enrollment Levels	1-100% of previous year usage
Charge	$ per kW (*Renewable Resource Rate)* Reflects estimated cost to build and maintain program resources over the 15-year program term at the time of pricing.
Credit	$ per kWh *(Renewable Benefits Rate)* A "credit back" on normally billed charges to reflect that customers are subscribed to the renewable resource and therefore are less reliant on the Company's non-renewable generation. Dependent on resource output. Fluctuates monthly.
Contract Length	15 years
RECs	Retired on behalf of participants

Q. How will the Renewable Solutions Program be shown on customer energy statements?

A. There will be four additional line items added to subscribing customer's energy statements. Customers will see their fixed Renewable Solutions Service Level (kW) each month, which will remain unchanged throughout their subscription term at the level of enrollment, and their Renewable Solutions kWh, which will fluctuate monthly based on the metered output of the Program resource(s). Those two line items are then used to calculate the Renewable Resource Charge ($/kW) and Renewable Benefits Credit ($/kWh) based on the Phase 1 pricing laid out in the Program tariff. Company witness Wills' testimony provides more details on how the amount of the charge and credit are determined each month.

Q. Please explain the general program design and pricing approach.

A. In designing the Program, the Company set out to follow industry best practices for green tariff program design. As a first step, the Company solicited feedback from a variety of customers who had previously expressed interest in Renewable Choice.[8] A combination of customer feedback and industry best practice research led to the following overarching program philosophy: Renewable Solutions seeks to offer a program that meets subscriber needs, is as good as or better than regional alternatives, accounts for Program resource costs and benefits, offers subscribers a high degree of price certainty, and is highly likely to produce long-term benefits for all customers. Therefore, a key challenge is determining a price for subscribers that results in net

[8] Rather than recommending one particular program design approach, research from the World Resources Institute suggests that gathering customer feedback throughout the design process is the most important step to ensure program success: "In all the green tariff programs that have executed deals to date, utilities have worked in partnership with their customers to design, or redesign, green tariff offerings to meet customer needs."

See Barua, Priya. Implementation Guide for Utilities: Designing Renewable Energy Products to Meet Large Energy Customer Needs. *World Resources Institute.* 2017. Pg. 10. https://www.wri.org/research/implementation-guide-utilities-designing-renewable-energy-products-meet-large-energy

benefits for non-subscribers without setting the bar so high as to result in no subscriptions and no resulting net benefits to non-subscribers. To overcome that challenge, the Company focused on the following modifications as compared to the Renewable Choice program:

- *Subscription-based rate model:* Renewable Choice featured market-based pricing that closely reflected the structure of a Power Purchase Agreement ("PPA"). In contrast, Renewable Solutions features a subscription-based rate model which offers participants more certainty on program costs and benefits over time. Much like if a customer built solar generation behind the meter, subscribing customers are still subject to variability associated with resource output, but wholesale market prices no longer drive the economic impact of the Program on subscribers. A subscription-based model also creates more options to allocate and manage both costs and benefits for subscribers and non-subscribers, improving outcomes for both groups.
- *Tax equity partnership:* To take full advantage of existing tax benefits and reduce overall costs for subscribers and non-subscribers, Ameren Missouri will pursue a tax equity partnership to finance Phase 1 of the Program. Company witness Mitchell Lansford addresses the use of a tax equity partnership in his Direct Testimony.
- *Multiple resource options:* Unlike Renewable Choice, Renewable Solutions may be supported by both solar and wind projects. The addition of solar as a resource option greatly expands the set of regional projects that may be utilized to support the Program.

- *Alignment with the 2022 Change in the Company's Preferred Resource Plan:* Renewable Solutions operates cohesively with the 2022 change in Ameren Missouri's Preferred Resource Plan, and the Phase I resource is reflected in the approximately 400 MW of planned solar additions shown in 2024. Pairing these planned investments with the Program further reduces the cost to all customers so that Ameren Missouri can successfully, reliably, and cost-effectively meet its need to transition its generation fleet to clean energy and assist the Company in achieving its goal of net zero carbon emissions by 2045.

By implementing these program modifications within the Renewable Solutions offering, the Company was able to acquire the Phase 1 resource at a reasonable cost and fully subscribe the resource at a price subscribers are willing to pay, while also creating a high likelihood that that the combined Program and Phase 1 resource will lead to net benefits for all customers.

Q. Please describe the general ratemaking and cost recovery framework to support Renewable Solutions.

A. The Program resource costs and all revenues arising from Phase 1 of the Program, which is the subject of this case, will be included in base rates because the resources used to support the Program are part of the Company's planned renewable energy investments as laid out in the 2022 Change in Preferred Resource Plan. Ultimately, the Program resources serve a key role in transitioning the Company's generation for the benefit of all customers. When their subscriptions end, the Company will continue to utilize the Project for the remaining 50% or 15 years of its useful life.

V. CUSTOMER DEMAND AND SUBSCRIPTIONS

Q. Has the Company obtained any subscriptions to substantiate the proposed program?

A. Yes. As noted earlier, ten customers sought to subscribe to 269 MW of total capacity have committed to the Program. Since the Phase 1 Program resource has a capacity of 150 MW, the committed customers' subscriptions have been prorated to match the resource capacity. The additional demand that Phase 1 cannot service is a strong indicator of the need for the Program, including additional future phases.

Q. How firm are those customer commitments?

A. Firm. Subscribing customers executed a fifteen-year binding RSP Agreement, which specifies payment of termination fees by a subscriber if the agreement is broken. The executed agreements are attached to my testimony as confidential Schedule LJF-D1.

Q. Please discuss the process the Company followed to obtain these commitments.

A. Once the Phase 1 resource was identified in June 2021, as part of the RFP process addressed by Company witness Scott Wibbenmeyer in his Direct Testimony, the Company invited twenty customers that had demonstrated strong interest in renewable energy programs to learn more about the Program, and ultimately, pre-enroll by submitting an RSP Agreement. These customers were able to review the Program terms and conditions, consider the Program risks, understand the attributes of the Program resource, review the pricing parameters, and ask relevant questions. Through this pre-enrollment process in summer 2021, ten customers sought to subscribe to 282 MW of total capacity. However, both the solar supply chain and the market for RECs shifted dramatically over the course of 2021, and as a result, the decision was made to re-price the Program to align more closely with current market conditions. For that reason, in spring 2022, the Company

repriced Phase 1 of the Program and approached the ten customers who had pre-enrolled with an amendment to the RSP Agreement to reflect the modified price. Following this second pricing event, the same ten customers chose to remain enrolled in the Program and sought to subscribe to 269 MW of total capacity. Each of those ten customers received a prorated portion of the 150 MW of available capacity. Those binding RSP Agreements demonstrate strong interest in the Program and have eliminated undersubscription risk for non-subscribing customers.

VI. PROJECT ECONOMICS

A. Modeling and Assumptions

Q. Have you analyzed the economics of the Project and Program?

A. Yes.

Q. What kind of analysis have you performed?

A. I have evaluated the expected incremental net revenue requirement resulting from the Project and Program. I have done so using a spreadsheet model to account for all the costs and benefits of the Project and Program that would be reflected in the Company's jurisdictional electric retail revenue requirement for ratemaking, including the impacts of tax equity financing.

Q. Please describe the basic operation of the spreadsheet model.

A. The model was developed specifically to evaluate the impact on incremental net revenue requirement for a solar or wind project being pursued within a tax equity partnership (discussed in witness Mitchell Lansford's direct testimony). This proprietary spreadsheet model was co-developed by Ameren Missouri and a leading tax equity advisory firm, CCA Group. Based on selected project and transaction parameters, the spreadsheet model appropriately sizes the tax equity investment and reflects how the costs and benefits of the tax equity partnership would flow through to customers in the form of incremental offsets to the revenue requirement. As in Ameren

Missouri's more traditional project finance models, the tax equity model's revenue requirement results can be understood as the sum of three basic components: 1) fixed asset costs; 2) operating costs; and 3) market revenues. The Program simply adds a fourth component to the analysis: 4) program impacts.

Fixed Asset Costs: The fixed asset costs are determined by calculating the return on net rate base in each year, the annual depreciation expense, and the net tax expense. Due to the tax equity partnership, Ameren Missouri is expected to invest approximately 60-67% of the total project cost, with the tax equity partner contributing the remaining 33-40%. Therefore, the allowed return, annual depreciation, and income tax expenses are lower than they would in the absence of the tax equity partnership. The Project base case is modeled at the estimated cost of approximately ***__*** million, but due to uncertainty in the solar supply chain the exact Project cost is not fixed.[9] To account for the remaining uncertainty in Project cost, a risk-adjusted case is also modeled to incorporate additional contingencies into the expected Project cost. It is possible that the final Project cost will be above the risk-adjusted level, or below the base case level, but the Project cost range captured between these two cases represents the Company's current best estimate of the expected Project cost. The base case estimate includes costs associated with setting up the tax equity partnership, internal development costs expected to be spent by Ameren Missouri to bring the Project online, and upfront transmission interconnection costs determined through the MISO generator interconnection process.

Operating Costs: The model includes estimates for ongoing operating costs for the Project. Specifically modeled are operations and maintenance costs, real estate costs to cover ongoing land lease payments for the Project, transmission interconnection costs (paid over the first

[9] Company Witness Scott Wibbenmeyer provides additional details on current supply chain challenges in the solar industry and the pricing structure of the Build-Transfer Agreement used to acquire the Project.

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20 years of the Project life), and ongoing property taxes due to the Project's location in the state of Illinois.

Market Revenues: Market revenues include both energy revenues and capacity revenues. Energy revenues are determined by applying a range of power market price estimates to the expected energy production of the Project. The range of power market price estimates is taken from the Company's 2022 Change in Preferred Resource Plan ("IRP"). Three scenarios from the IRP analysis have been evaluated in modeling the economics of the Project: 1) the probability-weighted-average ("PWA") power price of the six scenarios modeled in the IRP; 2) the lowest price scenario from among the six IRP scenarios; and 3) the highest price scenario from the IRP. The prices applied to the solar generation have been adjusted for basis differences, to reflect the locational marginal prices ("LMPs") at the location of the Project, and for a solar profile, to reflect the variability of the solar generation. Capacity revenues also reflect price estimates developed within the Company's resource planning process. The expected capacity credit in MISO is determined by applying the MISO solar capacity credit value of 50% to the aggregate capacity of the Project of 150 MW-AC.

As detailed in Company witness Lansford's testimony, two nuances of the tax equity partnership impact the market revenues estimated within the model. First, the model assumes that the tax equity partner receives 20-30% of available project revenues in the early years of the Project[10] until the partner recoups its initial investment in the Project and earns an expected return. This reduces the expected market revenues that will flow through to Ameren Missouri customers in the early years of the Project. In addition, the model reflects expected net revenues from the fifteen-year Contract for Differences ("CfD") associated with the tax equity partnership.

[10]As mentioned previously, this reduces the Company's investment and therefore the fixed costs of the Project that are reflected in the revenue requirement.

Program Impacts: Through the Renewable Resource Charge, subscribers make monthly payments towards the Project over the fifteen years of the Program. The primary financial benefit subscribers receive back is the Renewable Benefits Credit, which provides a credit to offset standard costs reflected in the customers' base tariff charges. The overall impact of the Program on non-subscribing customers can therefore be understood as the difference between the revenues paid into the Program by subscribers through the Renewable Resource Charge, and the payments made by the Company to subscribers through the Renewable Benefits Credit. Both the Renewable Resource Charge revenues and the Renewable Benefits Credit payments are captured within the project model, and the net difference between them gives the ultimate benefit being provided to all customers by the Program.

Q. Please describe the assumptions used for the modeling analysis.

A. Confidential Schedule LJF-D2 provides a summary of the base assumptions used for modeling the Project and Program. Although many modeling assumptions impact the overall economics, the following three assumptions have a meaningful impact on incremental net revenue requirement: power market prices, capacity factor, and total Project cost. Confidential Schedule LJF-D3 provides details on the twelve scenarios constructed to capture uncertainties in those key variables.

B. Analysis Results

Q. Please summarize the results of your analysis of the Project and Program.

A. Table 2 below shows a summary of the analysis results for the Project only, before any Program impacts are included. It includes the present value revenue requirement ("NPVRR") for four cases under the three IRP power price scenarios described above. Table 3 adds the impact of the Program (Phase 1) on top of the base economics of the Boomtown Solar Project for each

scenario tested. Also displayed below Table 3 is the ultimate benefit being provided by the Program, which is simply the difference between Table 2 and Table 3 for each column. As discussed previously, the benefit provided by the Program (labeled below as "RSP Benefit") reflects the net difference between the Renewable Resource Charge Revenues and the Renewable Benefits Credit Payments. A negative Renewable Solutions Benefit indicates that the Program results in a decrease in incremental net revenue requirement.

Table 2: Boomtown Solar Project Only

NPVRR Impact of Project ($MM)	Base Cost and Capacity Factor	Risk Adj. Cost; Base Capacity Factor	Base Cost; Low Capacity Factor	Risk Adj. Cost; Low Capacity Factor
Low Price Scenario	30.3	47.5	49.2	66.8
PWA Price Scenario	(1.1)	16.1	21.2	39.0
High Price Scenario	(37.2)	(20.1)	(10.8)	6.9

Table 3: Boomtown Solar Project with Renewable Solutions Program

NPVRR Impact of Project and Program ($MM)	Base Cost and Capacity Factor	Risk Adj. Cost; Base Capacity Factor	Base Cost; Low Capacity Factor	Risk Adj. Cost; Low Capacity Factor
Low Price Scenario	18.6	35.8	21.4	39.0
PWA Price Scenario	(12.8)	4.4	(6.6)	11.2
High Price Scenario	(48.9)	(31.8)	(38.6)	(20.9)
RSP Benefit[11]	*(11.7)*	*(11.7)*	*(27.8)*	*(27.8)*

Q. What do you conclude from the analysis results?

A. Under base cost, capacity factor, and PWA power price assumptions, the Boomtown Solar Project by itself shows a small benefit to all customers of approximately $1.1

[11] The RSP Benefit is only impacted by a change in capacity factor, which means it remains consistent within each column since market power prices are the only variable changing within each column.

million NPVRR. The addition of the Program further increases the expected benefit to approximately $12.8 million NPVRR thanks to an approximately $11.7 million NPV net contribution to the Project from subscribing customers. The design of the Program also mitigates the Project's revenue requirement impact if production from the facility is lower than expected. This is because the Program provides a credit back to subscribers based on the total kilowatt-hours generated by the Project, meaning that if the resource generates fewer kilowatt-hours than expected, the Renewable Benefits Credit payments are reduced and the net contributions from subscribers (captured in the RSP Benefit) increase. For example, in the base cost, low capacity factor, PWA price scenario, the Project shows a net cost of approximately $21.2 million NPVRR by itself, but Program subscribers contribute approximately $27.8 million NPVRR of benefits, ultimately resulting in an approximately $6.6 million NPVRR benefit for all customers. Under the worst-case scenario (risk-adjusted Project cost, low capacity factor, and lower power prices), the Program reduces the net incremental revenue requirement impact significantly so that instead of the Project having an approximately $66.8 million NPVRR cost, the cost impact drops to approximately $39.0 million NPVRR.

Across all twelve key scenarios tested, the existence of the Program lowers the cost and in some cases the risk of the Project, in all cases improving the outcomes for all customers by approximately $11.7-27.8 million NPVRR.

Q. Please summarize the overall value being provided by the Renewable Solutions Program.

A. The Program provides value to the Project in two key ways: 1) it reduces the cost of the Project by approximately $11.7 million NPV, thanks to the net contributions of subscribing

customers; and 2) it reduces the risk of resource underperformance for all customers by up to an additional approximately $16.1 million NPV due to the pricing structure of the Program.

VII. CONCLUSION

Q. What are the key takeaways about the Company's proposed Renewable Solutions Program and Phase 1 resource, the Boomtown Solar Project?

A. First, on its own, the Boomtown Solar Project is an attractive, cost-effective solar Project that is aligned with Ameren Missouri's need to transition its generating fleet to clean energy resources. The Project alone is a reasonable, cost-effective resource for all customers. Second, the Program is a customer-centric redesign of the Renewable Choice program that will compliment Ameren Missouri's existing Community Solar Program to create a more complete set of voluntary renewable energy programs to serve all customers. Third, customer demand for the Program is real and demonstrated clearly with 150 MW of binding customer subscriptions – the entirety of the Phase 1 resource. Finally, by adding the Program to the Boomtown Solar Project, the cost to all customers is reduced by approximately $11.7 million NPV and the risk of resource underperformance is further reduced by up to an additional approximately $16.1 million NPV.

Said simply, the Program takes a cost-effective Project that is necessary for Ameren Missouri's transition to clean energy and makes it both lower cost and lower risk for all Ameren Missouri customers.

Q. Does that conclude your direct testimony?

A. Yes.

SCHEDULE LJF-D1

IS CONFIDENTIAL

IN ITS ENTIRETY

SCHEDULE LJF-D2

IS HIGHLY

CONFIDENTIAL

IN ITS ENTIRETY

SCHEDULE LJF-D3

IS CONFIDENTIAL

IN ITS ENTIRETY

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 for Approval of a Subscription-Based Renewable Energy Program	)))	File No.: EA-2022-0245

AFFIDAVIT OF LINDSEY J. FORSBERG

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

Lindsey J. Forsberg, being first duly sworn on his oath, states:

My name is Lindsey J. Forsberg, and hereby declare on oath that I am of sound mind and lawful age; that I have prepared the foregoing *Direct Testimony*; and further, under the penalty of perjury, that the same is true and correct to the best of my knowledge and belief.

\s\ Lindsey J. Forsberg
Lindsey J. Forsberg

Sworn to me this 14th day of July, 2022.