

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Chair  
Commissioner  
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In the Matter of Minnkota Power Cooperative,  
Inc. and Northern Municipal Power Agency  
2010-2024 Integrated Resource Plan

ISSUE DATE: June 9, 2011

DOCKET NO. ET-6,ET-6132/RP-10-782

ORDER ACCEPTING RESOURCE  
PLAN WITH EXCEPTIONS, ADDING  
REQUIREMENTS, AND SETTING  
FUTURE FILING REQUIREMENTS

**PROCEDURAL HISTORY**

On July 12, 2010, Minnkota Power Cooperative, Inc. (Minnkota) and Northern Municipal Power Agency (NMPA) jointly submitted their current renewable energy objectives filing and their resource plan, pursuant to Minn. Stat. § 216B.2422, covering the period 2010-2024.

On December 29, 2010, the Minnesota Department of Commerce (the Department) filed comments on the resource plan. The Department subsequently filed comments regarding resource planning in general.

On March 16, 2011, the utilities filed reply comments.

On May 12, 2011, the Commission met to consider the matter.

**FINDINGS AND CONCLUSIONS**

**I. Summary of Commission Actions**

In this order the Commission does the following:

- Accepts the utilities' resource plan, but makes no finding regarding the forecast of the amount of energy or capacity the utilities will need to meet their customers' needs.

- Directs the utilities to report annually on the status of the environmental compliance requirements being developed by the federal Environmental Protection Agency (EPA) for the Milton R. Young Generating Station, including but not limited to the EPA's requirements designed to control regional haze.
- Sets the due date and content requirements for the utilities' next resource plan filing.

## II. The Resource Planning Statute

In an effort to provide the electricity demanded by its customers, an electric utility considers both supply and demand. The utility can supply electricity through a combination of generation and power purchases. The utility can also manage its customers' demand by encouraging customers to conserve electricity, or to shift activities requiring electricity to periods when there is less demand on the electric system. A resource plan contains a set of demand-side and supply-side resource options that the utility could use to meet the needs of retail customers throughout the forecast period.<sup>1</sup> A utility considers both the supply-side resources and the demand-side resources together on an equivalent basis. Through the process of creating a resource plan, a utility can identify the least expensive reliable combination of supply- and demand-side resources that will meet the utility's requirements, consistent with state and federal law and public policy.

Any utility serving at least 10,000 customers and capable of generating 100 megawatts (MW) of electricity must file a resource plan.<sup>2</sup> For municipal utilities, cooperatives, or wholesalers, Commission resource plan orders are merely advisory.<sup>3</sup>

Generally, the resource planning statute and rules direct a utility to file biennial reports on (1) the projected need for electricity in its service area over the next 15 years; (2) its plans for meeting projected need; (3) the analytical process used to develop its plans for meeting projected need; and (4) the reasons for adopting the specific resource mix proposed to meet the projected need. These requirements are designed to ensure that utilities making resource decisions give adequate consideration to factors whose public policy importance has grown in recent years, such as the environmental and socioeconomic effect of different resource mixes. The process is designed to encourage participation from the public, other regulatory agencies, and the Commission.

Among the public policies that may be addressed in a resource plan are the following:

- Requirements to use energy from renewable sources (Minn. Stat. § 216B.1691).
- Requirements to establish Conservation Improvement Programs (CIPs) (Minn. Stat. §§ 216B.2401 and 216B.241), including programs that would reduce forecasted demand from retail sales by up to 1.5% (Minn. Stat. § 216B.241, subd. 1c).

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<sup>1</sup> Minn. Stat. § 216B.2422, subd. 1(d).

<sup>2</sup> Minn. Stat. § 216B.2422, subd. 1 and 2. The statute exempts federal power agencies.

<sup>3</sup> Minn. Stat. § 216B.2422, subd. 2.

- Controls on emissions (Minn. Stat. §§ 216B.68 and 216B.688).

By rule, a utility files its resource plan every two years.<sup>4</sup> The utilities' next resource plan filing is currently due on July 1, 2012.

### **III. The Utilities**

Minnkota generates and otherwise acquires electricity which it then transmits to eleven retail electric cooperatives serving areas in northwestern Minnesota and North Dakota. NMPA supplies wholesale electricity to 12 municipal electric utilities in northwestern Minnesota and North Dakota. Together, Minnkota and NMPA serve roughly 125,000 retail customers within a 34,500 square mile service territory.

For many purposes the utilities operate jointly. They have a joint operating agreement, they jointly own transmission facilities, and they jointly participate in the wholesale energy markets operated by the Midwest Independent Transmission System Operator, Inc. (MISO). They also jointly engage in resource planning.

The utilities acquire electricity from the following sources:

- Milton R. Young Station Unit 1, a coal-fueled generator in North Dakota with a capacity of up to 250 MW.
- Milton R. Young Station Unit 2, a coal-fueled generator in North Dakota with 225 MW of capacity dedicated to the utilities, gradually increasing to 445 MW by 2026.
- Coyote Station, a coal-fired generator in North Dakota with a capacity of 128 MW.
- Three separate wind turbine projects.
- A variety of diesel generators.
- A hydroelectric plant in Thief River Falls, Minnesota.
- Hydroelectric plants operated by the U.S. Department of Energy's Western Area Power Administration (WAPA).

The Environmental Protection Agency has ordered Minnkota to take steps to control emissions from the Milton R. Young Station, including emissions that contribute to haze in the region. But the EPA, Minnkota, and the State of North Dakota disagree about the appropriate steps to take. As of the date of the Commission meeting the matter was unresolved.

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<sup>4</sup> See, Minn. Rules, Part 7843.0300, subp. 2.

#### **IV. The Utilities' 2010 Resource Plan**

The utilities developed forecasts of the amount of energy their customers would consume, and the maximum rate at which they would consume it, by combining the load forecasts for the 12 municipal systems within NMPA with Minnkota's load forecast study. Minnkota, in turn, established its forecasts in part by aggregating data from each member cooperative – for example, data about average energy usage per customer. In some instances the cooperatives did not incorporate information from all of their customers into the forecasts, but rather developed data by aggregating information from a sample of customers. In some instances, cooperatives sampled fewer than 30 customers to develop their data.

With respect to residential and small commercial customers – which consume roughly 75% of the energy that Minnkota sells to its customers – Minnkota relies on econometric techniques to forecast energy sales. For example, Minnkota uses regression analysis -- an algorithm for identifying a trend in a collection of data. With respect to its other types of customers, Minnkota identifies no specific methodology for forecasting energy consumption, relying instead on managerial judgment.

Because changes in weather will alter people's demand for energy, the utilities explored both a demand scenario with extremely harsh weather and a demand scenario with unusually mild weather.

The utilities then compared these forecasts to their capacity to meet customer demand. Based on this comparison, the utilities concluded that they would not require additional resources within the 2010-2024 planning period.

The utilities reported on their compliance with various environmental regulations. With respect to emissions, Minnkota reports that it meets all applicable federal and state standards governing particulate emissions. In addition, Minnkota is installing new equipment at the Milton R. Young Station's Units 1 and 2 to reduce both sulfur dioxide and nitrogen oxides.

This analysis leads the utilities to propose the following actions:

- Implement business and conservation programs with a goal of saving 24 million kilowatt-hours (kWh) annually at a target cost of \$0.16/kWh in the first year.
- Install the emissions-control equipment at the Milton R. Young Station.

Finally, the utilities ask the Commission to postpone the date for their next resource plan filing until July 1, 2014. The utilities note that their current resource plan demonstrates that the utilities have no near-term need to acquire new sources of electricity, thereby reducing the urgency to develop a revised plan. Moreover, the utilities argue that a 2014 filing date would enable the utilities to incorporate the results of Minnkota's next load forecast study, due to be completed in late 2013.

#### **V. The Department's Comments**

The Department reviewed the utilities' filings, analyzing the forecasting, the modeling, the assessment of capacity requirements, the analysis of measures for managing customer demand, and

compliance with various public policies pertaining to conservation and environmental concerns. On the basis of this analysis, the Department identified both strengths and weaknesses in the utilities' resource plan.

In particular, the Department identified shortcomings in the plan's forecast of the utilities' future needs for energy and capacity. As noted above, Minnkota established its forecast in part by aggregating data from its member cooperatives, and in some instances, the cooperatives generated their data using samples of fewer than 30 customers. Such small samples may not provide a sufficient basis for generating consistent results, the Department argues. The Department recommends that in their next resource plan filing the utilities consider using alternative regression analyses that would increase the number of observations used in the forecast models.

While the utilities rely on their own judgment in forecasting the amount of energy sold to many types of customers, the Department generally favors the practice of forecasting sales based on econometric analysis. The Department notes with approval the utilities' practice of using econometric techniques to forecast the energy needs of the residential and small commercial customers. Because large commercial customers consume more than 6% of Minnkota's system energy, the Department concludes that these sales are sufficiently large to justify more careful analysis. In the utilities' next resource plan, therefore, the Department recommends that the utilities explore also using econometric techniques to forecast energy sales to large commercial customers.

In the utilities' last resource plan docket, the Department recommended that the utilities take certain steps to improve their analysis and reporting of demand-side resources.<sup>5</sup> In particular, the Department recommended that the utilities coordinate the reporting of Conservation Improvement Programs on behalf of their members.

The Department reports that in 2009 Minnkota gave the Department a draft of its 2009-2012 CIP report. The report estimated that the programs would permit the utilities to avoid capacity expansions of more than four megawatts (MW), avoid the need for more than 29,000 megawatt-hours (MWh) in 2010; and avoid the need for 275,000 MWh over the lifetime of the programs. But the report did not estimate how the utilities' plans would change if the utilities achieved a greater or lesser level of saving in the than expected. Indeed, the utilities subsequently reported that they would not be able to achieve all the savings they had initially projected.

While the Department identifies areas for improvement, the Department concludes that the utilities have demonstrated substantial progress in developing their demand-side management programs. Moreover, the Department notes that the resource plan analysis is most relevant when a utility is confronted with the need to acquire a new source of electricity. In the current case, the resource plan documents that the utilities are unlikely to require additional sources of electricity within the current planning horizon. As a result, the Department proposes that the utilities and the Commission focus on how to improve future resource plans rather than how to revise the current one.

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<sup>5</sup> See *In the Matter of Minnkota Power Cooperative's 2006-2020 Integrated Resource Plan*, Docket No. ET-6,ET-6132/RP-06-977.

If the utilities' next resource plan indicates that the utilities will need to acquire new sources of electricity within the planning period, however, the Department recommends that the utilities provide an analysis of how achieving greater or lower levels of energy or capacity savings would influence the utilities' plans. In the meantime, the Department recommends that in their next resource plan the utilities include the results of their energy savings projects for all years after 2009.

With these conditions, the Department recommends that the Commission accept the utilities' resource plan with the exception of its forecasts. The Department supports the utilities' request to postpone the date of the utilities' next resource plan filing to July 1, 2014.

## **VI. Commission Action**

Having reviewed the record of this proceeding, the Commission generally concurs with the Department's recommendations.

### **A. Plan Forecast**

In the interest of strengthening the utilities' forecast, the Commission will adopt the Department's recommendation and order the utilities to explore changes in the manner in which they prepare their resource plan forecast, including --

- The use of alternative regression analyses to increase the number of observations incorporated into the forecasts, and
- The use of econometric techniques to estimate the sales to large commercial customers.

### **B. Conservation Improvement Programs**

In the interest of expanding the utilities' reporting of Conservation Improvement Programs, the Commission will adopt the Department's recommendation to modify their next resource plan filing to include --

- The results of energy savings programs for all years after 2009, and
- If the plan indicates a need for new sources of electricity, an analysis of how achieving a larger or smaller savings from the Conservation Improvement Programs would alter the need for the new electricity source.

### **C. Environmental Consequences**

In the interest of keeping the Commission apprised of developments regarding emissions from the Milton R. Young Station, and the measures required to control them, the Commission will order the utilities to report annually on the status of environmental compliance measures required by the EPA for the generating station. These include, but are not limited to, requirements to control regional haze under a federal implementation plan.

#### **D. Plan Acceptance**

The Commission finds that the utilities' current resource plan docket has fulfilled its purpose. It has provided a forum for the parties to seek to identify customer needs and the least expensive ways of meeting them, consistent with public policy. Having reviewed the plan's strengths and weaknesses, the Commission concurs that the appropriate course of action is to focus on future plans.

Consequently the Commission will accept the utilities' 2010-2024 resource plan except with respect to the forecast, as discussed above, and will direct parties to focus their attentions on the utilities' next resource plan.

#### **E. Resource Plan Filing Date**

Finally, the parties ask to postpone the date for the utilities to file their next resource plan. That date is established by rule.<sup>6</sup> But the Commission may vary its rules when a) enforcement of the rule would impose an excessive burden, b) varying the rule would not harm the public interest, and c) varying the rule would not conflict with some other law.<sup>7</sup>

In this case the Commission finds that a variance is warranted. Where there is no dispute that the administrative burdens of preparing and analyzing a resource plan would exceed the anticipated benefit, enforcement of the rule requiring a filing by 2012 would be needlessly burdensome. Postponing the filing would promote the public interest by permitting all parties to defer their preparations and analysis until after Minnkota's next load forecast study, an important source of information for developing and analyzing a resource plan. And finally, granting the variance would not conflict with any other provision of law.

Accordingly, the Commission will vary its rules and extend the filing deadline to July 1, 2014.

### **ORDER**

1. The Commission accepts the utilities' resource plan, but neither accepts nor rejects the utilities' forecast.
2. On July 1, 2011, and annually thereafter, the utilities shall report on the status of the federal Environmental Protection Agency's environmental compliance requirements for the Milton R. Young Station, including but not limited to the EPA's regional haze requirements.
3. The Commission varies its rules and authorizes Minnkota and NMPA to file their next resource plan on or before July 1, 2014.
4. In their next resource plan filing, the utilities shall do the following:

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<sup>6</sup> Minn. Rules, part 7843.0300, subp. 2.

<sup>7</sup> Minn. Rules, part 7829.3200.

- A. Explore the use of econometric estimation of sales for the large commercial class.
  - B. Explore the use of alternative regression analyses that will increase the number of observations used in the Joint System's forecast models.
  - C. Include results of energy savings projects for all years after 2009.
  - D. If they find that they need to acquire additional supplies of electricity, provide an analysis of how achieving a larger or smaller savings from their Conservation Improvement Programs would alter the need for the new supply.
5. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar  
Executive Secretary



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