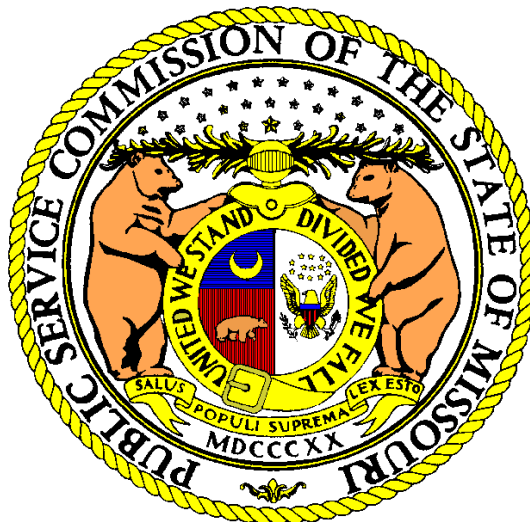


MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT



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

CASE NO. EA-2020-0371

*Jefferson City, Missouri
February 2021*

**** Denotes Confidential Information ****

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

TABLE OF CONTENTS
STAFF REPORT
UNION ELECTRIC COMPANY,
d/b/a AMERENE MISSOURI
CASE NO. EA-2020-0371

I. EXECUTIVE SUMMARY 1

II. APPLICABLE RULE HISTORY 3

III. APPLICATION REQUIREMENTS 3

IV. The Five Tartan Criteria 7

 A. Whether there is a need for the facilities and service 7

 B. Whether the applicant is qualified to own, operate and manage the facilities and
 provide the service 10

 C. Does the applicant have the financial ability to provide the service? 10

 D. Whether the Project is Economically Feasible 10

 E. Public Interest 18

V. In Service Criteria 18

1 **STAFF REPORT**
2 **UNION ELECTRIC COMPANY,**
3 **d/b/a AMERENE MISSOURI**

4 **CASE NO. EA-2020-0371**

5 **I. EXECUTIVE SUMMARY**

6 Union Electric Company, d/b/a/ Ameren Missouri (“Ameren Missouri” or “the Company”)
7 has requested a Certificate of Convenience and Necessity (“CCN”) to construct, install, own,
8 operate, maintain, and otherwise control and manage a solar generating asset and associated
9 facilities, to be constructed in Montgomery County, Missouri. The proposed solar facility
10 is located on approximately 55 acres of agriculture land owned by Ameren Missouri at
11 651 Booneslick Road, New Florence, Missouri 63363. The facility will be included as a second
12 resource to support Ameren Missouri’s Community Solar Program. The proposed facility is
13 approximately 6.16 MW alternating current of single-axis ground-mounted, tracking photovoltaic
14 (“PV”) panels. The cost of the project is approximately ** _____ **. The Company
15 anticipates that subscribers will cover all costs of the facility under the terms of the Community
16 Solar Program tariff. The Company plans to begin construction in April 2021 and anticipates
17 completion by October 2021.

18 Staff has reviewed the Application and recommends the Commission approve it, subject to
19 the following conditions:

- 20 1. Staff recommends that the Commission order Ameren Missouri to contact MODOT
21 and the Norfolk Southern Railway to inquire of any concerns with the Montgomery
22 solar facility and, for MODOT, the additional issue of the possibility of glare and
23 file documentation regarding the contact in this case file.
- 24 2. Ameren Missouri shall submit final plans and project specifications and the final
25 operating and maintenance manual as they are available.
- 26 3. The conditions and recommendations agreed to in Case Nos. EA-2016-0207 and
27 ET-2020-0022 shall continue to apply to the new facility, except as otherwise
28 provided in this recommendation.
- 29 4. Ameren Missouri shall delineate all revenues, investments, and expenses associated
30 with the Montgomery, Lambert Community Solar Facilities, and any future

1 community solar facilities and record them into separate accounts or sub-accounts,
2 separately by facility starting with the in-service date for the facility. This unique
3 general ledger recording for these items shall be available for Staff’s review during
4 the next Ameren Missouri electric rate case, ER-2021-0240.

- 5 5. Ameren Missouri shall not begin construction of the project until the expansion
6 facility is fully subscribed.
- 7 6. The additional land at the Montgomery site shall be limited to use for further
8 Community Solar expansions, and remain in plant held for future use until that time.
- 9 7. Staff will propose adjustments in all future Ameren Missouri electric rate cases to
10 remove all community solar costs from the Plant-in-Service Accounting (“PISA”)
11 deferral and associated amortization expense.
- 12 8. Staff proposes that the sharing mechanism described in paragraph 16 of the
13 Non-Unanimous Stipulation and Agreement on pages 9-10 in Case No.
14 EA-2016-0207 be modified for purposes of this Project so that the sharing of risk
15 would begin when subscription falls below 100% (customer blocks subscribed vs.
16 total solar blocks in service), rather than 50%. This prevents subsidization by
17 non-subscribers as this is an expansion of a voluntary program.
- 18 9. The Commission directs Staff and Ameren Missouri to jointly file agreed upon
19 in-service criteria for the Montgomery solar facility with the Commission within
20 90 days of granting the CCN. The filed in-service criteria will be used to evaluate
21 whether the Community Solar facility, once operational, meets the fully operational
22 and used for service standard in Section 393.135, RSMo.

23 **Background Information**

24 Ameren Missouri’s Community Solar Program was initially approved in Case No.
25 EA-2016-0207. The Lambert Community Solar Center, a 1 MW solar generation facility located
26 on St Louis Lambert International Airport property, completed construction in 2019. Ameren
27 Missouri maintained a waitlist of interested customers after the resource was fully subscribed.
28 In Case No. ET-2020-0022 the Commission approved an expansion of the Community Solar
29 Subscriber pilot program. The Community Solar tariff has a condition that 90% of a resource be

1 subscribed prior to commencing construction. The Company filed an application for CCN in this
2 case once the 90% threshold had been reached.

3 *Staff Expert/Witness: Cedric E. Cunigan*

4 **II. APPLICABLE RULE HISTORY**

5 A section of the regulations for CCN applications, 4 CSR 240-3.105, was rescinded
6 (“Rescinded Rule”) and replaced in a 2018 rulemaking with 4 CSR 240-20.045. This rule was
7 challenged in the Missouri Court of Appeals, Western District, which issued an opinion¹ on
8 June 28, 2019. Ultimately, the Western District vacated the Order of Rulemaking promulgating
9 4 CSR 240-20.045 (“Vacated Rule”). Both Kansas City Power & Light Company and the Missouri
10 Public Commission filed Applications for Transfer with the Supreme Court of Missouri in Case
11 No. APSC98039 on August 13, 2019 and August 14, 2019, respectively. On November 19, 2019,
12 the Supreme Court of Missouri accepted transfer of the case. 4 CSR 240-20.045 was moved to
13 20 CSR 4240-20.045 effective August 28, 2019 with the transition of the Public Service
14 Commission from the Department of Economic Development to the Department of Commerce
15 and Insurance.

16 **III. APPLICATION REQUIREMENTS**

17 On October 28, 2020, Ameren Missouri filed its Application for a CCN for a solar
18 generating asset to be constructed in Montgomery County, Missouri to serve as the second program
19 resource for the Company’s expanded Community Solar Pilot Program.²

20 Staff used 20 CSR 4240-20.045 to evaluate the Application.

21 The results of Staff’s review of the application requirements are detailed below, with
22 appropriate rule subparagraphs A. through K. identified:

23 **(A) A description of the proposed route or site of construction;**

24 The Project will be located on approximately 55 acres of the 91 acres of agricultural
25 land presently owned by Ameren Missouri in Montgomery County, in New Florence, MO.
26 The 91 acres are located on two tracts, located approximately 2 miles east of the intersection of

¹ Matter of Amendment of Commission’s Rule Regarding Applications for Certificates of Convenience & Necessity; Kansas City Power and Light v. Missouri Public Service Commission, No. WD 82182.

² Commission File No. ET-2020-0022.

1 I-70 and Missouri Highway 19, along the north outer road of I-70. The site is bounded on the
2 north by the Norfolk & Southern Railroad right-of-way; on the east by a business; on the south by
3 the I-70 north outer road; and on the west by a drainage channel. The site is located within
4 Ameren’s existing service territory in Section 25 of Township 48 North, Range 5 West. The
5 Company provided several diagrams of the proposed Project and the site of construction in
6 Schedule B of its Application. Ameren stated in its response to Staff Data Request No. 0023 that
7 the front of the panels will be visible on I-70. There are no applicable MODOT requirements
8 regarding the possibility of glare from solar panels for oncoming traffic when siting near highways.
9 Staff recommends that the Commission order Ameren Missouri to contact MODOT and the
10 Norfolk Southern Railway to inquire of any concerns with the Montgomery solar facility, and for
11 MODOT, the additional issue of the possibility of glare and file documentation regarding the
12 contact in this case file.

13 **(B) A list of all electric, gas, and telephone conduit, wires, cables, and lines of**
14 **regulated and nonregulated utilities, railroad tracks, and each underground facility,**
15 **as defined in section 319.015 RSMo, which the proposed construction will cross;**

16 Schedule C-1 of the Application states that the only utility this project will be crossing is a
17 fiber telecommunication line within the Booneslick road right-of-way, along the south side of the
18 property. This project will have an entrance driveway to the site that will cross over this line, but
19 it is not expected to interfere with the line.

20 Additional details of the surrounding utilities were provided in Schedule C-2 of the
21 Application, which includes the land title survey. The survey shows a railroad on the border of
22 the project. In his testimony, Ameren Missouri witness Mr. Wibbenmeyer stated, “The Norfolk
23 Southern Railroad operates along the northern boundary of the property; however, this Project will
24 not cross or interfere with the railroad right-of-way.” In response to Staff Data Request No. 0033,
25 received December 3, 2020, Ameren Missouri stated that it had not notified Norfolk Southern
26 Railway of its intention to build the solar facility near the railroad line as the solar facility will not
27 be located within the railroad’s right-of-way. Ameren Missouri also stated that it had not
28 researched best practices for siting solar facilities near railroad lines.

1 **(C) A description of the plans, specifications, and estimated costs for the complete**
2 **scope of the construction project that also clearly identifies what will be the**
3 **operational features of the asset once it is fully operational and used for service;**

4 Construction Specification for Community Solar Expansion at Montgomery County,
5 Missouri was filed by the Company in Attachment D. The Project will be approximately 6.16 MW
6 producing approximately 9,804 Program blocks at 100 kWh per block, which will interconnect to
7 Ameren Missouri's 34.5 kV distribution system presently located at the site. There is potential for
8 future expansion on the site, but the sizing and timing for further phases is not currently known.
9 The estimated total cost of the initial construction of the Project is ** _____ **.

10 **(D) The projected beginning of construction date and the anticipated fully operational**
11 **and used for service date of the asset;**

12 The Company plans to begin construction in April 2021, and anticipates that it will be fully
13 operational by October 2021.

14 **(E) A description of any common plant to be included in the construction project;**

15 The Company stated in its Application that there is no common plant applicable to this
16 project.

17 **(F) Plans for financing the construction of the asset;**

18 The Company plans to finance the construction using existing funds and indebtedness.
19 Financial feasibility is discussed in Section III(C) of this Report.

20 **(G) A description of how the proposed asset relates to the electric utility's adopted**
21 **preferred plan under 4 CSR 240-22;**

22 Schedule E of the Application states that the community solar expansion project is
23 consistent with Ameren Missouri's 2020 IRP Preferred Resource Plan and the Company's
24 three-year Implementation Plan (File No. EO-2021-0021). The Project is specifically discussed
25 within Chapter 6 of the Company's 2020 IRP as one of the innovative renewable deployments
26 Ameren Missouri is pursuing in an effort to deliver more renewable generation throughout its
27 service territory and to meet the growing needs of its customers.

1 **(H) An overview of the electric utility’s plan for this project regarding competitive**
2 **bidding, although competitive bidding is not required, for the design, engineering,**
3 **procurement, construction management, and construction of the asset;**

4 Mr. Wibbenmeyer stated in his direct testimony that Ameren Missouri used a competitive
5 bidding process to solicit bids from potential contractors who have experience and knowledge to
6 construct the Project. The Company provided the plan used for competitive bidding in
7 Schedule F of the Application.

8 **(I) An overview of plans for operating and maintaining an asset;**

9 The final operating procedure will be dependent on design details; however,
10 Ameren Missouri provided a draft of a standard operating procedure for the facility (Schedule G
11 of the Application). Ameren Missouri stated that the facility will be managed in a similar fashion
12 to other solar generation facilities, such as Lambert Community Solar. The procedure describes
13 operation of the Project, including pre-start actions, start-up, monitoring, and shutdown. Staff
14 recommends the Commission order Ameren Missouri to file the final operating and maintenance
15 manual when available.

16 **(J) An overview of plans for restoration of safe and adequate service after significant,**
17 **unplanned/forced outages of an asset; and**

18 Ameren Missouri addressed restoration of service in Schedule G of the Application.
19 The distribution system will be designed to disconnect the site from the grid, allowing for
20 continued reliable service of the distribution system, and safe troubleshooting and repair of the
21 solar facility equipment.

22 **(K) An affidavit or other verified certification of compliance with the following**
23 **notice requirements to landowners directly affected by electric transmission line**
24 **routes or transmission substation locations proposed by the application. The proof**
25 **of compliance shall include a list of all directly affected landowners to whom notice**
26 **was sent.**

27 The Project does not include electric transmission lines or transmission substations;
28 therefore, 20 CSR 4240-20.045(6)(K) is not applicable.

1 **Summary of Application Requirements**

2 For items that are required by 20 CSR 4240-20.045, but unavailable at the time of
3 application, Subsection (3)(C) allows for later submission of the unavailable items prior to
4 approval of the application with approval conditioned on providing the unavailable items.
5 Ameren Missouri has met the initial filing requirements for the Application but Staff recommends
6 the Commission include a condition for filing finalized plans and project specifications as they
7 are available.

8 *Staff Expert/Witness: Amanda Coffey*

9 **IV. The Five Tartan Criteria**

10 Requests for CCNs are typically evaluated under the standard articulated in *In the Matter*
11 *of the Application of Tartan Energy Company, LLC, d/b/a Southern Missouri Gas Company.*³
12 In the Tartan Energy Company case, the Commission’s Order listed five criteria to include in the
13 consideration when making a determination on whether a utility’s proposal meets the standard of
14 being “necessary or convenient for the public service”:

- 15 • Is the service needed?
- 16 • Is the applicant qualified to provide the service?
- 17 • Does the applicant have the financial ability to provide the service?
- 18 • Is the applicant’s proposal economically feasible?
- 19 • Does the service promote the public interest?⁴

20 **A. Whether there is a need for the facilities and service**

21 In the context of the Tartan Criteria, Staff has interpreted “need” as a requirement for the
22 applicant to demonstrate that there are benefits to the project that justify its cost. Ameren Missouri
23 asserts in its Application that there is a need for the project due to the current community solar
24 facility being fully subscribed and there being customer demand for another facility. Ameren
25 Missouri’s tariff requires that 90% of the planned resource’s capacity (or expansion capacity) be
26 subscribed prior to obtaining a CCN. Ameren Missouri states in its Application that there is a
27 waitlist for approximately 93% of the capacity of the proposed second resource; however, since

³ *In the Matter of the Application of Tartan Energy Company, LLC, d/b/a Southern Missouri Gas Company,*
Mo P.S.C. 3d 173, 177 (1994). *See also* Section 393.170, RSMo (2000).

⁴ *Id.*

1 the time of the Application, the offered capacity has become fully subscribed. The most recent
2 quarterly report⁵ filed in Case Nos. EA-2016-0207 and ET-2020-0022 states that the Montgomery
3 facility, which is the subject of this CCN, is fully subscribed.

4 The community solar program is not needed to meet the energy needs of the utility as a
5 whole, but is needed to meet a desire of customers to have their energy supplied from renewable
6 sources. The Community Solar Program is designed to have costs of the solar facilities and the
7 program borne by the subscribers to the program though Staff has concerns about the potential for
8 subsidization of the program by non-subscribers, which are discussed in the Economic Feasibility
9 section of this Report.

10 *Staff Exper/Witness: Cedric E. Cunigan*

11 **Customer Demand**

12 In response to Staff Data Request No. 0003.1, as of January 7, 2021, there were
13 347 customers subscribing to 1,302 solar blocks and 2,094 customers requesting 9,631 solar blocks
14 on the waitlist. Figures 1 and 2 below show the number of customers and requested number of
15 solar blocks on the waitlist since October 2018.

16 **Figure 1.**

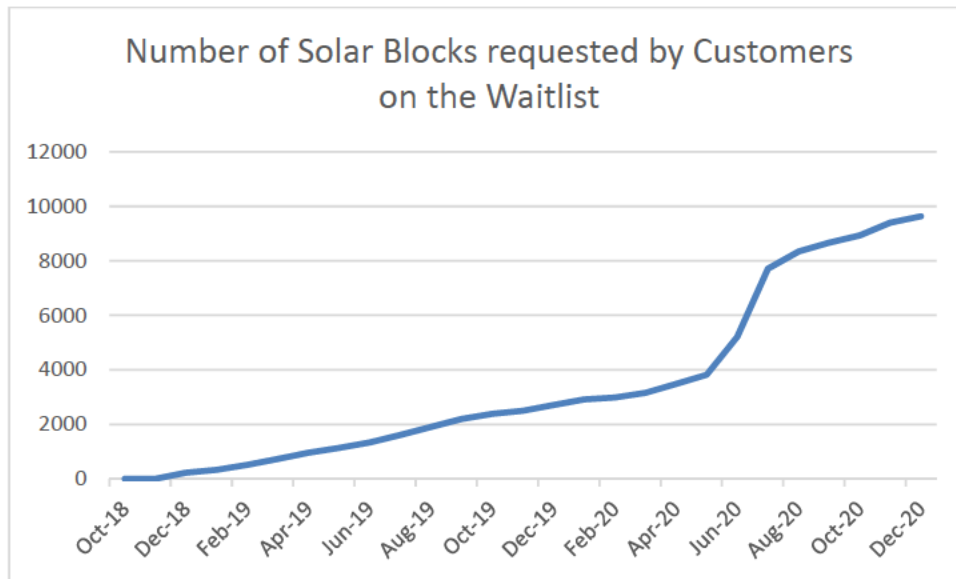


17

⁵ Case No ET-2020-0022, Item No. 32, Report.

1

Figure 2.



2

3 As can be seen from the graphs above, there has been a steady increase in the waitlist with
4 the exception of a large increase in June through August 2020.⁶

5 During this period, some customers have also unsubscribed from the program, though not
6 enough to substantially affect the number of customers on the waitlist or to result in less than full
7 subscription of the current solar facility located at Lambert. For the period November 2019
8 through October 2020, an average of 2.6 customers who were subscribers unsubscribed from the
9 program, with a maximum of 8 in June 2020. In that same period, an average of 15.5 customers
10 have withdrawn from the waitlist, with a maximum of 34 in the month of September 2020.

11 There is a trend of more customers dropping off the waitlist after June 2020, but this is
12 concurrent with a larger level of customers on the waitlist as seen in Figure 1. Table 1, below,
13 shows the number of customers who were on the waitlist that have withdrawn from the program.⁷

14

Table 1.

15

Customers on the Waitlist that have Withdrawn from the Solar Subscriber Program.

| Wait Drop Cust | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----------------|---|----|---|---|----|----|----|----|----|----|----|----|
| 2018 | | | | | | | | | | 5 | 1 | 1 |
| 2019 | 1 | 1 | 0 | 1 | 0 | 4 | 7 | 4 | 6 | 8 | 5 | 8 |
| 2020 | 9 | 10 | 9 | 9 | 13 | 20 | 20 | 26 | 34 | 23 | | |

16

⁶ Ameren Missouri has indicated that it started a new promotional campaign during this time.

⁷ Data comes from Ameren Missouri's response to Staff Data Request No. 0003.

1 There has not been a corresponding increase in customers unsubscribing from the program
2 for those who were subscribed.

3 *Staff Expert/Witness: Michael L. Stahlman*

4 **B. Whether the applicant is qualified to own, operate and manage the facilities**
5 **and provide the service**

6 Ameren Missouri currently operates and manages the O’Fallon Renewable Energy Center
7 (“OREC”). The proposed facility is not much larger than the OREC and the subscriber program
8 is an expansion of the Community Solar Pilot Program approved by the Commission in Case No.
9 EA-2016-0207. Given Ameren Missouri’s experience with similar projects and its long standing
10 history of providing electric service, Staff has no concerns with Ameren Missouri’s qualifications.

11 *Staff Exper/Witness: Cedric E. Cunigan*

12 **C. Does the applicant have the financial ability to provide the service?**

13 The total cost of constructing the Project is estimated to be approximately
14 ** _____ **. Ameren Missouri expects to finance the Project through the use of existing
15 funds and indebtedness. With respect to potential sources of debt that can be used to finance the
16 assets, Ameren Missouri has direct access to an \$850 million sublimit credit under the \$1.2 billion
17 Illinois revolving credit facility that it shares with Ameren Corp., from which it can access
18 short-term indebtedness, either directly or through commercial paper borrowings. In addition,
19 Ameren Missouri has the ability to access additional short-term funds up to its \$1 billion FERC
20 maximum through the utility money pool. Ameren Missouri has access to long-term debt via the
21 debt capital markets, upon usual requisite authority, including Commission authorization. Equity
22 capital can be accessed for the financing of such assets through the Company's retained earnings
23 or from Ameren Corp. capital contributions. Staff concludes that Ameren Missouri has enough
24 capital to finance the approximately ** _____ ** Project.

25 *Staff Expert/Witness: Seoung Joun Won, PhD*

26 **D. Whether the Project is Economically Feasible**

27 In his direct testimony, Ameren Missouri witness Scott Wibbenmeyer claims that the
28 project is economically feasible due to it “being built to support the voluntary customer program

1 and is funded by the participants of the Program⁸.” Staff agrees that the project is economically
2 feasible; however, it does have concerns that are described in the section below.

3 **Community Solar Program**

4 The Community Solar pilot program is targeted at residential and small business customers
5 of Ameren Missouri who are unable or unwilling to install their own solar panels. The voluntary
6 program allows them to sign-up to replace a portion, up to 50%, of their annual energy usage with
7 monthly 100 kilowatt blocks of solar energy from the Community Solar program. The pilot was
8 initially approved by the Commission after a settlement was reached amongst the parties in
9 Ameren Missouri Case No. EA-2016-0207. The tariff that was approved in that case breaks the
10 monthly pilot tariff for the blocks into two components; there is a solar generation charge which
11 encompasses the costs to build and operate the solar facilities and a Total Facilities charge for the
12 other costs of providing service. The solar generation⁹ portion of the tariffed rate is capped at the
13 initial amount offered in the program; however, it can be reduced when additional solar facilities
14 are added to the program. The Total Facilities charge¹⁰ is subject to change as part of a general
15 rate case.

16 The solar generation charge is calculated using the levelized cost over the 25-year life of
17 the facilities. As new facilities are added to the program the levelized cost for the new facility is
18 averaged with the remaining levelized cost of the previous facility to determine the new solar block
19 charge. In response to Staff Data Request No. 0039, Ameren Missouri has indicated that it
20 estimates that the monthly solar generation charge will ** _____ ^{11**}
21 with the addition of the additional generation for the expansion of the pilot.

22 **Request For Proposal**

23 After the expansion of the pilot tariff was approved in Case No. ET-2020-0022,
24 Ameren Missouri began to prepare for a CCN for a second solar project. ** _____
25 _____

⁸ Wibenmeyer Direct page 5, lines 21-22.

⁹ The Solar Generation charge is currently \$10.78 for both Residential and Small General Service customers.

¹⁰ The Total Facilities charge is currently \$3.13 for Residential customers and \$2.28 for Small General Service customers based upon Ameren Missouri’s most recent rate case (ER-2019-0335), which represents a slight reduction from the amount in the initial tariff that was based upon the class cost of service study in Case No. ER-2016-0179.

¹¹ The ** _____ ** is an estimated amount, not a final cost, and is not being established in this case. Staff will review the final calculation of the solar generation charge.

1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18

** The following chart breaks down the
 estimated ** _____ ** cost for the project:

**

| | | | | |
|-------|-------|-------|-------|-------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

**

Subscribership

The primary factor regarding the economic feasibility of this project is that the Community Solar subscribers voluntarily agree to pay an additional amount for the solar generation. The tariff is structured so that the subscribers pay for the cost of the system over its lifespan, using the levelized cost for the facility. If fully subscribed for the life of the system, subscribers in theory will pay for all of the capital and operations and maintenance costs for the solar facility. Staff does have concerns regarding the potential for subsidization of the program by non-subscribers, which is described in the Staff Concern’s section below. When Ameren Missouri filed its Application on October 28, 2020, subscribership was at 93% of the proposed capacity for the project. In its Application Ameren Missouri estimated 9500 blocks would be made available by the construction of a second Community Solar facility. ** _____

1 _____
2 _____ ** Since that date subscribership has grown
3 and the project is now fully subscribed with a small amount of customers on the waiting list¹².

4 **Investment Tax Credit**

5 One of the factors affecting the economic feasibility of this project is the project's
6 eligibility for investment tax credits. The IRS issued guidance in November 2018 which outlined
7 the requirements for a solar facility to be eligible for investment tax credits. To meet eligibility for
8 these tax credits, a solar project must begin before a certain date, show continued progress towards
9 completion, and be placed in service before a certain date. These credits are subject to phase down,
10 which reduces the amount of credit for which the project is eligible. When Ameren Missouri
11 initially filed its Application, the project was eligible for a 22% tax credit. However, the
12 Consolidated Appropriations Act of 2021, which was signed into law on December 27, 2020,
13 extended the phase out schedule, making the project potentially eligible for a 26% tax credit if
14 construction begins in 2021 or 2022 and the project is placed into service no later than
15 December 31, 2025. ** _____

16 _____ **

17 **Staff Concerns**

18 While the project is economically feasible, Staff does have concerns regarding the
19 expansion of the pilot program. By Ameren Missouri using the levelized cost of energy¹³ at the
20 time of construction to determine the solar generation charge, there is a potential for
21 non-subscribers to subsidize the program as the facility and the operations and maintenance costs
22 for it are included in the overall revenue requirement, rather than being separated from base rates.
23 The inputs used to calculate the charge are set at a point in time and do not take into account
24 changes that may occur to items, such as return on equity, capital structure, and income tax rates.
25 If for example, the Commission were to authorize a higher rate of return¹⁴ for Ameren Missouri

12 In response to Staff Data Request No. 003.1, Ameren Missouri indicated there are ** _____ ** solar blocks on the waiting list, and the proposed facility will have ** _____ ** blocks.

13 The levelized cost of energy is a projection of the average cost per unit of energy to construct and maintain the facility over a period of time. See Appendix 2, Confidential Schedule JK-1 for the calculation of the levelized cost of energy for this project.

14 ** _____ **

1 than the amount used in the calculation of the charge, non-subscribers would pick up the difference
2 in base rates during a general rate case.

3 Additionally, by using the levelized cost of energy approach to calculate the solar
4 generation charge, non-subscribers will ** _____
5 _____ **¹⁵. While the solar generation charge, in theory, covers all of the costs of
6 the system over its expected life, ** _____

7 _____ ⁻¹⁶ . _____
8 _____
9 _____
10 _____
11 _____

12 _____ ** As Ameren Missouri
13 constructs additional renewable resources to meet its carbon reduction goals,¹⁷ subscribers may
14 drop-off as there is no-need to pay a potentially higher tariffed rate for solar energy.
15 If subscribership were to decline before the second half of the system's life, there is risk that the
16 non-participants will have subsidized the construction of a facility that is not needed by Ameren
17 Missouri for RES compliance or generation needs at this time. Even if the program were to remain
18 fully subscribed for the life of the facility, it is likely that there will be subsidization by
19 non-subscribers due to the factors described above. To address these concerns, Staff is
20 recommending that Ameren Missouri uniquely delineate all expenses (including operations and
21 maintenance expense, and depreciation), all capital related costs, revenue, and all other related
22 items (including the tax impact) for the Montgomery and Lambert Community Solar facilities,
23 starting from the in-service date. Ameren Missouri should also follow Staff's recording guidance
24 for any future community solar facilities. This recording in the general ledger should utilize
25 separate accounts, sub-accounts, or other unique coding separately by facility so that these revenue
26 requirement items may be reviewed by Staff in subsequent rate cases to address the potential
27 subsidization of the program by non-subscribers. Delineating the above expenses, investments,

¹⁵ Based upon Ameren Missouri's projections for subscribers to fully cover the revenue requirement impact of the proposed facility in the first year the solar generation charge would be need to be ** ____ **.

¹⁶ In response to Staff Data Request No. 0039, Ameren Missouri ** _____
_____ **

¹⁷ See Appendix 2, Schedule JK-2. (Page 2 of Executive Summary of Ameren Missouri's IRP).

1 and revenues into separate accounts would allow Staff and other parties to have a full accounting
2 of the revenue requirement impact of the program to consider in future general rate proceedings.

3 Another issue with utilizing the levelized cost of energy to calculate the solar generation
4 charge is the potential for double recovery of costs through the Plant-in-Service Accounting
5 (“PISA”) deferral mechanism granted by Senate Bill 564.¹⁸ Senate Bill 564 allows for a utility to
6 defer 85% of the depreciation expense and return for the construction of qualifying electric plant
7 into a regulatory asset; additionally the utility is allowed to recover a carrying cost on the deferred
8 amount as well. The solar generation charge, when calculated using the levelized cost of energy,
9 assumes the full recovery of the depreciation expense and return on that expense. The levelized
10 cost of energy constitutes all costs of the facility, as structured by the Program. If depreciation
11 expense and the return for the Community Solar facilities are included in the PISA deferral then
12 Ameren Missouri will recover the depreciation expense and associated return on those assets
13 twice,¹⁹ once through the regulatory asset when it is included in base rates, and also through the
14 solar generation charge. Therefore, to avoid double recovery of these costs by Ameren Missouri,
15 it will be necessary for Staff to propose an adjustment to remove all costs associated with the
16 Lambert, Montgomery, and any future community solar facilities included in the PISA deferral
17 mechanism and associated amortization of the deferred assets in all of Ameren Missouri’s future
18 general rate cases.

19 Additionally Staff has concerns regarding the land on which the current facility is to be
20 constructed. When Ameren Missouri initially purchased the land for the construction of the
21 Montgomery solar facility in ** _____

22 _____, ¹⁹ ** The response to Staff Data Request No. 0023 states:

23 ** _____
24 _____
25 _____
26 _____
27 _____

18 Section 393.1400.

19 ** _____

_____ **

20

As land is not subject to depreciation, the full value of any land used in this project will be included in rates for the life of the system. Given the **, Staff is recommending that the unused portion of the land²¹ be limited to use for potential expansion of the Community Solar Program. The unused portion of the land at the site would remain in plant held for future use.

Finally the Program is moving beyond the scale of a small scale pilot program. The proposed facility would be the largest solar facility operated by Ameren Missouri;²² Staff is concerned that Ameren Missouri may be reaching the limit of the number of customers who are willing to pay extra for solar generation. Staff has concerns that if subscribership for the Program begins to fall after the two year commitment, there may not be enough customers on the waiting list to replace those who leave the Program. Ameren Missouri proposes to split the risk of under-subscription equally with rate payers²³, with shareholders of Ameren Missouri assuming all Program costs if subscriptions were to fall below 50%. Given the increase in the size and scope of the expansion of the Project, it would offer more protection from subsidization by non-subscribers if the sharing of risk were adjusted. Staff proposes that the sharing mechanism described in paragraph 16 of the Non-Unanimous Stipulation and Agreement on pages 9-10 in Case No. EA-2016-0207 be modified for purposes of this Project so that the sharing of risk would begin when subscription falls below 100% (customer blocks subscribed vs. total solar blocks in service), rather than 50%.

In Staff's proposal, during a general rate case Ameren Missouri shall be deemed as being subscribed to half of the available blocks. In each general rate case, the subscription level at the

²⁰ **

²¹ In response to Staff Data Request No. 0017, Ameren Missouri indicated that there would be between 30-35 acres of unused land at the site.

²² The O'Fallon solar facility is 5.7 MW compared to the ** MW for this proposed facility.

²³ In EA-2016-0207, Ameren Missouri committed to sharing the risk of undersubscription between shareholders and ratepayers if subscriptions fall below 50%. During a general rate case, if subscriptions are below 50%, Ameren Missouri shall be deemed as subscribing equal to the difference between 50% of the total subscriptions and the total blocks in service. Ameren Missouri extended its commitment in the Unanimous Stipulation and Agreement approved by the Commission in ET-2020-0022. For example if subscription were to fall to 35% at the end of the last month of the true-up period during a general rate case, Ameren Missouri would be deemed as having subscribed for 15% of the available blocks to bring the total subscription back to 50%.

1 last month of the true-up period shall determine whether Ameren Missouri is a subscriber, and the
2 number of blocks subscribed to Ameren Missouri. For example, if the number of blocks available
3 for subscription at the end of a true-up period in a general rate case were 500, Ameren Missouri
4 would be deemed as being subscribed to 250 blocks. This would also provide incentive for
5 Ameren Missouri to maintain the subscribership at 100%, and also provide additional protection
6 to the ratepayers of Ameren Missouri from subsidization.

7 **Recommendations**

- 8 • Other than the changes described below, Staff recommends that the conditions and
9 recommendations agreed to in Case Nos. EA-2016-0207 and ET-2020-0022 shall
10 continue to apply to the new facility.
- 11 • Ameren Missouri shall delineate all revenues, investments, and expenses associated
12 with the Montgomery, Lambert Community Solar Facilities, and any future
13 community solar facilities and record them into separate accounts or sub-accounts,
14 separately by facility starting with the in-service date for the facility. This unique
15 general ledger recording for these items shall be available for Staff's review during
16 the next Ameren Missouri electric rate case, ER-2021-0240.
- 17 • Ameren Missouri shall not begin construction of the project until the expansion facility
18 is fully subscribed.
- 19 • The additional land at the Montgomery site shall be limited to use for further
20 Community Solar expansions, and remain in plant held for future use until that time.
- 21 • Staff will propose adjustments in all future Ameren Missouri electric rate cases
22 to remove all community solar costs from the PISA deferral and associated
23 amortization expense.
- 24 • Staff proposes that the sharing mechanism described in paragraph 16 of the
25 Non-Unanimous Stipulation and Agreement on pages 9-10 in Case No. EA-2016-0207
26 be modified for purposes of this Project so that the sharing of risk would begin when
27 subscription falls below 100% (customer blocks subscribed vs. total solar blocks in
28 service), rather than 50%. This prevents subsidization by non-subscribers as this is an
29 expansion of a voluntary program.

30 *Staff Expert/Witness: Jason Kunst, CPA*

1 **E. Public Interest**

2 The proposed facility is being designed to meet a desire of customers to have their energy
3 needs met from renewable sources. The subscribers have a clear desire for this service. Ameren
4 Missouri is qualified to own and operate the facility, and has the financial ability to purchase and
5 maintain the facility. With approval of Staff’s recommended conditions, Staff would recommend
6 the Commission find the project in the public interest.

7 *Staff Exper/Witness: Cedric E. Cunigan*

8 **V. In Service Criteria**

9 In-service criteria are a set of operational tests or operational requirements used to
10 determine whether a new unit is “fully operational and used for service.”²⁴ A new facility may not
11 have any historical operating information from which Staff could make a recommendation to the
12 Commission of whether the new unit is “fully operational and used for service”; therefore,
13 operational tests are established and performed in order for Staff to file its recommendation.
14 In-service criteria are typically developed based on review of the new unit’s specifications and
15 discussions with the Company. For other construction projects, these discussions often have
16 occurred during a general rate case though they have also occurred as part of other proceedings.

17 Each set of in-service criteria are developed for both a specific type of generating unit
18 (i.e. coal plant, air quality control systems, solar facility) and the specific facility. In addition to
19 criteria regarding operational tests and contract guarantees, each set of in-service criteria includes
20 confirmation that all major construction work has been completed and there is sufficient
21 transmission interconnection facilities to carry the total net electrical capacity into the
22 distribution/transmission system. Staff and Ameren Missouri previously agreed to solar in-service
23 criteria for the O’Fallon facility. The solar in-service criteria were used to evaluate the Lambert
24 solar facility and will be used to evaluate the BJH facility.²⁵

25 Staff recommends that the Commission direct Staff and Ameren Missouri to jointly file
26 agreed upon in-service criteria for the Montgomery solar facility with the Commission within

²⁴ Section 393.135, RSMo. 2000: “Any charge made or demanded by an electrical corporation for service, or in connection therewith, which is based on the costs of construction in progress upon any existing or new facility of the electrical corporation, or any other cost associated with owning, operating, maintaining, or financing any property before it is fully operational and used for service, is unjust and unreasonable, and is prohibited.” [Emphasis added.]

²⁵ Page 7, Corrected Non-Unanimous Stipulation and Agreement, ER-2019-0335.

1 90 days of granting the CCN. The filed in-service criteria will be used to evaluate whether the
2 Community Solar facility, once operational, meets the fully operational and used for service
3 standard in Section 393.135, RSMo.

4 *Staff Expert/Witness: Cedric E. Cunigan*

5 Appendix 1 - Staff Credentials

6 Appendix 2 - Other Staff Schedules

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) Case No. EA-2020-0371
for Permission and Approval and a)
Certificate of Public Convenience and)
Necessity Under 20 CSR 4240-3.105)

AFFIDAVIT OF AMANDA COFFER

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COME NOW AMANDA COFFER and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing *Staff Report*; and that the same is true and correct according to her best knowledge and belief, under penalty of perjury.

Further the Affiants sayeth not.

/s/ Amanda Coffey
AMANDA COFFER

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 |) | Case No. EA-2020-0371 |
| for Permission and Approval and a |) | |
| Certificate of Public Convenience and |) | |
| Necessity Under 20 CSR 4240-3.105 |) | |

AFFIDAVIT OF CEDRIC E. CUNIGAN

| | | |
|-------------------|---|-----|
| STATE OF MISSOURI |) | |
| |) | ss. |
| COUNTY OF COLE |) | |

COME NOW CEDRIC E. CUNIGAN and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Report*; and that the same is true and correct according to his best knowledge and belief, under penalty of perjury.

Further the Affiants sayeth not.

/s/ Cedric E. Cunigan
CEDRIC E. CUNIGAN

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) Case No. EA-2020-0371
for Permission and Approval and a)
Certificate of Public Convenience and)
Necessity Under 20 CSR 4240-3.105)

AFFIDAVIT OF JASON KUNST, CPA

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COME NOW JASON KUNST, CPA and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Report*; and that the same is true and correct according to his best knowledge and belief, under penalty of perjury.

Further the Affiants sayeth not.

/s/ Jason Kunst
JASON KUNST, CPA

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 |) | Case No. EA-2020-0371 |
| for Permission and Approval and a |) | |
| Certificate of Public Convenience and |) | |
| Necessity Under 20 CSR 4240-3.105 |) | |

AFFIDAVIT OF MICHAEL L. STAHLMAN

| | | |
|-------------------|---|-----|
| STATE OF MISSOURI |) | |
| |) | ss. |
| COUNTY OF COLE |) | |

COME NOW MICHAEL L. STAHLMAN and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Report*; and that the same is true and correct according to his best knowledge and belief, under penalty of perjury.

Further the Affiants sayeth not.

/s/ Michael L. Stahlman
MICHAEL L. STAHLMAN

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) Case No. EA-2020-0371
for Permission and Approval and a)
Certificate of Public Convenience and)
Necessity Under 20 CSR 4240-3.105)

AFFIDAVIT OF SEOUNG JOUN WON, PhD

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COME NOW SEOUNG JOUN WON, PhD and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Staff Report*; and that the same is true and correct according to his best knowledge and belief, under penalty of perjury.

Further the Affiants sayeth not.

/s/ Seoung Joun Won, PhD
SEOUNG JOUN WON, PhD