COMMONWEALTH OF KENTUCKY

BEFORE THE ENERGY REGULATORY COMMISSION

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In the Matter of

APPLICATION OF BIG RIVERS ELECTRIC CORPORATION FOR:

(1) A CERTIFICATE OF CONVENIENCE AND NECESSITY UNDER KRS 278.20 AND 807 KAR 1:010, SECTION 7 AND 8 TO CONSTRUCT AND OPERATE THE FOLLOWING FACILITIES:

(a) TWO ADDITIONAL GENERATING UNITS, EACH HAVING A NET RATED CAPABILITY OF 395 MW TO BE KNOWN AS THE "D. B. WILSON GENERATING STATION" AND TO BE LOCATED IN OHIO COUNTY, KENTUCKY.

CASE NO. 7557

- (b) ANY AND ALL APPURTENANT AND RELATED EQUIPMENT AND FACILITIES,
- (2) A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY UNDER KRS 278.025 FOR THE FACILITIES DESCRIBED IN PARAGRAPH (1) HEREOF.
- (3) AUTHORITY TO BORROW FROM THE UNITED STATES OF AMERICA, THROUGH THE RURAL ELECTRIFICATION ADMINISTRATION (REA), OR THE FEDERAL FINANCING BANK OR THE ELIGIBLE LENDER THE SUM OF \$928,754,200 TO BE USED FOR THE CONSTRUCTION OF THE FACILITIES AS FURTHER DESCRIBED IN THE APPLICATION AND RECORD.

GRANTING CERTIFICATE OF CONVENIENCE AND NECESSITY AND CERTIFICATE OF ENVIRONMENTAL CAPABILITY

On August 28, 1979, Big Rivers Electric Corporation (Big Rivers) filed its application with the Kentucky Energy Regulatory Commission for a Certificate of Convenience and Necessity and for a Certificate of Environmental Compatibility to construct and operate two new generating units with a net rated capability of 395 MW each and any and all appurtenant and related equipment and facilities. The new generating station, to be known as the D. B. Wilson Generating Station, is to be located on the Green River in Ohio County, Kentucky, and is more specifically described in the application, testimony, and records.

The Commission, by order dated February 11, 1980, set the matter for hearing on March 19, 1980, at 10:00 a.m., Eastern Standard Time, in the Commission's offices at Frankfort, Kentucky, for purposes of filing of testimony by all interested parties. The hearing was held as scheduled and following the introduction and filing of testimony the Commission set

the matter for an additional hearing on April 8, 1980, at 9:00 a.m., Eastern Standard Time, in the Commission's offices at Frankfort, Kentucky. The second hearing was held as scheduled and all interested parties were allowed to be heard. Motions to intervene were made by the Kentucky Attorney General's Office, Consumer Intervention Division, the Kentucky Department of Energy, and the Kentucky Department for Natural Resources and Environmental Protection. The Commission sustained the motions by the above parties to intervene and testimony by the Department of Energy and the Department of Natural Resources was submitted and entered into the record. At the conclusion of the hearing the matter was submitted to the Commission for consideration of the merits and disposition of the applicants requests.

By order dated April 30, 1980, the Commission, on its own motion, ordered that the record in the above case be re-opened to the extent that Big Rivers be ordered to file its plans to finance the construction of the facilities for which a certificate of convenience and necessity is sought in this proceeding. Big Rivers filed its response to the Commission's order on May 12, 1980, in which they furnished the information as directed in the order and they also amended their application to request authorization to borrow the funds needed for the construction described herein.

The Commission, having considered the application, all evidence of record, and being advised, is of the opinion and finds that:

- 1. Big Rivers Electric Corporation (Big Rivers) is a non-profit, non-stock, rural electric cooperative corporation organized and existing under KRS 279.
- 2. Big Rivers presently supplies the total energy requirements of its three members, and has contracted to supply the total energy requirements of its fourth member, all non-profit distribution cooperatives, Green River Electric Corporation of Owensboro, Kentucky (Green River), Henderson-Union Rural Electric Cooperative Corporation of Henderson, Kentucky (Henderson-Union), Meade County Rural Electric

Cooperative Corporation of Brandenburg, Kentucky, (Meade County), and its fourth member Jackson Purchase Electric Cooperative Corporation (Jackson Purchase), commencing on January 1, 1984.

These four distribution cooperatives provide electric service to some 65,000 consumers in the 22 western Kentucky counties of Breckinridge, Caldwell, Crittenden, Daviess, Grayson, Hancock, Hardin, Henderson, Hopkins, Lyon, McLean, Meade, Muhlenberg, Ohio, Union, Webster, McCracken, Livingston, Ballard, Carlisle, Marshall, and Grayes.

- 3. Big Rivers owns and operates a coal fired steam electric generating plant near Sebree, Kentucky, known as the "Reid Plant" with a capacity of approximately 70 megawatts, and a coal fired steam electric generating plant near Hawesville, Kentucky, known as the "Coleman Plant" with a capacity of approximately 450 megawatts. It also owns and operates a 60 megawatt combustion turbine unit at its Reid Station.
- 4. Big Rivers owns and operates the Robert Green Station, adjacent to the Reid Plant, in Webster County, Kentucky. Green Unit No. 1, with a capacity of 210 megawatts net, was placed in commercial operation on December 1, 1979, and Green Unit No. 2 is scheduled for commercial operation approximately one year later, with a net capacity of 210 megawatts.
- 5. Big Rivers leases and operates Henderson Municipal Power & Light Station Two, located adjacent to Big River's Reid Station. This Station has a total capacity of approximately 296 megawatts, from which Big Rivers takes all surplus capacity not needed by the City of Henderson, this surplus capacity being approximately 255 megawatts as of August, 1979.
- Administration for the purchase of 40 megawatts peaking capacity and 100 megawatts standby capacity (shared with two other rural electric generating and transmitting cooperatives). It also has interconnection agreements with Southern Illinois Power Cooperative, Hoosier Energy Division of Indiana Statewide Rural Electric, Henderson Municipal Power & Light, East Kentucky Power Cooperative, Kentucky Utilities Company, Southern Indiana Gas & Electric Com-

pany, and Louisville Gas & Electric Company, from which and to which Big Rivers purchases and sells electric power as it may be available. Big Rivers has not been able to secure firm power contracts with any of these interconnecting utilities, or with any other utilities, to supply the electric energy needs of Big Rivers' member distribution cooperatives.

- 7. Big Rivers' installed and operating net generating capacity at present, including all generators owned or leased by Big Rivers, and including its 60 megawatt combustion turbine used only as standby, is approximately 1,045 megawatts. Its peak demand in 1979 was 910 megawatts. Its total energy sales in 1979 were 7,088 gwh. Approximately three-fourths of Big Rivers capacity is required to serve two industrial consumers of its member distribution cooperatives. These industrial consumers operate at very high load factors. Big Rivers' load factor for 1979 was 85.28 percent, and its projected load factor for 1980 is 84.8 percent.
- 8. Big Rivers is now deficient in generating capacity for reliable electric energy to its member cooperatives, and even with the addition of Green Generator No. 2 to its system, Big Rivers needs two coal fired generating units of 440 megawatts gross capacity each, or 395 megawatts net capcity each, with Unit No. 1 to be placed in service approximately July, 1984, and Unit No. 2 to be placed in service approximately January, 1986. Installation of these two units is the best overall solution to Big Rivers' requirements of reliability and economy in supplying its member distribution cooperatives and their respective members with electricty for lights, heat, power, and other uses.
- 9. The estimated capital costs of the two 395 megawatts, net, are as follows:

D.B. Wilson Unit No. 1

\$515,549,000

2

D.B. Wilson Unit No. 2

364,273,000

- 10. The additional transmission and appurtenant facilities which are more specifically described in the application and record are estimated to cost \$48,932,000.
- 11. Big Rivers' load growth study includes the industrial load additions for expansions by existing industries which are

already in progress or known to Big Rivers, and also include some, but not all, of the load required for synthetic fuel plants which are planned at several locations within the service areas of Big Rivers' member distribution cooperatives. The electric requirements for these synthetic fuel projects total approximately 550 megawatts, plus the additional power requirements for construction, new residential and commercial growth associated with the plants, and increased coal mining activity in the area to provide coal for the plants. Electricity for these plants will be required during the mid to late 1980's.

- 12. By letter dated February 1, 1980, the Department for Natural Resources and Environmental Protection of the Commonwealth of Kentucky recommended that the project be certified as environmentally compatible by the Energy Regulatory Commission with the request that no construction on the plant island grading begin until sufficient retainage capacity has been constructed within the linear settling pond. Big Rivers, during the course of the hearing, reported to the Commission its intent to comply with this request. The Kentucky Department for Natural Resources and Environmental Protection presented testimony in support of the issuance of a Certificate of Environmental Compatibility for the Wilson Station at the public hearing conducted by the Commission on April 8, 1980. Spokesmen for the Department for Natural Resources and Environmental Protection and the Kentucky Department of Energy testified in support of the need for additional generation capacity for Big Rivers and recommended issuance of the certificates.
- 13. The community needs, the industrial development of the area, the customer requirements, and the economics of the facility greatly outweigh any adverse environmental factors, and a Certificate of Environmental Compatibility should be issued.
- 14. Big Rivers' plans for financing the proposed construction are sufficient for purposes of this order, but authorization for financing the proposed construction should be deferred until such time as the source or sources of funds and other terms and conditions are known.

IT IS THEREFORE ORDERED that Big Rivers be and it is hereby granted a Certificate of Convenience and Necessity to proceed

with the construction of the D. B. Wilson Generating Plant with two 395 MW (net) coal fired steam turbine-driven generating units and the associated transmission lines and appurtenant facilities as set forth in the application and record.

IT IS FURTHER ORDERED that Big Rivers be and it is hereby granted a Certificate of Environmental Compatibility for the D.B. Wilson Generating Plant with the associated transmission lines and appurtenant facilities as set forth in the application and record.

IT IS FURTHER ORDERED that Big Rivers motion to amend its application to include authorization for financing be and it is hereby denied.

IT IS FURTHER ORDERED that Big Rivers shall, at such time as the sources of funds, and other terms and conditions are known with reasonable certainty, file with the Commission an application for authorization of financing.

Done at Frankfort, Kentucky, this 17th day of June, 1980.

ENERGY REGULATORY COMMISSION

2/1/

Chairman

Vice Chairman

ATTEST:

Secretary