

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Ellen Anderson
David C. Boyd
J. Dennis O'Brien
Phyllis A. Reha
Betsy Wergin

Chair
Commissioner
Commissioner
Commissioner
Commissioner

In the Matter of Otter Tail Power Company's
Petition for an Advance Determination of
Prudence for its Big Stone Air Quality Control
System Project

ISSUE DATE: January 23, 2012

DOCKET NO. E-017/M-10-1082

ORDER GRANTING ADVANCE
DETERMINATION OF PRUDENCE AND
SETTING REPORTING
REQUIREMENTS

PROCEDURAL HISTORY

I. Initial Proceedings

On January 14, 2011, Otter Tail Power Company filed a petition under Minn. Stat. § 216B.1695, requesting an advance determination by this Commission that it would be prudent for the Company to install a \$489.4 million air quality control system at its Big Stone Plant near Milbank, South Dakota. As required by the statute, the Company had earlier secured and filed verification from the Minnesota Pollution Control Agency that the project met the minimum statutory criteria to be considered for an advance determination of prudence.¹

On June 1, 2011, after contested issues arose in the course of informal proceedings, the Commission issued an order referring the case to the Office of Administrative Hearings for contested case proceedings.

II. The Parties and Their Representatives

The following parties appeared in this case:

- Otter Tail Power Company, represented by B. Andrew Brown, Amber S. Lee, and Pamela A. Marentette, Dorsey & Whitney.
- Minnesota Department of Commerce, represented by Linda S. Jensen, Assistant Attorney General.

¹ Letter from the Commissioner of the Minnesota Pollution Control Agency, filed in this case on December 1, 2010.

- Minnesota Center for Environmental Advocacy, Izaak Walton League of America – Midwest Office, Fresh Energy, and the Sierra Club (collectively, the Joint Interveners), represented by Elizabeth Goodpaster, Minnesota Center for Environmental Advocacy.

III. Proceedings Before the Administrative Law Judge

The Office of Administrative Hearings assigned Administrative Law Judge (ALJ) Eric L. Lipman to hear the case.

The parties filed direct and rebuttal testimony prior to the opening of evidentiary hearings and initial and reply briefs after the close of evidentiary hearings. The Administrative Law Judge held evidentiary hearings in St. Paul on September 14 and 15, 2011.

IV. Proceedings Before the Commission

On November 10, 2011, the Administrative Law Judge filed his Findings of Fact, Conclusions and Recommendations (the ALJ's Report). The ALJ's Report recommended finding the proposed project prudent, excluding from consideration one component that the Company and the Department agreed to treat as ineligible for consideration under the statute.

On November 21, 2011, the Joint Interveners filed exceptions to the report of the Administrative Law Judge under Minn. Stat. § 14.61 and Minn. Rules, part 7829.2700. On the same date, the Department of Commerce filed a Request for Clarification of the ALJ Report's Memorandum, asking the Commission to adopt the ALJ's findings but not the portion of the accompanying memorandum entitled "Advance Prudence Determinations for Replacement Components."

On December 20, 2011, the Commission heard oral argument from the parties, and the record closed under Minn. Stat. § 14.61, subd. 2.

Having examined the entire record and having heard the arguments of the parties, the Commission makes the following findings, conclusions, and order.

FINDINGS AND CONCLUSIONS

I. Introduction and Background

A. The Advance Determination of Prudence Statute

Minn. Stat. § 216B.1695 establishes a process for Minnesota utilities to use to obtain a determination from this Commission on the prudence of major projects required to bring specific power plants into compliance with state or federal air quality standards. The statutory process is summarized below.

First, a utility cannot file a petition for an advance determination of prudence until the Minnesota Pollution Control Agency has verified that the project would cost Minnesota ratepayers at least

\$10,000,000 and is required either by federal law or by the law of the state in which the power plant is located. The Pollution Control Agency is required to act on requests for verification within 60 days, and during this 60-day period the utility is required to consult with interested stakeholders on the scope of the regulatory, financial, and operational assessments the case requires.

Once the Pollution Control Agency has verified that the project qualifies for an advance determination of its prudence, the utility must file a petition including all the following information:

A. An assessment of all anticipated state and federal environmental regulations related to the production of electricity from the utility's facility subject to the filing, including regulations relating to:

- (1) air pollution by nitrogen oxide and sulphur dioxide, including an assumption that Minnesota will be included in the federal Clean Air Interstate Rule region, hazardous air pollutants, carbon dioxide, particulates, and ozone;
- (2) coal waste; and
- (3) water consumption and water pollution.

B. An assessment of the financial and operational impacts of these pending regulations applicable to the generating facility that is the subject of the filing.

C. A range of regulatory response scenarios relating to these pending regulations, including at least the following:

- (1) the installation of pollution control equipment;
- (2) the benefits of the retirement or repowering of the plant that is the subject of the filing with cleaner fuels considering the costs of complying with state and federal environmental regulations; and
- (3) the use of pollution allowances to achieve compliance.

D. A description of the project.

E. Evidence supporting the project's reasonableness.

F. A discussion of project alternatives.

G. A project implementation schedule.

H. A cost estimate and support for the reasonableness of the estimated cost.

- I. A description of the public utility's efforts to ensure the lowest reasonable costs.

If the Commission determines that the proposed project is prudent, the utility is permitted to begin recovering its costs in the next rate case, although it must still show that project costs are reasonable and necessary and must demonstrate its efforts to ensure the lowest reasonable project costs. The Commission is required to review project costs and is authorized to accept, modify, or reject any of those costs.

II. The Big Stone Plant and the Proposed Air Quality Control Project

The Big Stone Plant is a 475-megawatt, coal-fired facility that began operating in 1975 and is jointly owned by three utilities: Otter Tail, NorthWestern Energy, and Montana-Dakota Utilities Co. It is a cornerstone generating facility for all three utilities.

Otter Tail owns 53.9% of the plant and acts as its operating agent. The plant is Otter Tail's largest baseload generator and provides approximately one-third of the utility's nameplate capacity. Some 27% of the plant's total output goes to serve Minnesota customers.

Under the federal Clean Air Act and its implementing regulations, the South Dakota Department of Environment and Natural Resources must prepare a Regional Haze State Implementation Plan to address visibility impairment in "Class 1" areas of the United States, chiefly national parks and wilderness areas. The agency has completed that plan, which is in the final stages of review by the federal Environmental Protection Agency, and it has promulgated rules to implement it. Those rules set new emission restrictions that will require extensive environmental retrofitting at the Big Stone Plant, if the plant is to continue operating beyond approximately March 2017.²

The new rules set substantially lower emission limits for particulate matter, sulfur dioxide, and nitrogen oxides. They require the following control technologies to meet these emission limits:

- Selective Catalytic Reduction with Separated Overfire Air. This technology provides the highest feasible level of control for nitrogen oxides.
- Semi-Dry Flue Gas Desulfurization. This technology provides the maximum control of sulfur dioxide consistent with reducing visibility impact, given the technologies required to control nitrogen oxides and particulate matter.
- □Baghouse. This technology provides the highest feasible level of control for particulate matter.

Otter Tail proposes to install the above technologies, together with the plant modifications required to accommodate them, beginning in 2012 and ending in 2015, when they would be tied into the plant during a scheduled outage. Total project costs are estimated at \$489.4 million.

² The retrofitting must be completed within five years of federal approval of the state's Regional Haze Implemental Plan. The federal Environmental Protection Agency has substantially completed its review and anticipates final approval around March 29, 2012.

III. Positions of the Parties

A. Otter Tail

Otter Tail argued that it has demonstrated that retrofitting the Big Stone Plant to comply with the South Dakota regional haze rules would be prudent and reasonable. It pointed out that the plant currently provides one-third of its nameplate capacity and contended that, even considering the cost of retrofitting, no other resource or combination of resources could provide comparable levels of continuous, reliable baseload power at comparable cost.

B. The Joint Intervenors

The Joint Intervenors argued that the most prudent response to the South Dakota regional haze rules would be to decommission Big Stone and replace it with one or more natural gas facilities or a combination of wind and natural gas facilities. The Joint Intervenors argued that the regional haze rules present an important opportunity for Otter Tail to reduce its dependence on coal-fired generation and diversify its fuel portfolio.

They also challenged Otter Tail's least-cost analysis, arguing that it failed to update natural gas costs to reflect recent reductions; artificially inflated future, long-term natural gas costs; underestimated future coal costs; failed to adequately account for the cost of the carbon regulation that was likely in the future; undervalued the capacity contribution of wind; and failed to recognize that Big Stone's output and reliability may well deteriorate as the plant ages.

C. The Department of Commerce

The Minnesota Department of Commerce (the Department) argued that Otter Tail has demonstrated that the proposed retrofit would be reasonable and prudent, with the qualification that the baghouse should be excluded from the prudence assessment as ineligible for consideration under the statute. The agency also recommended that the Company file quarterly reports on the Environmental Protection Agency's final decision on the South Dakota regional haze rules and on actual versus estimated project costs.

The Department also argued that the Joint Intervenors' claim that Big Stone could be replaced by natural gas or wind facilities at costs comparable to retrofitting rested on the highly unlikely, simultaneous occurrence of some or all of the following factors:

- sustained low delivered natural gas prices;
- sustained high delivered coal prices;
- implementation of significant carbon costs;
- significant increases in the cost of repowering Big Stone; and
- significant deterioration in Big Stone's operational performance.

The Department did not consider it impossible that some combination of these factors could converge, making shutdown more economic than retrofitting. It considered it far more likely, however, that shutting down Big Stone and adopting the replacement strategies recommended by the Joint Intervenors would lead to high-priced or unreliable power supplies.

IV. The Findings, Conclusions, and Recommendations of the Administrative Law Judge

The Administrative Law Judge found that the proposed project, with the exception of the baghouse component, met the statutory requirements permitting the Commission to examine its prudence in advance of construction.³ After conducting that examination, he found that Otter Tail had demonstrated by a preponderance of the evidence that the proposed project was reasonable and prudent.

He found that retrofitting and continuing to operate the Big Stone Plant was the most reasonable and prudent of the alternatives available for acquiring the power the plant currently provides. And he found that the evidence demonstrated that the costs associated with the project, including post-retrofit operational costs, were the lowest reasonable costs attainable.

He also recommended requiring the Company to file quarterly reports until July 1, 2017 on the status of the Environmental Protection Agency's review of the South Dakota regional haze rules, on the types and amounts of project costs actually incurred, and on any changed circumstances – including new regulatory developments – that would materially affect the cost or installation of the proposed project.

V. Commission Action

The Administrative Law Judge's Report is carefully reasoned, comprehensive, and thorough. The ALJ held two days of evidentiary hearings, reviewed the testimony of some 14 expert witnesses, and examined over 100 exhibits. After the hearings he received initial and reply briefs and proposed findings of fact from all parties. He also received public comments from some 45 individuals, municipalities, and organizations. He formulated 305 findings of fact and conclusions, made findings on all material issues, and made recommendations based on those findings and conclusions.

Having itself examined the record and having considered the report of the Administrative Law Judge, the Commission concurs in his findings, conclusions, and recommendations. The Commission finds that the proposed project meets the statutory conditions permitting a petition for an advance determination of prudence and finds that the project – minus the baghouse component, on which the Commission makes no finding – is prudent under Minn. Stat. § 216B.1695. The Commission will also adopt the reporting requirements recommended by the Administrative Law Judge, to facilitate the ongoing cost review required under Minn. Stat. § 216B.1695, subd. 5.

Finally, the Commission clarifies that it does not adopt either of the two memoranda at the end of the Administrative Law Judge's Report. These memoranda were provided for purposes of orientation and guidance, not as findings, conclusions, or recommendations.

³ He excluded the baghouse from the prudence analysis because the Department and the Company had agreed to treat it as ineligible for analysis under the statute, since Big Stone's existing baghouse complied with the South Dakota regional haze rules.

ORDER

1. The Commission finds that the proposed Big Stone air quality control system project satisfies the conditions required under Minn. Stat. § 216B.1695 for a public utility to petition the Commission for an advance determination of prudence.
2. The Commission finds that the Company has met the requirements of Minn. Stat. § 216B.1695 and has demonstrated the prudence and reasonableness of the proposed Big Stone air quality control system project, as modified to eliminate the baghouse component. The Commission grants the petition for an advance determination of prudence for the project, as modified.
3. Until July 1, 2017, the Company shall file quarterly reports on (a) the status of the United States Environmental Protection Agency's review of the South Dakota Regional Haze Implementation Plan; (b) the types and amounts of project costs actually incurred; and (c) any changed circumstances – including new regulatory developments – that will materially affect the cost or installation of the proposed project.
4. This order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary



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