

Date Mailed  
December 22, 1998

BEFORE THE  
PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Madison Gas and Electric Company for Authority to  
Construct and Place in Operation an 83 MW Combustion Turbine 3270-CE-121  
Electric Generating Facility to be Located in Marinette County,  
Wisconsin

**FINDINGS OF FACT, CONCLUSIONS OF LAW,  
CERTIFICATE AND ORDER**

**FINDINGS OF FACT**

**THE COMMISSION FINDS:**

In Advance Plan 7 (docket 05-EP-7) the Public Service Commission of Wisconsin (Commission) approved the utilities' forecast and supply plan for electric generation facilities in Wisconsin for the period 1994 to 2013. Based on the information in dockets 05-EP-7, 05-EI-112 and 05-BE-103, the Commission determined that there was an unmet need for approximately 500 MW of additional power plant capacity. As a result, in September 1997, the Commission determined the Wisconsin utilities had insufficient generating resources planned for construction through the year 2002 and ordered the three eastern Wisconsin utilities to submit updated supply plans to procure needed additional capacity. The Commission concluded, in part, that Madison Gas and Electric Company (MGE) would need to submit a specific plan to meet an identified 100 MW of firm capacity need beyond that covered in its resource plan. The Commission approved on March 10, 1998 the plan of MGE to procure 100 MW of new generation.

1997 Wisconsin Act 204 established timelines for procuring this capacity as new generating sources located in eastern Wisconsin. The new law, effective May 12, 1998, established an accelerated regulatory review and approval process for construction of new electric power plants. This project is intended to meet a portion of that identified need.

Pursuant to the Commission's Notice of Proceeding, Investigation and Hearing, a public hearing was held November 20, 1998, before Examiner Jeffrey Patzke at the Peshtigo Town Hall in the town of Peshtigo, Wisconsin. Persons certified as full parties are listed in Appendix A. Other persons who appeared and testified are listed in the Commission's files.

## **Description of the Proposed Facility**

On August 3, 1998, MGE and Wisconsin Public Service Corporation (WPSC) jointly filed an application with the Commission for a Certificate of Authority (CA) pursuant to Wis. Stat. § 196.49, to construct and place in operation an 83 MW simple cycle combustion turbine (M-34) at WPSC's existing West Marinette Generating Station, located in the town of Peshtigo, Marinette County. The substation currently supports three CT generators (Units M-31, M-32 and M-33) with a combined capacity of 163 MW. Under a Project Construction, Ownership and Operation Agreement executed by MGE and WPSC on August 21, 1998, WPSC will design and construct and maintain the M-34 unit. Upon commercial operation the CT would be sold to MGE. Commercial operation of the proposed turbine is expected to begin in June 2000. MGE will dispatch the turbine according to its needs.

The principal fuel to be burned in the combustion turbine will be natural gas. The backup fuel will be fuel oil. The existing natural gas pipelines that serve the West Marinette Generating Station are adequately sized to serve the proposed combustion turbine.

A 500,000-gallon steel storage tank, measuring approximately 48 feet in diameter and 36 feet high will be installed to store fuel oil. This tank will be placed within an existing lined earthen basin. The basin was sized for the proposed additional tank when the previous combustion turbine was placed at the site. No modifications to the site's existing storm water collection and treatment facilities will be required.

There will be one main step-up transformer added to connect the proposed combustion turbine to the electric transmission system. The power output of the proposed combustion turbine will require some expansion of the substation bus work. No new transmission lines or reconductoring will be needed.

The existing natural gas facilities at the West Marinette Generating Station would remain unchanged. The system consists of two natural gas pipeline services with a regulator station and three fuel oil storage tanks. When the last CT, Unit M-33, was installed the natural gas supply facilities were sized to accommodate an additional CT. The 6-inch parallel natural gas line, installed prior to 1992, and the 8-inch parallel natural gas line, installed in 1992 when M-33 was added, are connected to ANR Pipeline Company's existing 12-inch, interstate high pressure gas transmission line located approximately 6,700 feet east of the site. Both the pressure and capacity requirements can be met by continuing the existing agreement with ANR to maintain an operating pressure of no less than 525 pounds per square inch gauge (psig) at the West Marinette Delivery Point.

## **Site**

The proposed site is a 40-acre parcel of land (SWNE, Section 10, T30N, R23E) that already supports the existing West Marinette Generating Station and substation. The proposed site is located in the town of Peshtigo in Marinette County, approximately 1.5 miles west of the

Marinette city limits. The site is bordered on the south and west by Cleveland Avenue and is approximately one mile south of State Trunk Highway 64.

The project site is zoned industrial. A town of Peshtigo building permit will be applied for prior to construction. Areas adjacent to the site are zoned agricultural. The area in the vicinity of the site is generally undeveloped with a few homes and businesses scattered south and east of the site. One residence is approximately 800 feet to the west with another residence approximately 1,700 feet to the southeast.

There are no known schools, day care centers, hospitals, or nursing homes within one-half mile of the West Marinette site.

The new CT will be constructed within the existing West Marinette site fenced perimeter in the area that was previously developed for future combustion turbine placement. No additional natural gas pipeline or electric transmission line facilities will be required. A new distillate fuel oil storage tank within an existing secondary containment dike will be installed.

The site includes a buffer zone to the west and north of the new facilities.

### **Environmental Impacts**

The M-34 project, constructed and operated as approved and required in this order, can meet all applicable environmental protection requirements and will not have undue adverse impacts in the human and natural environments. Because all construction for this project will take place within the West Marinette Generating Station's property boundaries, the project will not result in any new or additional impacts to the land or resources of the area. Concern was raised regarding the possible loss of a tree buffer to the north of the facility.

Natural vegetation, agricultural lands, wetlands, and wildlife populations would not be affected by this project. All construction would take place on a gravel pad inside the West Marinette Generating Station. No endangered or threatened species would be directly affected by the project. Soil erosion can be controlled using standard erosion control methods. Air quality can be improved during construction by limiting fugitive dust whenever possible. Construction noise may be significant. The entire project would take about 45 weeks to complete.

There is only one potentially significant long-term impact resulting from this project. The noise levels at the nearest residence, which is approximately 800 feet west of the West Marinette Generating Station, are significant. The conclusions found in the 1992 final Environmental Impact Statement (FEIS) underestimated the impact of noise at this location. There is a significant low-frequency component to the noise produced by the existing turbines. These noise levels will increase with the installation of the new turbine. Furthermore, it is likely that the amount of time the turbines are running will increase over time. The most viable option

for dealing with the excessive noise at this location is to purchase the home or move the home to a new location.

The Supplemental Environmental Impact Statement (SEIS) prepared for the project (Exhibit 5) is a detailed statement that fully complies with Wis. Stat. § 1.11. The SEIS, in conjunction with the 1992 FEIS, accurately describes the environmental effects of those portions of the project for which Commission review is required. MGE and WPSC are in the process of obtaining necessary permits and approvals from federal, state and local agencies, such as the Department of Natural Resources, as are set forth in the SEIS.

### **Estimated Cost**

The total estimated capital costs in the application were approximately \$31.4 million. Included in that total was an estimate for construction financing/AFUDC costs of \$2.1 million. That category represents the cost MGE will pay to compensate WPSC for the carrying costs of WPSC's expenditures throughout the construction. The largest expense WPSC will have during construction will be the cost of the turbine.

General Electric, the turbine manufacturer, has moved the construction time slot to an earlier point. This accelerated timing of expenditures means MGE will be paying carrying costs that accrue for a longer time period than originally estimated. This increases the cost of construction financing/AFUDC to \$4.1 million and total project cost to \$33.4 million. The addition of the M-34 unit remains a reasonable economic capacity addition for MGE.

Under a Project Construction, Ownership and Operation Agreement executed by WPSC and MGE on August 21, 1998, WPSC will design and construct the M-34 unit. Upon commercial operation, WPSC will sell the facility to MGE for either cash or a combination of cash and MGE's ownership in the Kewaunee Nuclear Power Plant. This aspect of the project will be decided in a separate docket. Nothing in this decision shall prejudice any decisions in that separate docket.

Application of MGE and WPSC is granted subject to conditions.

## **FINDINGS OF ULTIMATE FACT**

### **THE COMMISSION FINDS:**

1. The 83 MW combustion turbine electric generating facility at WPSC's West Marinette Generating Facility as described in the Findings of Fact and approved in this order, is necessary to satisfy the reasonable needs of the public for an adequate supply of electric energy.

2. The 83 MW combustion turbine is in substantial compliance with the most recent Advance Plan and the decision in dockets 05-EI-112 and 05-BE-103.

3. The design and location of the M-34 combustion turbine at the West Marinette Generating Station are in the public interest based upon individual hardships, engineering, economics, safety, reliability, and environmental factors.

4. The construction and operation of the M-34 combustion turbine at the West Marinette Generating Station, as discussed in the Findings of Fact and as described in the application, FEIS, and SEIS, will not have undue adverse impact on other environmental values such as, but not limited to, ecological balance, public health and welfare, historical sites, geological formations, the aesthetics of land and water, and recreational use.

5. The M-34 combustion turbine at the West Marinette Generating Station will not unreasonably interfere with the orderly land use and development plans for the area.

6. Various permits and approvals are required from other state, federal, and local agencies, as described in the Findings of Fact, the FEIS, and SEIS.

7. Construction of this project can have adverse environmental impact in terms of noise levels affecting the nearest residence, approximately 800 feet west of the West Marinette Generating Facility and possible loss of a tree buffer affecting a property owner, Terry Dolan, to the north of the facility. The applicants will be required to work with the affected property owners to mitigate such impacts.

## **CONCLUSION OF LAW**

### **THE COMMISSION CONCLUDES:**

That it has jurisdiction under Wis. Stat. §§ 1.11, 196.395, 196.49, and Wis. Admin. Code ch. PSC 112 to issue a certificate authorizing MGE and WPSC to purchase, contract, install, and place in operation the facilities described herein, subject to such conditions as are necessary to meet the requirements of these statutes and rules, and that such a certificate should be issued.

## **CERTIFICATE**

### **THE COMMISSION CERTIFIES:**

MGE and WPSC may purchase, construct, install, and place in operation a natural gas-fired, combustion turbine with a capacity of 83 MW and associated facilities, in the town of

Peshtigo, Marinette County, Wisconsin. MGE and WPSC are granted a Certificate of Authority to proceed with construction, subject to the conditions in this order.

## **ORDER**

### **THE COMMISSION ORDERS:**

1. This order shall be effective on the day following the date of mailing to MGE and WPSC.
2. The certificate is valid only if the construction is started within one year of the date in the order.
3. The approved location of the proposed M-34 combustion turbine is the West Marinette Generating Station in the town of Peshtigo, Marinette County, Wisconsin, as described in the Findings of Fact.
4. MGE and WPSC shall make a commitment to preserve the wooded buffer between the West Marinette Generating Station and the land owned by Terry Dolan as described in the Findings of Fact.
5. MGE and WPSC shall work with and offer the owner of the residence located within approximately 800 feet of the West Marinette Generating Station, the fair market value for the purchase of the residence and reasonable costs for moving or any other mutually agreed upon solution.
6. The propriety and approval of the Project Construction, Ownership and Operation Agreement executed by MGE and WPSC on August 21, 1998, whereby WPSC will sell the facility to MGE for either cash or a combination of cash and MGE's ownership in the Kewaunee Nuclear Power Plant, will be determined in a separate docket.
7. MGE and WPSC shall obtain all necessary permits and approvals from all federal, state and local authorities. Copies of those approvals shall be provided to the Commission when they are obtained.
8. MGE and WPSC shall provide the Commission with copies of any and all other final executed agreements related to the construction, operation, or ownership of the M-34 combustion turbine.
9. MGE and WPSC shall submit quarterly progress reports to the Commission, summarizing the status of construction, the status of environmental control activities, and the overall percent of physical completion. Environmental reporting shall include a summary of consultations with the Department of Natural Resources and other agencies associated with the

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issuance of permits. The reports shall list dates, names, and results of each contact and the companies' progress in implementing prescribed environmental protection or control standards. The first report is due for the quarter ending March 31, 1999.

10. MGE and WPSC shall inform the Commission before proceeding with any substantial changes in the design, size, costs, or location of facilities approved in this order.

11. Upon completion of construction, MGE and WPSC shall furnish the Commission with a tabulation of the final costs of the project and explain any variances between the authorized and actual costs.

12. Jurisdiction is retained.

Dated at Madison, Wisconsin, \_\_\_\_\_

By the Commission:

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Lynda L. Dorr  
Secretary to the Commission

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See attached Notice of Appeal Rights

Notice of Appeal Rights

Notice is hereby given that a person aggrieved by the foregoing decision has the right to file a petition for judicial review as provided in Wis. Stat. § 227.53. The petition must be filed within 30 days after the date of mailing of this decision. That date is shown on the first page. If there is no date on the first page, the date of mailing is shown immediately above the signature line. The Public Service Commission of Wisconsin must be named as respondent in the petition for judicial review.

Notice is further given that, if the foregoing decision is an order following a proceeding which is a contested case as defined in Wis. Stat. § 227.01(3), a person aggrieved by the order has the further right to file one petition for rehearing as provided in Wis. Stat. § 227.49. The petition must be filed within 20 days of the date of mailing of this decision.

If this decision is an order after rehearing, a person aggrieved who wishes to appeal must seek judicial review rather than rehearing. A second petition for rehearing is not an option.

This general notice is for the purpose of ensuring compliance with Wis. Stat. § 227.48(2), and does not constitute a conclusion or admission that any particular party or person is necessarily aggrieved or that any particular decision or order is final or judicially reviewable.

Revised 9/28/98

APPENDIX A  
(CONTESTED)

In order to comply with Wis. Stat. § 227.47, the following parties who appeared before the agency are considered parties for purposes of review under Wis. Stat. § 227.53.

Public Service Commission of Wisconsin  
(Not a party but must be served)  
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