

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

ORDER

INTRODUCTION

Kentucky Power Company ("Kentucky Power") filed its application with the Commission on June 30, 1981, for a certificate of public convenience and necessity ("Certificate") authorizing it to acquire a 15 percent undivided interest in each of two 1300 megawatt ("MW") electric generating units currently being constructed by the Indiana and Michigan Electric Company near Rockport, Indiana ("Rockport"), all as more specifically set forth in the application and record.

The Kentucky Department of Energy and the Consumer Protection Division of the Department of Law filed motions to intervene in the proceedings, and both were sustained by the Commission.

The matter was set for hearing on September 3, 1981, at 9:00 a.m. in the Commission's office at Frankfort, Kentucky. The hearing was held as scheduled and all parties of interest were heard. Mr. William B. Sturgill, Secretary of the Energy and Agriculture Cabinet, presented testimony and entered a prepared statement into the record in favor of Kentucky Power's application.

## GENERAL DISCUSSION

Kentucky Power, with headquarters in Ashland, Kentucky, provides electric service to industrial, commercial, and residential customers in a 20-county area of Eastern Kentucky, with a total population of approximately 357,000. Within its service area, Kentucky Power serves approximately 140,000 retail customers, and provides wholesale electric energy to the communities of Vanceburg and Olive Hill.

Kentucky Power is a wholly-owned subsidiary of American Electric Power System ("AEP"), and as such is one of eight entities which comprise AEP, an interconnected and fully-integrated system with headquarters in Columbus, Ohio. Five of these subsidiaries -- including Kentucky Power -- have major generating facilities and comprise the AEP power pool. The power pool is dispatched on an economic basis from a central dispatch facility, currently located in Canton, Ohio.

AEP has total generating capacity in service of 22,714 MW, including 1,230 MW in two units owned by Buckeye Power, which are operated as part of the AEP system. In addition, AEP has under construction generating capacity aggregating 3,010 MW. Current capacity and that under construction "is expected to be sufficient to meet the AEP system's requirements through the late 1980's." 1/ Data presented in this case show AEP system reserve to have been 44.0% at the winter 1980-81 peak, and project the reserve to decline throughout the 1980's to 19.4% at the winter 1988-89 peak. 2/

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1/ Vassell, prepared testimony, p. 15.

2/ Exhibit GSV-6.

## GENERATING CAPACITY AND LOAD GROWTH

Kentucky Power operates a single generating facility, the Big Sandy station, whose Units 1 and 2 have a combined installed generating capacity of 1,060 MW. In its application for the Certificate Kentucky Power stated that in the winter 1980-81 (Kentucky Power has a winter peak) peak load reached 984 MW, or approximately 93% of installed generating capacity, and that internal load had grown at the rate of 10.7% per year for the five years through winter 1980-81. Kentucky Power anticipates that load will "at least equal its installed capacity by the winter of 1981-82. . . ." 3/ Data submitted in the case project Kentucky Power peak demand to grow 6.2% per year between winter 1980-81 and winter 1982-83, and thereafter 5.7% per year through winter 1991-92. 4/

If these projected growth rates are realized, it is very likely Kentucky Power's peak demand would exceed its generating capacity the winter of 1981-82. The disparity would increase, and, without 15% interest in the Rockport units, peak demand the winter of 1984-85 would exceed generating capacity by 200 MW, or nearly 19%. With 15% interest in Rockport Unit 1, which is scheduled for commercial operation in late 1984, Kentucky Power generating capacity would increase by 195 MW, to 1,255 MW, essentially equal to projected winter 1984-85 peak demand. 5/ Moreover, with Rockport Unit 2 in commercial operation the end of

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3/ Application, p. 2.

4/ Exhibit GSV-1, p. A-17.

5/ Ibid.

1986, Kentucky Power generating capacity would increase by an additional 195 MW, or to 1,450 MW, 42 MW or 3.0% above projected peak demand the winter of 1986-87.

BENEFITS OF AN INTEGRATED SYSTEM  
AND  
APPROPRIATE RESERVE MARGIN

In this case, witnesses for Kentucky Power presented two points which the Commission found especially noteworthy:

(1) AEP, of which Kentucky Power is a member, is a centrally-planned, interconnected, fully-integrated system.

(2) Membership in the AEP system bestows benefits on the customers of Kentucky Power.

This Commission concurs with both of those contentions by Kentucky Power, and believes that benefits would be realized by all electric consumers in the Commonwealth if the electric energy needs of Kentucky were met by an integrated system. This Commission encourages such an approach on the part of the electric utilities within the Commonwealth.

This Commission is aware, however, that membership in the AEP system does not absolve Kentucky Power of the responsibility to maintain an appropriate level of generating capacity.

A principal benefit to be realized through an integrated system is a reduction in the level of costly reserve generating capacity. This point was made in particular by Kentucky Power witness Nagel, who stated:

Integrated planning is beneficial to the pool member companies through (1) very substantial economies of scale in generation (including lower reserve requirements). . . . 6/

For this reason the Commission is puzzled by the statement by Kentucky Power that ". . . the Company should maintain a reserve capacity of 20% to 25%, . . ." 7/ The Commission believes, on the contrary, that a much lower reserve margin is appropriate for Kentucky Power. Unless Kentucky Power uses a much lower reserve margin for planning purposes, it will not be taking full advantage of the benefits which are available to it, initially as a member of the AEP system, but beyond that as a result of AEP's interconnections with 24 neighboring systems, whose aggregate generating capacity exceeds 140 million kilowatts. 8/ The Commission looks forward to further discussion with Kentucky Power on this important subject.

#### SUMMARY

The Commission, having considered the application and all evidence of record, finds that:

1. Kentucky Power is a wholly-owned subsidiary of AEP and is engaged in the business of generating, transmitting, distributing and selling electric energy in the eastern portion of Kentucky;

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6/ Prepared testimony, p. 15.

7/ Application, p. 2.

8/ Nagel, Prepared Testimony, p. 14.

2. Kentucky Power is a member of the AEP power pool and as such receives the benefits of interconnection and bears the responsibilities of equitable ownership of generating capacity;

3. Kentucky Power is now deficient in generating capacity to meet its peak demand with an adequate reserve, and this deficiency will increase as the peak demand increases;

4. Kentucky Power, in order to increase its generating capacity, should be allowed to acquire a 15 percent undivided interest in each of two 1300 MW units now under construction by the Indiana and Michigan Electric Company near Rockport, Indiana;

5. The estimated cost to Kentucky Power for a 15% share in these units will be approximately \$311,600,000, which is approximately \$800 per kilowatt;

6. Financing will be provided by bank loans, first mortgage bonds, preferred stock and common equity investments by AEP;

7. The proposed new facilities to be acquired by Kentucky Power are not designed to be, nor will they be, in direct competition with any other utility now located in the area for which the application is sought.

IT IS THEREFORE ORDERED that Kentucky Power be and it is hereby granted a certificate of convenience and necessity to acquire a 15 percent undivided interest in each of two 1300 MW generating units now under construction by Indiana and Michigan Electric Company near Rockport, Indiana, all as more specifically set forth in the application and record.

Done at Frankfort, Kentucky, this 28th day of September,  
1981.

PUBLIC SERVICE COMMISSION

Marlin M. Voh  
Chairman

Gatherine Randall  
Vice Chairman

Ann Carrigan  
Commissioner

ATTEST:

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Secretary