COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY POWER COMPANY FOR (1) AN ORDER APPROVING THE TERMS AND CONDITIONS OF THE RENEWABLE ENERGY PURCHASE AGREEMENT FOR SOLAR ENERGY RESOURCES BETWEEN KENTUCKY POWER COMPANY AND BRIGHT MOUNTAIN SOLAR, LLC; (2) AUTHORIZATION TO ENTER INTO THE AGREEMENT; (3) RECOVERY OF COSTS THROUGH TARIFF P.P.A.; (4) APPROVAL OF ACCOUNTING PRACTICES TO ESTABLISH A REGULATORY ASSET; AND (5) ALL OTHER REQUIRED APPROVALS AND RELIEF	)	CASE NO. 2024-00243

O R D E R

On July 31, 2024, Kentucky Power Company (Kentucky Power) filed an application pursuant to KRS 278.300, KRS 278.020, 807 KAR 5:001, Section 14, and 807 KAR 5:001, Section 18, requesting (1) approval for the terms and conditions of the Renewable Energy Purchase Agreement for Solar Energy Resources (REPA or Agreement) between Kentucky Power and Bright Mountain Solar, LLC (Bright Mountain); (2) authorization to enter into the Agreement; (3) recovery of costs through Tariff P.P.A.; (4) approval of accounting practices to establish a regulatory asset; and (5) the Commission grant all other required approvals and relief.

The Attorney General of the Commonwealth of Kentucky, by and through the Office of Rate Intervention, (Attorney General) was granted intervention on August 12, 2024.[1] By Order issued September 3, 2024, Kentucky Industrial Utility Customers, Inc. (KIUC) was granted intervention.[2] In order to facilitate orderly processing of this application, the Commission issued a procedural schedule on August 21, 2024.[3] As part of the Order, the Commission extended the 60-day deadline to approve financing found in KRS 278.300(2).[4] On August 29, 2024, the Attorney General and KIUC filed a witness sharing agreement.

Kentucky Power responded to one request for information from Commission Staff.[5] Kentucky Power responded to two requests for information from the Attorney General and KIUC.[6] The Attorney General and KIUC filed testimony on December 11, 2024, and the parties, jointly, responded to one request for information from Kentucky Power.[7] On December 11, 2024, Kentucky Power filed rebuttal testimony. On December 13, 2024, the Attorney General and KIUC requested a hearing in this matter.[8] On December 16,

---

[1] The Attorney General filed a motion to intervene on August 8, 2024; Order, Aug. 12, 2024.

[2] KIUC's motion to intervene was filed on August 12, 2024; Order, Sept. 3, 2024.

[3] Order, Aug. 21, 2024.

[4] Order at 2, ordering paragraph 1 (Ky. PSC Aug. 21, 2024).

[5] Kentucky Power's response to Commission Staff's First Request for Information (Staff's First Request) (filed Sept. 25, 2024).

[6] Kentucky Power's response to the Attorney General and KIUC's First Request for Information (Attorney General and KIUC's First Request) (filed Sept. 25, 2024); Kentucky Power's response to the Attorney General and KIUC's Second Request for Information (Attorney General and KIUC's Second Request) (filed Oct. 23, 2024).

[7] Attorney General and KIUC's Response to Kentucky Power's First Request for Information (Kentucky Power's First Request) (filed Nov. 26, 2024).

[8] Attorney General and KIUC's Request for a Hearing (filed December 13, 2024).

2024, Kentucky Power filed a response to the Attorney General and KIUC's request for a hearing and did not object to a hearing.[9]

On December 23, 2024, the Commission issued an Order setting a hearing for January 28, 2025.[10] A hearing was held on January 28, 2025, and at the conclusion of the hearing, the Commission established a post-hearing procedural schedule. An Order was issued on January 31, 2025, setting forth the schedule for post-hearing requests for information and briefing.[11] Kentucky Power responded to one post-hearing request for information from Commission Staff as well as the Attorney General and KIUC.[12] Kentucky Power, the Attorney General and KIUC filed post-hearing briefs on February 21, 2024, and February 28, 2025, both parties filed response briefs.

The matter stands submitted for a decision.

LEGAL STANDARD

There are several applicable statutes in this matter. KRS 278.300(1) states that: "[n]o utility shall issue any securities or evidences of indebtedness, or assume any obligation or liability in respect to the securities or evidences of indebtedness of any other person until it has been authorized so to do by order of the commission." KRS 278.300(3) establishes that the Commission:

> shall not approve any issue or assumption unless, after investigation of the purposes and uses of the proposed issue

[9] Kentucky Power's Response to the Attorney General and KIUC's request for a hearing (filed on Dec. 16, 2024).

[10] Order, Dec. 23, 2024.

[11] Order, Jan. 31, 2025.

[12] Kentucky Power's response to Commission Staff's First Post-hearing Request for Information (Staff's First Post-hearing Request) (filed Feb, 14, 2024); Kentucky Power's response to the Attorney General and KIUC's First Post-hearing Request for Information (Attorney General and KIUC's First Post-hearing Request) (filed Feb. 14, 2025).

> and the proceeds thereof, or of the proposed assumption of obligation or liability, the commission finds that the issue or assumption is for some lawful object within the corporate purposes of the utility, is 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 is reasonably necessary and appropriate for such purpose.

In Case No. 2020-00016, the Commission stated that KRS 278.300 applies to purchase power agreement (PPA) cases when the proposed agreements include a minimum obligation or take/pay provision.[13] With regards to KRS 278.020(1), the Commission reasoned that the CPCN statute applies "if the financial and operational impact of the agreement on ratepayers is the same as if new generation were being constructed."[14]

KRS 278.020(1) also states that no utility may construct or acquire any facility to be used in providing utility service to the public until it has obtained a certificate of Public Convenience and Necessity (CPCN) from the Commission. To obtain a CPCN, a utility must demonstrate a need for such facilities and an absence of wasteful duplication.[15] "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.

---

[13] 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 May 8, 2020), Order at 11.

[14] Case No. 2020-00016, (Ky. PSC May 8, 2020), Order at 11. (internal citations omitted).

[15] Case. No. 2022-00402, *Electronic Joint Application of Kentucky Utilities Company and Louisville Gas and Electric Company for Certificates of Public Convenience and Necessity and Site Compatibility Certificates and Approval of a Demand Side Management Plan and Approval of Fossil Fuel-Fired Generating Unit Retirements*, (Ky. PSC Nov. 6, 2023) Order at 10. (citing *Kentucky Utilities Co. v Pub. Serv. Comm'n.*, 252 S.W.2d 885 (Ky. 1952)).

> [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.[16]

"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."[17] To demonstrate that a proposed facility does not result in wasteful duplication, we have held that the applicant must demonstrate that a thorough review of all reasonable alternatives has been performed. The fundamental principle of least-cost, reasonable alternative is embedded in such an analysis. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.[18]

Under KRS 278.020(1)(e), unless a CPCN is exercised within one year from the date, the CPCN is granted by order, the authority conferred by the issuance of a CPCN is void. KRS 278.020(1)(e) further provides that the beginning of any new construction in good faith within the time prescribed by the Commission and the “prosecution” of the construction with “reasonable diligence” constitutes an exercise of authority under the CPCN.[19]

---

[16] Case No. 2022-00402, (Ky. PSC Nov. 6, 2023), Order at 10. (citing *Kentucky Utilities Co. v Pub. Serv. Comm’n.*, 252 S.W.2d at 890 (Ky. 1952)).

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

[18] Case No. 2022-00402, (Ky. PSC Nov. 6, 2023), Order at 11. *Internal citations omitted*.

[19] Case No. 2022-00402, (Ky. PSC Nov. 6, 2023), Order at 12.

THE PROPOSED TRANSACTION

On September 22, 2023, Kentucky Power issued three requests for proposals (RFPs or if referenced individually, RFP) for approximately 875 megawatts (MWs) of PJM accredited summer capacity and approximately 1,300 MWs of PJM accredited winter capacity.[20] The proposals were due by November 8, 2023.[21] Kentucky Power employed Charles River Associates to assist in evaluating the proposals.[22]

Kentucky Power received 71 proposals from bidders, representing 36 unique projects.[23] The responses included proposals for solar, wind, solar plus storage, gas, and standalone battery storage.[24] Several bidders submitted multiple proposals for the same project which resulted in a greater number of proposals than projects.[25] After evaluating the proposals using the eligibility and threshold requirements, seventeen proposals were eliminated from consideration.[26]

Kentucky Power stated it successfully negotiated and executed a REPA with Bright Mountain, a wholly owned subsidiary of Avangrid Renewables, LLC.[27] The 80 MW solar

[20] Direct Testimony of Zachary Yetzer (Yetzer Direct Testimony) (filed Jul. 31, 2024) at 4.

[21] Yetzer Direct Testimony at 4.

[22] Yetzer Direct Testimony at 5.

[23] Yetzer Direct Testimony at 6.

[24] Yetzer Direct Testimony at 6.

[25] Yetzer Direct Testimony at 6-7.

[26] Yetzer Direct Testimony at 7.

[27] Yetzer Direct Testimony at 10.

project is located in Perry County, Kentucky, within Kentucky Power's service territory.[28] The 15-year REPA was for purchase of all renewable energy products generated by the Bright Mountain project (energy, capacity, and renewable energy certificates) at a non-escalating price of $83.68 per megawatt per hour (MWh).[29] Bright Mountain proposed to start construction, with a targeted in service date of April 2027, after approval from the Commission of the contract.[30]

Although the project has a name plate capacity of 80 MW, the project is expected to account for approximately 4.8 MW of accredited capacity to be included in the Company's Fixed Resource Requirement (FRR) Plan starting in PJM Planning Year 1 and will provide approximately 3 percent of Kentucky Power's energy needs.[31] Kentucky Power's most recent integrated resource plan (IRP) identified that Kentucky Power's need for capacity starting in 2026.[32] Kentucky Power argued the proposed agreement fills a capacity need and will allegedly save ratepayers approximately $2.1 million over the term of the contract based on a present value basis.[33] According to the application, the value of the monetized renewable energy certificates (REC) can be passed back to customers

[28] Yetzer Direct Testimony at 10.

[29] Yetzer Direct Testimony at 11.

[30] Yetzer Direct Testimony at 10-12.

[31] Direct Testimony of Tanner Wolffram (Wolffram Direct Testimony) (filed July 31, 2024) at 7–8.

[32] Wolffram Direct Testimony at 7.

[33] Wolffram Direct Testimony at 12.

to offset the cost of the project which Kentucky Power valued at $42.6 million.[34] Kentucky Power averred that this project was the least cost, most reasonable alternative.[35]

Kentucky Power stated the annual cost of the REPA beginning in 2027 is approximately $12.5 million per year.[36] Kentucky Power proposed to recover all costs through its currently existing Tariff P.P.A. mechanism.[37] According to Kentucky Power, its Tariff P.P.A. provides for recovery of "the annual cost of power purchase by the Company through new Purchase Power Agreements and purchased power expense from avoided costs payments to net metering customers" through element "N" of its rate calculation.[38] Kentucky Power also requested a regulatory asset in the amount of $0.9 million for the incurred costs related to the development of the Bright Mountain REPA, including development costs associated with the implementation and execution of the 2023 All Source RFP, development of a shortlist of projects, and negotiation and execution of the REPA.[39]

ATTORNEY GENERAL AND KIUC'S TESTIMONY

The Attorney General and KIUC provided testimony from two witnesses, Lane Kollen and Leah Wellborn.[40] According to witness Kollen, the REPA was "the wrong

[34] Wolffram Direct Testimony at 9.

[35] Wolffram Direct Testimony at 13.

[36] Wolffram Direct Testimony at 14.

[37] Wolffram Direct Testimony at 15.

[38] Wolffram Direct Testimony at 15 *citing* Kentucky Power's Tariff P.P.A. on file P.S.C. KY. No. 13 Original Sheet No. 31.1, "Rate" Section 1.a.

[39] Wolffram Direct Testimony at 15–16.

[40] The Direct Testimony of Lane Kollen (Kollen Direct Testimony) (filed Nov. 6, 2024); The Direct Testimony of Leah Wellborn (Wellborn Direct Testimony) (filed Nov. 6, 2024).

resource at the wrong time" because the resource will only provide 4.8 MW of accredited capacity.[41] The Attorney General and KIUC argued that the REPA will result in a non-dispatchable resource that does not address Kentucky Power's capacity need after 2028.[42] Additionally, according to the Attorney General and KIUC, the value of the REC is speculative and not enough to offset the expense of the agreement.[43] According to witness Wellborn's testimony, the value of the RECs may never be realized by the Kentucky Power ratepayers and regardless, it would not be enough to offset the expense of the REPA.[44]

SUMMARIES OF BRIEFS

Kentucky Power Briefs. According to Kentucky Power, even though this was the first application related to the RFPs, the REPA application was not meant to preclude consideration of other generation resources.[45] Moreover, the company argued that the Bright Mountain REPA will provide approximately three percent of its energy needs at an estimated net cost to the average residential customer of just over a quarter per month, or an approximate 0.2 percent increase.[46] Kentucky Power also noted that the REPA Agreement contained provisions preventing Bright Mountain from increasing the price paid pursuant to the Agreement.[47] Kentucky Power stated, although the accredited

[41] Kollen Direct Testimony at 4.

[42] Kollen Direct Testimony at 4.

[43] Kollen Direct Testimony at 4; Wellborn Direct Testimony at 3–4.

[44] Wellborn Direct Testimony at 4–13.

[45] Kentucky Power's Initial Brief at 1.

[46] Kentucky Power's Initial Brief at 1-2; *citing* Wolffram Rebuttal Testimony at 9.

[47] Kentucky Power's Initial Brief at 8; *citing* Yetzer Confidential Hearing Video Testimony (HVT) (Jan. 28, 2025) at 36:17–37:16.

capacity amount is small, the REPA would allow the utility to avoid making potentially expensive market capacity purchases.[48]

Kentucky Power noted several benefits to its customers and service area generally. According to Kentucky Power, the Bright Mountain REPA provides the company with the benefit of a diverse generation portfolio.[49] Additionally, Kentucky Power noted that companies and persons are looking for renewable energy options and the REPA may provide the impetus for economic development in the area.[50] In sum, Kentucky Power argued that, for less than $3.50 per year, its customers would receive access to fuel independent generation, a physical hedge against the volatility of the energy market, avoid market capacity purchases, and realize revenue from REC sales that will offset the cost to customers.[51]

As to the approval of the financing, Kentucky Power stated that the obligation is in connection with a long-term contract for the purchase of capacity and energy to meet Kentucky Power's obligation to provide adequate, efficient and reasonable service to its customers as an electric utility providing service within its certified territory.[52] Kentucky Power argued the expenses related to the REPA may be offset with the RECs; additionally, the REPA is needed as it will be provide a hedge against volatile market

[48] Kentucky Power's Initial Brief at 9.

[49] Kentucky Power's Initial Brief at 9; *citing* Wolffram Direct Testimony at 9–10; *see also* 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. P.S.C. Dec. 19, 2014), Order at 10–13.

[50] Kentucky Power's Initial Brief at 9.

[51] Kentucky Power's Initial Brief at 11.

[52] Kentucky Power's Initial Brief at 13–14.

capacity purchases, diversify the utility generation portfolio and may provide economic growth.[53] Finally, Kentucky Power averred, the Bright Mountain REPA will not result in wasteful duplication because the Bright Mountain Project was the least-cost, reasonable alternative for solar or wind resources to result from the RFPs and part of the least-cost, reasonable generation portfolio overall.[54] Kentucky Power noted that the Bright Mountain Project represents a significant investment in the company's service territory, specifically a "steel in the ground" asset in the Commonwealth.[55] Kentucky Power also reiterated its requests to recover the costs for the REPA through the Tariff P.P.A. and establish a regulatory asset for the expenses related to the RFP process.[56]

In its response brief, Kentucky Power argued that the facts demonstrated the REPA met the standards for approval pursuant to KRS 278.300(3).[57] Kentucky Power emphasized that its REC forecast was reasonable.[58] Finally, Kentucky Power denied its intent to seek approval to sell its 50 percent interest in Mitchell.[59]

---

[53] Kentucky Power's Initial Brief at 14–16.

[54] Kentucky Power's Initial Brief at 17–19.

[55] Kentucky Power's Initial Brief at 19; *citing* Case No. 2022-00402, *Electronic Joint Application Of Kentucky Utilities Company And Louisville Gas And Electric Company For Certificates of Public Convenience And Necessity And Site Compatibility Certificates And Approval Of A Demand Side Management Plan And Approval Of Fossil Fuel-Fired Generating Unit Retirements,* (Ky. P.S.C. Nov. 6, 2023), Order at 95 ("The Commission expects our vertically integrated utilities, in furtherance of their service, and not reliability, obligations to replace generation capacity with 'steel in the ground' or a Purchase Power Agreement.").

[56] Kentucky Power's Initial Brief at 20–23.

[57] Kentucky Power's Response Brief at 1–4.

[58] Kentucky Power's Response Brief at 5–6.

[59] Kentucky Power's Response Brief at 7–8.

Attorney General and KIUC's Briefs. In their initial brief, the Attorney General and KIUC argued that the Commission should not approve the application in this matter.[60] The parties argued that over the 15-year REPA term at a price of $83.68 per MWh, the cost to ratepayers will be $101.8 million present value.[61] The Attorney General and KIUC focused on the minimal accredited capacity of only 4.8 MW when Kentucky Power will have a capacity deficit of 115 MW in 2026 and 66 MW in 2027.[62] According to the Attorney General and KIUC, the application does not satisfy the requirements set forth in KRS 278.300, KRS 278.030 or KRS 278.020.[63] Specifically, the parties argued the REPA is not the least cost, most reasonable option for a generation resource in part because the contract is uneconomic.[64] The Attorney General and KIUC noted that the REC market is speculative and volatile.[65] Finally, the Attorney General and KIUC stated that a project with 4.8 MW accredited capacity is not reasonable as it does not adequately or meaningfully address Kentucky Power's capacity deficit but subsequently noted that the denial of the application does not have to kill the project.[66]

In its response brief, the Attorney General and KIUC emphasized that the project does not hedge against volatile market prices.[67] Instead, the parties argued that the

[60] Attorney General's and KIUC's Initial Brief at 1.

[61] Attorney General and KIUC's Initial Brief at 1–2.

[62] Attorney General and KIUC's Initial Brief at 2. The Commission has not approved the sale of Kentucky Power's Mitchell Generation Station interest and will address this application as such.

[63] Attorney General and KIUC's Initial Brief at 5.

[64] Attorney General and KIUC's Initial Brief at 6–10.

[65] Attorney General and KIUC's Initial Brief at 8–10.

[66] Attorney General and KIUC's Initial Brief at 10–12.

[67] Attorney General and KIUC's Response Brief at 1–2.

monetization of the RECs was the speculative part.[68] Additionally, the parties noted raising customers rates does not aid in economic development.[69]

DISCUSSION AND FINDINGS

Based on the case record and being otherwise sufficiently advised, for reasons discussed below, the Commission finds that Kentucky Power failed to carry its burden of proof that the proposed REPA with Bright Mountain satisfies Kentucky Power's need and will not result in wasteful duplication because it did not put forth sufficient evidence that the proposed agreement is reasonable and cost-effective. For example, the REPA represents a small fraction of Kentucky Power's pressing capacity needs while also requiring Kentucky Power to pay a fixed price for each MW produced by Bright Mountain, which includes the speculative value of the REC. While the Commission cannot approve the REPA on the merits of Kentucky Power's application, the Commission is nonetheless encouraged that Kentucky Power is attempting to forestall the impending capacity shortfall in 2026 and beyond. Kentucky Power should continue to look at its recent RFP responses to identify resources which will address its most fundamental needs; as well as identifying all other options available to it.

Demonstrating Need

When the Commission reviews CPCN applications, it requires that utilities seeking approval demonstrate a need for the proposed project, and that the project will not result in wasteful duplication. The Commission must be vigilant in ensuring that the proposed project in the utility's application represents the least cost, reasonable alternative for

[68] Attorney General and KIUC's Response Brief at 1–2.

[69] Attorney General and KIUC's Response Brief at 2–3.

acquiring that energy or capacity. While cost is a relevant and weighty factor, it is not solely dispositive. Instead, the Commission's review must be holistic, weighing all relevant factors.

While each application is accompanied by its own unique circumstances and considerations, past Commission precedent provides relevant guideposts. For example, relevant to Kentucky Power's application in this case, the Commission has approved solar facilities to "reduce costs and mitigate fuel price and regulatory risk[.]"[70] For solar projects and related agreements, another potential metric for determining reasonableness would be when the net present value (NPV) of benefits and costs of a project exceed the NPV of the equivalent capacity cost.[71]

<u>Kentucky Power's Capacity Position</u>

Kentucky Power is part of the PJM Interconnection system through PJM's Fixed Resource Requirement (FRR) plan.[72] As an FRR entity, Kentucky Power is obligated to meet PJM's Forecast Pool Requirement (FPR) which is determined by considering the Installed Reserve Margin (IRM) figure (14.7 percent until the 2037/2038 planning year) and PJM's Pool-Wide Average Equivalent Demand Forced Outage Rate (EFORd). According to Kentucky Power's IRP filing, the FPR is 8.9 percent until the 2037/2038

---

[70] Case No. 2022-00402 (Ky. PSC Nov. 6, 2023) Final Order at 90.

[71] Case No. 2023-00159 *Electronic Application Of Kentucky Power Company For (1) A General Adjustment Of Its Rates For Electric Service; (2) Approval Of Tariffs And Riders; (3) Approval Of Accounting Practices To Establish Regulatory Assets And Liabilities; (4) A Securitization Financing Order; And (5) All Other Required Approvals And Relief* (Ky. PSC January 19, 2024) final Order at 78.

[72] Wolffram Direct Testimony at 7.

planning year.[73] If Kentucky Power fails to meet its minimum reserve requirement, it is subject to certain penalties.

Kentucky Power's capacity position is precarious because of its limited capacity and generation resources. Currently, Kentucky Power owns and operates the Big Sandy Plant which is comprised of a single operating unit with a generating capacity of 295 MW. The Big Sandy Plant was originally placed in service in 1963 and converted to a natural gas-fired unit in 2016.[74] Additionally, Kentucky Power owns an undivided 50 percent interest in the Mitchell Plant with Wheeling Power Company, another AEP affiliate, owning the other 50 percent.[75] Notably, Kentucky Power's current interest in the Mitchell Plant is set to expire by the end of 2028[76] and Big Sandy may cease operations in 2031, both of which are expected to increase Kentucky Power's capacity deficit.[77] In numerical terms, Kentucky Power expects to be capacity short by 115 MW of capacity in 2026, 66 MW of capacity in 2027, and at least 713 MW starting in 2028.[78]

---

[73] Case No. 2023-00092, Kentucky Power's IRP Volume A at 54.

[74] Wolffram Direct Testimony at 4.

[75] Wolffram Direct Testimony at 4.

[76] Case No. 2023-00092, *Electronic 2022 Integrated Resource Planning Report of Kentucky Power Company* (filed Mar. 20, 2023), Volume A at 14. The Mitchell Plant was placed into service in 1971. Case No. 2012-00578, *Application of Kentucky Power Company for (1) a Certificate of Public Convenience And Necessity Authorizing The Transfer To The Company Of An Undivided Fifty Percent Interest in The Mitchell Generating Station and Associated Assets; (2) Approval of the Assumption by Kentucky Power Company of Certain Liabilities In Connection with the Transfer of the Mitchell Generating Station; (3) Declaratory Rulings; (4) Deferral of Costs Incurred in Connection with the Company's Efforts to Meet Federal Clean Air Act and Related Requirements; and (5) all other Required Approvals and Relief* (filed Dec. 12, 2012) Direct Testimony of Jeffery D. LaFleur at 3.

[77] Case No. 2023-00092, IRP Volume A at 14.

[78] Wolffram Direct Testimony at 4.

Bright Mountain Accredited Capacity

To support Kentucky Power's determination that it needs additional generation, Mr. Wolffram identified Kentucky Power's short term capacity shortfall, beginning in 2026 as well as an ongoing need for energy.[79] Mr. Wolffram stated that the Bright Mountain REPA will "provide a physical hedge, located within the Company's service territory, against volatile fuel prices. Its production [will also] help partially offset the costs of potential future market purchases."[80] The accredited capacity is 4.8 MW of the 80 MW nameplate capacity of the Bright Mountain Solar Facility.[81] The energy benefits as calculated by Kentucky Power estimate that the Bright Mountain Solar Facility will provide approximately 3 percent of the Company's needs as calculated using their 2023 energy requirements.[82]

In order to properly contextualize Kentucky Power's accredited capacity position, it is necessary to understand that accredited capacity is assigned to resources within the PJM system based on its effective load carrying capability (ELCC). The ELCC reflects in broad terms the reliability contribution at peak of different resource types. For example, the ELCC class rating for fixed tilt solar for 2024/2025 is 33 percent as opposed to a tracking solar panel which is given a 50 percent ELCC rating.[83] Moreover, for solar panels specifically, the ELCC rating is reflective, by and large of its summer production, because shorter winter days means less sun and therefore, less energy produced.

[79] Wolffram Direct Testimony at 9.

[80] Wolffram Direct Testimony at 9.

[81] Wolffram Direct Testimony at 8.

[82] Wolffram Direct Testimony at 8.

[83] Kentucky Power's Response to Commission's First Request, Item 3, Attachment 1.

Part of the Commission's concern in this case is that starting with the 2025/2026 PJM Base Residual Auction (BRA), fixed-tilt solar, like the Bright Mountain facility, is going to have a severely downgraded ELCC rating of 9 percent.[84] When compared to the same year ELCC ratings assigned to coal (84 percent), gas combined cycle (79 percent), gas combustion turbine (62 percent), or even tracking solar panels (13 percent), the difference is stark. The gap between the accredited capacity for fixed tilt solar and more traditional dispatchable resources continues to grow as fixed-tilt solar is downgraded for every BRA through the delivery year 2034/2035 when PJM expects the ELCC to be a mere 3 percent.[85] Because the fixed-tilt solar panel ELCC continues to decline over time, Kentucky Power will have to acquire extra capacity to address the 4.8 MW need it purports to resolve in this application. Stated differently, Kentucky Power will, in the near term, have to acquire duplicative capacity to meet its obligations to PJM and ratepayers.

While the negligible capacity benefit is not on its own necessarily dispositive, it is informative when considering the other RFP proposals which Kentucky Power reviewed.

[redacted]

[84] Kentucky Power's Response to Commission's First Data Request, Item 3, Attachment 2.

[85] Kentucky Power's Response to Commission's First Data Request, Item 3, Attachments 3 & 4. It is important to note that dispatchable resources also have fluctuating ELCC ratings, however, none of the referenced dispatchable resources experience the steady decline of fixed-tilt solar panels.

[86] Yetzer Direct Testimony, Confidential Exhibit ZMY-3.

[redacted]

Kentucky Power attempts to address these concerns and, in its post-hearing brief, stated that United States Environmental Protection Agency (EPA) issued new regulations under Section 111(d) of the Clean Air Act during the RFP process that required Kentucky Power to extend its evaluation of the thermal power plant proposals.[89] Kentucky Power also stated that the price for the Bright Mountain project may have changed during the extended thermal review process.[90] While the Commission is sensitive to Kentucky Power's concerns, it cannot ignore the proposed purpose for the RFP nor Kentucky Power's own evaluation of the RFP responses it received. Moreover, in the context of evaluating the REPA, and based on the foregoing discussion, Kentucky Power has clearly established its need for capacity. However, Kentucky Power's reliance on the Bright Mountain REPA to fulfill even the fraction of capacity it purports, given its severe capacity shortfall, will require Kentucky Power to purchase duplicative capacity in the near term to account for the immediate decrease in ELCC rating by PJM.[91]

---

[87] Yetzer Direct Testimony, Confidential Exhibit ZMY-3.

[88] Yetzer Direct Testimony, Confidential Exhibit ZMY-3.

[89] Kentucky Power's Post-Hearing Brief at 5.

[90] Kentucky Power's Post-Hearing Brief at 5.

[redacted]

Kentucky Power's Costs under the Bright Mountain REPA

Pursuant to the REPA contract, Kentucky Power agreed to pay Bright Mountain a fixed price of $83.68/MWh for all the capacity, energy, and RECs produced by Bright Mountain.[92] In determining the expected costs and financial benefits of the REPA, Kentucky Power conducted a cost of service calculation (COS). As Ms. Coon states, the COS is a "product of the forecasted output of the Project (MWh) and the contract rate ($/MWh)."[93] The following table was created by AG-KIUC witness Ms. Wellborn, but includes the NPV benefits identified by Ms. Coon in her direct testimony:[94]

	REPA Contract Cost	Generation Capacity Value	Energy Value	REC Revenue	Net (Cost) / Benefit
2027	($12,552,635)	$319,325	$4,585,379		
2028	($12,301,583)	$283,965	$4,627,138		
2029	($12,240,075)	$289,239	$4,690,011	$5,035,249	**($2,225,575)**
2030	($12,178,874)	$235,562	$4,843,915	$4,768,342	**($2,331,055)**
2031	($12,117,980)	$239,812	$4,883,814	$4,785,474	**($2,208,880)**
2032	($12,057,390)	$244,097	$4,947,617	$4,801,076	**($2,064,600)**
2033	($11,997,103)	$248,505	$5,105,334	$4,802,354	**($1,840,910)**
2034	($11,937,117)	$189,820	$5,179,244	$4,803,499	**($1,764,555)**
2035	($11,877,432)	$193,439	$5,271,780	$4,811,090	**($1,601,123)**
2036	($11,818,045)	$197,204	$5,339,026	$4,827,267	**($1,454,548)**
2037	($11,758,955)	$201,102	$5,439,553	$4,829,183	**($1,289,118)**
2038	($11,700,160)	$205,139	$5,509,173	$4,837,913	**($1,147,935)**

[redacted]

[92] Yetzer Direct Testimony at 11.

[93] Coon Direct Testimony at 3.

[94] AG-KIUC Response to Kentucky Power's Request for Information, Item 5, Attachment. *See also* Kentucky Power's Confidential Response to Staff's First Request for Information, Item 7 Attachment.

2039	($11,641,659)	$209,316	$5,467,268	$4,846,435	**($1,118,640)**
2040	($11,583,451)	$213,606	$5,686,280	$4,854,751	**($828,813)**
2041	($11,525,533)	$217,935	$5,871,660	$4,861,150	**($574,787)**
Total	($179,287,991)	$3,488,066	$77,447,191	$74,415,119	($23,937,615)
NPV	**($101,805,846)**	**$2,056,612**	**$42,570,492**	**$42,574,748**	**($14,603,993)**

As this table shows, Kentucky Power's initial application expected that, in NPV, the agreement will cost ratepayers $101,805,846. Meanwhile, Kentucky Power stated it expects to receive $2,056,612 in avoided market capacity purchases from PJM, $42,570,492[95] in expected energy sales at the applicable PJM locational marginal pricing node (LMP), and finally, it assumes $42,574,748 in revenue from the sale of RECs received from the project.[96] The result of Kentucky Power's own analysis and reiterated in Ms. Coon's analysis is that as a business proposition, the REPA represents a net annual loss to Kentucky Power which will then be passed onto its ratepayers. The REPA's total NPV cost is $14,603,993. The rate impact on the average residential customer in the first year would range from $0.29 - $0.34 per month.[97]

Kentucky Power also conducted a sensitivity analysis with updated fundamentals. As Ms. Coon's rebuttal testimony shows, the updated fundamentals were a result of AEP releasing its "updated 2024 Fundamentals and REC forecast."[98] The table is recreated below:

---

[95] Kentucky Power's original economic analysis utilized only on-peak pricing to derive its energy benefits. However, PJM considers weekends and NERC holidays to be off-peak. On rebuttal, Ms. Coon utilized a weighted 69 percent on-peak pricing and 31 percent off-peak pricing model which reduced the NPV energy benefits by $765,000.

[96] *See also* Coon Direct Testimony at 4.

[97] Wolfram Direct Testimony at 16; Wolfram Rebuttal Testimony at 9.

[98] Coon Rebuttal Testimony at 7.

Sensitivity Analysis - 2024 Fundamentals
(Cost) / Benefit NPV

	$ millions	REC Low	REC Base	REC High
Energy	Low	$ (40)	$ (32)	$ (15)
	Base	$ (13)	$ (5)	$ 12
	High	$ 19	$ 28	$ 44

Utilizing the updated fundamentals, Kentucky Power averred that the NPV of the cost of the Bright Mountain REPA would be $5 million.[99] Additionally, Kentucky Power's sensitivity analysis showed that in four of the nine scenarios modeled, the net present value of the Bright Mountain REPA would be positive for ratepayers. Notably, however, the NPV is largely only positive in the high energy case. In both the low energy case and base energy case, the NPV cost to ratepayers remain negative, with the sole exception of energy base case and the REC high case.

The Commission is particularly concerned with the REC value for several reasons. First, the REC value is crucial to understanding the NPV costs or benefits to ratepayers; this is especially true, because even assuming that Kentucky Power's assumptions are largely correct, the REPA would still represent a net NPV cost to ratepayers in most of the modeled scenarios.

Secondly, the range in potential benefit derived from the RECs is quite large. The Commission believes that RECs will retain some value moving forward, but the environmental regulatory landscape is changing rapidly and appears to be moving toward

[99] Kentucky Power's Initial Brief at 10.

deregulation which will likely impact the demand for RECs.[100] Moreover, while Kentucky Power intends to market the RECs in the PJM market broadly, other state laws, such as Virginia's requirement that Dominion, a utility subject to Virginia's laws, must procure 75 percent of its RECs from in-state sources, will impact the demand for Kentucky Power's own.[101] Thirdly, Kentucky Power could choose to retire a portion, or all, of its RECs to satisfy its obligations under Option B of Rider R.P.O. which could alter the value of the RECs significantly.[102] Finally, Kentucky Power's updated fundamentals already assume that the REC value will decline from 2031 through 2041.[103] Consequently, the Commission is sensitive to the additional risks posed by paying a fixed price for the REC and relying on a speculative market to minimize its costs.[104]

---

[100] *See e.g.*, *EPA Launches Biggest Deregulatory Action in U.S. History*, epa.gov, last modified March 12, 2025, https://www.epa.gov/newsreleases/epa-launches-biggest-deregulatory-action-us-history

[101] Kentucky Power's Response to AG-KIUC's Second Request for Information, Item 6, Attachment 1.

[102] Kentucky Power argues that under Option B of Rider R.P.O. that Kentucky Power could negotiate with a large customer to get a fixed price for the RECs. However, this does not address the price volatility concerns the Commission has discussed and remains highly speculative without evidence of potential customers or other economic development of which Kentucky Power is aware. *See* Case Kentucky Power's Response to AG-KIUC's Second Requests of Information, Item 10(g).

[103] Coon Rebuttal Testimony, Attachment, Public_WP_NMC-4. The decline in REC price is slight between 2031 and 2041, but its presence is important because it showed that even absent a massive regulatory shift, the value of RECs would remain at best stagnant, but likely decline during the operative years of the REPA. Moreover, while the individual REC price change varied year over year, the total expected REC revenue declined each year.

[104] Though not substantively addressed by the parties because of Kentucky Power's relationship to Bright Mountain through this REPA, the Commission is nonetheless compelled to note that there is a real chance that the Inflation Reduction Act (IRA) may be repealed. If the IRA is repealed the investment tax credits (ITC) will longer be available to developers of solar facilities, this risk is magnified because ITCs can only be claimed once a facility is placed into service. In this case, Bright Mountain has not yet begun construction, again, magnifying the risk that the price to construct and produce energy will increase dramatically, which may force the parties to renegotiate the price of the REPA. *See e.g.* Case No. 2024-00129, *Electronic Application of East Kentucky Power Cooperative, Inc. for a Certificates of Public Convenience and Necessity and Site Compatibility Certificates for the Construction of a 96 Mw (Nominal) Solar Facility in Marion County, Kentucky, and a 40 MW (Nominal) Solar Facility in Fayette County, Kentucky and Approval of Certain Assumptions of Evidences of Indebtedness Related to the Solar Facilities and Other Relief*, (Ky. PSC December 26, 2024) final Order.

Economic Development

Kentucky Power states that Bright Mountain estimated the local benefits of constructing the project would include approximately 280 full-time equivalent (FTE) jobs statewide for construction and 12 FTE jobs to operate and maintain the facility.[105] In Perry County, Kentucky specifically, Bright Mountain expected to add approximately temporary construction 36 FTE jobs and 4 annual FTE jobs to operate and maintain the facility.[106] Additionally, based on Bright Mountain's Certificate of Construction application, Kentucky Power stated that Bright Mountain estimated a total value of $29.2 million industrial production throughout Kentucky.[107]

Additionally, Kentucky Power cited past Commission precedent that has acknowledged the importance of the availability of renewable energy resources to serve corporations with sustainability goals.[108] In Mr. Wolffram's rebuttal testimony, he stated that "[o]nce approved, the Company can leverage this Project for economic development

[105] Kentucky Power's Post-Hearing Brief at 6.

[106] Kentucky Power's Post-Hearing Brief at 6.

[107] Kentucky Power's Post-Hearing Brief at 6. *See also* Case No. 2022-00274 *Electronic Application of Bright Mountain Solar, LLC for a Certificate of Construction for an up to 80 Megawatt Merchant Electric Solar Generating Facility and Related Nonregulated Transmission Line of Approximately 4 Miles in Perry County, Kentucky Pursuant to* KRS 278.700 and 807 KAR 5:110 Application, Tab 10 Executive Summary (Filed Sep 15, 2023). Bright Mountain states that "Facility construction is estimated to add a total value of $29.2 million in onsite and offsite industrial production and induced benefits in the statewide economy. Facility O&M is estimated to add $1.3 million annually in economic output to the statewide economy through the life of the Facility." The Commission notes that the $29.2 million represents a temporary boost to the statewide economy and that the ongoing benefit of the facility is represented by the $1.3 million figure.

[108] 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 May 8, 2020) final Order at 17.

purposes by either providing potential customers with access to RECs and/or by dedicating a portion of the project to serve their load with renewable energy."[109]

The Commission wholeheartedly reaffirms its position that renewable energy resources are part of the toolkit available to utilities to "convey that Kentucky is open for business."[110] However, as the Commission recognized in Case No. 2020-00016, "[n]on-participating customers must not bear additional costs that arise from a jurisdictional utility's actions in attempting to meet a corporation's own self-imposed sustainability goal."[111] In that case, the Commission approved a renewable PPA because it was necessary to satisfy LG&E/KU's obligations to current customers under its existing tariff agreement.[112] Kentucky Power has not identified any specific customer wishing to locate in its service territory and relies entirely on general statements to support its claims. Without more evidence regarding economic development opportunities, the Commission finds it unreasonable to require ratepayers to bear the cost of the REPA, when it is not otherwise the least-cost, reasonable alternative for procuring Kentucky Power's necessary capacity and energy.

CONCLUSION

The Commission finds, based on the foregoing discussion, the evidence in the record, and being otherwise sufficiently advised, that Kentucky Power has failed to carry

[109] Wolffram Rebuttal Testimony at 3.

[110] See 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 May 8, 2020) Final Order At 17.

[111] Case No. 2020-00016, May 8, 2020 final Order at 17.

[112] Case No. 2020-00016, May 8, 2020 final Order at 17.

its burden of proof that the proposed REPA with Bright Mountain is reasonably necessary and appropriate because Kentucky Power has not established that there is a need for the REPA and that the REPA will not result in wasteful duplication. Because the Commission finds that Kentucky Power has not chosen the least cost reasonable alternative and the REPA must therefore be denied, the Commission also denies as moot Kentucky Power's remaining application requests.

The Commission notes, however, that the RFP issued by Kentucky Power includes a number of other opportunities for the utility to contract for generation resources. Therefore, the Commission's denial as it relates specifically to the creation of a regulatory asset based on Kentucky Power's incurred costs, exclusive of this case, is not necessarily preclusive in a subsequent filing that relies on the same RFP, and which satisfies both KRS 278.300 and 278.020.

IT IS THEREFORE ORDERED that:

1. Kentucky Power's application requesting approval to enter into a REPA with Bright Mountain is denied.

2. All other requested relief is denied as moot.

3. This case is closed and removed from the Commission's docket.

PUBLIC SERVICE COMMISSION

Chairman

Commissioner

Commissioner

ATTEST:

Executive Director

ENTERED
MAR 31 2025 AH
KENTUCKY PUBLIC
SERVICE COMMISSION

*Angela M Goad
Assistant Attorney General
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KY 40601-8204

*Katie M Glass
Stites & Harbison
421 West Main Street
P. O. Box 634
Frankfort, KY 40602-0634

*Hector Garcia
Kentucky Power Company
1645 Winchester Avenue
Ashland, KY 41101

*Lawrence W Cook
Assistant Attorney General
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KY 40601-8204

*Jody Kyler Cohn
Boehm, Kurtz & Lowry
425 Walnut Street
Suite 2400
Cincinnati, OH 45202

*J. Michael West
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KY 40601-8204

*Jody M Kyler Cohn
Boehm, Kurtz & Lowry
425 Walnut Street
Suite 2400
Cincinnati, OH 45202

*Honorable Michael L Kurtz
Attorney at Law
Boehm, Kurtz & Lowry
425 Walnut Street
Suite 2400
Cincinnati, OH 45202

*John G Horne, II
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KY 40601-8204

*Tanner Wolffram
American Electric Power Service Corporation
1 Riverside Plaza, 29th Floor
Post Office Box 16631
Columbus, OH 43216

*Kentucky Power Company
1645 Winchester Avenue
Ashland, KY 41101

*Kenneth J Gish, Jr.
Stites & Harbison
250 West Main Street, Suite 2300
Lexington, KY 40507