COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF DUKE ENERGY KENTUCKY, INC. FOR AN ORDER DECLARING THE CONSTRUCTION OF SOLAR FACILITIES IS AN ORDINARY EXTENSION OF EXISTING SYSTEMS IN THE USUAL COURSE OF BUSINESS	))))))	CASE NO. 2017-00155

ORDER

On April 6, 2017, Duke Energy Kentucky, Inc. ("Duke Kentucky") tendered an application requesting that the Commission enter an Order, pursuant to KRS 278.020 and 807 KAR 5:001, Sections 14 and 15, declaring the construction of three solar-power facilities ("Solar Facilities") with a combined capacity of seven megawatts ("MW") to be extensions of existing systems in the usual course of business.

There are no intervenors in this matter. Staff issued and Duke Kentucky responded to two rounds of discovery. The matter now stands submitted to the Commission for a decision.

BACKGROUND

Duke Kentucky furnishes electric and natural gas service to approximately 138,606 retail electric customers and 96,871 retail natural gas customers in Boone, Bracken, Campbell, Gallatin, Grant, Kenton, and Pendleton counties, Kentucky.[1]

[1] Duke Kentucky Annual Report (Electric) (filed Mar. 9, 2016), page 5 of 146; Duke Kentucky Annual Report (Gas) (filed Mar. 9, 2016), page 5 of 132.

In support of its request, Duke Kentucky states that the Solar Facilities are intended to provide a small amount of renewable resource generation that will allow Duke Kentucky to develop experience with and understanding of solar-power facilities with minimal capital commitment.[2] In its most recent Integrated Resource Plan ("IRP"),[3] Duke Kentucky identified a need for five MW of renewable resources beginning in 2019, with annual five-to-seven MW installations coming on line through 2023, and two-to-five MW installations coming on line through 2028. In its IRP, Duke Kentucky identified solar as the most cost-effective renewable resource. In addition to the identified need for renewable resources, Duke Kentucky asserts that, by constructing the Solar Facilities now, it can take advantage of the current federal tax credit, which, beginning in 2020, is on a glide path to be reduced from its current 30 percent to 10 percent in 2021.[4] Duke Kentucky further asserts that current market conditions make the construction of solar-power facilities more affordable.[5]

PROPOSED SOLAR FACILITIES

Duke Kentucky proposes to construct three Solar Facilities, identified as Walton 1, Walton 2, and Crittenden. The proposed Solar Facilities will be located on two separate properties in Duke Kentucky's service territory. Walton 1 and Walton 2 will be co-located on the same parcel of property in Kenton County, Kentucky; Crittenden will

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[2] Application at paragraph 12.

[3] Case No. 2014-00273, *2014 Integrated Resource Plan of Duke Energy Kentucky, Inc.* (Ky. PSC Sept. 23, 2015).

[4] Application at paragraphs 4, 14.

[5] *Id.* at paragraph 14.

be located in Grant County, Kentucky.[6] Each Solar Facility will have between two to three MW of solar capacity, for a combined solar capacity of seven MW for the proposed project.[7] The total cost to construct all three proposed Solar Facilities is approximately $14.8 million, with an estimated annual cost of operation and maintenance ("O&M") of $132,000.[8] If the projects are approved by the Commission, Duke Kentucky anticipates construction at all three sites to be completed by the end of December 2017. Duke Kentucky states that completing the project before the end of the calendar years could maximize the opportunity for the 30 percent federal tax credit.[9] Duke Kentucky will own the Solar Facilities and the property upon which each is constructed.[10] The Solar Facilities will be constructed by a vendor selected through a request-for-proposal process, with ongoing project and construction oversight from Duke Energy employees; the vendor has not yet been selected.[11]

Duke Kentucky states that it initially planned to construct a single ten-MW solar facility.[12] However, after Duke Kentucky could not find a suitable site for a facility of that size, it determined that it was more feasible to construct multiple, smaller solar

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[6] *Id.* at paragraph 7; Duke Kentucky's Response to Staff's First Request for Information ("Response to Staff's First Request"), Item 9.

[7] Application at paragraph 4.

[8] *Id.* at paragraphs 8–10.

[9] *Id.* at paragraph 4.

[10] Application at paragraph 6.b.

[11] Response to Staff's First Request, Item 12.

[12] Application at paragraph 5.

facilities.[13] Duke Kentucky considered the following factors in selecting sites for the proposed Solar Facilities: whether the property was located within Duke Kentucky's service territory; predominant land use of area; topography of property; wetlands/floodplain on site; amount of potential clearing; availability of land; cost of land; and electrical connection.[14] Duke Kentucky executed purchase options on two properties and engaged in informal discussions with some of the adjacent property owners.[15] If the Commission approves the proposed project, Duke Kentucky intends to publicize and host community meetings to discuss the projects and obtain feedback from owners of property adjacent or in close proximity to the selected sites.[16] Duke Kentucky has scheduled or has met with government representatives in the Kenton and Grant counties.[17]

Walton 1 Solar Facility, to be located in Kenton County, Kentucky, will have approximately two MW of solar capacity, with a projected capital cost of $4.38 million and annual O&M cost of $44,000.[18] Walton 1 will interconnect to existing Duke Kentucky distribution lines; however Duke Kentucky will need to rebuild 0.5 miles of the existing distribution lines to support Walton 1.[19] Walton 1 will be located in a predominantly agricultural area of Kenton County. Duke Kentucky states that, based on

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[13] Response to Staff's First Request, Item 11.

[14] *Id.*

[15] *Id.* at Item 9.

[16] *Id.*

[17] *Id.*

[18] Application at paragraph 8.

[19] *Id.*

aerial imagery and site visits, it identified only one property owner who may have visual impacts from potential solar panel placement.[20] To mitigate the visual impact of Walton 1 and maintain visual screening, Duke Kentucky will plant evergreens and enhance the perimeter fence.[21]

Walton 2 Solar Facility, co-located with Walton 1 on the Kenton County property, will have approximately two MW of solar capacity, with a projected capital cost of $4.5 million and annual O&M cost of $44,000.[22] Walton 2 will interconnect to existing Duke Kentucky distribution lines, but at an interconnection point different from Walton 1.[23] Duke Kentucky will need to rebuild 0.75 miles of the existing distribution lines to support Walton 2.[24] Because it will be co-located with Walton 1, Walton 2 has the same issue of visual impact to one neighboring property owner due to potential solar panel placement. Duke Kentucky will plant evergreens and enhance the perimeter fence to maintain visual screening and mitigate the visual impact of Walton 2,[25] in a manner similar to its mitigation plan for Walton 1.

Crittenden Solar Facility, located in Grant County, Kentucky, will have approximately 2.75 MW of solar capacity, with a projected capital cost of $5.94 million

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[20] Response to Staff's First Request, Item 9.

[21] *Id.*

[22] Application at paragraph 9.

[23] Application at paragraph 9; Duke Kentucky Response to Staff's Second Request for Information, Item 1.

[24] Application at paragraph 9.

[25] Response to Staff's First Request, Item 9.

and annual O&M cost of $44,000.[26] Crittenden will interconnect to existing Duke Kentucky distribution lines.[27] Crittenden will be located in a predominantly agricultural area of Grant County. Duke Kentucky states that there is a residential neighborhood to the north of the proposed site for the Crittenden Solar Facility and that the neighborhood was developed by the current owner of the property Duke Kentucky will be acquiring. To mitigate the potential visual impact on the neighborhood, Duke Kentucky will provide a 75-foot greenspace buffer in which Duke Kentucky will plant evergreens and enhance the perimeter fence.[28] Additionally, Duke Kentucky committed to the current property owner that no solar panels or equipment will be located in the greenspace buffer, and a flag pole will remain in its current location on the property.[29]

The proposed Solar Facilities will be interconnected to Duke Kentucky's existing distribution system to serve its native load.[30] Because the Solar Facilities will not be interconnected to Duke Kentucky's transmission system, the Solar Facilities will not be integrated into PJM Interconnection, LLC ("PJM"), a regional electric grid and market operator that operates Duke Kentucky's transmission system. Duke Kentucky explains that, from PJM's perspective, the Solar Facilities are "behind the meter" facilities, and thus will not be capable of participating in the PJM energy markets.[31] To the extent that the output of the Solar Facilities reduces customer demand, the amount of load that

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[26] Application at paragraph10.

[27] *Id.*

[28] Response to Staff's First Request, Item 9.

[29] *Id.*

[30] Application at paragraph 6.b.; Response to Staff's First Request, Item 2.

[31] *Id*

Duke Kentucky purchases from PJM will be reduced.[32] Duke Kentucky anticipates that, electricity generated by the Solar Facilities in the future could be dispatched into PJM, along with Duke Kentucky's generation at its coal-fired units at East Bend or its natural-gas peaking unit at Woodsdale Units.[33]

EXTENSION IN THE ORDINARY COURSE OF BUSINESS

Duke Kentucky asserts that, pursuant to 807 KAR 5:001, Section 15(3), the proposed Solar Facilities qualify as an extension of an existing system in the ordinary course of business and, thus, a CPCN is not required to be obtained by Duke Kentucky. As a basis for this assertion, Duke Kentucky contends that the Solar Facilities will not result in wasteful duplication because Duke Kentucky does not currently own or operate any solar facilities, and thus the Solar Facilities will not be duplicative of existing units.[34] Duke further contends that the need for and amount of solar capacity from the proposed project aligns with what was projected in its IRP.[35] Duke Kentucky argues that the proposed project will not involve sufficient capital outlay to materially affect Duke Kentucky's existing financial condition, as the capital cost of the project is approximately $14.8 million. Duke Kentucky avers that the capital cost, when measured against Duke Kentucky's total cost of service, will not cause Duke Kentucky to file an application to increase its rates.[36] Duke Kentucky states that it will eventually seek to recover the costs of the proposed project through base rates, but that the total cost of the proposed

[32] Response to Staff's First Request, Item 2.

[33] Application at paragraph 6.b.; Response to Staff's First Request, Item 2.

[34] Application at 6.a.

[35] *Id.* at 6.a.

[36] Application at 6.c., 6.d

project will not result in a material increase in charges due to the Solar Facilities.[37] Duke Kentucky maintains that the proposed Solar Facilities will generate "zero-cost fuel" energy that will be used to offset generation whose fuel costs are recovered through a fuel adjustment clause.[38] Additionally, there is a market in Ohio for Kentucky-site solar renewable energy certificates ("SRECs"). Duke Kentucky states that it will sell SRECs at regular intervals into the Ohio market, with the net proceeds flowing to customers in accordance with Duke Kentucky's profit-sharing rider, Rider PSM.[39]

DISCUSSION

KRS 278.020(1) requires a utility to obtain a Certificate of Public Convenience and Necessity ("CPCN") prior to constructing any new facility that is intended to furnish regulated utility services to the public. However, this statute also provides an exemption from the certificate requirement if the new facility is an ordinary extension of existing systems in the usual course of business. Commission regulation 807 KAR 5:001, Section 15(3), defines that exemption as follows:

> Extensions in the ordinary course of business. A certificate of public convenience and necessity shall not be required for extensions that do not create wasteful duplication of plant, equipment, property, or facilities, or conflict with the existing certificates or service of other utilities operating in the same area and under the jurisdiction of the commission that are in the general or contiguous area in which the utility renders service, and that do not involve sufficient capital outlay to materially affect the existing financial condition of the utility involved, or will not result in increased charges to its customers.

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[37] Application at 6.d.

[38] Application at 6.e.

[39] Application at 6.e.; Response to Staff's First Request, Item 1.

The Commission, having reviewed the record and being sufficiently advised, finds that the proposed Solar Facilities as described herein are an ordinary extension in the usual course of business, and therefore are exempt from the requirements of a CPCN pursuant to KRS 278.020(1). The Commission further finds that Duke Kentucky has sufficiently established an interest in and need for the proposed Solar Facilities.

"Wasteful duplication" is defined as "an excess of capacity over need" and "an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties."[40] Duke Kentucky has established the Solar Facilities will not be a wasteful duplication of plant, equipment, property, or facilities.

The cost to construct and operate the proposed Solar Facilities will not involve sufficient capital outlay to materially affect the financial condition of Duke Kentucky. The capital cost of the Solar Facilities is $14.8 million for seven MW total capacity, with annual O&M costs of $44,000 per Solar Facility. The cost of the proposed Solar Facilities in this matter compares favorably to the cost of solar facilities recently installed or proposed by other generating utilities in Kentucky.[41] Further, the proposed project is

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[40] *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 252 S.W.2d 885 , 890 (Ky. 1952).

[41] *See* Case No. 2014-00002, *Joint Application of Louisville Gas & Electric Company and Kentucky Utilities Company for Certificates of Public Convenience and Necessity for the Construction of a Combined Cycle Combustion Turbine at the Green River Generating Station and a Solar Photovoltaic Facility at the E.W. Brown Generating Station* (Ky. PSC Dec. 19, 2014) (approving at ten-MW solar photovoltaic facility with an estimated capital cost of $36 million); Case No. 2016-00274, *Electronic Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Approval of an Optional Solar Share Program* (Ky. PSC Nov. 4, 2016) (approving a four-MW community solar facility with an estimated capital cost of $9.8 million); Case No. 2016-00269, *Application of East Kentucky Power Cooperative, Inc. for Issuance of a Certificate of Public Convenience and Necessity, Approval of Certain Assumption of Evidences of Indebtedness and Establishment of a Community Solar Tariff* (Ky. PSC Nov. 22, 2016) (approving an 8.5-MW community solar facility with an estimated capital cost of $17.7 million); Case No. 2016-00409, *Application of Big Rivers Electric Corporation for an Order Declaring the Construction of Seven Solar Power Facilities to be Ordinary Extensions of Existing Systems in the Usual Course of Business* (Ky. PSC Mar. 30, 2017) (approving seven solar facilities with total capacity of 120 kilowatts at an estimated capital cost of $500,000).

designed to take advantage of current low prices of solar panels and a 30 percent federal tax credit for solar installations.

IT IS THEREFORE ORDERED that:

1. The Solar Facilities as proposed and discussed herein are properly classified as an ordinary extension of existing systems in the usual course of business, and a CPCN, pursuant to KRS 278.020(1), is not required for their construction.

2. Duke Kentucky shall file a notice with the Commission when each of the three Solar Facilities has been constructed.

3. Any documents filed in the future pursuant to ordering paragraph 2 herein shall reference this case number and shall be retained in the utility's general correspondence files.

4. The Executive Director is delegated authority to grant reasonable extension of time for the filing of any documents required by ordering paragraph 2 of this Order upon Duke Kentucky's showing of good cause.

By the Commission

ENTERED
JUL 10 2017
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:

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