

ISSUE DATE: February 10, 2000

DOCKET NO. ET-2/CN-99-976

ORDER GRANTING CERTIFICATE OF NEED

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Gregory Scott	Chair
Edward A. Garvey	Commissioner
Joel Jacobs	Commissioner
Marshall Johnson	Commissioner
LeRoy Koppendrayner	Commissioner

In the Matter of the Application of Great River  
Energy for Certification of its Combustion  
Turbine Project in Southern Minnesota

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**PROCEDURAL HISTORY**

**I. Initial Proceedings**

On July 20, 1999 Great River Energy (GRE) filed a certificate of need application for approval to construct an electric generating facility fueled primarily by natural gas. The proposed project will include three gas-fired, simple cycle combustion turbines to meet GRE's peaking needs. This project meets the definition of "large energy facility" pursuant to Minn. Stat. 216B.2421, subd.2(a). GRE is required to obtain a certificate of need prior to siting or construction of a large energy facility under Minn. Stat. 216B.243.

On August 5, 1999 GRE filed a supplement to its application.

On August 6, 1999 the Commission issued an ORDER VARYING TIME DEADLINE. In that Order the Commission varied Minn. Rules, part 7849.0200, subp.5 to extend the period for Commission action on completeness of GRE's application.

On August 27, 1999 the Commission issued an ORDER ACCEPTING FILING AND DELEGATING PREPARATION OF ENVIRONMENTAL REPORT.

On August 27, 1999 the Commission issued a NOTICE AND ORDER FOR HEARING. The Commission referred the matter to the Office of Administrative Hearings, which assigned Administrative Law Judge (ALJ) Allan W. Klein to conduct contested case proceedings.

## **II. Parties and Representatives**

GRE was represented in these proceedings by Michael Bradley of Moss & Barnett, 4800 Norwest Center, 90 South 7th Street, Minneapolis, Minnesota 55402.

The Department of Commerce (the Department) was represented by Ginny Zeller, Assistant Attorney General, 525 Park Street, Suite 500, St. Paul, Minnesota 55103.

Minnesota Power was represented by Christopher D. Anderson, 30 West Superior Street, Duluth, Minnesota 55802.

Lakefield Junction LLP was represented by Nicholas W. Chase of Leonard, Street and Deinard, 150 South Fifth Street, Suite 2300, Minneapolis, Minnesota 55402.

The Department was the only intervening party to file testimony.

## **III. Public and Evidentiary Hearings**

Public and evidentiary hearings were held on November 15, 1999 in Sargeant, Minnesota and on November 22, 1999 in St. Paul, Minnesota. Approximately 22 persons attended the hearings in Sargeant. No public testimony was presented in St. Paul. Some of the public commentators spoke in favor of the project; some raised questions about the environmental impact of the project. The main public concern was regarding the impact of the project's water usage on nearby water wells and water sources. No substantial comments were received challenging the need for the project.

On December 30, 1999 ALJ Allan W. Klein issued his Findings of Fact, Conclusions of Law and Recommendation. ALJ Klein recommended that the Certificate of Need be issued to GRE without condition.

## **IV. Proceedings before the Commission**

The matter came before the Commission for consideration on January 27, 2000.

# **FINDINGS AND CONCLUSIONS**

## **I. Factual Background**

The certificate of need applicant, GRE, is a Minnesota cooperative corporation formed by Cooperative Power and United Power Association.

GRE proposes building a large energy facility in Southern Minnesota consisting of three simple cycle combustion turbine generators. The total summer accredited output will be 434 megawatts (MW). The maximum output in winter will be 526 MW. The combustion turbines will use natural gas as a primary fuel and No. 2 fuel oil as a backup fuel. The natural gas will be transported to the site via Northern Natural Gas' (NNG) underground pipeline. Above ground storage tanks will be built to store approximately 800,000 gallons of No. 2 fuel oil. The fuel oil will be transported to the site by tanker trucks. The water supply will be from new wells on-site if ground water proves sufficient. Otherwise, water supply will be brought in from off-site. Waste water resulting from the water treatment processes of the project will be disposed of by pond storage for treatment and holding before discharge.

The project will require upgrading of some transmission systems, building approximately 6 miles of 161kV transmission lines and rebuilding approximately 17 miles of existing 69kV lines to 161/69kV.

GRE intends to operate the plant as a peaking facility to provide power at wholesale for its 29 member distribution cooperatives. The project is designed to provide a source of electricity to help meet electricity demand during peak consumption periods.

The estimated installed cost of the project is \$190 million. Some of the transmission costs will be shared by GRE, Dairyland Power Cooperative and Southern Minnesota Municipal Power Agency. The projected start date for plant operations is the summer of 2001.

## **II. Certificate of Need Criteria; ALJ 's Findings**

The criteria for granting a certificate of need are set forth in Minn. Stat. § 216B.243 and Minn. Rules, parts 7849.0010 through 7849.0400.

Minn. Rule 7849.0120 sets forth four criteria which must be met in order to establish need for the proposed generating facility. Each of these criteria and some of the ALJ's findings concerning them will be discussed below.

### **A. The probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the neighboring states.**

The ALJ noted that data from Mid-Continent Area Power Pool's (MAPP) April 1998 report<sup>1</sup> depicted Minnesota summer capacity deficits beginning in 2001 and Minnesota winter capacity deficits in 2002. This data is consistent with the capacity and demand information provided in the resource plans of utilities operating wholly or in part in the state of Minnesota.

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<sup>1</sup>April 1998 EIA-411 Report

The ALJ found that the project would be an important source of new capacity for Minnesotans and when combined with other new resources will ensure that Minnesota's demand for electricity is met.

The ALJ found that conservation programs would be unlikely to provide a timely, cost-effective substitute for the type and quantity of electricity capacity or energy provided by the project. In order for GRE to meet the summer 2001 capacity needs, GRE would have to nearly double its demand side management achievements. Since such a program generally takes several years to deliver maximum results, this would not meet the time requirements of this project.

The ALJ further noted that due to capacity deficits beginning in 2001 in Minnesota and within the Mid-Continent Area Power Pool in 2003 purchases from existing facilities would not appear to be available.

The ALJ stated that the project makes efficient use of existing resources. It will utilize existing power lines and utilize NNG's existing pipeline, with a one mile extension required of a 12 inch branch line and a short extension of a 16 inch branch line, as its source of natural gas for its primary fuel source.

**B. A more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record.**

• **Renewable Alternatives to the Proposed Project**

The ALJ found that wind and solar generation were not suitable for a peaking facility because of their intermittent nature. To meet GRE's need to provide 434 MW of accredited capacity by the summer of 2001 would require the installation of over 2,600 MW of wind capacity. To do so could not meet the time constraints of this project and would not be cost effective.

Similarly, hydro power would not be able to meet the proposed project's availability and cost-effectiveness objectives. There is limited hydro power potential capacity in Minnesota and surrounding states.<sup>2</sup> Additional hydro power is available in Manitoba, Canada, however current transmission export capability from Manitoba to Minnesota is in full use. Construction of a transmission line from Manitoba to Minneapolis would cost approximately \$180 million and would be unlikely to be completed by the summer of 2001.

A biomass project would not be cost effective. Comparative costs per kW indicate \$1065 for biomass and \$438 for GRE's project.<sup>3</sup>

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<sup>2</sup> U.S. Department of Energy "U.S. Hydro power Resource for Minnesota", July 1996

<sup>3</sup>U.S. Department of Energy "The Craig and Mann Report" August 1996, pp 33-34

- **Other Alternatives**

The ALJ found that a fuel oil-fired combustion turbine would be much more costly than the proposed project. Neither a natural gas-fired combined cycle facility nor pulverized coal facilities would be suitable for peaking needs. Purchased power would not likely be available at reasonable cost. Customer owned generation would require more than 217 2MW diesel engine generators to meet the same power need as the proposed project. Upgrading GRE's existing resources would not be cost effective and would be limited by technical barriers.

GRE examined other alternatives to the project including fuel cells, pumped storage hydroelectric, compressed air energy storage, battery energy storage and superconducting magnets. The ALJ found that none of these met the project's objectives because they either were not commercially available, would not be cost effective or suitable sites were not available.

The ALJ found that the combined capacity and energy costs of the proposed gas-fired simple cycle facility are substantially lower than any other fossil fuel alternatives.

**C. By a preponderance of the evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the human and socioeconomic environments, including human health.**

The ALJ found that given the projected deficits in electrical energy and generation capacity within Minnesota beginning in 2001, not constructing the project would reduce the reliability of the electrical generation system in Minnesota, particularly during peak periods.

The proposed project, because of newer units with new pollution control equipment, will have a lesser amount of pollutants emitted into the environment than if existing turbine units had to be used to meet peaking demands.

Negative effects include traffic and noise pollution during construction and noise and air emissions during operation. The environmental effects of the project are subject to the permitting activity of various governmental agencies. The primary concern raised by public commentators was the impact of the project's water well on nearby wells and water sources. This issue will be addressed in permit proceedings before the Environmental Quality Board and The Department of Natural Resources.

Socioeconomic benefits include an increase of about \$1.3 million annually in the property taxes paid to Mower County, 75-150 temporary jobs during peak construction and 3-4 full-time equivalent jobs upon completion.

**D. The record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.**

According to the ALJ there was no evidence in the record that the design, construction and operation of the project will fail to comply with relevant policies, rules and regulation of other state and federal agencies and local governments. The issuance of the Certificate of Need will not conflict with any other regulatory requirement.

The ALJ concluded that the requirements of a Certificate of Need as set forth in Minn. Stat. § 216B.243 and Minn Rules, part 7849 have been satisfied.

**III. Commission Analysis**

The certificate of need proceeding was conducted in compliance with relevant Minnesota statutes and rules.

The public participated in a public hearing conducted by the ALJ in Sargeant, Minnesota and had an opportunity to participate in a public hearing in St. Paul, Minnesota. No substantial comments were received challenging the need for the project.

The Department and GRE jointly submitted to the Commission Proposed Findings of Fact, Conclusions of Law and Recommendation reflecting their agreement.

After conducting the public and evidentiary hearings and after examining all testimony and comments the ALJ adopted findings and conclusions which were like in form and substance to the parties' proposed version. The ALJ found that the application substantially conforms to the requirements of the applicable statutes and rules, as interpreted by the Commission, and recommended that the Commission grant the requested Certificate of Need.

Having examined the full record, the Commission agrees with the ALJ that a Certificate of Need for the project proposed by GRE is reasonable and appropriate. The Commission adopts the ALJ's Findings of Fact, Conclusions of Law and Recommendation. The Commission will grant GRE the Certificate of Need, as requested.

**ORDER**

1. The Commission grants GRE a certificate of Need for its Combustion Turbine Project in Southern Minnesota.
2. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar  
Executive Secretary

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