

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF KENTUCKY POWER )  
COMPANY FOR A CERTIFICATE OF ) CASE NO. 8271  
PUBLIC CONVENIENCE AND NECESSITY )

ORDER ON REMAND

BACKGROUND

This case comes before the Commission on remand pursuant to an Order of the Kentucky Court of Appeals rendered August 27, 1982. The Court of Appeals directed the Commission to have the American Electric Power Interconnection Agreement ("AEP pool agreement") entered into the record and to make specific findings of fact as to the net benefits, if any, conferred by the AEP pool agreement. The agreement was filed with the Commission on September 7, 1982, and copies were served upon all parties of record. To ensure that all parties had sufficient opportunity to review the agreement, a hearing was not held until October 15, 1982. A subsequent hearing was scheduled for December 20, 1982, but was rescheduled for January 10, 1983, at the request of Kentucky Power Company ("KPC"). KPC has complied with all requests for information. Pursuant to agreement of the parties, the case was submitted to the Commission without briefs.

## AEP Pool Agreement

KPC is a wholly-owned subsidiary of the American Electric Power Company ("AEP"), a public utility holding company. The AEP pool agreement is a contract between the following subsidiaries of AEP: Appalachian Power Company, KPC, Ohio Power Company, Columbus and Southern Ohio Electric Company, Indiana and Michigan Electric Company ("I & M Co.") and the AEP Service Corporation ("Service Corporation"). The contracting companies, except the Service Corporation, are referred to as "members"; the Service Corporation is referred to as "agent". The pool agreement specifies the rights and obligations of the agent and pool members and sets forth the terms for electric power sales and purchases to members and non-members.

Article 3 of the pool agreement enumerates the responsibilities of the Service Corporation. They include coordinating the operation of the member companies' generation and transmission facilities, economically dispatching the electricity generated by the pool members, making arrangements for the sale and purchase of the pool's capacity and maintaining appropriate records of all transactions so that monthly statements may be rendered to the members.

Article 4 details the rights and obligations of the members. Each member is obligated to make its generating capacity available to the pool for economic dispatch purposes and must make its transmission facilities available to all other members for the

delivery and receipt of power. Each member has the right to receive power from other members as required to meet its own load obligations and the right to utilize the transmission facilities of other members.

Article 5 contains definitions associated with the settlement transactions between members. Article 6 specifies the settlement procedures for the exchanges of power between members. The settlements consist of monthly cash payments made to the system account or received therefrom in respect to capacity charges and energy charges. The capacity charge is based upon the principle that each member "is responsible for carrying its proportionate share of the total capacity within the pool." 1/ If a member's capacity is greater than its proportionate share, it is considered a surplus member. If a member does not have sufficient capacity to meet its proportionate share, it is considered a deficit member. Deficit members must pay capacity equalization charges into the system account. The capacity equalization charges are based on the embedded cost of the surplus members' generating capacity and are paid from the system account to the surplus members.

The energy charges are based on the energy costs that result from operating all members' generation facilities from a central dispatch center. The energy charges consist of a primary energy

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1/ Transcript of Evidence, October 15, 1982, page 9.

charge and an economy energy charge. A primary energy charge is used for settlements when a member has received energy from the pool because it was unable to generate enough energy to meet its own load. This charge is based on the average cost for all pool members to generate energy that month. An economy energy charge is used for settlements when a member has received energy from the pool because the pool, through its central dispatching, was able to supply the energy at a lower cost than the member could have generated it.

Article 7 sets forth the procedures for settlement transactions between pool members and non-affiliated utility companies (referred to as "foreign companies"). These settlements are based on the premise that the energy transactions are between the foreign companies and the pool. Each pool member then shares both the expenses and revenues associated with energy sold to and purchased from foreign companies.

Several benefits accrue to the pool members as a consequence of the interconnection agreement. First, the members benefit from the economies of scale that result from their ability to construct larger size generation and transmission facilities. The large number of customers and substantial load served by the pool members allows the construction of larger generation units and higher capacity transmission facilities to be cost justified. Consequently, the unit cost of these facilities is lower than it would have been without the pool agreement.

A second benefit is enhanced reliability. In addition to a member's own interconnections with foreign companies, it has access to power from all foreign companies that are interconnected to other members. This capability is a result of the provision in the pool agreement that requires each member to make its transmission facilities available for the use of all members without charge.

Another benefit is the ability to receive the lowest cost energy available from the other members. This benefit is a result of employing a single dispatching center to dispatch power on an economic basis.

The pool members also benefit from having access to the services of the Service Corporation. Its expertise encompasses the planning, engineering, design and construction of power systems. By allocating the cost of the Service Corporation among the pool members, each member is able to draw upon professional services that would be cost prohibitive and duplicative if provided by each member individually.

The extensive interconnections between the pool members and foreign companies enable the pool to have access to a large market for the sale of capacity and energy. Each member benefits from both its right to share in the revenues produced by these sales and the enhanced utilization of its generating capacity.

Quantification of the benefits conferred on KPC by its membership in the pool would be an extremely difficult task

requiring the utilization of numerous subjective evaluations and assumptions. Consequently, such a quantification could be given little, if any, evidentiary weight. The Commission finds that a review of KPC's history and service to its customers is the best indication of how it has benefitted from participation in the pool.

The embedded cost of KPC's existing generating capacity is \$164 per kilowatt. 2/ This compares very favorably to the current estimate of \$400 to \$1263 per kilowatt for new generating capacity. 3/ KPC has been able to maintain its low embedded cost of capacity, despite its low reserve margins, due to its ability to buy power under the pool agreement. This has meant that the electric rates of KPC's customers are among the lowest in Kentucky and the nation.

In 1969, KPC completed construction of its Big Sandy Generating Unit 2 with a capacity of 800 megawatts. Although KPC's capacity in 1969 and for many years thereafter was greater than its demand, it benefitted from the economies of scale inherent in building a large generating unit and utilized the pool to sell its unneeded capacity. Over the years, as KPC's own demand increased, it had this low cost capacity available. Without membership in the AEP pool, KPC would not have been able to

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2/ Ibid., page 13.

3/ Ibid., page 27.

construct a generating unit of this size and have the wide market available for power sales.

### Need for Additional Capacity

KPC's generating capacity consists of two generating units, Big Sandy Unit I with a 260 megawatt capacity and Big Sandy Unit II with an 800 megawatt capacity. KPC has historically experienced its peak demand during the winter months. Its most recent winter peaks were 984 megawatts in 1980-81 and 968 megawatts in 1981-82, 4/ leaving KPC with annual reserve margins of 7.7 percent and 9.5 percent, respectively. 5/

KPC's reserve margins are below the level maintained by other electric utilities, but they are presently adequate when combined with KPC's right to draw upon available power from the AEP pool. 6/ Although the AEP pool agreement allows a member to reduce its reserve requirements, it does not obviate a member's obligation to offer capacity for the use of the entire pool. Mr. Gregory S. Vassell, Senior Vice President of the Service Corporation, in charge of system planning, stated, "if one of the members

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4/ Transcript of Evidence, October 15, 1982, page 26.

5/ Response to Information Request, December 3, 1982, Item 1, Exhibit GSV-5 (Revised).

6/ Transcript of Evidence, October 15, 1982, page 14.

does not add enough capacity to meet its own load over a substantial period of time, then, in effect, it does not meet that obligation . . . ." 7/

The pool membership benefit of lower reserve margins, which KPC has been enjoying for some time, is eventually transformed into an obligation to purchase or construct new generating capacity. Unfortunately, the AEP pool agreement contains no objective standards to determine when the obligation to add capacity supersedes the right to maintain lower reserves. Mr. Vassell stated that if KPC did not purchase a 15 percent interest in the Rockport units the other pool members would be subsidizing it. 8/ It was Mr. Vassell's opinion that "equity requires for Kentucky Power to participate in it [Rockport]," 9/ and that KPC's membership in the pool would be jeopardized if it did not purchase into Rockport. 10/

The Commission finds that KPC needs additional generating capacity to meet its own power demands. This additional capacity cannot be obtained by purchases under the AEP pool agreement without jeopardizing its membership. KPC must meet its obligation to offer capacity to the pool.

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7/ Transcript of Evidence, January 10, 1983, page 56.

8/ Ibid., page 26.

9/ Ibid., page 90.

10/ Ibid., page 42 and pages 89-92.



## Proposal to Acquire Additional Generating Capacity

KPC has proposed to acquire additional generating capacity by purchasing 15 percent of two 1300 megawatt generating units under construction in Rockport, Indiana, by the I & M Co. Rockport Units I and II are scheduled for completion in 1984 and 1986, respectively. This acquisition would add 390 megawatts to KPC's existing capacity. During the course of the hearings, KPC made several references to the Rockport acquisition as a "unique opportunity." 11/ Mr. Robert E. Matthews, President of KPC, explained that this acquisition is unique because it allows KPC to benefit from the economies of scale that the larger generating plant allows and "to lock in generating capacity at a lower cost" than available elsewhere. 12/

AEP witness Mr. John E. Dolan, Vice Chairman of Engineering and Construction, estimated the total cost of the Rockport plant at \$2.08 billion. 13/ This equates to a cost of \$800 per kilowatt for Rockport. 14/ Based on this cost estimate, KPC's total cost for a 15 percent interest in Rockport should be approximately \$312 million. 15/ Several witnesses expressed consider-

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11/ Transcript of Evidence, September 3, 1981, pages 28, 117 and 199.

12/ Ibid., page 28.

13/ Transcript of Evidence, September 3, 1981, page 173.

14/ Transcript of Evidence, October 15, 1982, page 27.

15/ Transcript of Evidence, September 3, 1981, page 42.

able confidence in this estimate of total cost. 16/ Their confidence derives from the fact that the major equipment is purchased and the number of man-hours required to complete construction is reasonably well known.

When completion of Rockport Units I and II was deferred from 1981 and 1982, to 1984 and 1986, respectively, the total estimated project cost jumped from \$1.5 billion to \$2.08 billion. In addressing the reasons for this increase of almost 40 percent, Mr. Dolan explained that "there was not a single technical reason for that revision -- it was strictly a change in the completion date and a change in the AFUDC rate . . . ." 17/ The Commission is concerned that a deferral of Rockport Unit II will increase the construction cost and result in an unnecessary financial burden to KPC and ultimately its ratepayers. Mr. Vassell confirmed that a deferral of Rockport Unit II is being studied. 18/ He also concurred with a statement by AEP's Chairman, Mr. W. S. White, Jr., that Rockport Unit I "will carry the company [AEP] through the mid- to late 1980s and perhaps even the early 1990s . . . ." 19/

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16/ Ibid., pages 141-142, 174 and 196.

17/ Ibid., page 174.

18/ Transcript of Evidence, January 10, 1983, page 43.

19/ Ibid., page 113.

### Concerns of the Commission

KPC's need for additional generating capacity is immediate although the AEP system possesses substantial generating reserves. During the 1981-82 peak winter demand the AEP system experienced a reserve margin of 43.6 percent. 20/ AEP's reserve margins are projected to be 35 percent and 26.3 percent during the winter peaks of 1982-83 and 1983-84, respectively. 21/ A thorough review of the AEP reserve margins leads the Commission to believe that there is a strong likelihood of a deferral in the completion date of Rockport Unit II.

Any decision to defer construction will be made by the I & M Co. as owner of the facility with advice from the Service Corporation regarding the AEP system needs. 22/ A deferral of construction would not benefit KPC since it has an immediate need for additional capacity. As owner of a minority interest (15 percent), KPC will be unable to ensure that such a decision is made in the best interest of its ratepayers.

The Commission finds that the financial interests of KPC and its ratepayers can only be protected by restricting the maximum dollar amount that KPC can include in its rate base for future

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20/ Response to Request for Information, December 3, 1982, Item 1, Exhibit GSV-6 (Revised).

21/ Ibid.

22/ Transcript of Evidence, January 10, 1983, page 111.

ratemaking treatment. Utilizing the expected construction costs, KPC is authorized to include up to \$312 million in its rate base for the purchase of 390 megawatts of capacity from I & M Co.

The final matters for consideration are three arguments made by the intervenor, Attorney General's Office, Division of Consumer Protection ("A.G."), at the close of the hearing held on October 15, 1982. The A.G. maintained that the Commission lacks jurisdiction to grant KPC a certificate of convenience and necessity because the Rockport generating plant is already under construction by I & M Co. All utilities regulated by this Commission are prohibited from beginning construction of a facility prior to receiving a certificate of convenience and necessity. KRS 278.020. The record clearly shows that KPC has neither begun nor participated in any construction of the Rockport facility.

In addition, the A.G. argued that KPC has not met its burden of proof regarding the cost benefit analysis of its membership in the AEP power pool. KPC presented substantial evidence upon which the Commission based its finding that the benefits of pool membership outweigh the obligations. The A.G.'s argument is without merit.

The A.G. also moved that the Commission defer a decision in this case until the conclusion of Commission Case No. 8666, Statewide Planning for the Efficient Provision of Electric Generation and Transmission Facilities. Case No. 8666 is only in the preliminary stage and it is not expected to be concluded

for at least six months. The remand order of the Kentucky Court of Appeals requires the Commission to proceed expeditiously. Since the Commission is not at liberty to defer its decision for an indefinite period of time, the motion is hereby overruled.

#### SUMMARY

Based upon the evidence of record and being advised, the Commission is of the opinion and finds that:

1. The benefits received by KPC as a member of the AEP power pool are substantially greater than its membership obligation to provide generating capacity to meet its own demand.
2. KPC needs additional generating capacity to meet its customers' demands.
3. KPC can meet its need for additional generating capacity in the most efficient and economical manner by purchasing a 15 percent undivided interest in two 1300 megawatt generating units being constructed near Rockport, Indiana, by I & M Co.
4. The public interest requires that KPC be limited to the inclusion of \$312 million in its rate base for the purchase of a 15 percent undivided interest in the Rockport plant regardless of the completion dates.

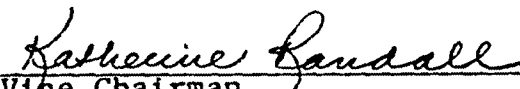
IT IS THEREFORE ORDERED that KPC be and it hereby is granted a certificate of convenience and necessity to purchase a 15 percent undivided interest in two 1300 megawatt generating units being constructed near Rockport, Indiana, provided, however, that

it shall be restricted to a maximum amount of \$312 million to be included in its rate base for ratemaking treatment associated therewith.

Done at Frankfort, Kentucky, this 15th day of March, 1983.

PUBLIC SERVICE COMMISSION

  
Chairman

  
Vice Chairman

  
Commissioner

ATTEST:

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Secretary