EXHIBIT 2
DIRECT TESTIMONY OF
JULIA J. TUCKER

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY, AND SITE COMPATABILITY CERTIFICATES, FOR THE CONSTRUCTION OF A 96 MW (NOMINAL) SOLAR FACILITY IN MARION COUNTY AND A 40 MW (NOMINAL) SOLAR FACILITY IN FAYETTE COUNTY AND APPROVAL OF CERTAIN ASSUMPTION OF EVIDENCES OF INDEBTEDNESS RELATED TO THE SOLAR FACILITIES AND OTHER RELIEF	)	CASE NO. 2024-00129

DIRECT TESTIMONY OF JULIA J. TUCKER
VICE PRESIDENT OF POWER SUPPLY
ON BEHALF OF EAST KENTUCKY POWER COOPERATIVE, INC.

Filed: April 26, 2024

COMMONWEALTH OF KENTUCKY

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In the Matter of:

THE APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR CERTIFICATES OF PUBLIC CONVENIENCE AND NECESSITY, AND SITE COMPATABILITY CERTIFICATES, FOR THE CONSTRUCTION OF A 96 MW (NOMINAL) SOLAR FACILITY IN MARION COUNTY AND A 40 MW (NOMINAL) SOLAR FACILITY IN FAYETTE COUNTY AND APPROVAL OF CERTAIN ASSUMPTION OF EVIDENCES OF INDEBTEDNESS RELATED TO THE SOLAR FACILITIES AND OTHER RELIEF	)	CASE NO. 2024 - 00129

VERIFICATION OF JULIA J. TUCKER

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Julia J. Tucker, Vice President of Power Supply for East Kentucky Power Cooperative, Inc., being duly sworn, states that she has supervised the preparation of her Direct Testimony and certain filing requirements in the above referenced case and that the matters and things set forth therein are true and accurate to the best of her knowledge, information and belief, formed after reasonable inquiry.

Julia J. Tucker

The foregoing Verification was signed, acknowledged and sworn to before me this 26th day of April 2024, by Julia J. Tucker.

Notary Public

GWYN M. WILLOUGHBY
Notary Public
Commonwealth of Kentucky
Commission Number KYNP38003
My Commission Expires Nov 30, 2025

I. Introduction

Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.

A. My name is Julia J. Tucker. I am the Vice President of Power Supply for East Kentucky Power Cooperative, Inc. ("EKPC"). My business address is 4775 Lexington Road, Winchester, Kentucky 40391.

Q. PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.

A. I have a Bachelor's degree in Electrical Engineering from the University of Kentucky. I am a licensed Professional Engineer, Registration Number 15532, in the state of Kentucky. I have worked for EKPC for the past 18 years.

Q. PLEASE BRIEFLY DESCRIBE YOUR DUTIES AS VICE PRESIDENT OF POWER SUPPLY FOR EKPC.

A. I oversee EKPC's Power Supply Planning, Load Forecasting, PJM Market Operations, Fuels Procurement, Demand Side Management, Distributed Energy Resources and development of Renewable Energy Projects.

Q. HAVE YOU TESTIFIED BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION BEFORE? IF SO, IN WHAT CASES?

A. Yes, most recently in the Fuel Adjustment Clause review ("FAC case").[1]

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

[1] Case No. 2022-00314, *Electronic Application of East Kentucky Power Cooperative, Inc. for a (1) Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Madison County, Kentucky; And (2) Declaratory Order Confirming that a Certificate of Public Convenience and Necessity is Not Required for Certain Facilities* (Ky. PSC Feb. 23, 2023); Case No. 2023-00177, *Electronic Application of East Kentucky Power Cooperative, Inc. for Approval to Amend its Environmental Compliance Plan and Recover Costs Pursuant to the Environmental Surcharge and for Issuance of Certificate of Public Convenience and Necessity and Other Relief* (Ky. PSC Jan. 11, 2023); Case No. 2023-00009*, An Electronic Examination of the Application of the Fuel Adjustment Clause of East Kentucky Power Cooperative, Inc. from November 1, 2020 through October 31, 2022* (Ky. PSC filed Set. 6, 2023). Case No. 2022-000098, *Electronic Integrated Resource Plan of East Kentucky Power Cooperative, Inc.* (Ky. PSC Aug. 16, 2023).

A. The purpose of my testimony is first to describe EKPC's power supply needs and the efforts it has undertaken to address those needs. I will explain EKPC's Request for Proposal ("RFP") process that resulted in the recommendation to construct a ninety-six (96) MW solar facility in Marion County, Kentucky ("Northern Bobwhite") and a forty (40) MW solar facility in Fayette County, Kentucky ("Bluegrass Plains"), collectively the "Projects". I will also discuss EKPC's Strategic Plan, its 2022 IRP, Portfolio Diversification, Economic Development interest and the Green Tariff – as they relate to the Projects. Finally, I will provide the basis for EKPC's conclusion that the proposed Projects are a reasonable option for satisfying EKPC's needs.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring the following exhibits, which I ask be incorporated into my testimony by reference:

- Attachment JJT-1, Solar RFP Responses and Evaluation;
- Attachment JJT-2, EKPC Sustainability Plan;

Each of these documents was prepared by me, under my supervision, at my request or in response to the RFP that I helped to oversee

II. Existing Generation Portfolio and Identification of Need

Q. PLEASE GENERALLY DESCRIBE EKPC'S EXISTING GENERATION PORTFOLIO.

A. In total, EKPC owns and operates approximately 2,963 MW of net summer generating capacity and 3,265 MW of net winter generating capacity. EKPC owns and operates coal-fired generation at the John S. Cooper Station in Pulaski County, Kentucky (341 MW) and the Hugh L. Spurlock Station (1,346 MW) in Mason County, Kentucky. EKPC also owns

and operates natural gas-fired generation at the J. K. Smith Station in Clark County, Kentucky (753 MW (summer)/989 MW (winter)) and the Bluegrass Generating Station in Oldham County, Kentucky (501 MW (summer)/567 MW (winter)), landfill gas-to-energy facilities in Boone County, Greenup County, Hardin County, Pendleton County and Barren County (13 MW total), and a Community Solar facility (8.5 MW) in Clark County, Kentucky. Finally, EKPC purchases hydropower from the Southeastern Power Administration at Laurel Dam in Laurel County, Kentucky (70 MW), and the Cumberland River system of dams in Kentucky and Tennessee (100 MW). EKPC also has 200 MWs of interruptible load and approximately 26 MWs in peak reduction mechanisms. EKPC's record peak demand of 3,754 MW occurred on January 17, 2024.

Q. IN WHAT WAYS DOES EKPC PLAN FOR ITS FUTURE POWER SUPPLY NEEDS?

A. Like any prudent utility, EKPC constantly strives to anticipate the challenges it may face over both the near- and long-term. As part of this process, EKPC regularly conducts and reviews load and pricing forecasts, prepares for environmental regulation developments, and evaluates the impact various factors may have on the Cooperative's existing generation portfolio and overall financial stability. EKPC's Board of Directors, through its Strategic Plan, provides particular guidance in identifying and achieving EKPC's future goals.

Q. DOES EKPC HAVE A STRATEGIC PLAN CURRENTLY IN PLACE?

A. Yes. Following a Commission-directed management audit, EKPC's Board adopted a Strategic Plan in 2011 that identified various core strategies, including but not limited to pursuing prudent diversity in the fuel mix of the Cooperative's generation portfolio and

evaluating new investments using sound financial principles. EKPC has convened several Strategic Planning retreats since 2011, with the most recent being held in 2023.

One of EKPC's strategic objectives is to actively manage its current and future asset portfolio to safely deliver reliable and sustainable energy from appropriately diversified resources at competitive prices, and work with federal and state stakeholders to ensure high reliability and economic viability while mitigating evolving regulatory challenges including possible carbon emissions reduction mandates and penalties. EKPC will accomplish this objective by actively managing its current and future asset portfolio to maintain high reliability of electric service to its owner-members and economically diversify its energy resources, including market purchases, fossil fuels, renewables, storage, demand management and energy efficiency programs, and partnering opportunities.

Another strategic objective is to continue to ensure reliability and rate-competitiveness of electric service while supporting beneficial electrification and thoughtfully responding to growing pressures to decarbonize. EKPC will continue to manage for reliability and minimize negative financial impacts to end consumers while supporting beneficial electrification that could generate exponential load growth, particularly through continuing penetration of electric vehicles, electrification of industrial processes, and electrification of residential and commercial heating applications. EKPC will also work with state, federal, regional, and PJM stakeholders to respond to the legal, regulatory, and industry pressures to decarbonize the fleet through solutions based on science, engineering and economics that ensure electric service continues to be highly reliable and available at an acceptable cost to the public. The addition of the Projects by

EKPC will help create more diversity within EKPC's generation portfolio and advance our efforts to fulfill the Strategic Plan.

Q. DOES EKPC BELIEVE ITS EXISTING GENERATION PORTFOLIO WILL ADEQUATELY PROVIDE FOR ITS LONG-TERM NEEDS?

A. EKPC is an electric generation and transmission cooperative with a growing demand for electricity within its service territory. In addition, the increasing integration of the regional electric transmission system, two consecutive winters with extremely cold temperatures, the ongoing nationwide shift towards electrification, and the unprecedented, rapid expansion of stringent federal environmental regulation affecting utilities all combine to make the ownership of electric generation a continuous consideration with thorough evaluation for EKPC.

Q. PLEASE GENERALLY DESCRIBE EKPC'S ENERGY NEEDS AS REFLECTED IN ITS MOST-RECENT INTEGRATED RESOURCE PLAN.

A. On April 1, 2022, EKPC filed its most recent triennial Integrated Resource Plan ("2022 IRP"), which analyzed EKPC's forecasted load, capacity needs and related issues over a fifteen-year period from 2022 through 2036. The 2022 IRP indicates that EKPC's total energy requirement will increase by 1.1% per year over a fifteen-year period. Reflecting EKPC's status as a winter-peaking utility, the 2022 IRP indicates that EKPC's winter net peak demand will increase 0.6% annually while its summer net peak demand will increase by 0.8% annually. Also, the 2022 IRP predicts that EKPC's annual load factor would increase from 50% to 54%.

EKPC desires to keep its plans as flexible as possible to be able to adjust to market and load conditions as needed. EKPC continues to monitor its load and all economic power

supply alternatives. EKPC joined PJM on June 1, 2013, which has significantly beneficially impacted its operations and improved its ability to economically serve its native load. EKPC realized significant savings benefits from operating within PJM from June 1, 2013 through May 31, 2023, as described in its annual reports to the Commission[2]. PJM begins the capacity delivery year ("DY") on June 1st and ends the DY on May 31st, therefor the annual report and related analysis reflects the DY beginning and ending dates. EKPC continuously evaluates its resource portfolio compared to its forecasted load profile and considers how best to hedge its energy market price exposure, and future load needs, while providing reliable power supply during extreme conditions. EKPC has sufficient capacity resources to meet its forecasted summer load peaks for several years, but the proposed solar projects provide additional economically and environmentally advantageous energy which improves the overall EKPC power supply portfolio. The addition of the proposed solar projects helps EKPC move towards both its strategic and sustainability goals while also improving economic energy supply to its owner members. EKPC continues to review its best options to cover the future winter period needs. The Projects will help satisfy the need for EKPC's increasing energy requirements and help meet sustainability goals on an economic basis, without resulting in excessive investment or wasteful duplication.

Q. PLEASE DESCRIBE WHY THESE PROJECTS ARE NOT DUPLICATIVE OF ANY OTHER SOLUTIONS OR RESOURCES CURRENTLY HELD BY THE UTILITY.

[2] See post case correspondence annual filings for Case No. 2012-00169, *Application of East Kentucky Power Cooperative, Inc. to Transfer Functional Control of Certain Transmission Facilities to PJM Interconnection, LLC.*

A. The development of both Projects is consistent with EKPC's IRP and Sustainability Plan ("IRP"). The projects are intended to supply solar power that is planned as part of EKPC's over-all commitment to build a resilient system, therefore the Projects are not unreasonably or unnecessarily duplicative, and serve a specific need in EKPC's system. The Northern Bobwhite Solar project serves a specific requirement to provide an additional renewable energy option to EKPC's owner-members and ultimately the end-use members. It allows EKPC to develop these 635 acres, install single axis tracking racking systems for the PV modules, inverters, and approximately 181,000 PV modules and provide the interconnection of the solar generation facility to EKPC's Marion 161kV Substation and any associated network upgrades.

The Bluegrass Plains Solar project also serves this same specific requirement to provide an additional renewable energy option to EKPC's owner-members and ultimately the end-use members. It will allow EKPC to develop these 388 acres, install single axis tracking racking systems for the PV modules, inverters and approximately 88,000 single axis tracking PV modules and provide the interconnection of the solar generation facility to EKPC's Avon Substation and any associated network upgrades. Both of these projects were included in the PJM queue. The Northern Bobwhite Project has been fully approved with an executed service agreement. Bluegrass Plains in in the final state of the facility study and once complete, an associated service agreement can be executed.

Q. HAVE FEDERAL ENVIRONMENTAL REGULATIONS HAD A PARTICULARLY SIGNIFICANT IMPACT ON EKPC'S GENERATION PORTFOLIO AND POWER SUPPLY PLANNING?

A. Yes. Generation and transmission cooperatives such as EKPC are among the most stringently environmentally regulated entities in the United States. The pace of revisions to federal environmental rules has increased substantially over the past decade and significantly impacted EKPC's business as a result. There can be no doubt that the Environmental Protection Agency's Mercury and Air Toxics Standards ("MATS"), Effluent Limitation Guidelines ("ELG"), and Disposal of Coal Combustion Residuals from Electric Utilities Rule ("CCR") have materially impacted EKPC's operations and cost structure.

The Greenhouse Gas Exiting Source Rule, which was issued just yesterday, is perhaps the most important, challenging, costly and impactful environmental regulation faced by EKPC – and the entire electric power industry – in its history. EKPC is still evaluating the final rule, but based upon what was in the proposed rule, the EPA establishes carbon dioxide (CO_2) emission performance rates representing the best system of emission reduction for two subcategories of existing fossil fuel-fired electric generating units ("EGUs") – fossil fuel-fired electric utility steam generating units and new stationary combustion turbines. The options for the existing coal-fired steam generating units are to: (1) co-fire 40% with natural gas until 2039, then retire, or (2) install carbon capture sequestration and continue operation without being required to retire going forward for existing coal-fired sources. The final "Carbon Rule" has a compliance deadline of January 1, 2032. To operate beyond this date, coal plants will have to choose one of the previously mentioned options.

Additionally, EPA modified the new combustion turbine new source performance standards yesterday. EKPC is reviewing this final rule. The Final Rule also establishes

standards for new and modified gas-fired EGUs ("new EGUs"). The Final Rule divides new EGUs into three subcategories based on the generation efficiency (CO_2/MWh of energy output) of the new EGU. The subcategories describe the annual capacity factor range of the new EGU. New EGUs that operate at a capacity factor of about 45% to 100% (*i.e.* "baseload" EGUs) must achieve 90% capture of CO_2 using CCUS by 2035, which generally include natural gas combined cycle units. New EGUs that operate at a capacity factor of between 20% and about 45% (*i.e.* "intermediate" EGUs) must achieve 30% hydrogen co-firing by 2032, which generally include some natural gas combined cycle units and more efficient simple cycle combustion turbine units. New EGUs that operate at a capacity factor of less than 20% (*i.e.* "peaking" EGUs) using lower emitting fuels do not have a CCUS technology requirement. This subcategory generally includes only simple cycle combustion turbines.

EKPC and its legal team will continue to read and interpret the new rule from the prepublication date of April 25, 2024.

EKPC expects that the Commonwealth of Kentucky will file a state implementation plan within two years for EPA to approve or disapprove under Subpart Ba of the federal implementation planning regulations. In addition, it is widely expected that there will be numerous challenges to the Greenhouse Gas Existing Source Rule and its long-term enforceability is unclear. EKPC will continue to closely monitor developments in this area and keep the Commission up to date as events unfold. The bottom line is that adding renewable energy resources to EKPC's generation portfolio will provide it more flexibility in terms of optimizing its fleet in an increasingly challenging regulatory landscape.

Q. DOES EKPC PLAN TO RETIRE ANY OF ITS EXISTING FOSSIL-FUEL FIRED GENERATION ASSETS AS A RESULT OF BUILDING THE SOLAR PROJECTS?

A. No. EKPC has no current plan to retire any of its fossil-fuel electric generating units. The proposed solar facilities are new intermittent energy resources.

Q. PLEASE DESCRIBE EKPC'S GENERATION PORTFOLIO AND HOW DIVERSIFICATION IN SUPPLY RESOURCES BENEFITS THAT PORTFOLIO?

A. The bulk of EKPC's generation portfolio is dependent on reliable and proven fuel resources such as coal and natural gas. EKPC has expanded over the years to include non-traditional resources such as landfill gas to energy projects and a cooperative solar project. EKPC also has the ability to burn tire derived fuel in a Combustion Fluidized Bed ("CFB") unit at its Spurlock Station. EKPC purchases a significant amount of clean hydro power from the existing projects on the Cumberland River System owned and operated by the United States Corps of Engineers. Diversification in supply resources benefits the EKPC power supply portfolio and owner members by moving towards the Sustainability Plan's objectives in an economic fashion.

Q. HAS THERE BEEN INCREASED INTEREST IN RENEWABLE POWER SUPPLY OPTIONS FROM ECONOMIC DEVELOPMENT PROJECTS?

A. Yes, there is increased interest in renewable energy from EKPC's industrial and commercial customers, both existing and new economic development projects. EKPC and its owner members offer a tariffed rate option to provide for these needs in a fair and reasonable manner. The Projects will give EKPC an enhanced opportunity to satisfy these growing demands.

III. The RFP Process

Q. PLEASE GENERALLY DESCRIBE THE PURPOSE OF THE REQUEST FOR PROPOSALS ("RFP") PROCESS.

A. The purpose of the RFP was to understand and attract the reasonable, least-cost supply option for the Projects. An RFP was issued in August 2020 by National Renewables Cooperative Organization ("NRCO") on behalf of EKPC. The goal of the RFP was to secure adequate renewable resources to meet the annual load of one of the owner-member's customers that had requested renewable supply. The RFP requested proposals to supply up to 50 MW of PJM-connected Solar Photovoltaic (PV) power and 10 MW of PJM-connected Wind power. Offers were submitted in the $34 - $48/MWh range for solar only, no viable wind generation was offered. Ultimately, discussions ensued with a bidder to develop a specific solar project. However, the developer has not been able to move forward as anticipated and that solar project is currently on hold.

Subsequently, EKPC had NRCO issue a 200 MW Solar RFP in the Fall of 2021 and proposals were received in January 2022. Offers submitted in this solicitation were in the $45-$70/MWh range. The median offer price for solar was fully $14/MWh higher than the previous RFP. In addition to the PPA price stair stepping higher due to cost increases at every level of the supply chain (modules, transformers, freight, labor), the RFP featured the first significant bifurcation of late-stage and early-stage PJM offer pricing. PJM's Interconnection study queue became overburdened and required an overhaul. Developers recognized the value of being further along in the study process and being able to reasonably execute a transmission interconnection agreement in a timely manner. The offer

prices for the projects that could reasonably complete an interconnection agreement in a timely manner were priced in the upper band of the range offered ($52-$70/MWh). The projects that were in the early stages of the interconnection process were priced in the $45-$52/MWh range as a reflection of their uncertain Commercial Operation Date (COD).

As EKPC studied which developer offered the best alternative, the Biden Administration extended the Section 201 tariffs on monofacial solar panels for another four years until February 2026. This development caused developers to suspend their offers until they could better predict with more certainty on the delivery of the needed panels. On June 6, 2022, another announcement was made placing a moratorium on the AD/CVD tariff through use of an Executive Order. The intervention appeared to afford the renewables industry a twenty-four (24) month window to continue to develop projects without the threat of incurring significant retroactive module tariffs from the U.S. government.

EKPC continued to seek solar energy but was unable to fully execute a binding agreement for such supply. Therefore, another RFP was issued on July 13, 2022 to fifty-seven developers. Ten developers responded to the RFP with fourteen solar projects dispersed across Kentucky (10), Indiana (1), and Ohio (3). All of the bidders were large, well-financed and experienced solar developers. The divergence in pricing between speculative early-stage projects and projects that have executed interconnection agreements was evident again in this RFP. Seven late-stage solar projects were offered in the range above $60/MWh and into the low $70's/MWh. The higher offer prices also reflect the elevated value of PJM Tier I Renewable Energy Credits ("RECs"). The gap between offers based on interconnection capability appears to be in the $10-$12/MWh range.

In August 2022 the Inflation Reduction Act ("IRA") was passed into law. The IRA contains a host of long-term substantive changes to the domestic renewable generation subsidy landscape. The lengthy duration of subsidy clarity is very important and will assist Cooperatives in being able to make rational long-term generation portfolio decisions. Cooperatives could now realize the benefits comparable to tax incentives that were not previously available to them because of their non-taxable status.

Given the highly unstable power purchase agreement ("PPA") offer pricing from the Fall 2021 and Summer 2022 Solar RFPs, the repeated setbacks in concluding a contractually binding signed PPA, and the IRA opportunities, EKPC launched an initiative to work toward conservative utility scale self-build solar costs for three different sized projects:

- 123 MWac;
- 40 MWac; and
- 20 MWac.

EKPC completed a detailed and thorough 88-page proposal which was submitted to NRCO in November 2022 for review and analysis. The results of the submittal showed pricing in the low $60 to high $70/MWh range would be reasonable for a self-build option. This was comparable to the PPAs offered that had secured interconnections.

The reality is that solar costs have continued to move higher and the self-build options better reflect the actual cost to build a utility-scale solar project. Self-build enables the cooperative to have significantly more insight and control to address the challenges to complete a project. On a project risk-adjusted basis, self-development provides a better pathway to completion than does the PPA when construction costs are similar.

All the RFP solicitations were based on EKPC's strategic desire to diversify its portfolio by adding additional renewable resources it could offer to its owner-members and ultimately to the retail customers, and further other strategic goals and objectives related to sustainability. Unfortunately, the factors effecting the solar market frustrated efforts to get developers to commit to a binding price that was reasonable and supportable.

Q. WHAT TYPES OF POWER SUPPLY OPTIONS WAS EKPC WILLING TO CONSIDER AS PART OF THE RFPs ISSUED BETWEEN 2020 AND 2022?

A. EKPC was willing to consider proposals to develop/build a solar array as well as offers for a power purchase agreement ("PPA"). At the time of the RFP, projects with the following distinguishing criteria were preferred:

i. Existing interconnection agreement

ii. Low interconnection cost risk

iii. Existing relationship with developer

iv. Low energy cost

Q. PLEASE SUMMARIZE THE RESPONSES RECEIVED TO THE RFPs ISSUED BETWEEN 2020 AND 2022.

A. EKPC initially shortlisted five developers and six projects based on the criteria listed above. EKPC then selected two developers to proactively begin contract negotiations. The solar market changed significantly from the time that EKPC issued its initial RFP and when negotiations were developing with specific obligations. EKPC found that most developers were not willing to stand behind their initial offers and the pricing was escalating significantly. Additionally, new federal programs were emerging that made it more palatable for EKPC to construct and finance solar projects, so PPAs were no longer the

only option for solar development. Therefore, EKPC opened its RFP back up for additional options including self-build options in November 2022. Those offers were submitted directly to NRCO so no "insider" information was shared between EKPC's Capital Projects and Construction team and the Power Supply analytical team.

Q. WHAT CRITERIA DID NRCO APPLY TO EVALUATE PROPOSALS?

A. To develop the shortlist of bidders, NRCO was primarily concerned with three factors. Those were: price (both EPC and PPA), the ability of the bidder to assist with the CPCN process, if needed, and experience with developing and deploying solar projects.

Q. DID EKPC SUBMIT ANY SELF-BUILD PROPOSALS AS PART OF THE FINAL RFP ISSUED NOVEMBER 2021? IF YES, HOW WAS THE SUBMITTAL HANDLED?

A. Yes. The EKPC Capital Projects and Construction Team developed and submitted self-build proposals. Those proposals were sent directly to NRCO and were never reviewed by or shared with the EKPC Planning Team prior to submittal. Separation of these duties ensured that the Planning Team did not share any confidential information with the Capital Projects and Construction Team about previous RFP bids from other sources and ensured that no additional information was shared with the Planning Team that could bias its analysis. This complete separation of duties was kept in place until after all analyses were completed, the projects were chosen, and work was started to further develop the projects and apply for required approvals. NRCO documented its analyses of the various projects in its document entitled ""EKPC 150 MW Solar RFP (2023): Final Review", dated February 28, 2023.

Q. WHAT DID NRCO CONCLUDE BASED ON ITS ANALYSIS OF THE RESPONSES TO THE RFP?

A. One of the enduring problems in the domestic solar RFP market the past several years has been developers using unrealistic EPC costs in the project finance models. In order to separate their offer from "the pack," developers will use cost figures that are unduly optimistic. Once they are deemed to be the winning bidder and contract negotiations begin, the pricing has consistently increased to the point of not being able to complete an agreement. After NRCO reviewed all of the cost data, along with consideration towards the capability to construct and finalize a solar project in the state of Kentucky, EKPC stood out as the developer most capable of successfully constructing a solar project for EKPC. EKPC's opening bid to assume two projects in the early stages of development was the most competitive and its PPA offer was also competitive with other offers of the same scope. For example, the $1.405/Wdc construction cost estimate employed by EKPC accurately reflects the all-in cost to build a utility-scale project. And the low-priced offers received by EKPC in the Fall 2022 RFP almost with certainty were using $1.20/Wdc as their capex assumption. History and experience have proven that those developers cannot execute on a project at that price level. EKPC was also in the top two for financial backing. Reflecting the general unwillingness of many developers to commit to pricing and schedules, EKPC was the only shortlist bidder to respond both quickly and thoroughly during the post interview process. Moreover, in previous self-build contexts, EKPC has a track record of successfully developing projects of a similar scope and size.

Q. IS IT YOUR PROFESSIONAL OPINION THAT EKPC'S SELF-BUILD PROPOSALS FOR THE PROJECTS IS THE SINGLE BEST PROPOSAL FROM AMONG THOSE SUBMITTED TO EKPC THROUGH THE RFP PROCESS?

A. Yes. EKPC presented a clear and focused self-build proposal, and the team was nimble and responsive with the follow-up questions. The EKPC proposal had the most competitive economics and is supported by a large balance sheet. The lowest priced offers in the RFP did not have transmission agreements in place and will be delayed due to the PJM transmission study queue. Therefore, those offers could not provide an executable contract in the near future. The next most attractive offer will be tied to the Kentucky Utilities ("KU") transmission system. EKPC is working with the developer to determine if the energy can be reliably and economically delivered to EKPC owner member loads. Talks with this developer will continue but do not preclude EKPC's need for solar in the near future, and if determined to be feasible, would be in addition to the two Projects requested in the application, not instead of. Of the remaining bids that can achieve interconnection on the transmission system in the near future are in the cost range of $70/MWh to $80/MWh plus. Utilizing financing made possible in the Inflation Reduction Act ("IRA"), EKPC has determined that it can develop the proposed solar projects in the low to mid $60/MWh cost range. Favorable cost and the ability to control the development timeline as well as expenses makes the EKPC self-build options the most desirable for utility scale solar development.

IV. The Proposed Projects

Q. PLEASE DESCRIBE THE 40 MW PROPOSED PROJECT.

A. The Bluegrass Plains Solar Project will consist of approximately 88,000 single axis tracking PV modules, constructed over 388 acres located east of Lexington, Kentucky in Fayette County. The total capacity of the project will be 40 MW AC. Each solar panel will be capable of producing approximately 570 Watts DC. The estimated construction cost of the project is $101,744,634.

Q. PLEASE DESCRIBE THE 96 MW PROPOSED PROJECT.

A. The Northern Bobwhite Solar Project will consist of approximately 181,000 single axis tracking photovoltaic (PV) modules, constructed over 635 acres located north of Lebanon, Kentucky in Marion County.[3] The total capacity of the project will be 96 MW AC. Each solar panel will be capable of producing approximately 685 Watts DC. The estimated construction cost of the project is $233,640,000.

Q. WHO WILL OWN THE SOLAR FACILITIES?

A. Both Projects will be owned by EKPC.

Q. WHAT APPROVALS OR CONSENTS ARE NECESSARY IN ORDER FOR THE PROPOSED TRANSACTION TO BE CONSUMMATED?

A. EKPC has already received Board approval for the Projects. .With the approval of the CPCNs requested in this application, The Rural Utilities Services ("RUS") must also ensure that EKPC meets appropriate environmental obligations including compliance with the National Environmental Policy Act, the National Historic Preservation Act, and the Endangered Species Act.

[3] The Northern Bobwhite Projects is based upon a proposed development previously issued a Construction Certificate by the Kentucky State Board on Electric Generation and Transmission Siting. *See In the Matter of: Electronic Application of Northern Bobwhite Solar LLC for a Certificate of Construction for an Approximately 96 Megawatt Merchant Solar Electric Generating Facility in Marion County, Kentucky Pursuant to KRS 278.700 and 807 KAR 5:110,* Case No. 2020-00208, Order, (Ky. Siting Board, Nov. 22, 2021).

Q. HOW WILL THE PROJECT BE INTEGRATED INTO PJM?

A. EKPC will offer the solar projects into the PJM market in a similar manner as done for other generation assets today. The offers will be based on costs and will conform to all PJM market rules.

V. Rate H – Wholesale Renewable Energy Program

Q. PLEASE SUMMARIZE THE WHOLESALE RENEWABLE ENERGY PROGRAM.

A. EKPC's Rate H - Wholesale Renewable Energy Program is a rider to EKPC's Rates B, C, E and G, and the purpose of the program is to provide EKPC's owner members a source of renewable energy or renewable energy attributes for resale to their retail members. EKPC offers three options to its owner members, who in turn offer three options to their retail members. Option A allows owner members to participate by contributing monthly as much as they like in $2.50 increments. Option B is a five-year pilot program where owner members may, after entering into an agreement with their retail member and EKPC, offer renewable energy to offset a portion or all of the energy consumed by the retail member utilizing owner member's firm service rates. Option C allows owner members to participate in the REC program, by entering into an agreement with the commercial and industrial retail member, by offering those retail members the opportunity to purchase RECs through their owner member and EKPC to offset up to all of their energy consumption with RECs, resulting in that portion of energy consumed to be considered renewable. The Projects will provide additional sources of both renewable energy (Option B) and RECs (Option C) for owner-members and their end-use members to utilize.

VI. Additional Benefits of the Project

Q. HOW WILL THE PROPOSED CONSTRUCTION BENEFIT EKPC AND THE OWNER-MEMBERS IT SERVES?

A. There are numerous ways the Project will benefit EKPC, its Owner-Members, and the retail customers. The proposed construction will: (i) aid in fulfilling EKPC Board's Strategic and Sustainability Plans by diversifying EKPC's generation portfolio to become less reliant on coal-fired generation while adding to its renewable energy offerings to its Members and the Members' retail customers; (ii) keep EKPC well-positioned to comply with existing and forthcoming environmental regulations, such as the GHG rule, and mandates; (iv) increase access to renewable energy resources for those customers in the EKPC system who contract to specifically be served by renewable energy; and (v) give EKPC additional experience in working with intermittent power resources.

VIII. Conclusions

Q. DOES EKPC HAVE A NEED FOR THE PROJECT?

A. Yes, EKPC's 2022 Integrated Resource Plan defined solar energy as an economic energy resource for the system. The solar energy will provide low-cost energy during summer peak periods, with limited production during winter peak load periods. EKPC's portfolio will be improved with the addition of solar energy to diversify its mix of generation assets.

Q. ARE THERE ANY OTHER REASONS WHY EKPC IS PROPOSING TO CONSTRUCT THE PROJECT?

A. Customers are increasingly requesting specific green energy supply on a more regular basis. Construction of the projects places EKPC in a strategically desirable position to

have green energy readily available when requested. This is a critically important aspect of economic development efforts.

Q. DOES EKPC BELIEVE ITS SELECTED PROJECTS ARE FINANCIALLY SOUND AND PRUDENT INVESTMENTS?

A. Yes. EKPC's internal analysis, as well as the independent analyses of NRCO, confirm that the proposed solar Projects will add value to EKPC's system, benefit EKPC's Owner-Members, provide lasting economic value, and diversify EKPC's generation portfolio. It is my professional opinion as Vice President of Power Supply that the Projects are the reasonable, least-cost option for meeting the needs described above and will not result in wasteful duplication of investment.

Q DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

ATTACHMENT JJT-1
SOLAR RFP RESPONSES AND EVALUATIONS
CONFIDENTIAL

ATTACHMENT JJT-2
EKPC SUSTAINABILITY PLAN

SUSTAINABILITY

EAST KENTUCKY POWER COOPERATIVE

Mapping the Road to EKPC's Future

Sustain (sə-ˈstā-n)

1. Strengthen or support physically or mentally.
2. Bear (the weight of an object) without breaking or falling.
3. Cause to continue for an extended period or without interruption.
4. Uphold, affirm, or confirm the justice or validity of.

EKPC exists to serve its member-owned cooperatives by safely delivering reliable, affordable and sustainable energy and related services.

- EKPC's mission statement

SUSTAINABILITY

EAST KENTUCKY POWER COOPERATIVE

In 2018, EKPC's Board added "sustainability" to the cooperative's mission statement. For the past year, five employee teams have been gaining a better understanding of the changes taking place in and around the energy industry, changes that will affect EKPC for decades to come. These teams established the following principles and are developing plans to meet them. Like EKPC's employee-based Safety teams, these Sustainability teams are envisioned to continue functioning into the future, helping EKPC identify and meet key challenges. Sustainability will always be a moving target and this plan will change and evolve.

SUSTAINABILITY

Owner-Members

Purpose:

To ensure EKPC is consistent in vision and relationships with owner-members by developing strategies that ensure long-term energy solutions, partnerships and stability.

Principles

- Work with our owner-members, supporting and enabling them to expand their businesses in response to evolving member service expectations and energy solutions derived from technological advances.

- In partnership with participating owner-members, leverage our combined economies of scale to provide cost-effective and competitive behind-the-meter services.

- Attract and retain businesses in our communities, as the success of our owner-members and EKPC rely on growth and stability.

HIGHLIGHTS:

Foster entrepreneurship to cultivate home-grown jobs and investment.

Electric vehicles can save money and reduce environmental impact.

Includes team members from Farmers RECC, Licking Valley RECC, Nolin RECC and Owen Electric.

SUSTAINABILITY
EAST KENTUCKY POWER COOPERATIVE

SUSTAINABILITY

Employees

Purpose:

To ensure EKPC meets our Owner-members expectations for cost control and reliability while remaining competitive in attracting and retaining talent by promoting a dynamic and evolving workforce today and in the future.

Principles

- Cultivate a high-performing, diverse and inclusive workforce; encourage and reward respect, collaborative thinking and community volunteerism.
- Ensure long-term workforce success; utilize succession planning, leadership development and professional development resources.
- Study, evaluate and recommend strategies to adapt to post-pandemic workforce trends related to organizational values and culture, worker expectations, candidate/employee behavior and employee relationships.
- Ensure EKPC's workforce is prepared to meet the needs of a rapidly changing energy industry, shifting consumer expectations and the many other challenges ahead by remaining strategically flexible.

HIGHLIGHTS:

Over 4,000 leadership development hours in 2019.

EKPC employees have submitted 265 ideas for improving operations in the last three years.

SUSTAINABILITY
EAST KENTUCKY POWER COOPERATIVE

SUSTAINABILITY

Energy and Environment

Purpose:

To design and implement strategies to increase fuel diversity, decrease carbon emissions, and promote environmental stewardship throughout EKPC.

Principles

- Commit to reducing greenhouse gas.
- Provide glide-path to replace aging coal resources with cleaner resources and/or market purchases.
- Enhance and promote environmental stewardship projects.
- Adopt new energy technologies to help achieve goals.

HIGHLIGHTS:

35% CO2 reduction by 2035; 70% by 2050.

10% energy from new renewables by 2030; 15% by 2035.

SUSTAINABILITY
EAST KENTUCKY POWER COOPERATIVE

SUSTAINABILITY

Electric Grid

Purpose:

To ensure EKPC is increasing security, reliability, and resiliency on the transmission system while ensuring the solutions align with downstream grid changes.

Principles

- Grid security: Assessing facilities and cyber threats, and incorporating new technologies.
- Grid reliability: Considering ways to innovatively improve management of facilities and rights-of-way while reducing the environmental impact.
- Grid resiliency: Evaluating ways to ensure EKPC transmission grid can withstand the inevitable challenges ahead.

HIGHLIGHTS:

176 wooden poles replaced with steel poles.

All EKPC service centers certifying an employee as a commercial drone pilot.

SUSTAINABILITY
EAST KENTUCKY POWER COOPERATIVE

SUSTAINABILITY

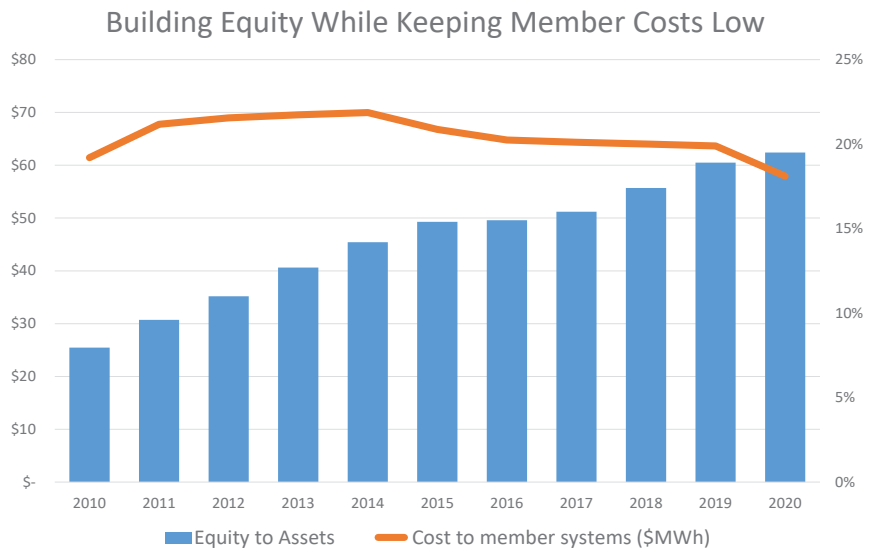
Financial Health

Purpose:

To promote financial sustainability principles that enhance long-term viability.

Principles

- Enhancing responsible financial management.
- Strengthening financial flexibility.
- Building financial resilience.
- Maintaining our forward focus to develop a high degree of strategic strength.



HIGHLIGHTS:

Improve visibility and mitigate future financial risk.

Employee transparency and engagement, such as improving financial literacy.

SUSTAINABILITY
EAST KENTUCKY POWER COOPERATIVE

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