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Witness: William J. Barbieri  
Sponsoring Party: Union Electric Company  
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**MISSOURI PUBLIC SERVICE COMMISSION**

**File No. EA-2016-0207**

**DIRECT TESTIMONY**

**OF**

**WILLIAM J. BARBIERI**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY  
d/b/a Ameren Missouri**

**St. Louis, Missouri  
April 27, 2016**

1 **DIRECT TESTIMONY**

2 **OF**

3 **WILLIAM J. BARBIERI**

4 **FILE NO. EA-2016-0207**

5 **Q. Please state your name and business address.**

6 A. My name is William J. Barbieri. My business address is One Ameren Plaza,  
7 1901 Chouteau Avenue, St. Louis, Missouri 63103.

8 **Q. By whom and in what capacity are you employed?**

9 A. I am employed by Ameren Services Company ("Ameren Services"), a subsidiary  
10 of Ameren Corporation, as Director, Renewable Strategy, Policy and Generation.

11 **Q. Please describe Ameren Corporation and Ameren Services.**

12 A. Ameren Corporation ("Ameren") is a public utility holding company with four  
13 primary subsidiaries. Three of these are operating companies and the fourth, Ameren Services,  
14 is a service company that provides common and necessary services for Ameren and its  
15 subsidiaries. Ameren Missouri is one of the three operating companies served, as is Ameren  
16 Illinois, a rate-regulated electric and natural gas transmission and distribution business in Illinois,  
17 and Ameren Transmission, a Federal Energy Regulatory Commission ("FERC") rate-regulated  
18 electric transmission business. Ameren Services is the service company within the Ameren  
19 family of affiliated companies that provides services such as information technology, supply,  
20 finance, and human resources to Ameren and its subsidiaries.

21 **Q. Please describe your employment history with Ameren Corporation.**

22 A. I joined the Fossil Fuel Department of Ameren Services in August 1999 as Senior  
23 Business Development Executive. In 2000, I was promoted to Coal Business Development

1 Director handling procurement and sales of third-party coal along with marketing functions for  
2 coal terminal activities. In November 2004, I was asked to coordinate the renewable energy  
3 initiative for Ameren Missouri and its affiliates as Managing Executive, Renewables. I was  
4 promoted to Manager, Renewables in 2007. In January 2010, Ameren Missouri created its own  
5 renewables department at which time my title was changed to Manager, Renewable Energy. On  
6 January 1, 2013, my title was changed to Director, Renewable Strategy, Policy and Generation.  
7 On January 1, 2016, my group was transferred to the Corporate Planning group of Ameren  
8 Services.

9 **Q. Please describe your duties and responsibilities as Director, Renewable**  
10 **Strategy, Policy and Generation.**

11 A. My primary responsibilities are the development of the renewable energy policy,  
12 goals and procedures for Ameren Missouri, including all strategy and planning. Of primary  
13 importance is ensuring Ameren Missouri is in full compliance with the requirements of the  
14 Missouri Renewable Energy Standard (“RES”). My duties involve leading negotiations related  
15 to the acquisition of renewable energy resources in the form of power purchase agreements,  
16 Renewable Energy Credit (“REC”) procurement, and project development resulting in renewable  
17 generation facilities owned and operated by Ameren Missouri. I am also responsible for  
18 coordinating activities of groups related to research and analysis concerning technology  
19 assessments for wind, solar, biomass, landfill gas, hydro and all other renewable resource  
20 options. This includes financial feasibility analysis. I am responsible for the preparation of all  
21 compliance plans and reports required by the Missouri Public Service Commission  
22 (“Commission”). I also provide support to the regulatory and legislative departments, providing  
23 guidance and information on renewable energy issues at both the state and federal level. My

1 department further assists in providing relevant renewable information to customer support  
2 groups within Ameren Missouri.

3 **Q. Please describe your qualifications.**

4 A. I received a Bachelor of Science Degree in Business Administration from  
5 St. Louis University in 1977, with accounting as my area of specialization. I have been in the  
6 energy industry for approximately 36 years, with extensive contract negotiation experience.

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

8 A. The purpose of my direct testimony is to address a pilot program that Ameren  
9 Missouri proposes to launch related to customer subscriptions for solar energy.

10 **Q. What is the purpose behind this pilot program?**

11 A. The primary purpose of this pilot is to provide an avenue to support renewable  
12 generation for the segment of the Ameren Missouri customer base that has expressed a desire for  
13 solar energy to be a greater part of their energy mix but for various reasons is either unable to  
14 acquire solar energy by self-installing or leasing solar panels on their premises or has no desire to  
15 have the solar panels located at their residence or business. A portion of that base lacks the  
16 ability to participate in either having solar constructed on their property or leasing solar panels,  
17 due to structural, financial or residential conditions or limitations associated with direct  
18 ownership or leasing arrangements. With an ever increasing desire for solar energy by utility  
19 customers across the country, numerous utilities are launching similar pilots in order to gauge  
20 how customers will react to various pricing sensitivities, to evaluate the potential impacts on net  
21 energy metering structures and to determine the real or perceived value of increasing solar  
22 generation at the distribution level, as compared to adding solar generation at the transmission  
23 level.

1           **Q.     Please describe the proposed pilot program.**

2           A.     The pilot program is called Solar Subscriber. Under the program, participants  
3 will be able to purchase the equivalent of up to 50% of their average annual usage, from a solar  
4 generation facility, constructed and owned by Ameren Missouri. Customers will be given the  
5 opportunity to support the project by making available to participants in blocks of 100 kilowatts  
6 (“kW”) each at the rate of \$15.28 per block for residential 1(M) customers and \$14.53 per block  
7 for small general 2(M) customers. As a point of reference, 100 kilowatt-hours (“kWh”) of  
8 energy at base residential rates would cost \$9.01 and at the small general service rate, \$8.53.<sup>1</sup>  
9 Participants must purchase at least one full block of energy. Participants will be enrolled on a  
10 first-come, first-served basis. Participants may cancel at any time, however, such cancellation  
11 will not take effect until the end of the customer’s monthly billing cycle. Should a customer opt  
12 out of the program, they will be ineligible to re-enter the program for a period of three months.  
13 Further details on how the program will operate are contained in the direct testimony of Ameren  
14 Missouri witness Michael Harding.

15           **Q.     What role would the pilot program play?**

16           A.     This pilot is consistent with and is an additional step in the Company’s renewable  
17 strategy, and is an important part of the Company's learning curve for gaining experience with  
18 different kinds of solar installations. Ameren Missouri’s initial efforts around renewable energy  
19 were focused on the purchase of RECs from other states and its own hydroelectric facilities. The  
20 Company also installed solar panels on its own general office building in St Louis, in order to  
21 study three different types of solar panel technologies. The Company made that information  
22 available on its website so that its customers could benefit from that information as well.

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<sup>1</sup> Both of these amounts are annual average realization rates.

1 Ameren Missouri then moved to construction of utility-scale renewable generation facilities,  
2 including a 15 megawatt (“MW”) methane-to-megawatts facility in Maryland Heights and a 5.7  
3 MW solar generation facility in O’Fallon, Missouri. Both of these facilities are the largest  
4 investor-owned facilities in Missouri of each type. Ameren Missouri customers have also chosen  
5 to install solar panels on homes and businesses. Under the RES, Ameren Missouri has paid over  
6 \$100 million in rebates to support these installations. Ameren Missouri believes there are  
7 customers who support renewable energy but who cannot or do not wish to have solar panels on  
8 their homes or businesses. This pilot is designed to offer an alternative to this population of our  
9 customers.

10 **Q. What is the term and proposed cost of the Solar Subscriber pilot program?**

11 A. Ameren Missouri proposes to operate the program for a period of three years and  
12 has proposed total funding not to exceed \$3.5 million over that period.

13 **Q. How has Ameren Missouri determined that this customer segment exists and**  
14 **is not being serviced through existing programs or by third-party solar developers?**

15 A. Customers have contacted Ameren Missouri representatives expressing interest in  
16 solar generation by various means including; phone contacts with personnel in the Ameren  
17 Missouri call center or personal contacts at community events attended by Ameren Missouri  
18 personnel such as Earth Day and other general public forums held throughout the year.

19 **Q. Has Ameren Missouri conducted any research that would support a level of**  
20 **customer interest in such a program?**

21 A. In April of 2015, Telephone Contact, Inc. (“TCI”) conducted research on behalf  
22 of Ameren Missouri to determine the extent of the Ameren Missouri customer base that would  
23 support an option to obtain and pay for solar energy. The research represents the findings from

1 one dial session, two breakout focus groups after the dial session and a survey of 800 Ameren  
2 Missouri customers. The results of the research were provided to Ameren Missouri in a report  
3 dated May 27, 2015, and is attached as Schedule WJB-1HC.

4 **Q. Please describe TCI and explain their qualifications to conduct such a study.**

5 A. TCI is a third-party independent firm that performs dedicated calling, research  
6 and data management. TCI's parent company is Aboussie & Associates. Aboussie & Associates  
7 manages research and strategic communications for political, corporate and non-profit clients,  
8 working closely with clients to help them gain greater insight into the larger social environment  
9 in which they are operating. They measure how well their current communications reflect the  
10 values and priorities of their target audiences and test the relative effectiveness of messages and  
11 strategies among shareholders, customers, and other potential grassroots advocates.

12 **Q. Based on the research, what is the level of support that Ameren Missouri**  
13 **could expect from its customers with regard to paying a premium for new solar facilities to**  
14 **be added to Ameren Missouri's system?**

15 A. The survey showed a clear and significant interest by Ameren Missouri customers  
16 in paying a premium to support solar development. In the poll, over 60% responded that they  
17 would pay at least \$5 more per month than they currently pay now. A majority (50%) indicated  
18 a willingness to pay \$15 or more per month and over a third (37%) would pay over \$25 or more  
19 per month. Ameren Missouri recognizes that this survey was centered on customers who had  
20 previously shown a strong interest in renewables and so these numbers may not be representative  
21 of all customers. One of the purposes of this pilot is to gauge interest in this type of program  
22 from the Company's entire customer base.

1           **Q.     What benefits will accrue to those customers who choose not to participate?**

2           A.     As solar development is expected to see continued rapid growth throughout the  
3 region, the ability to site generation closer to the load centers should minimize line losses, among  
4 other benefits. Furthermore, the intent of the program is to gauge how best to design solar  
5 programs that meet the needs and desires of customers who expect to see the utility provide more  
6 carbon-free generation options. This program will assist Ameren Missouri in determining first-  
7 hand how best to structure supply options related to distributive solar generation. The intent is to  
8 engage customers, solicit their feedback and provide a basis to continually adjust the program  
9 offering in order to meet their expectations. The lessons learned through this pilot program  
10 should provide keen insights into the advantages and challenges associated with ever increasing  
11 amounts of distributed generation resources on the Ameren Missouri grid. Testing the  
12 deployment of these ever changing technologies on a small-scale pilot is a prudent means of  
13 developing real time solutions in adapting to the new realm of operating the utility of the future.  
14 In addition, the renewable energy credits generated under this program will remain the property  
15 of Ameren Missouri and will be retired to meet the requirements of the Missouri RES, thus  
16 providing a benefit to all Ameren Missouri customers.

17           **Q.     How will Ameren Missouri determine if the program design is effective?**

18           A.     Ameren Missouri will conduct a survey of the program participants after the first  
19 18 months of program operation. The intent will be to gather customer feedback seeking  
20 answers to questions such as:

- 21           •     What were customer's expectations coming into the program?
- 22           •     Is the program meeting customer's expectations?
- 23           •     What areas of the program need improvement?
- 24           •     What aspects of the program do the customers like and dislike?

- 1           •       Are there any aspects of the program that provided the customer with a greater  
2                   understanding of solar energy generation?  
3

4       A similar survey will then be conducted at the end of the three-year pilot program to determine if  
5       the program has provided enough value to be maintained and extended and/or what changes  
6       would be necessary to gain a higher level of participation.

7           **Q.     Besides determining customer preferences, are there other learning**  
8       **opportunities related to the pilot program?**

9           A.     Similar to the opportunities offered by the Solar Partnership pilot (File No. EA-  
10       2016-0208), Ameren Missouri hopes to gain information that allows it to better gauge the impact  
11       of increasing distributed generation resources on its distribution grid. The program is intended to  
12       work as a building block that will serve as the basis for future technological advancements in the  
13       area of distributed generation which will most likely involve battery technology deployment.

14          **Q.     How does Ameren Missouri expect to utilize this information?**

15          A.     The Company hopes to develop information that will allow it to utilize solar  
16       energy in a way that benefits its system and its customers. Without knowing the results, it is  
17       difficult to say exactly what the Company will do with the results of this pilot. Ameren Missouri  
18       will, however, file a report addressing all of these learning opportunities in this case after the  
19       three-year initial pilot has expired.

20          **Q.     Why did Ameren Missouri not request a Certificate of Convenience and**  
21       **Necessity (“CCN”) along with the tariff?**

22          A.     Ameren Missouri is not ready to request a CCN at this time. The Company is still  
23       working on identifying a location(s) to site this generation. Once a site(s) has/have been  
24       ascertained, the Company will file its CCN application. Ameren Missouri will use the time  
25       before it has obtained a CCN to have customers sign up for this program. As is stated in the

1 tariff, the Company anticipates a four-month window for customers to sign up for this program.

2 As is explained in the Direct Testimony of Michael Harding, the subscription level will

3 determine the initial size of the solar facility.

4 **Q. Does this conclude your direct testimony?**

5 **A. Yes, it does.**

