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February 3, 2014

VIA HAND DELIVERY

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
P.O. Box 615
Frankfort, Kentucky 40602

Re: *In the Matter of the Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for Alteration of Certain Equipment at the Cooper Station and Approval of a Compliance Plan Amendment for Environmental Surcharge Cost Recovery*, Case No. 2013-00259

Dear Mr. Derouen:

Enclosed for filing, please find an original and ten (10) copies of East Kentucky Power Cooperative, Inc.'s Brief. Please return a file-stamped copy of this filing to me.

If you have any questions or require additional information, please contact me.

Very truly yours,

David S. Samford

Enclosures

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COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

AN APPLICATION OF EAST KENTUCKY POWER COOPERATIVE, INC. FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR ALTERATION OF CERTAIN EQUIPMENT AT THE COOPER STATION AND APPROVAL OF A COMPLIANCE PLAN AMENDMENT FOR ENVIRONMENTAL SURCHARGE COST RECOVERY	))))))))	**PSC CASE NO. 2013-00259**

BRIEF OF EAST KENTUCKY POWER COOPERATIVE, INC.

Comes now East Kentucky Power Cooperative, Inc. ("EKPC"), by and through counsel, pursuant to the instructions given by the Kentucky Public Service Commission ("Commission") at the conclusion of the public hearing held January 14-15, 2014 in the above-captioned proceeding, and for its post-hearing Brief requesting that the Commission enter an Order authorizing and approving EKPC's Certificate of Public Convenience and Necessity ("CPCN") for the rerouting of certain duct work at the Cooper Station, and approving an environmental compliance plan amendment for purposes of recovering the costs of this alteration through EKPC's environmental surcharge, respectfully states as follows:

I. INTRODUCTION

To fulfill an anticipated need for up to 300 MW of capacity that was identified in EKPC's 2012 Integrated Resource Plan ("IRP") (Case No. 2012-00149), EKPC initiated a process in 2012 to identify the best resource, or mix of resources, to maintain its current total capacity through a Request for Proposal ("RFP"). The results of this RFP identified a clear, least-cost

option for satisfying a significant portion of the anticipated capacity need that involved re-routing the existing duct work for EKPC's Cooper Station Unit #1 ("Cooper #1") such that its emissions would flow through the newly constructed Cooper Station Unit #2 Air Quality Control System ("AQCS") (henceforth, the "Project"). For a capital investment of less than $15 million, EKPC would retain 116 MW of existing, reliable capacity. The anticipated cost of the Project to the average residential retail customer in the EKPC system is just $0.35 per month.

II. BACKGROUND

The Cooper Station was originally constructed in 1962 and consists of two electric generating units.[1] Cooper #1 began commercial operation in 1965 and is rated at 116 MW of capacity.[2] Cooper #2 began commercial operation in 1969 and is rated at 225 MW of capacity.[3] As part of a 2007 Consent Decree with the United States Environmental Protection Agency ("EPA"),[4] EKPC agreed to construct a scrubber and other environmental equipment to service Cooper #2. The Commission granted a CPCN to EKPC for the construction of the Cooper #2 AQCS on May 1, 2009 in Case No. 2008-00472 and the system became operational in 2012.[5] Since the date of the Consent Decree, the EPA has imposed additional regulations upon electric generation units ("EGUs"), including those owned by EKPC. These regulations include: the Mercury and Air Toxics Standard ("MATS"), Best Available Retrofit Technology ("BART") and the Regional Haze State Implementation Plan ("SIP").[6] EPA published the final MATS rule in the Federal Register on February 16, 2012. MATS requires new and existing coal and oil-

[1] *See* Application, ¶ 6.

[2] *See id.*

[3] *See id.*

[4] *See* EKPC Post-Hearing Data Response 5.

[5] *See* Application, ¶ 7.

[6] *See* Application, ¶ 8.

fired EGUs to meet emission limits for three categories of pollutants: mercury, acid gases and non-mercury hazardous air pollutant ("HAP") metals.[7] MATS allows EGUs to comply with a filterable Particulate Matter emission limit as a surrogate for all non-mercury HAP metals.[8] In addition, MATS allows coal-fired EGUs equipped with a wet or dry flue-gas desulfurization or dry sorbent injection system and a sulfur dioxide ("SO_2") continuous emission monitoring systems ("CEMs") to comply with an SO_2 emission limit instead of a hydrogen chloride acid gas emissions limit.[9] MATS allows existing sources to comply with these emission limits through quarterly stack testing or using CEMs.[10]

In addition to MATS, the 1977 amendments to the Clean Air Act ("CAA") created a program for protecting visibility of Class I areas, such as national parks.[11] In 1990, Congress added Section 169B to the CAA to address regional haze issues and the EPA promulgated regulations in 1999 to address regional haze which required Kentucky and other states to prepare Regional Haze SIPs.[12] The states were also required under the CAA to install BART for certain categories of existing major stationary sources built between 1962 and 1977, which includes Cooper #1.[13] Kentucky finalized its initial Regional Haze SIP in June 2008 and revised it in 2010. EPA approved the 2008 Regional Haze SIP, as amended in 2010, in 2012.[14]

EKPC has been diligent in monitoring the development of these federal environmental rules and has worked continuously to assess the impact that these new rules will have upon its

[7] *See* Application, ¶ 9 *citing* 77 Fed. Reg. 9304 (Feb. 16, 2012).

[8] *See id.*

[9] *See id.*

[10] *See id.*

[11] *See id.*, ¶ 10.

[12] *See id.*

[13] *See id.*, ¶ 11.

[14] *See id.*

generation fleet. In order to comply with MATS, EKPC determined it would need to retrofit or retire both its Dale Station generating units (200 MW) and Cooper #1 (116 MW), all of which are coal-fired plants.[15] Thus, in its 2012 IRP, EKPC specifically identified the need to obtain up to 300 MW of additional generating capacity by October 2015, primarily to comply with MATS.[16]

To help ascertain a reasonable, least-cost solution for the anticipated capacity need, EKPC conducted the RFP during the summer of 2012. The RFP was issued on June 8, 2012 and was publicized in *Public Utilities Fortnightly*, Platt's *Megawatt Daily* and SNL's *Power Daily.*[17] The RFP requested proposals for conventional projects with a capacity of 50 MW or more, or renewable projects with a capacity of 5 MW or more, and was directed towards utilities, power marketers, project owners and project developers.[18] EKPC also retained the Brattle Group ("Brattle") to serve as the Independent Procurement Manager for the RFP and to provide expertise in evaluating the proposals received.[19] Moreover, because EKPC's Power Production business unit planned to submit one or more self-build options in the RFP, EKPC took appropriate steps to separate and isolate the Power Supply business unit, which would receive and evaluate the bids, from the work of the Power Production business unit.[20] EKPC received over 100 different proposals from 65 different entities through the RFP, including proposals for new natural-gas fired power plants (some at existing EKPC sites and some at other locations), the sale of existing gas or coal-fired plants to EKPC, the sale of ownership interests in existing

[15] *See id.*, ¶ 13.

[16] *See id.*

[17] *See* Application, ¶ 14; Direct Testimony of Julia J. Tucker, PE, p. 7, lines 4-5.

[18] *See* Application, ¶ 14.

[19] *See id.*

[20] *See id.*

power plants; natural gas tolling agreements, energy-only contracts, capacity-only contracts and power purchase agreements for renewable energy resources or energy resources from coal waste and mine mouth methane.[21]

After an initial evaluation of the bids received in the RFP and discussions with bidders selected for a short list, Brattle and EKPC's evaluation team concluded that the Project clearly provided the most reasonable, least-cost resource to retain 116 MW of existing, reliable capacity.[22] The Project consists of rerouting ductwork so that the emissions of the Cooper #1 unit will flow through the new, state-of-the-art Cooper #2 AQCS. It is important to note that the Project is not expected to impact the forecasted life of the Cooper #2 AQCS.[23] The Project bid was developed and submitted by EKPC's Power Production business unit in consultation with the Burns & McDonnell engineering consulting firm.[24] The estimated total capital cost of the Project is $14.95 million.[25] Thus, by making a minimal investment, EKPC could retain 116 MW of reliable, existing capacity. Operations and maintenance ("O&M") costs associated with the Project are estimated at $2.6 million annually.[26] Because the Project will be constructed at Cooper #1, it will not compete with the resources of any other public utilities, corporations or other persons.[27] The Brattle Group summarized its recommendation in a letter to EKPC's evaluation team on January 28, 2013.[28] That letter was endorsed by EKPC's Senior Vice

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[21] *See* Application, ¶ 15.

[22] *See id.*, ¶ 16.

[23] *See* EKPC Response to Staff's Initial Data Request 27.

[24] *See* Application, ¶ 16.

[25] *See id.*, ¶ 29. This estimate includes equipment and material costs of $7.50 million, capitalized labor costs of $3.11 million, indirect engineering and general costs of $2.61 million, contingency costs of $1.02 million, and project administration, temporary utilities, performance bond, and other associated owner's costs of $0.71 million. *See also* Direct Testimony of Isaac S. Scott, p. 3, lines 26-32.

[26] *See* Application, ¶ 25.

[27] *See* Direct Testimony of Block Andrews, p. 5, lines 9-11.

[28] *See* Application, Exh. 1(a).

President for Power Supply, who provided further justification for the Project, in a letter to EKPC's President and Chief Executive Officer on January 28, 2013.[29]

In summary, the Brattle Group and EKPC's evaluation team concluded that the Project: (1) provides the least-cost option for securing future capacity for EKPC, with a net present value ("NPV") of over $46 million; (2) offered additional savings through efficiencies realized by continuing to operate both Cooper #1 and Cooper #2; (3) furthered EKPC's goal of achieving greater financial strength through higher equity; (4) retained EKPC's flexibility to continue negotiating for other capacity options to fulfill the balance of its anticipated future capacity needs; (5) maximized the value of EKPC's investment in Cooper #1 and the Cooper #2 AQCS; and (6) eliminated the need to make workforce reductions due to the permanent closure of an existing generating unit.[30] EKPC plans to finance the Project by utilizing Federal Financing Bank loan funds through a Rural Utilities Service-guaranteed loan.[31]

EKPC's Board of Directors thoroughly considered the IRP, RFP, analysis of the Brattle Group and recommendations of management before authorizing the Company to take the steps necessary to develop the Project, including the filing of the Application, by adopting a Resolution on February 12, 2013.[32] On July 1, 2013, EKPC filed its Notice of Intent to file the Application.[33] On July 5, 2013, EKPC provided notice of proposed amendment of its Environmental Compliance Plan to its sixteen Members.[34]

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[29] *See* Application, Exh. 1(b).

[30] *See id.*, ¶ 17.

[31] *See id.*, ¶ 24.

[32] *See id.*, Exh. 2.

[33] *See id.*, Exh. 4(a).

[34] *See id.*, Exh. 4(b).

EKPC filed the Application on August 21, 2013, which sets forth the particulars of the proposed amendment to the Environmental Compliance Plan and the resulting impact to its environmental surcharge. EKPC proposed that the return authorized for the existing projects in its Environmental Compliance Plan should be applied to the Project as well.[35] Once the Project becomes operational, EKPC estimates that the annual revenue requirement would be $4.60 million, which translates into an increase of approximately 0.55% in the environmental surcharge for all customer classes at wholesale and would be passed through as an approximate 0.40 % retail increase.[36] The estimated increase on an average residential customer's monthly bill would be approximately $0.35.[37] The inclusion of the Project in the approved Environmental Surcharge Compliance Plan would not require any revisions to EKPC's Rate ES – Environmental Surcharge.[38]

Gallatin Steel moved for leave to intervene on September 4, 2013, which was granted in an Order entered on September 12, 2013. The Sierra Club and Sonia McElroy (collectively, the "Sierra Club") filed a motion for leave to intervene on September 25, 2013, which was granted in an Order entered on October 18, 2013. During the course of the proceeding, the Commission issued three sets of data requests to EKPC, which encompassed 51 separate and distinct questions.[39] The Sierra Club tendered two sets of data requests to EKPC, which included 478

[35] *See* Application, ¶ 30. The return is composed of a Times Interest Earned Ratio ("TIER") component and an average cost of debt component. EKPC proposed that the TIER component be based on a 1.50 TIER, which the Commission approved in Case No. 2011-00032. EKPC also proposed that the average cost of debt component be 4.057%, which reflects the average cost of debt as of December 31, 2012 and is consistent with the average cost of debt proposed in EKPC's most current six-month environmental surcharge review case, Case No. 2013-00140. *See* EKPC Response to Post-Hearing Data Request 12, p. 3.

[36] *See id.*

[37] *See* EKPC Post-Hearing Data Response 12.

[38] *See* Application, ¶ 32.

[39] *See* Commission Staff's Initial Request for Information (Oct. 4, 2013); Commission Staff's Second Request for Information (Oct. 30, 2013); and Commission Staff's Third Request for Information (Nov. 21, 2013).

separate and distinct questions.[40] In filing its Application, testimony and responses to various data requests, EKPC also filed eight motions for confidential treatment of various information,[41] which remain pending. The Commission held a public hearing in this proceeding on January 14-15, 2014, following the publication of notice of such hearing by EKPC in the *Lexington Herald-Leader*, *The Courier-Journal* and *The Kentucky Enquirer*.[42] No comments from the public were offered at the hearing.[43]

III. ARGUMENT

A. Summary of Applicable Kentucky Law

It is well-established that the Commission only possesses such powers as granted by the General Assembly.[44] However, the scope of the powers expressly granted by the General Assembly to the Commission to regulate the "rates" and "service" of utilities is plenary in nature, unless otherwise expressly limited or expressed by statute.[45] In the context of a request for issuance of a CPCN, the Commission's authority under KRS 278.020(1) remains very broad. The General Assembly has, however, chosen to limit the Commission's authority to prohibit or delay recovery of certain costs arising from compliance with environmental laws and regulations by enacting KRS 278.183, the environmental surcharge statute. Adjudicating EKPC's Application

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[40] *See* Sierra Club's Initial Request for Information (Oct. 4, 2013); Sierra Club's Supplemental Request for Information (Nov. 4, 2013).

[41] *See* EKPC's Motions for Confidential Treatment, filed: Aug. 21, 2013, Oct. 18, 2013, Oct. 25, 2013, Nov. 7, 2013, Nov. 12, 2013, Nov. 15, 2013, Dec.17, 2013 and Jan. 24, 2014.

[42] *See* Proof of Publication of Notice, filed Jan. 13, 2014.

[43] Hearing Video Record ("HVR"), at 10:10:56 AM (Jan. 14, 2014).

[44] *See Boone Co. Water and Sewer Dist. v. Public Service Comm'n,* Ky., 949 S.W.2d 588, 591 (1997); *Simpson Co. Water Dist. v. City of Franklin*, 872 S.W.2d 460, 462 (Ky. 1994); *Com., ex rel. Stumbo v. Kentucky Public Service Comm'n*, 243 S.W.3d 374, 378 (Ky. App. 2007); *Cincinnati Bell Tel. Co. v. Kentucky Public Service Comm'n,* 223 S.W.3d 829, 836 (Ky. App. 2007); *Public Service Comm'n v. Jackson Co. Rural Elec. Co-op., Inc.*, 50 S.W.3d 764, 767 (Ky. App. 2000).

[45] *See* KRS 278.040(2); *Kentucky Public Service Comm'n v. Commonwealth of Kentucky, ex rel. Conway*, 324 S.W.3d 373,383 (Ky. 2010); *Southern Bell Tel. & Tel. Co. v. City of Louisville*, 265 Ky. 286, 96 S.W.2d 695, 697 (Ky. 1936).

will require the Commission to measure the record of this proceeding against the criteria set forth in KRS 278.020(1) and KRS 278.183 and case law construing these statutes. Accordingly a brief summary of both statutes is necessary.

1. KRS 278.020(1) Requires Analysis of "Need" and "Wasteful Duplication"

Before undertaking a construction project that is not in the ordinary course of business, a utility must be granted a CPCN from the Commission under the authority of KRS 278.020(1), which states in relevant part:

> No person, partnership, public or private corporation, or combination thereof shall...begin the construction of any plant, equipment, property, or facility for furnishing to the public any of the services enumerated in KRS 278.010...until that person has obtained from the Public Service Commission a certificate that public convenience and necessity require the service or construction.... The commission, when considering an application for a certificate to construct a base load electric generating facility, may consider the policy of the General Assembly to foster and encourage use of Kentucky coal by electric utilities serving the Commonwealth.

The statute is silent, however, with regard to the criteria which the Commission should apply to any such request from a utility. Accordingly, case law construing KRS 278.020(1) provides the appropriate standard for evaluating EKPC's request for a CPCN for the Project. The leading authority on CPCNs is *Kentucky Utilities Co. v. Public Service Comm'n*, 97 P.U.R.(NS) 505, 252 S.W.2d 885 (Ky. 1952), which articulates a two-part test for demonstrating entitlement to a CPCN: (1) need; and (2) absence of wasteful duplication. *Kentucky Utilities Co.* provides significant guidance as to what further considerations should be taken into account when evaluating a request for a CPCN under these two criteria.

As to "need", Kentucky's highest Court wrote:

> We think it is obvious that the establishment of convenience and necessity for a new service system or a new service facility

> requires first 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 and operated. Second, the 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.[46]

With regard to what constitutes "wasteful duplication", the Court opined:

> [W]e think that 'duplication' also embraces the meaning of an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties, such as right of ways, poles and wires. An inadequacy of service might be such as to require construction of an additional service facility to supplement an inadequate existing facility, yet the public interest would be better served by substituting one large facility, adequate to serve all the consumers, in place of the inadequate existing facility, rather than constructing a new small facility to supplement the existing small facility. A supplementary small facility might be constructed that would not create duplication from the standpoint of an excess of capacity, but would result in duplication from the standpoint of an excessive investment in relation to efficiency and a multiplicity of physical properties.[47]

In evaluating the "wasteful duplication" aspect of CPCN analysis, the Court further instructed, "[w]e are of the opinion that the Public Service Commission should have considered the question of duplication from the standpoints of excessive investment in relation to efficiency, and an unnecessary multiplicity of physical properties."[48] While the avoidance of "wasteful duplication" is a primary consideration for evaluating a request for a CPCN, *Kentucky Utilities Co.* makes clear that the Commission must not focus exclusively upon the cost of a proposal alone. The Commission must also look at an application for a CPCN in relation to the service to be provided by the utility:

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[46] *Kentucky Utilities Co.*, at 890.

[47] *Id.*, at 891.

[48] *Id.*

> [W]e do not mean to say that *cost* (as embraced in the question of duplication) is to be given more consideration than the need for *service*. If, from the past record of an existing utility, it should appear that the utility cannot or will not provide adequate service, we think it might be proper to permit some duplication to take place, and some economic loss to be suffered so long as the duplication and resulting loss be not greatly out of proportion to the need for service.[49]

In other words, the complete absence of "wasteful duplication" need not be shown to an absolute certainty, "it is sufficient that there is a reasonable basis of anticipation" that the "consumer market in the immediately foreseeable future will be sufficiently large to make it economically feasible for a proposed system or facility to be constructed...."[50] As recently as 2012, the Commission has affirmed this point:

> 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 alternatives has been performed. Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication. All relevant factors must be balanced.[51]

2. KRS 278.183 Focuses Upon Reasonableness and Cost-Effectiveness

When a utility applies for a CPCN for the construction of a facility that is necessary to comply with an environmental mandate, KRS 278.183 is also implicated. The environmental surcharge statute was enacted "to promote the use of high sulfur Kentucky coal by permitting utilities to surcharge their customers for the cost of a scrubber which is part of a power plant that cleans high sulfur coal in order to meet the acid rain provisions of the Federal Clean Air Act amendments of 1990." *Kentucky Indus. Utility Customers, Inc. v. Kentucky Utilities Co.*, 983

[49] *Id.*, at 892 (emphasis in original).

[50] *Kentucky Utilities Co. v. Public Service Commission*, 59 P.U.R.3d 219, 390 S.W.2d 168, 172 (Ky. 1965).

[51] *In re the Application of Big Rivers Electric Corporation for Approval of its 2012 Environmental Compliance Plan*, Case No. 2012-00063, Final Order, pp. 14-15 (Ky. P.S.C. Oct. 1, 2012) (citations omitted).

S.W.2d 493, 496 (Ky. 1998). Section 1 of the statute contains the guarantee of cost recovery for such environmental compliance costs:

> Notwithstanding any other provision of this chapter, effective January 1, 1993, a utility shall be entitled to the current recovery of its costs of complying with the Federal Clean Air Act as amended and those federal, state, or local environmental requirements which apply to coal combustion wastes and by-products from facilities utilized for production of energy from coal in accordance with the utility's compliance plan as designated in subsection (2) of this section. These costs shall include a reasonable return on construction and other capital expenditures and reasonable operating expenses for any plant, equipment, property, facility, or other action to be used to comply with applicable environmental requirements set forth in this section. Operating expenses include all costs of operating and maintaining environmental facilities, income taxes, property taxes, other applicable taxes, and depreciation expenses as these expenses relate to compliance with the environmental requirements set forth in this section.[52]

In order to obtain rate relief under the environmental surcharge statute, a utility must "submit to the commission a plan, including any application required by KRS 278.020(1), for complying with the applicable environmental requirements set forth in [KRS 278.183(1)]." Following that:

> ...[T]he commission shall conduct a hearing to: (a) Consider and approve the plan and rate surcharge if the commission finds the plan and rate surcharge reasonable and cost-effective for compliance with the applicable environmental requirements set forth in subsection (1) of this section; (b) Establish a reasonable return on compliance-related capital expenditures; and (c) Approve the application of the surcharge.[53]

The Kentucky Supreme Court characterized KRS 278.183 as "a new right" that "did not exist before the enactment of the surcharge."[54] Thus, the Kentucky General Assembly has chosen to encourage the use of Kentucky coal by enacting a surcharge mechanism that

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[52] KRS 278.183(1).

[53] KRS 278.183(2).

[54] *Kentucky Indus. Utility Customers, Inc.*, at 500.

guarantees a utility the ability to recover costs associated with compliance with environmental mandates. The Commission has commented upon the prescriptive nature of the KRS 278.183 by observing that it "must consider the plan and the proposed rate surcharge, and approve them if [the Commission] finds the plan and rate surcharge to be reasonable and cost effective."[55] The environmental surcharge statute, therefore, relates to and – as is the case in this proceeding – is an important adjunct to the traditional CPCN analysis required by KRS 278.020(1). As the applicant in this proceeding, EKPC bears the burden of to prove the foregoing statutory and common law criteria.[56]

B. The Commission Should Issue a CPCN for the Project, Approve the Amendment to EKPC's Environmental Compliance Plan and Authorize Associated Cost Recovery Through the Environmental Surcharge

1. The Project is Needed and Will Not Result in Wasteful Duplication

The Project is needed because it will allow EKPC to retain 116 MW of existing capacity. The promulgation of MATS, BART and SIP standards by the EPA will render Cooper #1 substantially inadequate to the task of providing service to EKPC's Members in a manner that is compliant with theses new federal rules. Thus, Cooper #1 must either be made compliant with the EPA's rules by 2016 or permanently and prematurely retired. The Project achieves compliance with the new environmental rules for an initial capital investment of less than $15 million and an annual revenue requirement of only $4.60 million. Once this is done, Cooper #1 will remain capable of providing 116 MW of reliable service to EKPC's Members on an economic basis and will also provide a source of margins to further benefit EKPC's Members through sales into the PJM markets. This investment provides an estimated 6.086% return to

[55] *In re the Application of Big Rivers Electric Corporation for Approval of its 2012 Environmental Compliance Plan*, Case No. 2012-00063, Final Order, p. 16 (Ky. P.S.C. Oct. 1, 2012).

[56] *See Energy Regulatory Commission v. Kentucky Power Co.*, 605 S.W.2d 46, 49 (Ky. App. 1980) *citing Lee v. International Harvester Co.*, 373 S.W.2d 418 (Ky. 1963).

EKPC,[57] which demonstrates that there is no "excessive investment in relation to productivity or efficiency" – the definition of "wasteful duplication" provided by Kentucky's highest Court in *Kentucky Utilities Co.* Furthermore, the Project will preserve an existing resource – thereby eliminating the need for a proliferation of a multiplicity of physical facilities that would be required to replace Cooper #1 with new capacity. Thus, there is a "need" for the Project and its completion will not result in "wasteful duplication." This conclusion is based upon the substantial record of the case – detailed below – which demonstrates that the Project is a resource option self-evidently beneficial to retail customers.

a. The Project Offers a Substantial Net Present Value

Brattle estimates that the Net Present Value ("NPV") of the Project over a ten year period is over $46 million, which means that EKPC's Members should expect to pay $46 million less in rates than if they purchased an amount of capacity and energy in the PJM market that is equal to the total capacity and energy that will be produced by Cooper #1 over the same period. EKPC is confident that the analysis underlying Brattle's recommendation is reasonable and, if anything, quite conservative.

To arrive at the NPVs for the bids received in the RFP, EKPC provided Brattle with fuel cost projections, market price projections, production cost analysis and other variable cost pricing information as needed.[58] Brattle then used the output from the production cost modeling and paired it with their own analysis of fixed costs and capacity revenues to develop an overall comparison of options.[59] The baseline for evaluating all bids received was a "do nothing" scenario where EKPC would retire the Dale Station units and Cooper #1 and simply purchase

[57] *See* Note 35, *supra.* and accompanying text.

[58] *See* Direct Testimony of Julia J. Tucker, PE, p. 7, lines 19-20.

[59] *See id.*, lines 20-22.

replacement capacity and energy in PJM's markets. Forecasted capacity prices were derived by taking into account the results of recent capacity auctions and anticipated inflation rates,[60] a methodology which the Sierra Club did not dispute.[61] To estimate future energy market prices, Brattle relied upon an energy market forecast that included both observable forward market prices and analysis from the well-respected Wood Mackenzie firm which has published reliable energy market forecasts for decades.[62]

Using those capacity and energy market forecasts, the Brattle Group was then able to measure the savings (expressed as NPV) that the Project should achieve over a relatively short period of ten years. EKPC believes that the "pay back" for the Project is in the range of 5-6 years.[63] In other words, the capacity value of Cooper #1 afforded by the Project alone is expected to be well in excess of the annual fixed costs of owning Cooper #1.[64] When the dispatchable nature of Cooper #1 is taken into account, the margin on energy sales would be even higher than that assumed in Brattle's NPV.[65] After reviewing the testimony and responses to data requests offered by the Sierra Club, Brattle's recommendation that the Project is the most economic resource for EKPC did not change.[66]

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[60] *See* Application, Exh. 1a, p. 5.

[61] *See* Sierra Club's Response to EKPC's Initial Data Request 29 ("Mr. Comings does not have a sufficient basis for offering an alternative capacity price forecast past the 2016/2017 delivery year.").

[62] *See* HVR, at 6:49:29 PM (Jan. 14, 2014).

[63] *See* HVR, at 10:49:16 AM (Jan. 14. 2014). EKPC estimates that it could receive $2.117 million per year in capacity payments alone based upon a "really conservative" forecast of $50 per MW of capacity in the PJM market. *See* HVR, at 11:03:30 – 11:06:02 AM (Jan. 14, 2014). The last PJM Base Residual Action cleared capacity prices at just under $60 per MW of capacity. *See* HVR, at 4:09:14 PJM (Jan. 14. 2014).

[64] *See* HVR, at 11:18:58 AM (Jan. 15, 2014).

[65] *See* Rebuttal Testimony of Jamie Read, p. 7, lines 8-15.

[66] *See* HVR, at 6:52:20 PM (Jan. 14, 2014).

b. The Project's Risk Profile is Very Favorable

Second, the Project has a very low risk profile. It will be built on an existing site and tied to existing generation, environmental and transmission equipment which is already proven and reliable. This virtually eliminates the categories of infrastructure and locational risks which always arise in the context of greenfield or distributed resource options. Existing fuel risk is mitigated by the Project, which will expand the market of coal products available for consumption at Cooper #1.[67] The technology risk is lower for the Project than if EKPC were to fulfill its entire anticipated need of 300 MW in one resource.[68] Likewise, there is no anticipated construction risk and the likelihood that the Project will be delivered on schedule is very good.[69] Retaining the Cooper #1 unit will also mitigate voltage risk that would increase if Cooper #2 experienced a forced outage during a peak period.[70] In sum, there is very little risk to the customers of EKPC associated with the Project.[71]

c. The Project is Consistent with the Commission's Policy of Matching Capacity to Load

The Project offers a crucial physical hedge against market volatility in the PJM capacity and energy market and affords EKPC's retail customers a level of protection not available to load serving entities which lack firm capacity positions.[72] The policy of matching capacity to load was recognized by the Commission in Administrative Case 387, where the Commission stated:

> [R]eliance on power purchases that reflect market price volatility is not in the best interests of Kentucky consumers. AEP-KY must

[67] *See* HVR, at 10:59:02 AM (Jan. 14. 2014).

[68] *See* Direct Testimony of Julia J. Tucker, PE, p. 9, lines 5-6; EKPC Response to Staff's Initial Data Request 14(a).

[69] *See* HVR, at 7:08:02 PM (Jan. 14, 2014).

[70] *See* HVR, at 4:30:00 PM (Jan. 14, 2014).

[71] *See* HVR, at 10:49:16 AM (Jan. 14. 2014).

[72] *See* HVR, at 11:28:20 AM (Jan. 14, 2014).

> plan to meet its load by securing sufficient capacity that is not subject to market price volatility. Only by doing so will AEP-KY be able to maintain reasonable electric rates while mitigating to the extent possible market price and fuel price fluctuations.[73]

By maintaining the Cooper #1 capacity, EKPC will be able to shield its Members from the market spikes associated with peaks and further the benefits of its participation in PJM. The importance of this physical hedge was vividly illustrated during the recent extended periods in January 2014 when temperatures were consistently below freezing.[74] Moreover, while EKPC maintains enough capacity to meet its summer peak energy demand and reserve requirements, it does not currently own sufficient generation to satisfy its winter peak energy demand.[75] During its most recent winter peak, EKPC's capacity was between 800-900 MW less than its actual load demand.[76] Losing Cooper #1 would further exacerbate the current gap in winter capacity and expose EKPC Members to greater market volatility.

In addition to providing a physical hedge against capacity and energy pricing peaks and spikes in the PJM market, retail customers will directly benefit from EKPC's ability to retain capacity for sale in PJM's capacity market during non-coincidental peak periods. The Commission recognized the significant nature of this benefit – estimated in Case No. 2012-00169 to be more than $137 million for EKPC's entire generation fleet – and directed the implementation of a capacity market benefit rate mechanism as part of EKPC's full participation in PJM.[77] The Project allows EKPC to continue its progress towards maximizing the value of its

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[73] *In the Matter of* a *Review of the Adequacy of Kentucky's Generation Capacity and Transmission System*, Admin. Case 387, Order (Ky. P.S.C. Dec. 20, 2001).

[74] *See* HVR, at 11:35:41 AM (Jan. 14, 2014).

[75] *See* EKPC Response to Staff's Initial Data Request 13(a) ("As a winter peaking utility, EKPC still needs physical assets to cap the price of energy it could experience during winter months.").

[76] *See* HVR, at 4:37:20 PM (Jan. 14, 2014). The prior winter peak demand load was still approximately 450 MW higher than EKPC's available capacity. *See id.*

[77] *See In the Matter of the Application of East Kentucky Power Cooperative, Inc. to Transfer Functional Control of Certain Transmission Facilities to PJM Interconnection, LLC*, Case No. 2012-00169, Final Order, pp. 13-14, 20

existing capacity and, thereby, returning the proceeds of such capacity benefits to its Members. By contrast, if the Project is not granted a CPCN, EKPC will be forced to prematurely and permanently shutter Cooper #1 (which would limit future capacity benefits that could otherwise be recognized) and then seek a regulatory asset for stranded investments.[78]

d. The Project Helps Achieve EKPC's Strategic Objective to Build Financial Strength

One of EKPC's strategic goals is to build financial strength. The Project helps EKPC achieve this by significantly limiting the amount of capital investment that is needed to retain 116 MW of capacity to serve its Members. As stated at the hearing, the Project will enable Cooper #1 to use an AQCS that is essentially brand new at a cost of only $129 per kW, which compares very favorably with the cost for a new scrubber recently proposed for a neighboring utility that would be $1,100 per kW.[79] By avoiding having to make a large capital investment, EKPC will be able to retain higher margins which will flow to Members in the form of capital credit allocations or through the capacity benefit rate mechanism mentioned above. By comparison, entering into a long-term power purchase agreement or making a major capital investment would create a long-term financial obligation which may or may not help EKPC achieve greater financial strength. Entry into PJM has specifically allowed EKPC to reduce its required reserve margin – thereby delaying the need to undertake capital intensive projects to construct new generation that would likely cost hundreds of millions of dollars. Thus, the

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(Ky. P.S.C. Dec. 20, 2012) ("While we recognize that the capacity market benefits will not actually increase EKPC's revenues until June 2016 and thereafter, those benefits are expected to be more than three times the trade benefits.").

[78] *See* HVR, at 11:09:38 AM (Jan. 14, 2014). The amount of such a regulatory asset would likely be in excess of the $13.6 million of undepreciated net book value of Cooper #1. *See* EKPC Post-Hearing Data Response 3, p. 2 (Jan. 24, 2014). The Sierra Club's witness did not take into account the impact of stranded investment costs as part of his analysis. *See* Sierra Club Response to EKPC's Data Request 19(b) ("Mr. Comings has not measured the value of a stranded investment related to the project.").

[79] *See* HVR, at 10:58:10 AM (Jan. 14, 2014).

minimal financial risk associated with the Project is consistent with EKPC's strategic objective to continue to improve its financial strength.

e. The Project Offers Additional Qualitative Benefits

In addition to the quantified benefits set forth in the NPV analysis conducted by Brattle, EKPC reasonably expects that there will be other qualitative benefits that arise from the completion of the Project, including: (1) savings captured through operational efficiencies realized by continuing to operate both Cooper #1 and Cooper #2;[80] (2) avoiding the need for immediate recovery of stranded costs for Cooper #1 if the unit were to be prematurely retired;[81] (3) maximizing EKPC's prior investment in Cooper #1 so that it is able to continue to reliably operate on an economic basis well into the future;[82] (4) retaining a skilled workforce;[83] (5) providing greater flexibility in the selection of fuel;[84] (6) utilizing coal produced in Eastern Kentucky (which translates into mining and transportation jobs);[85] (7) providing voltage support for the grid in Southeastern Kentucky;[86] and (8) sustaining local tax base for schools and local government.[87] These benefits have not been specifically quantified, but they are nevertheless real and tangible.

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[80] *See* HVR, at 11:01:22 AM (Jan. 14, 2014); EKPC Response to Staff's Initial Data Request 3 (Oct. 18, 2013) (listing fuel handling, testing, water supply, transmission and around the clock operations as examples of such efficiencies).

[81] *See* HVR, at 10:31:28 AM (Jan. 14, 2014).

[82] *See* Direct Testimony of Anthony S. Campbell, p. 4, lines 7-10.

[83] *See id.*

[84] *See* EKPC Response to Staff's Initial Data Request 15.

[85] *See* HVR, at 11:22:45 AM (Jan. 14, 2014).

[86] *See* HVR, at 4:29:37 PM (Jan. 14, 2014).

[87] *See* HVR, at 11:02:10 AM (Jan. 14, 2014).

g. The Project is Unaffected by Long-Term Environmental Risks

Contrary to the Sierra Club's assertions, the Project has no short-term or intermediate term exposure to any further regulations of carbon dioxide or other environmental rules. The Project instead gives EKPC the ability to comply with existing air regulations by reducing emission limits for three categories of pollutants: mercury, acid gases and non-mercury hazardous air pollutant materials, and, at the same time, preserve an important, existing asset for a minimal investment so that when such future regulations do become effective, EKPC will have the ability to reassess whether further investment in Cooper #1 is economically justified.[88] Moreover, the Project preserves a coal-fired generation unit using Kentucky coal – which is consistent with the Kentucky General Assembly's prescription in KRS 278.020(1) that the Commission should consider the policy of fostering and encouraging the use of Kentucky coal by electric generating utilities when evaluating applications for a CPCN.

2. EKPC's Amended Environmental Compliance Plan and Amended Environmental Surcharge are Reasonable and Cost-Effective

The Project will achieve compliance with the Regional Haze SIP, BART and MATS.[89] As set forth above, the Project presents substantial value for EKPC, its Members and its Members' Members – as evidenced by the fact that Gallatin Steel, the largest customer on EKPC's system, has participated in this case and is supportive of the Project. The foregoing considerations also demonstrate that the Project is a reasonable and cost-effective means for meeting new environmental mandates imposed by the EPA. Accordingly, EKPC's Environmental Compliance Plan, as amended herein, should be approved.

[88] *See* HVR, at 10:54:50 AM (Jan. 14. 2014).

[89] *See* Direct Testimony of Jerry B. Purvis, p. 4, lines 1-5; HVR, at 12:57:50 PM (Jan 14, 2014).

Approval of the amended Environmental Compliance Plan will have a rate impact on EKPC's environmental surcharge that is very reasonable. Taking into account the capitalized costs of the Project and the estimated Operations and Maintenance ("O&M") expense, EKPC estimates that the additional revenue requirement associated with the Project is $4.60 million per year. This translates into a 0.55% increase in the environmental surcharge passed on to EKPC's Members and a 0.40% retail rate increase, which amounts to approximately $0.35 per month for the average residential customer. These amounts are very reasonable and further illustrate the cost-effective nature of the Project. When one takes into account that the variable cost (which will only be incurred when Cooper #1 is an economic resource within PJM) associated with the annual revenue requirement is approximately $2.6 million, then the rate exposure to Members is further reduced to only the fixed cost of the Project – approximately $2.0 million per year.[90] The Project is a very reasonable and cost-effective resource. Accordingly, a CPCN should be issued for the Project and, pursuant to KRS 278.183, EKPC's Environmental Compliance Plan should be approved as amended with EKPC simultaneously being authorized to recover the costs of the Project through its environmental surcharge.

C. The Sierra Club's Opposition to the Project is Misplaced

Despite the obvious merits of the Project, EKPC must comment upon many of the false comments, assertions and insinuations offered by the Sierra Club in testimony and at the hearing. While the Sierra Club's efforts in this case all have the common aim of trying to create uncertainty in the Commission's mind as to the existence or scope of the benefits offered by the Project, the Sierra Club's main lines of attack may be grouped into four primary categories relating to: (1) attempts to mischaracterize the RFP process; (2) unsubstantiated criticism of the

[90] *See* HVR, at 4:05:50 PM (Jan. 14, 2014); EKPC Response to Post-Hearing Data Request 12.

NPV analysis for the Project; (3) unsupported conclusions that Demand Side Management and Energy Efficiency ("DSM/EE") should be implemented in place of the Project; and (4) general opposition to any coal-fired generation. Each of these arguments are insufficient to cast doubt as to the merits of the Project, but nevertheless must be addressed.

1. The Sierra Club Mischaracterized Aspects of the RFP Process

The Sierra Club first suggested that David Crews, EKPC's Vice President of Power Supply, did not give adequate consideration to the recommendation of the Brattle Group because his letter endorsing Brattle's recommendation was dated the same day as Brattle's recommendation.[91] In truth, EKPC's witnesses testified that the evaluation process was conducted in a collaborative way with Brattle and that the evaluation team, including Mr. Crews, stayed in regular contact with Brattle throughout the evaluation process and was familiar with Brattle's recommendation well-before the formal recommendation was tendered.[92] The notion that Mr. Crews gave less than twenty-four hours of consideration to Brattle's recommendation is is simply not tenable.

The Sierra Club then questioned whether EKPC somehow biased the RFP in favor of projects that were physically located in Kentucky,[93] particularly in the case of renewable project proposals.[94] EKPC witness Tucker explained that the Sierra Club was misreading the RFP and that the statement about favor being given to a renewable project sited in Kentucky would only apply if there were two renewable projects that were substantially similar.[95] In point of fact, the

[91] *See* HVR, at 10:21:00 (Jan. 14, 2014).

[92] *See* HVR, at 4:27:16 PM (Jan. 14, 2014); HVR, at 1:23:10 PM (Jan. 15, 2014).

[93] *See* HVR, at 10:33:34 AM (Jan. 14, 2014); *see also* Direct Testimony of Jeffrey Loiter, p. 7, lines 23-24.

[94] *See* HVR, at 10:35:26 AM (Jan. 14, 2014).

[95] *See* HVR, at 4:28:42 PM (Jan. 14, 2014).

leading renewable resource bid identified in the evaluation process turned out to be a project located well-outside of Kentucky.[96] Clearly, the RFP evaluation had no geographical bias.

Failing in the geographical bias argument, the Sierra Club then suggested that EKPC must have favored self-build options,[97] which EKPC flatly denied.[98] If EKPC favored a self-build option to increase its rate base, there were certainly other more expensive self-build options which could have been selected to accomplish that result.[99] The fact that the evaluation team did not even short-list any of the order-of-magnitude more expensive self-build options or any of the other more capital intensive retrofit options is persuasive evidence that EKPC sought the best result for its Members. When the allegation that EKPC favored self-build options was debunked, the Sierra Club then suggested that EKPC must have then entered into the RFP process with a preference for shuttering Cooper #1, which Mr. Campbell also disputed.[100] The illogical nature of this assertion notwithstanding, the evidence at the hearing demonstrated that EKPC clearly went into the RFP process with neither a particular bias nor any foreordained outcomes in mind.[101] In accordance with Commission precedent, "a thorough review of all alternatives has been performed."[102]

2. The Sierra Club's Criticism of the Project's NPV Analysis is Unfounded

The Sierra Club devoted much of its attention in this case to attacking the NPV analysis which demonstrated the significant value offered to EKPC and its Members by the Project.

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[96] *See* EKPC Response to Staff's Initial Data Request 7(a).

[97] *See* HVR, at 10:32:56 AM (Jan. 14, 2014).

[98] *See id.*

[99] *See* EKPC's Additional Response to the Sierra Club's Supplemental Data Request 14(c) (Dec. 17, 2013).

[100] *See* HVR, at 10:33:11 AM (Jan. 14, 2014).

[101] *See* HVR, at 10:32:47 AM (Jan. 14, 2014).

[102] *In re the Application of Big Rivers Electric Corporation for Approval of its 2012 Environmental Compliance Plan*, Case No. 2012-00063, Final Order, pp. 14-15 (Ky. P.S.C. Oct. 1, 2012) (citations omitted).

Specifically, the Sierra Club raised three main arguments in opposing the NPV analysis, including: (1) that EKPC failed to adequately consider the cost of compliance with proposed environmental rules; (2) that EKPC should not have relied upon the energy market forecast provided by ACES/Wood Mackenzie; and (3) that EKPC's projected peak demand did not demonstrate a "need" for Cooper #1. Each of these points is riddled with false assumptions and unsubstantiated conclusions.

First, the Sierra Club has repeatedly claimed that EKPC's analysis of the Project failed to adequately take into account the cost of compliance with future environmental regulations relating to greenhouse gases.[103] However, the un-refuted testimony offered at the hearing indicated that EKPC's investment in the Project would be recovered well-before any such rules would become effective.[104] This testimony is based upon the fact that greenhouse gas rules have yet to be drafted, proposed, commented upon, revised, commented upon again, promulgated, sent to states for the development of state implementation plans, approved, challenged and sanctioned by a final judicial authority. Even under the most optimistic scenario, there is currently a lack of any reliable facts upon which to predictably base any estimate as to the range of future such compliance costs.[105] The Sierra Club's own witness, Mr. Comings, conceded that there is no certainty that currently unwritten rules will ever become effective.[106] Moreover, the Sierra Club's own estimates for these costs range from $19 million to $100 million - which is itself speculative and illustrative of the orders of magnitude of uncertainty that attaches to any such

[103] *See e.g.* Direct Testimony of Jeffrey Loiter, pp. 5-6; HVR, at 10:39:46; 10:49:56 (Jan. 14, 2014). Similar arguments are advanced by the Sierra Club with regard to effluent limitations, the Clean Water Act Section 316(b) rule and Coal Combustion Residuals ("CCR") rule. For sake of brevity, this Brief focuses upon greenhouse gases although the same arguments would apply to the other proposed rules cited by the Sierra Club.

[104] *See* HVR, at 10:52:21; 10:54:50 (Jan. 14, 2014).

[105] *See* HVR, at 12:42:32 PM (Jan. 14, 2014); EKPC Response to Sierra Club's Initial Data Requests 59 – 62; EKPC's Response to Sierra Club's Supplemental Data Request 25(d).

[106] *See* HVR, at 3:54:18 PM (Jan. 15, 2014).

cost forecast.[107] By implementing the Project, EKPC will be able to continue the use of Cooper #1 on an economic basis at least until such time as any final, non-appealable, future environmental rules become known.[108] While it is, of course, theoretically possible that EKPC could have conducted a full-scale environmental cost assessment of the Project, the cost of doing so would have been approximately $1 million (adding another 7% to the total cost of the Project).[109] Given the short period for recovering its investment in the Project, the incursion of this unnecessary expense would be difficult to justify. The Project preserves EKPC's existing capacity during the period that any additional environmental rules are promulgated, which is itself a compelling reason to approve the Project.

Second, the Sierra Club attacked EKPC's use of an energy price forecast prepared by ACES/Wood Mackenzie and implied that there must be some inherent bias in the energy price forecast in light of the fact that EKPC is a member of ACES.[110] When pressed upon the issue at the hearing, however, Sierra Club witness Comings said he did not believe there was anything nefarious about EKPC's use of the ACES/Wood Mackenzie energy report.[111] Though it is true that EKPC is a Member-Owner of ACES, the data provided by ACES is based upon observable market conditions, which was then blended with the longer-term forecast prepared by Wood Mackenzie. EKPC in fact routinely relies upon market data and analysis from ACES in the ordinary course of business,[112] and there is no reason to doubt the objectivity and credibility of

[107] *See* Supplemental Direct Testimony of Tyler Comings, p. 16, lines 4-7.

[108] *See* HVR, at 4:32:21 PM (Jan. 14, 2014).

[109] *See* HVR, at 12:32:45 PM (Jan 14, 2014).

[110] *See* Direct Testimony of Tyler Comings, p. 13, line 3 to p. 14, line 2; Sierra Club's Response to EKPC Initial Data Request 21.

[111] *See* HVR, at 3:12:26 PM (Jan. 15, 2014).

[112] *See* EKPC's Response to the Sierra Club's Supplemental Data Request 15(c).

the ACES/Wood Mackenzie energy report in this proceeding.[113] Implications, insinuations and innuendo do not pass even the most basic evidentiary standard. By contrast, the Sierra Club's alternative energy forecast was prepared by a witness who admitted that he is not an accomplished or experienced energy forecaster.[114] In fact, the Sierra Club laid no evidentiary foundation for its own witness to be qualified as an expert on energy price forecasts.[115]

The Sierra Club's energy forecast is also analytically flawed because it assumes that the generation capacity mix and supply-demand balance remain the same indefinitely from 2018 throughout the end of the analysis period.[116] There is absolutely no reason to think that either of these historic variables will somehow be transformed into constants. Yet even if the lower energy forecast proffered by the Sierra Club were to be accepted, it must be remembered that this would have the effect of reducing the NPV of all proposals received by EKPC, not just the NPV of the Project.[117] Thus, arguments over which energy forecast should be relied upon are not really indicative of which bid is best relative to the other bids received. In fact, Mr. Comings

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[113] In a post-hearing data request, EKPC asked the Sierra Club to identify each and every case and situation where Wood Mackenzie had provided Synapse with their methodology and proprietary work product. Of the four proceedings listed in the response, three were unresponsive to the data request. The only responsive proceeding cited was Indiana Utility Regulatory Commission ("IURC") Case No. 44217, where Mr. Comings states that Duke Energy Indiana, Inc. provided Synapse with detailed inputs and assumptions underlying the Wood Mackenzie forecasts. However, a review of the case record reveals that the Sierra Club filed a motion to compel in Case No. 44217 seeking the inputs and outputs from the analysis using the Wood Mackenzie Aurora XMP model, which was denied. Contrary to its assertion at the hearing in this proceeding, Synapse was not given access to the Wood Mackenzie input and output files used in its Aurora XMP analysis, nor to Duke Energy's proprietary Engineering Screening Model and Integrated Resource Planning Model. *See* Sierra Club's Response to EKPC Post-Hearing Data Request 1, Direct Testimony of Rachel Wilson, page 7, lines 4-8.

[114] *See* HVR, at 3:18:57 PM (Jan. 15, 2014).

[115] Although the Commission is not formally bound by the Kentucky Rules of Evidence, they are nevertheless instructive in this instance: "[i]f scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise...." KRE 702. Mr. Comings would not appear to satisfy this standard based upon his own admissions, meaning that his alternative energy forecast is entitled to very little evidentiary weight. *See Tapp v. Owensboro Medical Health System, Inc.*, 282 S.W.3d 336 (Ky. App. 2009).

[116] *See* Rebuttal Testimony of James Read, p. 5, lines 8-11.

[117] *See id.*, p. 6, lines 6-10.

stated that he did not know what the NPV would be for the proposal he favored if he had calculated it using his alternative energy price forecast – he did not bother to perform such a calculation.[118] The Sierra Club's criticism of EKPC's energy forecast is unfounded and flawed.

Third, the Sierra Club attacked EKPC's NPV analysis by citing PJM load forecasts to suggest that EKPC's peak demand was overstated.[119] However, when a higher number was helpful to asserting that EKPC could be more aggressive in pursuing DSM opportunities, the Sierra Club then relied upon EKPC's own load forecast which showed a higher peak demand based upon historical load.[120] The inconsistency of the Sierra Club's various arguments demonstrates that its focus in this case is primarily upon shuttering a coal-fired generation plant instead of determining how to best provide adequate, efficient and safe service to EKPC's Members at rates that are fair, just and reasonable.

3. The Sierra Club Incorrectly Casts Demand Side Management and Energy Efficiency ("DSM/EE") as a Superior Alternative to the Project

The Sierra Club's alternative to implementing the Project is its claim that DSM/EE alone could be used to replace the lost capacity of Cooper #1,[121] and that such an alternative would be the absolute least-cost resource for EKPC.[122] There are a number of problems associated with this suggestion. First, the absolute least-cost resource is not always the optimal choice and it most certainly is not the option that a utility is required to select. As case law and Commission precedent make clear, the Commission must take into account all factors when determining

[118] *See* Sierra Club Response to EKPC's Data Request 30(a).

[119] *See* Sierra Club Hearing Exh. 16 and Exh. 17; HVR 2:26:45 PM (Jan. 14, 2014).

[120] *See* HVR, at 11:55:40 AM (Jan. 15, 2014).

[121] *See* Direct Testimony of Jeffrey Loiter, p. 13, lines 7-11. Mr. Loiter stated at the hearing, however, that he was not opining as to whether Cooper #1 should be retired. *See* HVR, 5:04:00 PM, 6:01:00 PM (Jan. 15, 2014).

[122] *See* HVR, at 10:31:30 AM (Jan. 14, 2014).

whether a resource option is a "reasonable, least-cost" selection.[123] Second, Tony Campbell pointed out that the selection of a resource based upon investment costs alone is likely to be regretted if other considerations and risk factors are not also taken into account.[124] Third, the leader of Brattle's evaluation team testified that he was personally unaware of any RFP process for capacity anywhere in the country that had specifically requested the bidding of DSM/EE proposals.[125] Certainly the Sierra Club did not cite to such an occurrence. Fourth, the Sierra Club appears to be unaware that there are no known third-party DSM/EE providers in Kentucky, which makes the aggregation of a sufficient amount of DSM/EE capacity to replace the loss of a large central station resource unrealistic.[126] Fifth, EKPC's experience demonstrates that it would not be able to invest the capital and O&M costs of the Project in DSM/EE and develop a resource equal to the 116 MW now existing at Cooper 1.[127] Finally, the very premise that the Project and pursuit of DSM/EE are somehow mutually exclusive is patently false. Prior to the hearing, EKPC affirmed its commitment from the 2012 IRP to achieve a 50 MW reduction in summer peak demand.[128] EKPC's witness Tucker repeatedly affirmed that EKPC is pursuing DSM/EE opportunities in tandem with the Project and would welcome opportunities to collaborate on DSM/EE efforts.[129] EKPC's witness Scott confirmed that EKPC would certainly make its Members aware of any available DSM/EE incentives.[130] As a case in point, EKPC is

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[123] *See* Note 51, *supra*. and accompanying text.

[124] *See* HVR, at 10:31:28 AM (Jan. 14, 2014). These other considerations and risk factors include, but are not limited to, associated stranded costs due to premature unit retirement, construction risk, locational risk, transmission risk, voltage risk, shaft risk and infrastructure risk.

[125] *See* HVR, at 6:34:53 PM (Jan. 14, 2014).

[126] *See* EKPC Response to Sierra Club's Initial Data Request 58(b).

[127] *See* HVR, at 4:03:51 PM (Jan. 14, 2014).

[128] *See* EKPC Response to Sierra Club Initial Data Request 57.

[129] *See* HVR, at 4:03:29 PM (Jan. 14, 2014); 4:31:04 PM (Jan. 14, 2014).

[130] *See* HVR, at 11:54:30 AM (Jan. 15, 2014).

already investing in software that will assist it in meeting the verifiability standards that PJM requires as a prerequisite to bidding EE as a resource in the PJM capacity market.[131] EKPC agrees with the Staff's comments in the 2012 IRP case and believes that its goal for developing DSM/EE as a resource is reasonable.[132] The Sierra Club's arguments to the contrary are unpersuasive.

Even if one were to assume that DSM/EE was a reasonable alternative to the Project, which the foregoing points would suggest is not the case, the Sierra Club's estimate as to how much DSM/EE could actually be achieved in lieu of investing in the Project is very much in doubt. To arrive at his prognostication of EKPC's total DSM/EE potential, Mr. Jeffrey Loiter included not just the capital and variable costs of the Project, but also the fixed and variable costs of Cooper #1 in its current configuration.[133] Yet his projections did not take into account the corresponding retirement costs of Cooper #1 (which would significantly diminish his projected DSM/EE estimates), the economic condition of EKPC's service territory[134] or adverse local economic impacts.[135] If customers cannot afford the up-front costs of DSM/EE, then no amount of possible savings will help them. Likewise, if the Sierra Club's energy market forecast were to be used, it would also have the effect of lowering the amount of potential savings to be derived from DSM/EE due to a diminished long-term economic advantage. Mr. Loiter also failed to explain the reasoning underlying his methodology for calculating EKPC's DSM/EE potential.[136]

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[131] *See* HVR, at 4:21:26 PM (Jan. 14, 2014).

[132] *See* HVR, at 4:23:52 PM (Jan. 14, 2014).

[133] *See* HVR, at 5:15:25 PM (Jan. 15, 2014).

[134] *See* HVR, at 11:53:09 AM (Jan. 15, 2014); HVR 5:38:00 PM (Jan. 15, 2014); *cf.* EKPC Response to Sierra Club's Initial Data Request 56, p. 2 (noting that of the states referenced by the Sierra Club, Kentucky has the lowest average income per customer and is 13% below the national average).

[135] *See* HVR, at 5:16:17 PM (Jan. 15, 2014).

[136] HVR, at 11:36:03 AM (Jan. 15, 2014). Using five programs with relatively low costs would result in an overstatement of projected savings while using five programs with relatively high costs would result in an

His selection of predominately commercial and industrial DSM/EE programs fails to reflect the fact that EKPC's load is weighted towards residential service and that the costs of DSM/EE programs serving that load are typically more expensive.[137] Mr. Loiter also unjustifiably relies upon reports of the American Council for an Energy-Efficient Economy, which: (1) have not yet been finalized; (2) utilize data from utilities with very different service territory profiles than EKPC; and (3) are expressly subject to further vetting from stakeholders regarding such issues as economic viability and "political palatability."[138] Mr. Loiter's testimony is nearly identical to testimony that he has offered in other jurisdictions, which suggests his approach to DSM/EE is over-simplified and fails to take into account the unique aspects of this Project.[139]

Finally, the Sierra Club's reliance upon the results of DSM/EE deployments in states such as Michigan is not a fair comparison because the law of Michigan is very different from Kentucky law and includes mandates, funding mechanisms and financial incentives to utilities not present in Kentucky law.[140] The very report cited by Mr. Loiter confirms that legislative mandates are the primary driver of participation in DSM/EE.[141]

EKPC remains committed to DSM/EE and is making strides toward cost-effective deployment of these programs amongst its Members. However, the suggestion that DSM/EE

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understatement of projected savings. There is no analytical justification provided by Mr. Loiter for choosing the programs he cited in his testimony.

[137] *See* HVR, at 11:43:20 AM (Jan. 15, 2014).

[138] *See* Direct Testimony of Jeffrey Loiter, Exh. JML-2, pp. i-ii and p.1, n. 1.

[139] *See* HVR, at 11:53:30 AM (Jan. 15, 2014).

[140] *See* HVR, at 10:45:32 AM (Jan. 15, 2014).

[141] *See* Sierra Club's Response to Staff's Initial Data Request 8 (attaching "An Assessment of Utility Program Portfolios in the Commonwealth of Kentucky," p. 21, dated June 14, 2012, which states "The primary impetus for significant utility investment in energy efficiency is usually a mandate from the utility regulatory body or the state legislature requiring utilities to meet annual savings targets, usually referred to as an Energy Efficiency Resource Standard (EERS).").

should serve as a replacement to existing capacity for a utility that has more load than capacity in winter is unrealistic.

4. The Sierra Club's Over-Riding Objective is to Eradicate Coal-Fired Generation

Towards the conclusion of the lengthy, two-day hearing in this proceeding, it was discovered that the team of lawyers and experts marshaled by the Sierra Club to oppose the Project have all been involved in the Sierra Club's "Beyond Coal" Campaign.[142] Recent press accounts indicate that the Sierra Club spent $27 million on this effort in 2012, mostly on legal fees.[143] With this in mind, the vigorous opposition of the Sierra Club to a Project that involves a minimal capital investment and promises quick returns becomes more understandable. It also explains why the Sierra Club was unwilling or unable to answer basic questions as to which DSM/EE programs its named member, Ms. Sonia McElroy, participates in through her EKPC-Member cooperative.[144] The Sierra Club's intervention in this proceeding appears to have less to do with assisting the Commission in developing facts and providing expertise on issues and more to do with seeking to accomplish by legal recourse that which it has thus far failed to do through Congress or the General Assembly.

The Sierra Club's opposition to coal-fired generation is most cleverly couched in the argument that diversifying EKPC's generation portfolio is one of the Company's strategic objectives.[145] Generation diversity is a strategic goal of EKPC, but, as Mr. Campbell stated in

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[142] *See* HVR, at 4:53:40, 4:55:40 PM (Jan. 15, 2014).

[143] *See* Rebuttal Testimony of Isaac S. Scott, Exh. ISS-3, p. 1 ("Legal expense represented a large share of the spending. Nilles said the Sierra Club filed a legal appeal an average of once every three days in 2012 — including holidays and weekends — many of them targeting coal companies and coal-burning utilities. 'Litigation is a key part of our success,' Nilles said. 'It has always been a cornerstone of our work to hold polluters accountable. We expect to be doing as much, if not more, in the years ahead.'").

[144] *See* Sierra Club Response to EKPC's Initial Data Requests 1-5 (Dec. 18, 2013).

[145] *See* HVR, at 10:42:03 AM (Jan. 14, 2014).

his direct testimony, this must be done in an "economically prudent" manner.[146] While the Project does not diversify EKPC's generation fleet, it also does not tilt it more towards coal. Preserving existing capacity is "carbon-neutral," yet when pressed on this point, the Sierra Club's expert witness refused to acknowledge that retaining Cooper #1's existing capacity would not actually increase EKPC's reliance upon coal-fired generation.[147] The Sierra Club also failed to acknowledge that EKPC's entry into PJM lessens the risk associated with having a predominately coal-fired fleet as EKPC can benefit from participation in the PJM market without losing the protections of a physical hedge on market volatility.[148]

More fundamentally, the Sierra Club failed to acknowledge that the Project will help EKPC achieve another strategic goal of building financial strength.[149] EKPC's financial condition has steadily improved in recent years and its equity position has increased. This has translated into better margins, improved credit ratings and lower interest expense. Last year's entry into PJM marked a major milestone in EKPC's history as it now begins to recognize the benefits of its peak diversity within PJM system – a benefit made largely possible by having a stable, reliable generation fleet that includes Cooper #1. The Sierra Club essentially asks the Commission to roll back some of those gains because it believes future environmental regulations will force EKPC to shutter Cooper #1 at some unspecified point in the future. Time will tell whether the Sierra Club is correct, but there is no factual or legal basis for it to credibly argue that Cooper #1 should be shuttered now. No material risk to EKPC or its Members has been identified as arising out of the Project. None. The Project is in the best interest of EKPC, its Members and their retail Members.

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[146] *See* Direct Testimony of Anthony S. Campbell, p. 3, lines 18-20.

[147] *See* HVR, at 5:01:57 PM (Jan. 15, 2014).

[148] *See* HVR, at 10:42:33 – 10:44:35 AM (Jan. 14, 2014).

[149] *See* Direct Testimony of Anthony S. Campbell, p. 4, lines 9-10.

WHEREFORE, on the basis of the foregoing, EKPC respectfully requests the Commission to:

(1) Issue a Certificate of Public Convenience and Necessity, pursuant to KRS 278.020(1), for the Project;

(2) Authorize EKPC to amend its Environmental Compliance Plan, pursuant to KRS 278.183; and

(3) Authorize EKPC to recover the costs associated with the amended Environmental Compliance Plan through its existing environmental surcharge mechanism.

This 3rd day of February, 2014.

Respectfully submitted,

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CERTIFICATE OF SERVICE

This is to certify that a true and correct copy of the foregoing was deposited in the custody and care of the U.S. Mail, postage prepaid, on this the 3rd day of February 2014, addressed to the following:

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