

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF BIG RIVERS)	CASE NO.
ELECTRIC CORPORATION FOR APPROVAL)	2020-00183
OF SOLAR POWER CONTRACTS)	

ORDER

On June 24, 2020, Big Rivers Electric Corporation (BREC) tendered an application for approval of contracts to purchase electric power from three solar facilities pursuant to KRS 278.020, KRS 278.300, and 807 KAR 5:001 or for a declaratory order finding that such approval is not required. The Attorney General of the Commonwealth of Kentucky, by and through the Office of Rate Intervention (Attorney General), was granted intervention in this matter. BREC responded to two requests for information from Commission Staff and the Attorney General. No hearing has been requested in this matter, and BREC has requested a final Order by September 28, 2020.¹ BREC's application is now before the Commission for a decision on the merits.

¹ The Commission notes that utilities, and BREC in particular, have regularly requested expedited review of applications to meet contractual deadlines. The Commission makes every effort to accommodate these requests, but given the complexity of many of the applications, these time-sensitive requests place strain on the limited resources of the Commission and are, at times, impossible to meet. For that reason, the Commission has previously indicated that time-sensitive applications must not be filed weeks after the major parameters of the transaction are known with reasonable certainty and that contractual deadlines for obtaining regulatory approvals, which are negotiated by utilities with their counterparties, should be sufficient to provide the Commission adequate time to fulfill its statutory duties. See, e.g., Case No. 2020-00016, *Electronic Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Approval of a Solar Power Contract and Two Renewable Power Agreements to Satisfy Customer Requests for A Renewable Energy Source Under Green Tariff Option #3* (Ky. PSC Feb. 12, 2020); Case No. 2002-00195, *Application of Big Rivers Electric Corporation, et al, for Approval of Amendments to Transaction Documents* (Ky. PSC Jul. 12, 2002).

BACKGROUND

BREC has entered into three solar purchase power agreements (Solar Contracts). The first is with Henderson Solar, LLC (Henderson Solar Contract) for the purchase of the entire output of a 160 megawatt (MW) solar facility to be located in Henderson and Webster counties. The second contract is with Meade Solar, LLC (Meade Solar Contract) for the purchase of the entire output of a 40 MW solar facility to be located in Meade County. The third is with McCracken Solar, LLC (McCracken Solar Contract) for the purchase of the entire output of a 60 MW solar facility to be located in McCracken County.² The solar facilities that will provide the power to satisfy the contracts are expected to begin operations in 2023,³ and each contract has a term of 20 years.⁴

BREC stated that it will not “own, construct, operate, maintain, or have any control over the solar generating facilities.”⁵ Rather, it indicated that the solar facilities constructed in connection with each contract will be owned and operated by the respective counterparty to the contract.⁶ BREC stated that it would only be required to

Yet, in this matter, BREC filed its application on June 24, 2020 despite having sent out the requests for proposals for the contracts in June 2019 and having finalized the contracts on May 25, 2020 and May 26, 2020. Further, BREC should have expected that a request for approval of the purchase power agreements at issue herein would result in a request for intervention and require substantial review by the Commission such that additional time would be required. Thus, BREC should have been prepared to file the Application as soon as the contracts were signed and should have insisted that the contracts provide additional time to obtain regulatory approval. BREC should not count on the Commission meeting similar requests for expedited review in the future.

² Application at 2.

³ Application at 8.

⁴ Application, Exhibit 4, Direct Testimony of Mark Eacret (Eacret Testimony) at 5:06.

⁵ Application at 10-11.

⁶ Application at 8.

pay a contract price based on the megawatt-hours of energy (MWh) delivered to BREC's transmission system.⁷ BREC would have no obligation to pay if the facilities do not generate power, unless it breaches the contracts.⁸

Pursuant to the terms of the Meade Solar Contract and McCracken Solar Contract, BREC will receive the entire capacity value (MW), energy (MWh), ancillary services, and environmental attributes (i.e., renewable energy or carbon credits) of the respective solar facility in consideration for the contract price per MWh of energy. BREC will similarly receive all of those power attributes in consideration for the contract price per MWh pursuant to the Henderson Solar Contract, except that the contract price in the Henderson Solar Contract will not include the cost of recovery, if any, available to Henderson Solar, LLC (Henderson Solar) pursuant to a FERC-filed reactive power rate (though BREC indicated that it would neither need to purchase such reactive power nor be required to purchase it).⁹

Henderson Solar is a wholly owned direct subsidiary of Geronimo Energy, LLC. Geronimo Energy, LLC is part of the National Grid Company, a full services renewable energy company, headquartered in Minneapolis, Minnesota.¹⁰ Meade Solar, LLC and McCracken Solar, LLC are both wholly owned direct subsidiaries of Community Energy Solar, Inc. (CES), which is headquartered in Radnor, Pennsylvania.¹¹

⁷ Application 10.

⁸ Application 11.

⁹ Application, Exhibit 1, Henderson Solar Contract at Section 5.1; see *also* Response to Commission Staff's Supplemental Request for Information dated August 28, 2020 (filed Sept. 10, 2020), Item 1.

¹⁰ Application at 4.

¹¹ *Id.*

The three solar contracts were the product of a Request for Proposal (RFP) that was issued by the National Renewables Cooperative Organization (NRCO) on behalf of BREC. The RFP requested proposals for up to 150 MW of solar power with a preference for locations within BREC's service territory and flat pricing for 20 years. The RFP was issued to 45 solar developers identified by NRCO as active in the area and developers who had contacted BREC expressing an interest in developing solar resources in western Kentucky. BREC received proposals from 15 developers totaling 26 individual project proposals. The 26 project proposals contained 52 distinct purchase power agreement (PPA) offers, 36 of which were located in Kentucky. Based upon its review and analysis of the proposals, BREC ultimately narrowed the list to three developers: Geronimo, CES, and NextEra.¹²

The Geronimo proposal was initially for 100 MW. During negotiations, it was discovered that Geronimo intended to construct a larger 160 MW facility and would offer the remaining output for sale to others. BREC states that it was concerned with Geronimo contracting with an unknown counterparty in connection with the same solar facility. Because of this concern, BREC negotiated a lower price and exclusivity in exchange for increasing the size of its purchase.¹³

With respect to the CES facilities, BREC indicates that this proposal provided for two smaller sites connected at a subtransmission level at the cost of one large site connected at the transmission level. BREC notes that this proposal offered several

¹² Eacret Testimony at 7:03-11:13; Application at 7-8.

¹³ Eacret Testimony at 11:15-11:22.

transmission system-related benefits, including reduction of line and transformer losses and reduction of exposure to congestion-related system upgrades.¹⁴

BREC asserted that the Solar Contracts are necessary to allow it to fulfill its wholesale obligations to the distribution cooperatives it serves and to have sufficient power available to satisfy the requirements of its native load and its existing contracts to supply power to Owensboro Municipal Utilities (OMU) and the Kentucky Municipal Energy Agency (KyMEA).¹⁵ Specifically, BREC states that the Solar Contracts will support BREC's obligations to provide solar power to Meade County Rural Electric Cooperative Corporation (Meade County RECC) necessary for Meade County RECC to supply solar power to Nucor Corporation (Nucor).¹⁶ BREC noted that Meade County RECC entered into a retail electric service agreement with Nucor (Nucor Contract) that requires, among others, that Nucor be provided fixed amounts of competitively sourced solar power for defined contract periods.¹⁷ The Nucor Contract also provides assurance for long-term competitive power pricing.¹⁸ BREC argued that the Solar Contracts will allow it to fulfill those contractual obligations.

BREC acknowledged that it was contracting for the output of solar facilities with nameplate capacity that exceeded that required by the Nucor Contract, but it indicated that the capacity was needed to meet its capacity requirements for a number of years and

¹⁴ Eacret Testimony at 12:02-12:11.

¹⁵ Application at 4.

¹⁶ Application at 6.

¹⁷ *Id.*

¹⁸ *Id.*

to diversify its generation portfolio. Specifically, BREC indicated that with the Nucor load it will have insufficient capacity to meet the demands of its native load and the loads it is obligated to provide pursuant to the OMU and KyMEA contracts. If either the OMU or the KyMEA contracts are not renewed at the expiration of their term, then BREC will be long on capacity even with Nucor's load.¹⁹

BREC also indicated that the Solar Contracts allow BREC to hedge the price risk of the energy delivered to Nucor²⁰ and will add more diversity to its power supply portfolio by reducing its dependence on coal-fired generation from 78 percent of its portfolio to 63 percent of its portfolio.²¹ BREC argued that diversifying its portfolio would reduce the risk of changes in environmental regulations often cited by credit ratings agencies as arising from BREC's heavy dependence on coal-fired generation.²² BREC states that expansion of its solar generation assets would also satisfy economic development candidates' demand for renewable generation capacity.²³

BREC explained that over the past three years that it has received proposals from approximately 50 economic development candidates. It stated that during the first part of that period it received no specific requests for renewable resources, but during the second half of the three years, about 25 percent of the economic development candidates, like

¹⁹ Eacret Testimony at 14:08-14:13.

²⁰ Eacret Testimony at 40:10-40:18.

²¹ Application at 6.

²² *Id.* at 6-7.

²³ Eacret Testimony at 38:06-38:15.

Nucor, made some request for or inquiry about renewable energy availability. BREC also noted that the Commission has previously recognized that companies are seeking to obtain generation from renewable resources to meet corporate sustainability goals.²⁴

BREC asserted that it was advantageous to obtain the solar power now due to the current availability of investment tax credits (ITC) for utility scale solar projects.²⁵ BREC stated that the last month to start construction on a solar project and claim the full ITC was December 2019 and indicated that the ITC that may be claimed is reduced each year until it is eliminated for projects that are not completed by December 31, 2023.²⁶ Depending on when construction on a utility scale solar project is initiated, the utility scale solar projects that qualify will receive a 26 percent or 22 percent ITC.²⁷

BREC also argues that its decision to acquire more solar capacity than is required under the Nucor Contract stems from its evaluation of the benefits to be achieved from the purchases. BREC states that its base analysis shows that the value received for the energy, capacity, and renewable certificates under the Solar Contracts is higher than the fixed purchase price. BREC's analysis shows a net present value of the benefits of the Solar Contracts.²⁸

BREC used the Solar Contract terms to evaluate whether they would be more economic than self-build solar or contracting for natural gas combined cycle or simple

²⁴ Eacret Testimony at 39:03-39:08

²⁵ Eacret Testimony at 13:16-13:17.

²⁶ Eacret Testimony at 13:17-13:20.

²⁷ *Id.* at 14.

²⁸ Eacret Testimony at 38:01-38:04.

cycle capacity and energy. The Solar Contracts were the least cost option for every scenario except one with significantly higher lower Locational Marginal Prices and natural gas prices than the base case.²⁹

STANDARD OF REVIEW

In Administrative Case No. 350, the Commission investigated whether to adopt a process for the preapproval of long-term PPAs. The Commission declined to adopt a process at that time but noted that the contracts “may well require prior approval under KRS 278.300 if they constitute evidences of indebtedness” and that the inclusion of minimum payment obligations or take or pay provisions, in particular, may necessitate prior approval.³⁰ Regardless of whether a PPA required prior approval, the Commission encouraged utilities to submit such agreements to the Commission for a declaratory order to mitigate the risk of future disallowance of the costs of those contracts in rates.³¹

Electric utilities have since regularly submitted long-term PPAs to the Commission for approval pursuant to KRS 278.020(1), KRS 278.300, or 807 KAR 5:001, Section 19. The Commission has traditionally found that most PPAs are evidences of indebtedness due to the long-term financial obligations they generate and, therefore, has reviewed them pursuant to KRS 278.300.³² Further, because long-term PPAs are generally intended to

²⁹ Eacret Testimony, Exhibit Eacret 12B.

³⁰ Administrative Case No. 350, *The Consideration and Determination of the Appropriateness of Implementing a Ratemaking Standard Pertaining to the Purchase of Long-Term Wholesale Power by Electric Utilities as Required in Section 712 of the Energy Policy Act of 1992* (Ky. PSC Oct. 25, 1993), final Order at 8–9.

³¹ *Id.*

³² See e.g. Case No. 2018-00050, *Electronic Application of South Kentucky Rural Electric Cooperative Corporation for Approval of Master Power Purchase and Sale Agreement and Transactions Thereunder*, Final Order (Ky. PSC Sept. 27, 2018); Case No. 2009-00545, *Application of Kentucky Power Company for Approval of Renewable Energy Purchase Agreement for Wind Energy Resources Between*

provide needed generation capacity in lieu of constructing new generation facilities, the Commission has also applied the elements of KRS 278.020(1) when seeking to determine whether a PPA is reasonably necessary and appropriate for the proper performance by the utility of its service to the public pursuant to KRS 278.300.³³

However, in Case No. 2020-00016,³⁴ the Commission recently found that a long-term PPA for the energy from a 100 MW solar facility did not require approval pursuant to KRS 278.300 or KRS 278.020(1). The Commission observed that the contract in that case did not include any minimum obligation or take/pay provision, that it was for non-firm energy only, and included no capacity; Kentucky Utilities Company and Louisville Gas and Electric Company never argued they required the 25 percent of the facility output to serve native load, but rather that the energy from the facility will likely be cheaper over the life of the agreement; and that 75 percent of the cost of the energy purchased from the facilities would be recovered directly from two large industrial customers who requested solar energy.³⁵ The Commission also noted that the 25 percent of the energy from the solar facilities that would be allocated to Kentucky Utilities Company and

Kentucky Power Company and FPL Illinois Wind, LLC (Ky. PSC June 28, 2010); Case No. 2013-00144, *Application of Kentucky Power Company for Approval of the Terms and Conditions of the Renewable Energy Purchase Agreement for Biomass Energy Resources Between the Company and ecoPower Generation-Hazard LLC; Authorization to Enter into the Agreement; Grant of Certain Declaratory Relief; and Grant of All Other Required Approvals and Relief* (Ky. PSC Oct. 10, 2013).

³³ Case No. 2018-00050, *Electronic Application of South Kentucky Rural Electric Cooperative Corporation for Approval of Master Power Purchase and Sale Agreement and Transactions Thereunder* (Ky. PSC Sept. 27, 2018); Case No. 2009-00545, *Application of Kentucky Power Company for Approval of Renewable Energy Purchase Agreement for Wind Energy Resources Between Kentucky Power Company and FPL Illinois Wind, LLC* (Ky. PSC June 28, 2010).

³⁴ Case No. 2020-00016, *Electronic Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Approval of Solar Power Contract and Two Renewable Power Agreements to Satisfy Customer Requests for Renewable Energy Source Under Green Tariff Option #3* (Ky. PSC May 8, 2020), final Order, 9-12.

³⁵ *Id.* at 11-12.

Louisville Gas and Electric Company's native load would be scrutinized through fuel adjustment clause proceedings "analogous to an economy energy purchase," which have their own standard of review dictating the recovery of costs from customers.³⁶ For those reasons, the Commission reasoned that the contract in that case was not an evidence of indebtedness that required approval pursuant to KRS 278.300 and that it did not require a review pursuant to KRS 278.020(1).³⁷

BREC relies on Case No. 2020-00016 to argue that it is not required to obtain approval pursuant to KRS 278.300 or KRS 278.020(1) in this matter. However, the Commission finds that BREC's position in this matter is distinct from the utilities in that case, because BREC has sought to justify the Solar Contracts, in significant part, based on the argument that they are necessary to satisfy its obligation to provide adequate, efficient and reasonable service to its native load, particularly with regard to capacity requirements.³⁸ BREC argues that capacity from the Solar Contracts is required to meet BREC's obligation of service, either on a system basis or to fulfill agreements previously approved by the Commission. For those reasons, and because the facilities are being constructed at the direction of BREC to provide power exclusively to BREC, the Solar Contracts are an alternative to incurring debt to construct generation directly. Thus, the Commission finds that it must review them pursuant to KRS 278.300 and KRS 278.020(1).

³⁶ *Id.* at 12, 18 (internal citations omitted).

³⁷ *Id.*

³⁸ See KRS 278.030(2)

Before it may approve an evidence of indebtedness pursuant to KRS 278.300, the Commission must find that it is (1) for some lawful object within the corporate purposes of the utility; (2) necessary or appropriate for or consistent with the proper performance by the utility of its service to the public and will not impair its ability to perform that service; and (3) reasonably necessary and appropriate for such purpose. Further, as noted above, when determining whether a PPA is reasonably necessary and appropriate, the Commission will apply the standard in KRS 278.020(1) to determine whether the utility has a need for the additional generation and whether additional generation is the least cost alternative available to satisfy that need.

A showing of “need” requires:

[A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated.

[T]he inadequacy must be due either to a substantial deficiency of service facilities, beyond what could be supplied by normal improvements in the ordinary course of business; or to indifference, poor management or disregard of the rights of consumers, persisting over such a period of time as to establish an inability or unwillingness to render adequate service.³⁹

“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 To demonstrate that a proposed facility does not result in wasteful duplication, we have held that the applicant must demonstrate that a

³⁹ *Kentucky Utilities Co. v. Pub. Serv. Comm’n*, 252 S.W.2d 885, 890 (Ky. 1952).

⁴⁰ *Id.*

thorough review of all reasonable alternatives has been performed.⁴¹ Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication.⁴² All relevant factors must be balanced.⁴³ The statutory touchstone for ratemaking in Kentucky is the requirement that rates set by the Commission must be fair, just, and reasonable.⁴⁴

DISCUSSION

The primary purposes of the Solar Contracts are to satisfy a requirement in the Commission-approved Nucor Contract and to address an expected capacity deficit “to meet the requirements of [BREC’s] native load” and other agreements.⁴⁵ Based on the evidence in the record, it appears that a portion of the Solar Contracts are necessary to satisfy the Nucor Contract. BREC has also justified seeking to lock in the generation required by the Nucor Contract now based on the current availability of ITCs, the expiration of which will likely increase the cost of utility scale projects, and the need to hedge against increases in energy cost increases to satisfy certain terms of the Nucor Contract. Thus, the Commission finds that the Solar Contracts are reasonable and needed, at least in part, to satisfy the Nucor Contract.

⁴¹ Case No. 2005-00142, *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky* (Ky. PSC Sept. 8, 2005).

⁴² See *Kentucky Utilities Co. v. Pub. Serv. Comm’n*, 390 S.W.2d 168, 175 (Ky. 1965). See also Case No. 2005-00089, *The Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity to Construct a 138 kV Electric Transmission Line in Rowan County, Kentucky* (Ky. PSC Aug. 19, 2005).

⁴³ Case No. 2005-00089, *East Kentucky Power Cooperative, Inc.* (Ky. PSC Aug. 19, 2005), final Order at 6.

⁴⁴ KRS 278.190(3).

⁴⁵ Application at 11-12.

However, as BREC acknowledged, the sum of the capacity that will be provided by the Solar Contracts exceeds the capacity that must be provided pursuant to the Nucor Contract. Nevertheless, the Commission finds that the capacity that exceeds that required by the Nucor Contract will fill other needs identified by BREC in this matter, including a capacity short fall that is expected to arise when BREC begins serving Nucor's load, the hedging of price risk related to the Nucor Contract, demand from potential economic development candidates seeking to meet corporate sustainability goals, and credit risks arising from BREC's heavy dependence on coal-fired generation. Further, based on BREC's analysis, the Commission finds that the Solar Contracts have a substantial net present value because the current and projected value of the energy, capacity, and other ancillary products BREC will receive pursuant to the Solar Contracts exceeds the firm contract prices BREC obtained from other generators. Given the identified need for additional capacity necessary to serve native load, such an outcome from an analysis comparing the economics of the PPAs against a number of other options BREC would likely consider to meet the requirements of native load, obtaining the additional capacity is reasonable.

Moreover, BREC sought to obtain the least cost alternative to satisfy the requirements of the Nucor Contract by engaging in a competitive bidding process and selecting the least cost generators that could provide the services required. Further, while solar generation capacity was necessary to satisfy most of the needs identified by BREC, it also compared the cost of the Solar Contracts to power purchase arrangements with capacity from other sources of generation and that analysis indicated that the Solar

Contracts were the least cost alternative. Thus, the Commission finds that the Solar Contracts will not result in wasteful duplication.

For the reasons discussed above, and having reviewed the record and being otherwise sufficiently advised, the Commission finds that the Solar Contracts for which BREC requests approval are for a lawful object within the corporate purposes of BREC's utility operations, are necessary and appropriate for and consistent with the proper performance of BREC's service to the public, and will not impair BREC's ability to perform that service, are reasonably necessary and appropriate for such purposes. However, the Commission's approval herein is based upon statements made by BREC in its Application and its responses to requests for information. Thus, the Commission notes that its approval is conditioned on BREC acting in a manner consistent with representations made in this matter.

IT IS THEREFORE ORDERED THAT:

1. BREC's Application is granted to the extent it requests approval of the Solar Contracts pursuant to KRS 278.020(1) and KRS 278.300.
2. BREC's Application is denied to the extent it requests a declaratory order that it was not required to obtain approval of the Solar Contracts pursuant to KRS 278.020(1) and KRS 278.300.
3. BREC is authorized to enter into the Solar Contracts subject to the conditions discussed herein.
4. This matter is closed and removed from the Commission's docket.

By the Commission



ATTEST:

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