

STATE OF IOWA  
DEPARTMENT OF COMMERCE  
UTILITIES BOARD

IN RE:  MIDAMERICAN ENERGY COMPANY	DOCKET NO. RPU-05-4
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**ORDER REQUIRING ADDITIONAL INFORMATION**

(Issued January 4, 2006)

On December 16, 2005, MidAmerican Energy Company (MidAmerican) filed with the Utilities Board (Board) an application for determination of ratemaking principles (Application) pertaining to MidAmerican's proposed 2006-2007 wind power expansion project. The filing is pursuant to Iowa Code § 476.53. MidAmerican states the maximum size of the expansion would be 545 MW, although transmission limitations and the ability to negotiate satisfactory terms with potential vendors may result in a project that would be below the maximum size. In its Application, MidAmerican also seeks approval for a one-year extension of revenue sharing through the year 2012. A stipulation and agreement with the Consumer Advocate Division of the Department of Justice is part of the filing.

MidAmerican asks for expedited review and a Board decision by January 27, 2006, a little more than a month after filing. However, there are significant pieces of information missing from the filing that are necessary for the Board to conduct its review. Because the filing is incomplete, it is unlikely the timetable set by MidAmerican can be met. The Board will move as expeditiously as possible to

complete its statutory responsibilities. MidAmerican can assist in this process by filing comprehensive responses to this order.

While the Board has not completed its initial review of the filing, it will order some additional information to be filed now to expedite the process as much as possible. The Board notes that MidAmerican states in its cover letter and testimony that expedited treatment is necessary because MidAmerican is likely to incur significant project costs after contracts are signed in early 2006. Iowa Code § 476.53(4)(e) only requires that an order setting forth applicable ratemaking principles be issued prior to commencement of construction. The costs MidAmerican references are preconstruction costs and MidAmerican is free to pursue these activities prior to issuance of an order.

Iowa Code § 476.53(4)(c) requires that the Board make two findings before it issues ratemaking principles for a particular generation project. First, the utility must have in effect a Board-approved energy efficiency plan. Second, the utility must demonstrate that it has considered other sources for long-term electric supply and that the facility is reasonable when compared to other feasible alternative sources of supply. Some of the questions the Board will ask directly relate to consideration of other supply sources.

Many of the gaps in MidAmerican's filing are related to the potential impacts the proposed wind power project may have on the bulk power (i.e., combined generation and transmission) system in Iowa and the Upper Midwest. Reliability issues are critical to the delivery of power to all energy consumers, particularly with

some of the known transmission constraints in the region. Electric system reliability impacts the reasonableness of the supply source selected and reliability issues must be adequately addressed before ratemaking principles can be considered.

To adequately address the comparison of supply resources required by the ratemaking principles statute, the following information from MidAmerican is required:

1. In Confidential Exhibit \_\_ (DAC-1), Schedule 3, Footnote 5 states: "This cost does not recognize the inability to dispatch wind energy or the fact that only 20% of the capacity can receive MAPP [Mid-Continent Area Power Pool] accreditation." Explain and provide documentation as to what the wind power cost in cents/kWh would be if the cost recognized the inability to dispatch wind energy and the fact that only approximately 20 percent of the actually installed wind turbine capacity can receive MAPP accreditation.
2. MidAmerican witness Stevens' testimony at pages 15 through 22 (and related exhibits) compares the proposed wind power project with other renewable generation options. Fully explain and document the wind power project in comparison to conventional fuel generation options including, at a minimum, coal and natural gas-fired generation.
3. MidAmerican witness Galloway's testimony at page 11 states that the proposed wind project is expected to be financially beneficial in the early years because of the production tax credits and other revenue streams that more than offset revenue requirements, but in later years this may not be the case and the ratemaking principles established in this proceeding may be

applied. What rate impact does MidAmerican estimate the proposed wind project will have after the revenue freeze expires?

In reviewing proposed new generation projects, transmission system constraints play a major role and have the potential to add millions of dollars in costs if additional transmission must be constructed. The filing does not contain adequate information for even a cursory evaluation of transmission system impacts. The following questions relate to transmission impacts:

4. How will the proposed wind project affect transmission system constraints in and around Iowa? Has MidAmerican conducted any preliminary studies to review the affect on the known transmission constraints in and around Iowa? If so, what are the results of these studies?

5. How will the proposed wind project affect low-cost energy deliverability (generation markets) in the Upper Midwest, including the ability of others to site wind projects in Iowa?

In reviewing the Application and whether it is a reasonable alternative, the Board must determine how the proposed wind project fits into MidAmerican's current resource plan. In addition to filing a copy of its most recent resource plan with supporting generation expansion planning and production costing analyses, MidAmerican is to respond to the following:

6. Explain, in an overall outlook, whether the proposed wind project's capacity is needed to supply the needs of Iowa-jurisdictional retail customers, or if it will primarily be made available on the wholesale market? If

the capacity is not primarily needed for Iowa-jurisdictional retail customers, how will the additional investment in the wind project impact MidAmerican's revenue sharing plan?

7. What are MidAmerican's current plans for addressing the capacity shortfall when the capacity contract with Nebraska Public Power District expires?

MidAmerican proposes a softcap on project costs. The information contained in the filing is insufficient for the Board to evaluate the proposed cap. MidAmerican is to provide the following additional information:

8. Provide specifics of the resource procurement process, including the use and financial impact of middlemen, the length of the wind turbine queue, and whether the potential for future reduction in the federal production tax credit makes it worthwhile to pay to move up in the queue.

MidAmerican's monthly peaks for 2004 ranged from 2,440 MW in April to 3,894 MW in July. Hours other than the peak hour in each month will see lesser and varying amounts of customer demand. Because wind is a variable output generation resource that is more likely to be available during off-peak hours, it likely will have an impact on the use of load following generation and, therefore, reliability.

MidAmerican will be required to respond to the following:

9. Explain how the proposed wind project can be operated reliably. In particular, how will MidAmerican meet the North American Electric Reliability Council (NERC) reliability requirements for the combination of likely

customer loads/supply portfolio availability, including up to 1000 MW of wind during peak (wind) generation periods? Respond to the same question with consideration for the current amount of variable wind output generation in Iowa. Next, provide a response with the addition of wind generation currently planned or under construction in Iowa. Third, provide a response adding the amounts of wind generation currently installed in Minnesota and other portions of the Upper Midwest. Finally, provide a response adding planned or under construction wind generation in Minnesota and the Upper Midwest.

10. What changes in dispatch patterns for generation owned or under contract to MidAmerican will be required to operate the MidAmerican control area reliably with about 900 to 1000 MW of wind generation as part of the total generation mix?

11. What amount of wind capacity can be added before curtailment of wind generation, during times of low demand, would be necessary when there are system and equipment requirements to continue to run conventional generation? If wind generation curtailments (or curtailments of other generating units) will be necessary, what levels of curtailments for each type of generation are expected?

12. How will the additional wind capacity affect the amount of spinning reserves necessary for reliable operation? How much wind generation can be added before spinning reserve requirements are affected?

13. Provide an explanation and analysis of how much wind generation can be added to MidAmerican's generation portfolio (installed capacity plus capacity purchases) before its effect can be detrimental to the reliability and stability of the existing electric system in Iowa (effects on operational integrity of the electric system)?

The Board's review of MidAmerican's Application is continuing and the Board may have additional questions. MidAmerican will be required to provide the additional information within 15 days.

**IT IS THEREFORE ORDERED:**

MidAmerican Energy Company shall provide the information identified in this order within 15 days of the date of this order.

**UTILITIES BOARD**

/s/ John R. Norris

/s/ Diane Munns

ATTEST:

/s/ Judi K. Cooper  
Executive Secretary

/s/ Curtis W. Stamp

Dated at Des Moines, Iowa, this 4<sup>th</sup> day of January, 2006.