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 Bright Mountain Power Purchase Agreement Between The Company And Avangrid Renewables, 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

DIRECT TESTIMONY OF

TANNER S. WOLFFRAM

ON BEHALF OF KENTUCKY POWER COMPANY

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I. INTRODUCTION

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

A. My name is Tanner S. Wolffram and I am Director of Regulatory Services for Kentucky Power Company ("Kentucky Power" or the "Company"). My business address is 1645 Winchester Avenue, Ashland, Kentucky 41101.

II. BACKGROUND

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I received a Bachelor of Arts degree in Political Science from Miami University in Oxford, Ohio in 2015 and my Juris Doctor degree from The Ohio State University in Columbus, Ohio in 2018. I began my utility industry career with American Electric Power Service Corporation ("AEPSC") in September 2018 as a Legal Fellow, where I worked on a variety of matters across AEP's various jurisdictions. In September 2019, I was hired as Counsel- Regulatory East, where I was responsible for providing legal support and guidance on various complaint proceedings, fuel cost recovery, tracker/rider, and base rate filings in AEP's East jurisdictions, primarily for Kentucky Power Company, Indiana Michigan Power Company, and Ohio Power Company. In June 2021, I transferred to AEPSC's central regulatory function as a Regulatory Case Manager, where I coordinated state regulatory filings across AEP's footprint. My primary responsibilities were related to filings made in Kentucky, Ohio, and Indiana. In July 2024, I accepted my current position as Director, Regulatory Services for Kentucky Power.

Q. WHAT ARE YOUR PRINCIPAL AREAS OF RESPONSIBILITY WITH KENTUCKY POWER?

A. I am responsible for managing the regulatory strategy for Kentucky Power. This includes planning and executing rate filings for both federal and state regulatory agencies, as well as filings for certificates of public convenience and necessity and for other approvals before this Commission.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN ANY REGULATORY PROCEEDINGS?

A. I adopted the Direct Testimony of Scott E. Bishop in the Company's currently pending Demand-Side Management proceeding, Case No. 2024-00115.

III. PURPOSE OF TESTIMONY

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

A. The purpose of my testimony is to support the Company's application for approval of the Renewable Energy Purchase Agreement for Solar Energy Resources ("REPA") between Bright Mountain Solar, LLC ("Bright Mountain") and Kentucky Power for the Bright Mountain Solar Project (the "Project") located within the Company's service territory in Perry County, Kentucky. First, my testimony will introduce the other witnesses supporting the Company's Application. Next, I will provide an overview of the Company's current generation portfolio.

Additionally, my testimony will provide an overview of the Project and demonstrate the Project is for a lawful object, is needed, is necessary and appropriate for the proper performance of the Company's obligation to serve its customers, will not impair Kentucky Power's ability to perform its obligation to serve, and will not result in wasteful duplication.

Finally, I support the Company's request for authority to accumulate and defer in a regulatory asset for later review and approval certain development costs associated with the Company's 2023 All Source Request for Proposal ("RFP") process, which resulted in the execution of the REPA.

IV. INTRODUCTION OF WITNESSES

Q. WHAT ADDITIONAL WITNESSES WILL BE OFFERING TESTIMONY IN SUPPORT OF KENTUCKY POWER'S APPLICATION?

A. Two additional witnesses provide testimony in support of the Application. First, Company Witness Zachary M. Yetzer describes the 2023 All Source RFP and the process that led to the selection of the Project and the execution of the REPA. In addition, he provides the major terms of the REPA, how the REPA compares to potential alternative resources, and describes the Project.

Second, Company Witness Nicole M. Coon provides the economic analysis supporting the approval of the REPA and provides the associated rate impacts to customers.

V. OVERVIEW OF KENTUCKY POWER'S RESOURCES

Q. PLEASE DESCRIBE KENTUCKY POWER'S EXISTING GENERATION PORTFOLIO.

A. Kentucky Power owns and operates the Big Sandy Plant located near Louisa, Kentucky. The plant currently has a single operating unit with a generating capacity of 295 MW. Big Sandy Unit 1 was originally placed in service in 1963 and operated as a 278 MW sub-critical coal-fired generating unit through mid-November 2015. As approved by the Commission in Case No. 2013-00430, Big Sandy Unit 1 was converted to a natural gas-fired unit and returned to service May 31, 2016.

Kentucky Power also owns an undivided 50% interest in the Mitchell Plant; the other undivided 50% interest is owned by Wheeling Power Company ("Wheeling Power"). The Mitchell Plant is located approximately 12 miles south of Moundsville, West Virginia on the Ohio River and is operated by Wheeling Power. The plant is comprised of two super-critical pulverized coal-fired baseload generating units. Mitchell Unit 1 has a capacity of 770 MW and Mitchell Unit 2 has a capacity of 790 MW for a total capacity of 1,560 MW. Both units were placed in service in 1971.

Q. PLEASE DESCRIBE AT A HIGH-LEVEL KENTUCKY POWER'S CURRENT AND FUTURE GENERATION NEEDS.

A. The Company's 2022 Integrated Resource Plan ("IRP"), provided in Case No. 2023-00092, provides a detailed description of Kentucky Power's generation needs. Generally, it identifies a need for 115 MW of capacity beginning in 2026 and 66 MW in 2027. It further identifies a need for at least 713 MW of capacity beginning in 2028. The IRP also identified an energy need for Kentucky Power over that same period. The

Bright Mountain REPA represents the Company's first step in a process to fill the capacity and energy needs identified in its 2022 IRP.

VI. OVERVIEW OF THE BRIGHT MOUNTAIN PROJECT

Q. PLEASE PROVIDE AN OVERVIEW OF THE BRIGHT MOUNTAIN PROJECT.

A. The Project is an 80 MW solar project owned by Bright Mountain, a wholly-owned subsidiary of Avangrid Renewables, LLC ("Avangrid"). The Project is located in Perry County, Kentucky on a reclaimed coal mine site. Bright Mountain's Application for a Construction Certificate in Case No. 2022-00274 before the Kentucky State Board on Electric Generation and Transmission Siting ("Siting Board") states that the Project is located on 805 acres of leased private land and the Project footprint for solar panels is expected to be 360 acres. The Project is expected to be commercially operational on April 15, 2027. The Project, as discussed further below, also is expected to provide jobs and economic benefits to the Commonwealth and, specifically, the Perry County community.

Q. HOW DID KENTUCKY POWER SELECT THE BRIGHT MOUNTAIN PROJECT?

A. As mentioned above, and as described further by Company Witness Yetzer, the Project was bid into the Company's competitive 2023 All Source RFP that was issued on September 22, 2023. After initial proposals were received, the Company worked with the AEPSC Regulated Infrastructure Development team to review all proposals for completeness and then to provide feedback to bidders if there were deficiencies. Once the Company had complete proposals, they were evaluated based on the Eligibility and Threshold Requirements discussed by Company Witness Yetzer.

Proposals that met the Eligibility and Threshold Requirements underwent a detailed analysis that considered a variety of factors including the economic modeling of energy and capacity and other non-price factors. The scoring criteria used in the economic modeling, specifically as it related to some of the non-price factors, was set based on direction provided by Kentucky Power leadership. Based on the results of the detailed analysis, the Company chose to move forward with contract negotiations for Bright Mountain and, ultimately, came to the agreed upon terms of the REPA included as Confidential Exhibit ZMY-4 to Company Witness Yetzer's testimony.

VII. THE PROJECT IS FOR A LAWFUL OBJECT, IS NECESSARY AND APPROPRIATE TO MEET THE COMPANY'S OBLIGATION TO SERVE ITS CUSTOMERS, AND DOES NOT RESULT IN WASTEFUL DUPLICATION

Q. ARE YOU FAMILIAR WITH THE REQUIREMENTS OF KRS 278.300(3) AS IT RELATES TO HOW THE COMMISSION ANALYIZES APPLICATIONS FOR POWER PURCHASE AGREEMENTS?

A. Yes. First, although I am a licensed attorney, I am not providing testimony in that capacity, but rather I provide the factual support that the Application meets those requirements. That said, KRS 278.300(3) lays out three elements an applicant must demonstrate for the Commission to authorize the Company to enter into the REPA as an "evidence of indebtedness."

First, the financial obligations assumed under the REPA must be for a lawful object within the corporate purposes of the utility. Second, the financial obligations assumed under the REPA must be necessary or appropriate for, or consistent with the proper performance by the utility of its service to the public, and must not impair its ability to perform that service. Finally, the REPA must be reasonably necessary and appropriate for that purpose. When determining whether the REPA is reasonably necessary and appropriate for that purpose, it is my understanding that the Commission analyzes whether the generation to be provided under the REPA is needed and will not result in wasteful duplication. I will discuss how this Project meets each of these requirements below.

1. The Financial Obligations to be Assumed Under the REPA are for a Lawful Object.

Q. ARE THE FINANCIAL OBLIGATIONS TO BE ASSUMED UNDER THE REPA FOR A LAWFUL OBJECT WITHIN KENTUCKY POWER'S CORPORATE PURPOSE?

A. Yes. Kentucky Power is a corporation organized under the laws of the Commonwealth of Kentucky. It is regulated by the Commission and, pursuant to Kentucky's Certified Territory Statutes, KRS 278.016-278.018, possesses the exclusive right and obligation to provide retail electric service within its certified territory in parts of 20 counties in Kentucky.

The Company's 2022 IRP identifies a need for capacity beginning in 2026, and the Bright Mountain REPA represents the Company's first step in a process to fill the capacity and energy needs identified in its IRP. Specifically, 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

2027/28. Additionally, as stated above, the Project will provide approximately 3%[1] of the Company's energy needs while providing a physical hedge against volatile fuel prices.

The financial obligations assumed by Kentucky Power under the REPA are in connection with a long-term contract for the purchase of capacity and energy to meet Kentucky Power's obligation, as an electric utility providing service within its certified territory within the Commonwealth of Kentucky, to provide adequate, efficient and reasonable service to its Kentucky customers. As such, the REPA, and Kentucky Power's financial obligations under the REPA, are for a lawful object within the Company's corporate purpose.

2. The Financial Obligations to be Assumed Under the REPA are Necessary and Appropriate.

Q. ARE THE FINANCIAL OBLIGATIONS TO BE ASSUMED BY KENTUCKY POWER UNDER THE REPA NECESSARY AND APPROPRIATE FOR KENTUCKY POWER TO MEET ITS OBLIGATION TO SERVE ITS CUSTOMERS?

A. Yes. As mentioned above, the Company's IRP identified a need for additional capacity starting in 2026. The need for capacity increases to approximately 700 MW beginning in 2028. That 2028 need is primarily driven by the termination of the Company's undivided interest in the Mitchell Plant in 2028. Beginning in 2031, the Company's capacity needs increase to approximately 1,000 MW if Big Sandy's operations are not

[1] This is based on the Company's 2023 energy requirements.

continued past 2031. The Company's Preferred Plan in its IRP identifies a mix of resources to fill these needs, which includes the addition of gas, solar, and wind resources, as well as the continued operation of Big Sandy 1 through 2041. The Bright Mountain REPA represents the Company's first step in a process to fill those capacity needs identified in its IRP, and to implement the Company's Preferred Plan.

Additionally, as stated above, the Company also has an energy need moving forward. The Project will provide a physical hedge, located within the Company's service territory, against volatile fuel prices. Its production also will help partially offset the costs of potential future market purchases. Company Witness Coon describes the costs and benefits for the REPA in her testimony.

Q. WHAT ARE THE OTHER BENEFITS EXPECTED TO RESULT FROM THE REPA?

A. The REPA is expected to result in several additional customer benefits, including but not limited to:

- Renewable energy certificates ("RECs") – The Project will create RECs that will be transferred to the Company and can be utilized to the benefit of all customers. Specifically, the value of any monetized RECs can be passed back to customers to partially offset the cost of the REPA. Specifically, as represented in Figure NMC-1 in Company Witness Coon's testimony, the REC value is approximately $42.6 million over the life of the REPA on a net present value basis.
- Diversity of generation resources – Kentucky Power is at a point of transition in its mix of generating assets. Bright Mountain will benefit

customers by reducing risks associated with future fuel prices and environmental or regulatory policies that can impact specific types of generation resources. As stated above, the Project provides a physical hedge against volatile fuel prices, as the solar facility is a fuel-free resource. Additionally, the Company will receive energy revenue from the Project being bid into the PJM spot market. These revenues will flow back through the fuel adjustment clause ("FAC"). A diverse portfolio also provides operational flexibility as different resources have different operating characteristics.

- Economic development – Adding renewable energy and having this resource as a part of a diversified portfolio available to serve the Company's customers will benefit the service territory. The Project also will benefit the local community by generating incremental investment in Perry County that will benefit local families, businesses, and industries in that community.

Q. HAS BRIGHT MOUNTAIN ESTIMATED THE EXPECTED LOCAL ECONOMIC BENEFITS ASSOCIATED WITH THE PROJECT?

A. Yes, as part of its Application for a Construction Certificate for the Project in Case No. 2022-00274, Bright Mountain estimated the local benefits, which included approximately 280 full-time equivalent ("FTE") jobs statewide for construction and 12 FTE jobs annually for operation and maintenance of the facility. Further, Bright Mountain estimated a total value of $29.2 million in onsite and offsite industrial production and induced benefits throughout the Commonwealth during facility construction.

Specific to Perry County, the construction of the Project was estimated to add approximately 36 FTEs and 4 annual FTEs for operations and maintenance of the facility after construction is complete.

Q. DID THE BRIGHT MOUNTAIN PROJECT RECEIVE PUBLIC FEEDBACK?

A. Yes, that is my understanding. Based on discussion between Avangrid and the Company, the Project received support from various stakeholders including key landowners, local, state, and federal representatives, and other trade organizations and businesses in the area. Avangrid, Bright Mountain's parent company, has also taken an active role in the local community as evidenced by their donation to support emergency flood relief efforts following the historic July 2022 flooding in eastern Kentucky.[2]

Q. HAS BRIGHT MOUNTAIN BEEN GRANTED A CONTRUCTION CERTIFICATE FOR THE PROJECT?

A. Yes, per the Siting Board's March 13, 2024 Order in Case No. 2022-00274, Bright Mountain's Application for a Construction Certificate was approved.

3. The Generation Provided Under the REPA is Needed.

Q. IS THE GENERATION TO BE PROVIDED UNDER THE REPA NEEDED?

A. Yes. As explained above in my testimony, there is a need for the Company to add additional generation resources to its current portfolio to address a capacity need starting in 2026. The addition of the Project to the generation portfolio also adds

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[2] See Avangrid Renewables donates $20,000 to Foundation for Appalachian Kentucky (wymt.com) - https://www.wymt.com/2022/09/08/avangrid-renewables-donates-20000-foundation-appalachian-kentucky/

diversity in the Company's fuel mix, which can be used as a physical hedge to variable fuel costs.

4. The Generation Provided Under the REPA Will Not Result in Wasteful Duplication.

Q. WILL THE GENERATION PROVIDED UNDER THE REPA RESULT IN WASTEFUL DUPLICATION?

A. No. The REPA does not duplicate any existing facilities and does not result in an excess of capacity over need, or excess investment in relation to the productivity and efficiency to be gained. First and foremost, as explained above, there is a clear need to add generation resources to serve the Company's service territory in the near term both in terms of energy and capacity. The Project's accredited capacity will be included in the Company's FRR Plan for PJM planning years 2027/28. As demonstrated in Company Witness Coon's testimony, the Bright Mountain REPA would displace the need for capacity purchases the Company would otherwise have to make to cover the accredited amount associated with the facility, resulting in an estimated $2.1 million net present value to customers. Also, as explained above, the Company will still have a need to add additional generation resources beyond this REPA in the future to fully meet the capacity and energy needs identified in the 2022 IRP; this alone demonstrates the REPA is not in excess of the Company's needs.

The Project also brings with it benefits to the Commonwealth and, more specifically, the Company's service territory in the form of new construction and ongoing operations and maintenance jobs. Further, the Project represents a significant investment in the Company's service territory, specifically a "steel in the ground" asset in the Commonwealth.[3] These factors, in addition to the benefit of addressing a portion of the Company's energy need, demonstrate the project is necessary, reasonable and will not result in wasteful duplication. This will continue to be true even when the Company secures the additional resources needed to meet its capacity and energy needs in the future.

Q. DID THE COMPANY PERFORM A THOROUGH REVIEW OF ALL REASONABLE ALTERNATIVES?

A. Yes. As described above and in more detail in the Direct Testimony of Company Witness Yetzer, the Company performed a thorough review of all reasonable alternatives during the 2023 All Source RFP process that resulted in the selection of the Bright Mountain Project, and the execution of the REPA.

Q. DOES THE PROJECT REPRESENT THE LEAST-COST, REASONABLE ALTERNATIVE?

A. Yes. After review and thorough analysis of all bids submitted via the RFP process, the REPA represents the least-cost, reasonable alternative for a physical resource to address a portion of the capacity and energy needs identified in the Company's IRP. However, as stated previously, the REPA is the first step in a larger process to satisfy the Company's entire capacity and energy needs going forward.

[3] Case No. 2022-00402, PSC Order at 95 (Nov. 6, 2023)("The Commission expects our vertically integrated utilities, in furtherance of their service, and now reliability, obligations to replace generation capacity with "steel in the ground" or a Purchase Power Agreement.")

VIII. FINANCIAL ASPECTS OF THE REPA

Q. WHAT ARE THE PROJECTED COSTS OF THE REPA?

A. The Company will pay a fixed price of $83.68 per MWh for the benefits received under the REPA, including energy, capacity, and RECs. The annual cost of the REPA beginning in 2027 is approximately $12.5 million per year. As shown in Figure NMC-1 in Company Witness Coon's Direct Testimony, the first-year annual impact is estimated to be approximately $1.6 million after considering the estimated avoided capacity benefits, estimated energy revenues, and estimated revenue from REC sales. These first-year offsets are explained further by Company Witness Coon.

Q. WILL THE BRIGHT MOUNTAIN REPA MATERIALLY AFFECT THE FINANCIAL CONDITION OF KENTUCKY POWER COMPANY?

A. No. The REPA will not require the issuance of debt and will not affect the completion of any other capital project. Additionally, the Company does not anticipate any impacts to its credit ratings as a result of the REPA.

Q. WILL THE REPA IMPACT KENTUCKY POWER'S BALANCE SHEET OR CREDIT METRICS?

A. No. Because the Project is a REPA, the Company will pay a fixed price per MWh of output delivered to Kentucky Power during the 15 years contract term. Kentucky Power will not own, construct, operate, or maintain the facility itself and, therefore, the REPA will not be capitalized or classified as a lease per the U.S. Generally Accepted Accounting Principles ("GAAP"). As such, the REPA will not be reflected as an asset or liability on Kentucky Power's balance sheet.

IX. ACCOUNTING AND RATEMAKING TREATMENT

Q. DOES KENTUCKY POWER CURRENTLY HAVE A MECHANISM IN PLACE TO RECOVER THE COSTS ASSOCIATED WITH THE BRIGHT MOUNTAIN REPA?

A. Yes. 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.[4] As such, the costs of the Bright Mountain REPA are appropriately included in the calculation of, and recovered from customers through Tariff P.P.A. The energy benefits described in the Direct Testimony of Company Witness Coon will flow to customers through the FAC in the form of energy revenues from the PJM spot energy market.

Q. IS KENTUCKY POWER REQUESTING TO PERFORM ANY ACCOUNTING TREATMENT FOR PROJECT DEVELOPMENT COSTS?

A. Yes. The Company incurred reasonable and necessary costs related to the development of the Bright Mountain REPA. Specifically, Kentucky Power incurred 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. These costs include expenses the Company incurred related to internal resource support and outside services that are reasonable and necessary to develop and finalize the REPA

[4] See P.S.C. KY. No. 13 Original Sheet No. 31.1, "Rate" Section 1.a.

and obtain approval of the resources. Company Witness Yetzer discusses these costs in more detail in his testimony.

The development costs are eligible for inclusion in a regulatory asset. First, the Company incurred these costs in connection with the Company's process to implement both the Company's IRP and, in the larger context, to meet the Company's statutory obligations to provide adequate, efficient, and reasonable service. Accordingly, the development costs should be considered an expense resulting from a statutory or administrative directive. Additionally, the development costs are eligible for inclusion because they were extraordinary and non-recurring. These costs, totaling approximately $0.9 million, are not ongoing in nature, and are not otherwise captured by the ratemaking process or included in the Company's base rates.

As such, the Company requests Commission approval to defer and establish a regulatory asset for these costs, including a return on the unamortized balance at the Company's approved weighted average cost of capital. The Bright Mountain REPA development costs incurred through June 2024 are approximately $0.9 million.

X. CUSTOMER BILL IMPACTS

Q. WHAT WOULD BE THE ESTIMATED INCREASE TO THE AVERAGE RESIDENTIAL CUSTOMER'S MONTHLY BILL AS A RESULT OF THE BRIGHT MOUNTAIN REPA?

A. The first-year monthly bill impact for an average residential customer using 1,128-kwh is estimated to be $0.34. Company Witness Coon provides further explanation in her testimony.

XI. CONCLUSION

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

VERIFICATION

The undersigned, Tanner S. Wolffram, being duly sworn, deposes and says he is the Directory of Regulatory for Kentucky Power Company, that he has personal knowledge of the matters set forth in the foregoing testimony and the information contained therein is true and correct to the best of his information, knowledge, and belief after reasonable inquiry.

Tamer A Wolffram

Tanner S. Wolffram

Commonwealth of Kentucky)
) Case No. 2024-00243
County of Boyd)

Subscribed and sworn to before me, a Notary Public in and before said County and State, by Tanner S. Wolffram, on July 29, 2024.

Marilyn Michelle Caldwell

Notary Public

MARILYN MICHELLE CALDWELL
Notary Public
Commonwealth of Kentucky
Commission Number KYNP71841
My Commission Expires May 5, 2027

My Commission Expires May 5, 2027

Notary ID Nmber KYNP71841