COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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| ELECTRONIC JOINT APPLICATION OF KENTUCKY UTILITIES COMPANY AND LOUISVILLE GAS AND ELECTRIC COMPANY FOR APPROVAL OF AN OPTIONAL SOLAR SHARE PROGRAM RIDER | ) ) ) ) ) | Case No. 2016-00274 |

ORDER

On August 2, 2016, Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E") (jointly "Companies") filed an application seeking approval of separate tariffs to offer their respective customers an optional, voluntary Solar Share Program Standard Rate Rider ("Rider SSP"). The application also seeks approval to apply Commission-approved group depreciation rates to the new solar photovoltaic facilities with a combined capacity of up to approximately four megawatts ("MW") and requests a deviation from 807 KAR 5:011, Section 8, requiring notice to the public of the proposed rate schedules. The application proposed that the Rider SSP become effective on September 1, 2016. By Order dated August 12, 2016, the Commission suspended the effective date of the proposed tariff for five months up to and including January 31, 2017; established a procedural schedule for the processing of this matter; and denied the Companies' request regarding the publishing of customer notice three times, but granted a deviation to allow the Companies to publish the customer notice only one time. The Companies filed proof of publication of the customer notice on September 19, 2016.

Kentucky Industrial Utility Customers, Inc. ("KIUC") was granted intervention in this proceeding but did not participate in discovery or file testimony. Commission Staff issued, and the Companies responded to, two rounds of information requests. In addition, two informal conferences were held to discuss outstanding issues in this matter.[1] The Commission also received a number of letters expressing concerns about the proposed site of the new solar photovoltaic facilities and a few related to the proposed rate structure and cost of Rider SSP. The Companies filed a joint motion on September 30, 2016, requesting that this matter be submitted for a decision based on the evidentiary record without the need for a formal hearing. The Companies indicated that KIUC had represented to them that KIUC was supportive of this motion. The Commission finds that the Companies' motion to submit the matter for a decision based upon the existing evidentiary record should be granted, given that discovery has been completed and there are no outstanding factual issues to be addressed at a formal evidentiary hearing.

## BACKGROUND

The Companies state in their application that there is an increased customer interest in receiving power generated by renewable sources. This increased interest is supported by a market survey conducted by the Companies which indicated that about 35 percent of the total residential respondents within the Companies' service territories are interested in participating in a solar-power program similar to the proposed Rider

[1] The informal conferences were held on August 29, 2016, and October 19, 2016.

SSP.[2] Additionally, state and local government officials, chambers of commerce, and economic development authorities have expressed interest in a solar energy option.[3]

To meet this demand for renewable energy options, the Companies propose to construct up to eight solar photovoltaic facilities ("Solar Share Facilities") in 500-kilowatt ("kW") increments for a maximum capacity of four MW.[4] Customers interested in participating in the proposed Rider SSP program will subscribe by quarter-kW (250 watts) portions, subject to certain limitations as described later herein, by paying an upfront nonrefundable $40 Subscription Fee per quarter-kW and a monthly $6.29 Solar Capacity Charge per quarter-kW. Each 500 kW Solar Share Facility is proposed to be built only when the facility is fully subscribed and all previously built Solar Share Facilities are fully subscribed. Subscribers will receive monthly bill credits for the pro rata amount of energy produced by their subscribed portion as well as Fuel Adjustment Clause ("FAC") adjustments.

The Companies propose that Rider SSP be available to nearly all customers and include those customers served under the following rates schedules: Residential Service, Residential Time-of-Day Energy Service, Residential Time-of-Day Demand Service, Volunteer Fire Department Service, General Service, Power Service, Time-of-Day Secondary Service, Time-of-Day Primary Service, and All Electric Schools Service.[5]

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[2] Application at paragraph 7.

[3] *Id.* at paragraph 8.

[4] The 500 kW and four MW represent Direct Current capacity.

[5] All Electric Schools Service is a rate schedule for KU only.

The Solar Share Facilities require an initial investment of approximately $2.0 million for site-related facilities and improvements and installation of the first Solar Share Facility segment. Estimated capital costs are $9.8 million to construct the entire proposed four-MW Solar Share Facilities project.[6] The cost of the Solar Share Facilities will be initially allocated 44 percent to LG&E and 56 percent to KU based upon each company's number of electric customers.[7] As previously stated, the Companies will authorize construction of each Solar Share Facility only when it and all other previously constructed Solar Share Facilities are fully subscribed. The Companies anticipate each Solar Share Facility will produce about 700,000 kilowatt hours ("kWh") of alternating current ("AC") energy per year.[8]

The Solar Share Facilities will be located on a 35-acre parcel in Simpsonville, Kentucky. In looking for the appropriate location, the Companies stressed visibility, price, access, and proximity to transmission facilities.[9] This location directly abuts Interstate 64 West near mile marker 25, which offers protection from the possibility that future structures will block the southern sun access. The Companies plan to install security cameras, two vehicle gates and one main gate, card readers and a perimeter detection system. Landscaping will be planted along the west and north boundaries.[10] The existing four-board wood plank fence will remain, six-foot evergreen trees will be planted in a staggered pattern, and a six-foot black chain-link fence will be installed

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[6] Application at paragraph 20 and Exhibit 5.

[7] Application, Direct Testimony of Rick E. Lovekamp ("Lovekamp Testimony") at 11.

[8] Application, Direct Testimony of David E. Huff at 4.

[9] *See* IC Memorandum dated August 30, 2016.

[10] Application, Exhibit 5.

behind the evergreens.[11] The Companies state that there will be approximately 100 feet between Conner Station Road and the western edge of the proposed site.[12] The Companies mailed letters to 20 persons who own property in close proximity or adjacent to the proposed site location informing those property owners of the general details of the proposed project and notifying them of an informational open house that would be held at the city of Simpsonville's Community Room on August 23, 2016.[13] The letter also included a link to the Companies' website for updates on the project and provided a dedicated e-mail address and telephone number for inquires on the proposed Solar Share Facilities project. Additionally, LG&E and KU representatives met with local public officials in August 2016 and shared renderings and a copy of the letter that was sent out to the adjoining property owners.

The Companies assert that the proposed Solar Share Facilities are ordinary extensions of their existing generating systems in the usual course of business and, therefore, the construction project does not require a Certificate of Public Convenience and Necessity ("CPCN"). They contend that the Solar Share Facilities would not be a wasteful duplication of plant, equipment, property, or facilities because the project is being implemented to satisfy customer desires and the various segments of the facilities will be constructed only after each facility is fully subscribed.[14] The Companies also contend that the estimated capital investment of $9.8 million will not have a material

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[11] *See* Telephonic IC Memorandum dated October 24, 2016.

[12] *Id.*

[13] Response to Commission Staff's Second Request for Information ("Staff's Second Request"), Item 10.

[14] Application at paragraph 20.

financial impact on either LG&E or KU.[15] The Companies further state the Solar Share Facilities will not compete or conflict with the existing certificates or services of any other jurisdictional utilities in the area, as the Solar Share Facilities will be located in the Companies' service territory, and the Companies will jointly own and operate the Solar Share Facilities for service to the Companies' own customers.[16]

Lastly, the Companies request approval to apply the same depreciation rates the Commission authorized for the Brown Solar Facility in Case No. 2016-00063.[17]

## DISCUSSION

### Rider SSP

The rate structure for Rider SSP will include the previously mentioned upfront, non-refundable $40 per quarter-kW Subscription Fee and a monthly, non-levelized Solar Capacity Charge of $6.29 per quarter-kW subscribed.[18] The purpose of the Subscription Fee is to create a financial commitment on the part of customers to remain in the program and to offset the Companies' administrative and customer-education costs.[19] The $6.29 Solar Capacity Charge represents the monthly fixed carrying costs per quarter-kW, which include the capital, fixed operating and maintenance, and other costs of the Solar Share Facilities. The Companies calculated the fixed carrying costs

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[15] *Id.*

[16] Application at paragraph 20.

[17] Case No. 2016-00063, *Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Approval of Depreciation Rates for Brown Solar* (Ky. PSC April 8, 2016).

[18] In calculating the overall revenue requirement, the original cost is allocated between the two companies on the basis of the average number of each utility's retail electric customers. Per Commission Staff's First Request for Information ("Staff's First Request"), Item 34, this allocation may change in the future based on capacity subscription from each company.

[19] Application, Direct Testimony of William Steven Seelye ("Seelye Testimony") at 3-4. Support for the Subscription Fee is provided in the Application, Exhibit 9.

using standard revenue requirement methodologies based on projected installed costs of $1,055,417 for Solar Share Facility No. #1.[20] The Companies emphasize that the Solar Capacity Charge is designed to provide cost recovery of, and a return on, capital costs associated with the Solar Share Facilities. Only subscribers will pay the capital costs of the facility. However, the Companies note that approximately $1 million of the initial $2 million investment will be unallocated capital. This $1 million includes land costs, site improvements, and other costs and will be fully allocated after the entire Solar Share Facilities is built. Until that time, all customers, including non-participants, will pay carrying costs related to this unallocated portion beginning with the base rates resulting from the Companies' next base rate cases.[21]

The proposed Solar Energy Credits are based on the Companies' variable cost of production for the pro rata amount of energy produced by each subscribed portion of the Solar Share Facilities.[22] These credits were calculated from the results of the Companies' class cost-of-service studies filed in Case Nos. 2014-00371[23] and 2014-00372.[24] These Solar Energy Credits will be subject to change based on future base rate cases and on whether increases or decreases in fuel costs rolled into base rates

[20] Seelye Testimony at 4.

[21] Response to Staff's First Request, Item 38.

[22] The variable cost of production is based on the Companies' most recent cost of service studies filed in their most recent general rate cases. For those rate classes with three-part rates consisting of a customer charge, demand charge and energy charge, the energy charge will be used as the credit.

[23] Case No. 2014-00371 *Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates* (Ky. PSC June 30, 2015).

[24] Case No. 2014-00372 *Application of Louisville Gas and Electric Company for an Adjustment of Its Electric and Gas Rates* (Ky. PSC June 30, 2015).

during two-year FAC review proceedings. The following table shows the proposed credits per kWh for each of the KU and LG&E rate schedules:[25]

| RATE SCHEDULE | RATE | KU | LG&E |
|---|---|---|---|
| Residential<br>Volunteer Fire Department<br>Residential Time-of-Day Energy<br>Residential Time-of-Day Demand | RS<br>VFD<br>RTOD-E<br>RTOD-D | $0.3477 | $0.4020 |
| All Electric Schools (KU Only) | AES | $0.03497 | N/A |
| General Service | GS | $0.03504 | $0.04021 |
| Power Service Secondary | PS | $0.03572 | $0.04071 |
| Power Service Primary | PS | $0.03446 | $0.03925 |
| Time-of-Day Secondary Service | TODS | $0.03527 | $0.04049 |
| Time-of-Day Primary Service | TODP | $0.03432 | $0.03824 |

The Companies propose to require a five-year commitment from customers subscribing to a total capacity of 50 kW or more to mitigate the financial risks of having large subscribers leave the program.[26] Additionally, no single customer will be able to subscribe to more than 500 kW of the total four-MW project capacity, or more than half of the total capacity of an individual 500-kW facility. Customers subscribing to less than 50 kW will not be required to enter into a contract; however, the subscription cannot be reduced or canceled for 12 months from the date of the most recent change to the customer's subscription level. The Companies state that requiring this 12-month commitment ensures that only those who are genuinely interested in the program subscribe, but allows for some flexibility for the customer.[27] The Companies also state that for the first 45 days of the initial subscription period for Solar Share Facility No. 1, the Companies will reserve 25 percent of the capacity for residential customers only.

[25] Seelye Testimony at 10.

[26] Application at paragraph 13.

[27] Application at paragraph 14.

After that period ends, all of the Solar Share Facilities' remaining capacity will be available for subscription by any customer.

The kWh expected to be provided by a quarter-kW capacity subscription are as follows:[28]

| Month | kWh | # of 250 W shares | kWh per 250 W share |
|---|---|---|---|
| January | 37,269 | 2000 | 18.6 |
| February | 49,229 | 2000 | 24.6 |
| March | 55,711 | 2000 | 27.9 |
| April | 64,123 | 2000 | 32.1 |
| May | 76,176 | 2000 | 38.1 |
| June | 75,060 | 2000 | 37.5 |
| July | 72,648 | 2000 | 36.3 |
| August | 73,271 | 2000 | 36.6 |
| September | 64,128 | 2000 | 32.1 |
| October | 55,117 | 2000 | 27.6 |
| November | 41,636 | 2000 | 20.8 |
| December | 36,770 | 2000 | 18.4 |
| Annual | 701,138 | 2000 | 350.6 |

The Companies propose to notify the Commission when each 500-kW Solar Share Facility is fully subscribed and to provide the Commission with an annual report for Rider SSP for the first three years of the project. The first annual report is proposed to be filed one year from the date of the Commission's approval and on the same date thereafter annually, and will include the number of Solar Share Facilities constructed, current participation levels, and other relevant information.[29]

Depreciation

The proposed group depreciation rates are the same as the Commission-approved depreciation rates for the Brown Solar Facility in Case No. 2016-00063.[30]

[28] Response to Staff's Second Request, Item 3.

[29] Lovekamp Testimony at 10 and Response to Staff's First Request, Items 32 and 33.

[30] Application at paragraph 21.

The Companies state that the deprecation rates are consistent with the Average Service Life methodology and are based on an interim survivor curve, net salvage percentage, and the facilities' probable retirement dates. The overall life span of the Solar Share Facilities is 25 years.[31]

## FINDINGS

The Companies state that they are proposing Rider SSP because of strong public interest in having such a program.[32] As evidence of this interest, the Companies provided numerous letters from various businesses and economic development entities expressing support for having a local renewable energy source. According to the Companies, there is "a broad-based interest among significant companies across numerous industries in advancing toward increasing amounts of renewable energy to supply their operations."[33] In addition, the Companies conducted a survey which indicated an interest from residential customers in the type of tariff being proposed in this proceeding.

The Companies have calculated rates for Rider SSP to include a Solar Capacity Charge of $6.29 per quarter-kW to cover fixed charges and a monthly bill credit for the customer's pro-rata share of AC energy generated by the Solar Share Facilities. The Solar Capacity Charge is calculated using standard revenue requirement methodologies, including a return on net rate base (using weighted average cost of capital), taxes (income and property), tax benefits, depreciation, and operation and

[31] *Id.*

[32] Malloy Testimony at 4.

[33] *Id.* at 6.

maintenance expenses.[34] The monthly bill credit is based on the Companies' variable costs of production. Rider SSP also includes a non-refundable Subscription Fee of $40 per quarter-kW to cover administrative and customer-education costs. The Companies filed cost support for each of the rates included in the proposed tariffs, which as stated throughout the application, are voluntary tariffs. The Commission finds the methodologies used to calculate the rates in the proposed tariffs to be reasonable.

The Commission takes note of the Companies' reference to a downward trend in the installed cost of photovoltaic equipment and the Companies' conclusion that this trend, combined with the effect of increased accumulated depreciation as well as tax effects such as deferred income taxes and investment tax credits, should reduce the monthly Solar Capacity Charge over time.[35] The monthly Solar Capacity Charge will be subject to future changes based on the Companies' cost of capital, while the Solar Energy Credit will be subject to future change based on the Companies' variable costs of production. Additionally, the Commission takes note of the Companies' proposal to use a 10 percent Return on Equity ("ROE") as a component to the Solar Capacity Charge revenue requirement determination. Due to the limited scope of this case, which did not include expert testimony on an appropriate ROE, we will accept the Companies' proposal to use the ROE previously designated for use in certain environmental cost recovery calculations pursuant to a settlement filed over 18 months ago in the Companies' last base rate cases. We further note that based on the timing of the construction schedule for Solar Share Facility No. 1 and the Companies' notice of

[34] Seelye Testimony at 4.

[35] *Id.* at 9.

intent to file base rate cases, it is highly unlikely that Solar Facility No. 1 will be fully subscribed and producing energy before the conclusion of the new base rate cases. Therefore, the ROE used for calculating the Solar Capacity Charge will be evaluated and adjusted, if appropriate, in the Companies' next base rate cases in order to ensure that it accurately reflects the current financial environment.

As stated previously, the Commission received letters and e-mails of concern related to the proposed location of the Solar Share Facilities on a 35-acre site in Simpsonville, Kentucky. The letters were filed by residents of properties near, or in the general vicinity of, the proposed site. The Companies considered 18 sites for the Solar Share Facilities. Criteria considered in the site selection were cost, visibility, proximity to distribution facilities, space, and overall suitability for solar.[36] As previously stated, the south side of the site abuts Interstate 64 West. This location allows for visibility and access, and it is close to existing transmission lines.[37] The east side of the proposed site is buffered by a line of trees. On the west and north sides of the proposed site, the Companies propose to plant six-foot evergreen trees in a staggered pattern. Given that the tallest point of the Solar Share Facilities will be approximately nine feet, the Companies' landscaping plan should limit visibility of the site considerably. In addition, the Companies state that that they will consider building the first Solar Share Facility on the southeast corner of the property in order to make it less visible. Based on these considerations, the Commission finds the Companies' landscaping plans and mitigation

[36] Response to Commission Staff's IC Request for Information, Item 3.

[37] Certain transmission and distribution upgrades will be necessary to serve the Solar Share Facilities and the cost of these upgrades is included in the project per the Companies' response to Staff's Second Request for Information, Item 11.

efforts to be reasonable. Since this proposed electric generating facility will in aggregate be less than ten MW, the Companies are exempt under KRS 278.216(1) from the requirement to file a site assessment report and to obtain a site compatibility certificate from the Commission. Due to this this exemption for facilities capable of generating ten MW or less, the Companies were not required to file a site assessment report describing the potential changes in property values for adjacent property owners.

The Commission, having considered the evidence of record and being otherwise sufficiently advised, finds that the Companies' proposed Rider SSP, as revised through discovery and as discussed herein,[38] is reasonable and should be approved. Participation in the Solar Share Facilities program is voluntary and meets the needs of those customers interested in renewable energy offerings. The proposed monthly Solar Capacity Charge is designed to recover the fixed costs over the life of the facility using standard revenue requirement methodologies once the facility is fully subscribed. This design allows for cost recovery of and a return on invested capital by participants so that there is minimal cost sharing by non-participants.

The Commission also finds that, as described herein, the Company's construction of the proposed Solar Share Facilities is an ordinary extension of the Companies' existing generating systems in the usual course of business. Because each individual Solar Share Facility will be constructed only after full customer subscription is achieved and is offered to satisfy customers' desire for renewable resource options, the Solar Share Facilities will not be a wasteful duplication of plant, equipment, property, or facilities. Also, the total capital investment in this project will not

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[38] A minor text change was made to the proposed tariffs as discussed in response to Staff's First Request, Item 12.

materially affect the financial condition of either LG&E or KU. The estimated unallocated $9.8 million capital cost represents approximately 0.16 percent and 0.22 percent of KU's and LG&E's 2015 net utility plant, respectively.[39] Further, the Solar Share Facilities will not compete or conflict with the existing certificates or services of any other jurisdictional utilities in the area. We note that our finding that the proposal for Solar Share Facilities falls within the ordinary-course-of-business exemption to the CPCN requirement based on the particular facts of this matter. For any future similar projects, the Companies should file a formal application requesting a declaratory ruling as to whether the future project would need a CPCN or would be exempt under the ordinary course of business exemption.

The Commission finds reasonable the Companies' proposal to file with the Commission annual reports for three years providing certain information related to the proposed tariffs.

IT IS THEREFORE ORDERED that:

1. The proposed Rider SSP tariff, as revised through discovery, is approved for service rendered on and after the date of this Order.

2. The Companies' request to apply the Commission-approved Brown Solar Facility depreciation rates to the proposed Solar Share Facilities is approved.

3. The proposed four-MW Solar Share Facilities are properly classified as an ordinary extension of existing systems in the usual course of business, and pursuant to KRS 278.020(1), a CPCN shall not be required for its construction. The Companies

[39] Application at paragraph 20.

are to notify the Commission within 30 days each time that an additional 500-kW Solar Share Facility is fully subscribed.

4. The Companies shall file annual reports for three years with the Commission, as proposed and as discussed herein, and shall include the number of Solar Share Facilities constructed, current participation levels, and other relevant information. The first annual report shall be filed one year from the date of this Order, and annually on this date thereafter.

5. The Companies' joint motion to submit the matter for a decision on the record is granted.

6. Within 20 days of the date of this Order, the Companies shall file with this Commission, using the Commission's electronic Tariff Filing System, revised Rider SSP tariffs reflecting that they were approved pursuant to this Order.

7. Any documents filed in the future pursuant to ordering paragraphs 3 and 4 herein shall reference this case number and shall be retained in each utility's general correspondence files.

8. The Executive Director is delegated authority to grant reasonable extension of time for the filing of any documents required by ordering paragraphs 3 and 4 of this Order upon either LG&E's or KU's showing of good cause.

By the Commission

ENTERED

NOV 04 2016

KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:

Talina R. Mathews

Executive Director

*Honorable Allyson K Sturgeon
Senior Corporate Attorney
LG&E and KU Energy LLC
220 West Main Street
Louisville, KENTUCKY  40202

*Sara Veeneman
LG&E and KU Energy LLC
220 West Main Street
Louisville, KENTUCKY  40202

*Honorable W. Duncan Crosby III
Attorney at Law
Stoll Keenon Ogden, PLLC
2000 PNC Plaza
500 W Jefferson Street
Louisville, KENTUCKY  40202-2828

*Kentucky Utilities Company
220 W. Main Street
P. O. Box 32010
Louisville, KY  40232-2010

*Jody Kyler Cohn
Boehm, Kurtz & Lowry
36 East Seventh Street
Suite 1510
Cincinnati, OHIO  45202

*Louisville Gas and Electric Company
220 W. Main Street
P. O. Box 32010
Louisville, KY  40232-2010

*Honorable Kurt J Boehm
Attorney at Law
Boehm, Kurtz & Lowry
36 East Seventh Street
Suite 1510
Cincinnati, OHIO  45202

*Honorable Kendrick R Riggs
Attorney at Law
Stoll Keenon Ogden, PLLC
2000 PNC Plaza
500 W Jefferson Street
Louisville, KENTUCKY  40202-2828

*Honorable Michael L Kurtz
Attorney at Law
Boehm, Kurtz & Lowry
36 East Seventh Street
Suite 1510
Cincinnati, OHIO  45202

*Rick E Lovekamp
Manager - Regulatory Affairs
LG&E and KU Energy LLC
220 West Main Street
Louisville, KENTUCKY  40202