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Ms. Elizabeth O'Donnell
Executive Director
Public Service Commission
Post Office Box 615
Frankfort, KY 40602

Re: PSC Case No. 2006-00564

Dear Ms. O'Donnell:

Please find enclosed for filing with the Commission in the above-referenced case an original and ten copies of the Brief of East Kentucky Power Cooperative, Inc.

Very truly yours,



Charles A. Lile
Senior Corporate Counsel

Enclosures

Cc: Parties of Record

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

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PUBLIC SERVICE
COMMISSION

In the Matter of:

AN INVESTIGATION INTO EAST KENTUCKY)
POWER COOPERATIVE, INC.'S CONTINUED) CASE NO.
NEED FOR CERTIFICATED GENERATION) 2006-00564

BRIEF OF EAST KENTUCKY POWER
COOPERATIVE, INC.

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CERTIFICATE OF SERVICE

This is to certify that an original and ten (10) copies of the foregoing Brief of East Kentucky Power Cooperative, Inc. were delivered to Ms. Elizabeth O'Donnell, Executive Director, Public Service Commission, 211 Sower Boulevard, Frankfort, Kentucky 40601, and copies were sent by first class mail to Dennis Howard II, Esq., and Lawrence W. Cook, Esq., Office of Attorney General, 1024 Capital Center Drive, Frankfort, Kentucky 40601; and to Michael L. Kurtz, Esq., Boehm, Kurtz & Lowry, 36 East 7th. Street, Suite 1510, Cincinnati, Ohio 45202, this 10th day of April, 2007.

Charles A. Lile
CHARLES A. LILE

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QUESTION PRESENTED:

**HAS EAST KENTUCKY POWER COOPERATIVE ADEQUATELY
DEMONSTRATED THE CONTINUED NEED FOR THE SPURLOCK UNIT 4,
SMITH CFB UNIT 1, AND SMITH CT 8-12 GENERATING UNITS?**

STATEMENT OF FACTS

East Kentucky Power Cooperative, Inc. (“EKPC”) filed Applications with the Kentucky Public Service Commission (the “Commission”) for Certificates of Public Convenience and Necessity and Site Compatibility for the construction of Spurlock Station Unit No. 4 (“Spurlock Unit 4”) on October 28, 2004 (PSC Case No. 2004-00423), and for the construction at the J. K. Smith Station of Circulating Fluidized Bed Unit 1 (“Smith CFB Unit 1”) and five new combustion turbine (“CT”) units (“Smith CTs 8-12”) on January 31, 2007 (PSC Case No. 2005-00053). EKPC presented evidence that Spurlock Unit 4, and Smith CTs 8-9 were needed to provide power and energy for Warren Rural Electric Cooperative, Inc. (“Warren RECC”) on and after April 1, 2008, pursuant to the Special Membership Agreement between EKPC and Warren RECC dated May 27, 2004 (Application, PSC Case No. 2004-00423, Exhibit 15). The Commission granted the construction certificates for Spurlock Unit 4 on September 13, 2005, and for Smith CFB Unit 1 and Smith CTs 8-12 on August 29, 2006. Construction on Spurlock Unit 4 began in June 2006, after the issuance of a construction permit by the Kentucky Division of Air Quality.

On December 7, 2006, EKPC was notified by Warren RECC that it was withdrawing from the Special Membership Agreement, and would be purchasing its future power supply from the Tennessee Valley Authority. EKPC informed the Commission of this development through a letter dated December 8, 2006. Following that notice, the Commission scheduled an informal conference on December 15, 2006 in the on-going Investigation of the Financial Condition of East Kentucky Power Cooperative, Inc. (PSC Case No. 2006-00455), during which the impacts of the Warren RECC decision on EKPC power supply planning were discussed. At the informal conference, EKPC staff provided preliminary planning information to the Commission staff, the

Attorney General (“AG”), and counsel for Gallatin Steel, which showed that Spurlock Unit 4, Smith CFB Unit 1, and two of the five CTs planned for Smith Station, were still needed to serve projected EKPC system load, without the Warren RECC load.

By its order dated January 5, 2007, the Commission initiated this Investigation of East Kentucky Power Cooperative, Inc.’s Continued Need for Certificated Generation, and made the AG and Gallatin Steel parties to the case. That order specified that the scope of the proceeding would be limited to examining EKPC’s continued need for the Spurlock Unit 4, Smith CFB Unit 1, and Smith CTs 8-12 projects (the “Certificated Facilities”), since the Commission had previously found that those projects were the most reasonable and lowest-cost options for providing the power needs of EKPC’s member systems both now and in the future. (Order, January 5, 2007, p. 2) EKPC responded to the Commission Staff’s Initial Data Requests on January 19, 2007, and to Staff Supplemental Data Requests on February 2, 2007. The Commission’s order set a date of February 6, 2007 for any party to request a hearing in the case. (Order, January 5, 2007, Appendix A) No party requested a hearing in the case.

On February 12, 2007, the Cumberland Chapter of the Sierra Club (the “Sierra Club”) petitioned the Commission for intervention in this case. EKPC filed a response and objections to that petition for intervention on February 16, 2007.

Finding that it did not have sufficient information to determine if the EKPC generation projects certificated in PSC Case 2005-00053 (Smith CFB Unit 1 and Smith CTs 8-12) were still needed, the Commission issued an order on February 13, 2007, which cancelled the hearing in this case, which had been tentatively scheduled for that date; directed EKPC to respond to new data requests; and scheduled a hearing for March 6, 2007. EKPC responded to those new data

requests on February 23, 2007, and submitted Prepared Testimony of James C. Lamb, which addressed certain issues identified in the Commission's order. (Order, February 13, 2007, Appendix B) The Commission Chairman announced at the March 6, 2007 hearing that the Commission had ruled against the Sierra Club's petition to intervene in the case, and would issue an order to that effect. (March 6, 2007 Hearing Transcript, p. 7-8) The Commission subsequently issued an order on March 22, 2007, denying the Sierra Club's petition to intervene.

Following the hearing on March 6, 2007, the Commission issued an additional order on March 14 setting dates for responses to hearing data requests, supplemental data requests and responses, and the submission of briefs in this case. EKPC responded to the hearing data requests on March 16. No further data requests were forthcoming.

**QUESTION PRESENTED:
HAS EAST KENTUCKY POWER COOPERATIVE ADEQUATELY
DEMONSTRATED THE CONTINUED NEED FOR THE SPURLOCK UNIT 4,
SMITH CFB UNIT 1, AND SMITH CT 8-12 GENERATING UNITS?**

**ARGUMENT:
EKPC HAS PROVIDED SUBSTANTIAL EVIDENCE TO DEMONSTRATE THE
CONTINUED NEED FOR SPURLOCK UNIT 4, SMITH CFB UNIT 1 AND
SMITH CT UNITS 8 AND 9**

A. Standard of Review

In the leading Kentucky case on the subject, Kentucky Utilities Co. v. Public Service Commission, Ky., 252 S.W. 2d 885 (1952), a determination of need for new utility facilities, in the context of public convenience and necessity pursuant to KRS §278.020, is held to require a finding that existing facilities are inadequate to supply the utility service required, in a consumer market sufficiently large to make the construction and operation of the facilities economically feasible. (supra, at 890). The Commission has limited the scope of its investigation in this case to a determination of the continued need for the Certificated Facilities (Order, January 5, 2007, p.

2). EKPC has submitted to the Commission information regarding its capacity expansion plan, revised to reflect changes in circumstances occurring since the initial approvals of the Certificated Facilities by the Commission, which currently includes completion of Spurlock Unit 4 in 2009, completion of Smith CFB Unit 1 in 2011, and the addition of two 90 MW (nominal) combustion turbines at Smith Station in 2009 (EKPC Response 3, Staff Data Request dated January 5, 2007). EKPC asserts that the continued need for these proposed facilities is clearly documented in the record in this case.

B. EKPC's Capacity Expansion Plan

EKPC's 2003 Integrated Resource Plan ("IRP") identified EKPC system needs for approximately 270 MW of baseload generation by 2011, and approximately 500 MW of additional peaking generation by 2010. (Order, PSC Case No. 2004-00423, dated September 13, 2005, at p. 3-4) The completion of Smith CTs 6 and 7 in 2004 satisfied approximately 160 MW of that needed peaking generation. (Order, PSC Case No. 2003-00297, dated January 5, 2004) The May 27, 2004 Special Membership Agreement between EKPC and Warren RECC added to the EKPC system the need for an additional 270 MW of baseload generation and 200 MW of peaking generation by April 2009. (Order, PSC Case No. 2004-00423, dated September 13, 2005, at p. 4) Those identified generating capacity needs were the basis for the construction of Spurlock Unit 4, Smith CFB Unit 1 and the five 100 MW combustion turbines originally proposed for Smith Station. EKPC's 2006 IRP, filed in October 2006, identified the need for an additional 300 MW of baseload capacity by 2013 to supply growing system needs. (Integrated Resource Plan, PSC Case No. 2006-00471, p. 5-13 Table 5.(4)-2)

In response to Warren RECC's withdrawal from its power supply agreement in December 2006, EKPC immediately reviewed its capacity expansion plan to determine the

impact of the removal of the Warren RECC load. That review showed that, after eliminating the Warren RECC load, EKPC still needed an additional 774 MW of generating capacity by 2011 to meet its native load requirements and 12% reserve margins. (EKPC Response 2, Staff Data Request dated January 5, 2007; EKPC Response 14 (a), Staff Data Request dated January 26, 2007) EKPC conducted an economic analysis, modeling 3,500 possible expansion plans and using the same methods utilized in EKPC's 2006 IRP, to determine the optimal additions of capacity to meet the system generation needs under these changed circumstances. (Lamb Prepared Testimony, p. 3-6; EKPC Response 3, Staff Data Request dated January 5, 2007) This analysis showed that the least cost expansion plan was to complete Spurlock Unit 4 in 2009, to complete Smith CFB Unit 1 prior to the 2010-2011 winter season, and to install two CTs at Smith Station in 2009. (EKPC Response 3, Staff Data Request dated January 5, 2007; EKPC Response 14 (b)), Staff Data Request dated January 26, 2007)

C. Continued Need for Spurlock Unit 4

EKPC's economic analysis confirmed that, with approximately \$230 million of incurred costs for the project identified in its 2004 Request for Proposals as EKPC's lowest cost baseload option, completion of Spurlock Unit 4 on the revised scheduled commercial operation date of April 2009 is still necessary to meet system baseload generation needs. (Lamb Prepared Testimony, p. 2) Although the Warren RECC load, on which Spurlock Unit was originally certificated, will no longer be the responsibility of EKPC, the completion of Spurlock Unit 4 in April 2009 will supply system baseload needs for which Smith CFB Unit 1 was originally certificated, will result in no excess generating capacity or energy for EKPC, and will replace more costly purchases of power. (Ibid)

D. Continued Need for Smith CFB Unit 1

EKPC's update of its capacity expansion plan has shown that its baseload capacity needs in 2010 have grown sufficiently to justify the additional 270 MW of capacity that Smith CFB Unit 1 will provide. (Lamb Prepared Testimony, p. 3-6) EKPC's economic analysis did not assume that Smith CFB Unit 1 would be constructed, but the results showed that it was the lowest cost option for meeting the identified EKPC system baseload needs in 2010. (Id., p. 5-6) While EKPC's economic analysis shows that the optimal timing for Smith CFB Unit 1 is commercial operation prior to the 2010-2011 winter season, delays in completing necessary environmental reviews have forced EKPC to delay the scheduled commercial operation date for the unit to June 2011. (Id., p. 7-8) The addition of Smith CFB Unit 1 at that time will postpone until 2017 the third baseload unit, planned for 2013 in EKPC's 2006 IRP, and will meet EKPC's baseload system needs and margins criteria, without adding any surplus capacity to the system. (March 6, 2007 Tr., p. 23; EKPC Response 3, Staff Data Request dated January 5, 2007; EKPC Response 9, Staff Data Request dated February 13, 2007)

EKPC has conducted extensive evaluations of the economic impacts of further delays in the commercial operation of Smith CFB Unit 1, and these evaluations show that the June 2011 commercial operation date has the lowest net present value cost. (EKPC Response 5, Staff Data Requests dated February 13, 2007) The delay which has already occurred in the commercial operation of Smith CFB Unit 1, from April 2009 to June 2011, is projected to cost EKPC \$39 million more for baseload power purchases, than if Smith CFB Unit 1 were on-line. (EKPC Response 4, Staff Data Request dated March 6, 2007) EKPC expects to be a net purchaser of power to meet native load until Smith CFB Unit 1 is operational, so any further delay will cause EKPC to continue to incur greater costs for replacement power. (March 6, 2007 Tr., p. 33-34) Not only will EKPC face greater costs as a result on any continued reliance on market purchases,

but relying on such purchases to supply native load requirements adds significant reliability risks to the system, due to the decreasing availability of firm transmission service and the prospect of delivery disruptions resulting from ISO actions. (*Id.*, p. 42-43; Lamb Prepared Testimony, p. 13)

An additional year of delay for Smith CFB Unit 1 would result in EKPC incurring additional interest expenses of approximately \$3 million related to the approximately \$52 million of committed expenditures for the construction of the unit, and any delay which requires a cessation of manufacturing would expose EKPC to a high risk of substantial escalation of contract costs. (EKPC Response 3, Staff Data Requests dated March 6, 2007) EKPC contends that any further delay Smith CFB Unit 1 is not in the best interests of EKPC's member systems, since it represents the least cost option to supply EKPC's identified baseload needs in 2011, it will add reliable baseload capacity, and its use of coal will reduce fuel cost volatility for the EKPC system. (Lamb Prepared Testimony, p. 8-9)

Even though EKPC is convinced that Smith CFB Unit 1 is needed in 2011 and will not represent surplus capacity to the system, EKPC would utilize its power marketing agent, ACES Power Marketing, to sell any excess power that the addition of the unit might produce. (March 6, 2007 Tr., p. 32-33) Any potential surplus would be in the form of non-firm energy sales from more expensive EKPC generation, since the low cost power from Smith CFB Unit 1 will virtually always be allocated to native load. (EKPC Responses 7-8, Staff Data Request dated February 13, 2007)

E. Continued Need for Smith Combustion Turbines

EKPC's economic analysis of its capacity expansion plan after the withdrawal of Warren RECC, and its estimated 200 MW of peaking load, showed that only two CT units were still needed for existing system peaking power by 2009. (EKPC Response 4, Staff Data Requests

dated January 26, 2007) The analysis could have selected all of the five CTs originally certificated, but instead determined that the addition of Smith CFB Unit 1 in 2010, with two CTs at Smith Station in 2009, was a lower cost plan, due to the higher price volatility for natural gas and the significant number of gas-fired CT units already on the EKPC system. (Lamb Prepared Testimony, p. 10) Without these two CTs, EKPC projects that it will fail to meet its winter 2009-2010 peak forecast, plus 12 % margins, by 379 MW. (EKPC Response 1, Staff Data Requests dated February 13, 2007) This analysis does not reflect the potential long term loss of EKPC's 100 MW of peaking power from the Southeastern Power Administration or potential disruptions to the operation of Cooper Power Station, as a result of the lowering of the level of Lake Cumberland by the Army Corps of Engineers, which would increase EKPC's capacity deficit. (March 6, 2007 Tr., 29-30; EKPC Response 11, Staff Data Request dated January 26, 2007)

Given EKPC's current capacity deficit, and its projections of a sustained peak load growth of around 80 to 100 MW per year, these additional CTs are needed at the earliest possible date, which is now scheduled for June 2009. (Lamb Prepared Testimony, p. 11-12) EKPC has postponed the remaining three CTs certificated for Smith Station to the 2012-2014 timeframe, and agrees that it would be appropriate for the Commission to rescind the certificate of public convenience and necessity for those units. (*Id.*, p. 14-15)

While EKPC has established the need for two 100 MW combustion turbines by 2009, the selection of the units has not yet been finalized. EKPC was unable to meet the original General Electric ("GE") contract deadline for providing a notice to proceed, and GE has demanded a price increase of approximately 49 percent for the LMS 100 CT units. (EKPC Response 1 (c), Staff Data Requests dated February 13, 2007) When EKPC evaluations indicated that this capital cost increase meant that less efficient, but less costly, GE 7EA CTs would be a more cost

effective choice to meet the 2009 peaking needs, GE asserted a claim for termination costs relating to the LMS 100 units in the range of \$40 million. (March 6, 2007 Tr., p. 44-47) EKPC has been engaged in continuing negotiations with GE in an effort to resolve these conflicting contractual issues, but no resolution has yet been reached. EKPC anticipates filing a new application for a certificate of public convenience and necessity if the final decision is to change to the GE 7EA units, but requests that the Commission take no action to rescind the existing certificate for two LMS 100 units at Smith Station until a final decision is made.

CONCLUSION

EKPC contends that, based on the record in this case, the Commission should reaffirm the validity of the construction certificates for Spurlock Unit 4 for commercial operation in April 2009, and for Smith CFB Unit 1 for commercial operation in June 2011. Completion of the Commission's review of the certificates for the baseload units is critical, so that EKPC can most effectively proceed with the construction and financing of those units. Furthermore, based on the record, EKPC requests that the Commission acknowledge that EKPC has demonstrated the need for two 100 MW CT units at Smith Station in June 2009, but that it take no action on the certificate for those units until EKPC is able to resolve the abovementioned contractual issues with GE, and make a final selection of the most economical CT units.