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Exhibit No. 8P

Ameren – Exhibit 8P
Lindsey J. Forsberg
Supplemental Direct Testimony
File No. EA-2022-0245

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Issue(s):	Boomtown Project and Renewable Solutions Economics
Witness:	Lindsey J. Forsberg
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Sponsoring Party:	Union Electric Company
File No.:	EA-2022-0245
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MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. EA-2022-0245

SUPPLEMENTAL DIRECT TESTIMONY

OF

LINDSEY J. FORSBERG

ON

BEHALF OF

UNION ELECTRIC COMPANY

D/B/A AMEREN MISSOURI

St. Louis, Missouri
October, 2022

Exhibit A

SUPPLEMENTAL 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. Are you the same Lindsey J. Forsberg who submitted direct testimony in this case on July 14, 2022?

A. Yes.

Q. Why are you submitting supplemental direct testimony?

A. Approximately one month after the Company filed this case, President Biden signed the Inflation Reduction Act of 2022 ("IRA") into federal law. Among many impacts, the IRA extensively modifies provisions of the tax code for renewable energy projects. The IRA extends both the investment tax credit ("ITC") and production tax credit ("PTC"), creates additional wage and apprenticeship requirements that projects must meet to qualify for the full ITC or PTC value,[1] and adds additional bonus credit amounts for domestic content and project location. The IRA enables solar projects to utilize the PTC or the ITC (previously solar projects

[1] Because the Boomtown Project is being constructed via the Build Transfer Agreement ("BTA") structure discussed in Company witness Wibbenmeyer's direct testimony, and benefits from the fact that the developer met the safe-harboring requirements under the tax code by completing work of a significant nature in 2019, the wage and apprenticeship provisions of the IRA do not apply to the Boomtown Project unless it were not completed by the end of 2025 which, as Company witness Wibbenmeyer discusses, is very unlikely given the Project schedule.

could only elect the ITC) and allows taxpayers the ability to transfer tax credits to unrelated parties for cash. For the Boomtown Project that is the subject of the pending Application in this docket (the "Project"), this new option to elect the PTC is more favorable for customers than the Company's previous tax strategy to utilize the ITC in combination with a tax equity partner. Importantly, the benefits of the PTC can be fully captured by the Company and therefore eliminates the need for a tax equity financing structure. The purpose of my supplemental direct testimony is to provide updated economics for the Project under this revised tax strategy.

Q. The Company's Application in this case requested approval to utilize tax equity financing for the Project. Does the Company still seek that permission?

A. No. As noted, given the availability of PTCs due to the passage of the IRA, the Company is not using tax equity financing for the Project and no longer requests the Commission's authority to do so. I should also note that this means that the Company does not intend to offer the direct testimony of Company witness Mitchell Lansford into the record, since his testimony dealt solely with the use of tax equity financing.

Q. Please discuss the updated economics of the Project considering the impacts of the IRA.

A. To determine the economics of the Project with the PTC, I have evaluated the expected incremental net revenue requirement resulting from the Project (and as impacted by the Renewable Solutions Program (the "Program") that is also a part of this docket). 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. I had previously conducted similar modeling of the Project and Program as discussed in my direct testimony under an ITC scenario. The modeling discussed in this supplemental direct testimony supersedes that previous modeling.

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

A. I utilized Ameren Missouri's corporate project finance model to assess the incremental net revenue requirement impact of the Project with the PTC. The 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. It is important to note that components 2) and 4) are the same as they were in the modeling presented with my direct testimony. With respect to component 1), fixed asset costs, those too are exactly the same as they were in my original modeling, except that there is no ITC and thus no tax equity financing. Instead, the Company will simply invest the full amount of the Project costs directly, supported by the Company's capital structure and cost of capital. For component 3), market revenues, energy, and capacity price assumptions are identical to the original modeling. However, now that tax equity financing will not be used there is no contract for differences, and the tax equity partner will not receive a portion of the project revenues in the early years of the Project as was previously assumed. Therefore, those elements are not reflected in the updated modeling of market revenues. It should also be noted that the updated modeling assesses resource economics and performance on an annual basis, whereas the original modeling took a monthly view.

Q. Please elaborate on the assumptions used for the updated modeling analysis, now that use of the ITC has been replaced by use of the PTC, which eliminates the use of tax equity financing.

A. Highly Confidential Schedule LJF-SD1 provides a summary of the base assumptions used for modeling the Project and Program with the PTC election instead of using the ITC with tax equity financing. I should note that Schedule LJF-SD1 supersedes Schedule LJF-D2 from my direct testimony. It is worth highlighting a few assumptions that are included due to the IRA. First, the PTC credit rate is assumed to be 2.6 cents in 2022 and escalates at 2% annually given that the IRA contains a built-in inflation adjustment for the PTC credit rate. The Project is expected to receive ten years of PTC credits at their full value. Second, although the IRA introduces the ability to transfer tax credits to another entity, the exact nature of the transfer market is uncertain and therefore the Project modeling assumes Ameren Missouri will keep and utilize tax credits from the Project with an expected ongoing two-year lag in utilization.[2] As the transfer market evolves, the Company will continue to assess the relative value of selling or utilizing tax credits from the Project.

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. As I did with the original modeling presented in my direct testimony, I have run twelve scenarios, detailed below, to capture uncertainties in those key variables, but as discussed earlier reflecting the use of the PTC instead of the ITC. The results from these twelve scenarios are presented below as well as in Confidential Schedule LJF-SD2 in more detail. Schedule LJF-SD2 supersedes Schedule LJF-D3 from my direct testimony.

[2] Preliminary tax modeling suggests that there would be an approximately two-year lag in using the PTCs, which is why we have made that assumption. However, given that PTCs are transferable, it may be prudent and cost-effective to transfer the PTCs instead of waiting the approximately two years.

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

A. Table 1 below shows a summary of the updated 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 I discussed in my direct testimony (low prices, probability weighted average ("PWA") prices, and high prices). Table 2 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 2 is the ultimate benefit being provided by the Program, which is simply the difference between Table 1 and Table 2 for each column. 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 1 BOOMTOWN SOLAR PROJECT ONLY			
NPVRR Impact of Project ($MM)	Base Cost and Capacity Factor	High Cost; Base Capacity Factor	Base Cost; Low Capacity Factor	High Cost; Low Capacity Factor
Low Price Scenario	15.2	35.4	45.1	65.3
PWA Price Scenario	(16.8)	3.4	16.7	37.0
High Price Scenario	(53.8)	(33.5)	(15.9)	4.4
	Table 2 BOOMTOWN SOLAR PROJECT WITH RENEWABLE SOLUTIONS PROGRAM			
NPVRR Impact of Project and Program ($MM)	Base Cost and Capacity Factor	High Cost; Base Capacity Factor	Base Cost; Low Capacity Factor	High Cost; Low Capacity Factor
Low Price Scenario	3.1	23.4	17.0	37.2
PWA Price Scenario	(28.9)	(8.7)	(11.3)	8.9
High Price Scenario	(65.8)	(45.6)	(44.0)	(23.7)
RSP Benefit[3]	*(12.1)*	*(12.1)*	*(28.1)*	*(28.1)*

Q. How do these results compare to the results provided in your direct testimony, when tax equity financing was to be used?

A. Across all twelve key scenarios tested, utilizing the PTC instead of the ITC (which would require use of a tax equity partner) reduces the expected revenue requirement impact of the Project. Under base cost, capacity factor, and PWA power price assumptions, the Project alone shows an expected benefit to all customers of approximately $16.8 million NPVRR, an improvement of more than $15 million in NPV benefits when compared to an ITC structure with a tax equity partner. The addition of the Renewable Solutions Program further improves that expected benefit by an additional $12.1 million NPV, for a total customer benefit of $28.9 million NPVRR. Under the worst-case scenario (risk-adjusted Project cost, low capacity factor, and lower power prices), the Project produces a slightly lower revenue requirement using PTCs as compared

[3] 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.

to the ITC with a tax equity partner approach (approximately $1.5 million NPV lower). Under these conditions the addition of the Program reduces the expected cost of the Project by an additional $28.1 million NPV for a total customer cost, in this worst-case scenario, of $37.2 million NPVRR.

Q. What are the key takeaways from your supplemental testimony and analysis?

A. 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. By electing the newly available solar PTC, the Project becomes even more cost-effective than it was previously, leading to more than $15 million NPV in additional customer benefits in the base case. In addition, electing the PTC enables the Company to eliminate the added complexity of a tax equity financing structure. The solar PTC, combined with the cost reductions provided by the Renewable Solutions Program, further solidifies the Boomtown Solar Project as an excellent resource for Ameren Missouri customers.

Q. Does that conclude your supplemental direct testimony?

A. Yes.

SCHEDULE LJF-SD1

IS HIGHLY

CONFIDENTIAL

IN ITS ENTIRETY

SCHEDULE LJF-SD2

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 *Supplemental 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 21st day of October, 2022.