

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Chair
Commissioner
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In the Matter of Xcel Energy's 2011-2025
Integrated Resource Plan

ISSUE DATE: November 30, 2012

DOCKET NO. E-002/RP-10-825

ORDER ESTABLISHING
PROCEDURAL SCHEDULES AND
FILING REQUIREMENTS

PROCEDURAL HISTORY

On August 2, 2010, Northern States Power Company d/b/a Xcel Energy (Xcel) filed a resource plan under Minn. Stat. § 216B.2422 and Minn. R. 7843.0400, subps. 1-4, covering the period 2011-2025.

Since March 31, 2011, the Commission has received written comments from the following:

- Calpine Corporation
- Campus Beyond Coal
- City of Mankato
- Dustin Dension, Applied Energy Innovations
- enXco
- Gerdau Ameristeel Corporation; Flint Hills Resources, LP; and USG Corporation
- Greater Mankato Growth
- Izaak Walton League of America – Midwest Office, Fresh Energy, Sierra Club, and the Minnesota Center for Environmental Advocacy, filing jointly (Environmental Intervenors)
- Minnesota Chamber of Commerce (the Chamber)
- Minnesota Department of Commerce (the Department)
- Prairie Island Indian Community
- Alan Muller
- Carol Overland
- Solar Power Manufactures of Minnesota
- Aladdin Solar, LLC; Applied Energy Innovations; Array Solar; Environment Minnesota; Institute for Local Self Reliance; Living Green Renewables; Minnesota Renewable Energy Society; Minnesota Solar Energy Industries Association; Donna and

Charlie Pickard; Powerfully Green; RREAL; Solar Connection, Inc.; Solar Farm, LLC; Sundial Solar; Sustology; Werner Electric Supply of Minnesota; Winona Renewable Energy, LLC, filing jointly

- University of Minnesota
- Members of the public, including members petitioning in support of solar power

On December 1, 2011, Xcel filed a revised resource plan. Among other things, Xcel proposed cancelling plans that would have added a net 450 megawatts (MW) of generating capacity to the Black Dog Generating Station (Black Dog).¹

On February 8, 2012, Xcel filed corrections to its revised plan.

On June 1, 2012, Xcel proposed in a separate docket, contrary to its resource plan, to phase out Solar*Rewards, a program that subsidizes customer purchases and installation of photovoltaic solar cells.² The Department subsequently directed Xcel to maintain the Solar*Rewards program through 2015, albeit with a smaller incentive per watt.³

On August 13, 2012, Xcel filed reply comments further revising its resource plan. In particular --

- Xcel cited its 2012 Demand-Side Management Market Potential Assessment to support a lower estimate of the savings Xcel could achieve through influencing customer demand for electricity within its Minnesota service area.
- For this and other reasons, Xcel forecast that customer demand for electricity could exceed Xcel's supply by 2016.
- But Xcel proposed to add 400-600 MW of new capacity by 2017-2019 through soliciting proposals from outside parties as provided by Xcel's competitive resource acquisition process.

On October 22, 2012, in a separate docket, Xcel filed comments proposing to discontinue its plans for increasing the generating capacity of the Prairie Island Nuclear Generating Plant (Prairie Island Plant).⁴ Because Xcel's resource plan reflected the assumption that Xcel would have the new capacity from the Prairie Island Plant, this filing effectively revised Xcel's resource plan further.

On October 25, 2012, the Commission received oral arguments from the parties and members of the public.

¹ See Docket No. E-002/CN-11-184, *In the Matter of the Certificate of Need Application for the Black Dog Repowering Project in Burnsville, Minnesota*.

² See Docket No. E,G-002/CIP-12-447, *In the Matter of the Implementation of Northern States Power Company, a Minnesota Corporation's 2013/2014/2015 Triennial Natural Gas and Electric Conservation Improvement Program*.

³ *Id.*, Commerce Commissioner Decision (October 1, 2012), Ordering Paragraph 9.

⁴ See Docket No. E-002/CN-08-509, *In the Matter of the Application of Northern States Power Company d/b/a Xcel Energy for a Certificate of Need for an Extended Power Uprate at the Prairie Island Nuclear Generating Plant*.

On November 1, 2012, the Commission met to consider the matter.

FINDINGS AND CONCLUSIONS

I. Summary

Because recent filings warrant further analysis, the Commission cannot act on Xcel's proposed resource plan at this time. Rather, the Commission establishes a schedule for further developing the record and resolving this docket.

The Commission also establishes schedules and content requirements for four additional filings: a competitive resource acquisition process, a fuel acquisition and risk management plan, a Life Cycle Management Study for Xcel's Sherburne County (Sherco) Generating Station Units 1 and 2, and Xcel's next resource plan.

II. Resource Planning

To reliably 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, and by reducing the amount of electricity lost through transmission and distribution. The utility can 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- and supply-side resource options that the utility could use to meet the forecasted needs of retail customers.⁵

A public utility providing electricity to at least 10,000 customers and capable of generating 100,000 kilowatts of electricity must file a resource plan or report for the Commission's approval, rejection, or modification.⁶ Generally, the resource planning statute and rules direct a utility to file biennial reports on the projected need for electricity in its service territory over the next 15 years; the utility's plans for meeting projected need, including a specific action plan for the next five years; the utility's analytical process to develop its plans; and the utility's reasons for selecting its preferred plan.⁷ In addition, a resource plan should identify the likely effect the plan would have on electric rates and bills.

By integrating the evaluation of supply- and demand-side resource options – treating each resource as a potential substitute for the others – a utility can find the least-cost plan that is consistent with the other legal requirements and policies. These requirements and policies include the following:

⁵ Minn. Stat. § 216B.2422, subd. 1(d).

⁶ Minn. Stat. § 216B.2422, subs. 1 and 4. The statute exempts federal power agencies, and the Commission's findings regarding service providers that are not statutory "public utilities" are merely advisory.

⁷ Minn. Stat. § 216B.2422; Minn. R. Chap. 7843.

- Conservation: Minn. Stat. § 216B.241, subd. 1c(d), effectively requires utilities to reduce gross annual retail energy sales by at least one percent by promoting energy conservation and efficiency. And § 216B.2401 establishes a goal of achieving annual energy savings of 1.5 percent.
- Greenhouse Gas Regulation: Minn. Stat. § 216H.02 establishes a goal of reducing, relative to 2005, the emissions of greenhouse gasses by at least 15 percent by 2015, 30 percent by 2025, and 80 percent by 2050. And § 216H.06 directs the Commission to estimate the cost of complying with future regulation of carbon dioxide (CO₂), a greenhouse gas, and to use this cost for purposes of evaluating resource alternatives. The Commission has approved a range of \$9 to \$34 per ton of CO₂ emitted in 2017 and thereafter.⁸
- Environmental Externalities: In addition to the CO₂ regulatory costs noted above, Minn. Stat. § 216B.2422, subd. 3, directs the Commission, “to the extent practicable, [to] quantify and establish a range of environmental costs associate with each method of electricity generation,” and to use those costs for purposes of comparing resource alternatives.
- Renewable Energy Objectives/Renewable Energy Standards (REO-RES): Minn. Stat. § 216B.1691 directs Xcel to, among other things, use electricity from renewable sources to serve 30 percent of retail customer demand in Minnesota by 2030.⁹ But in any given year if a utility acquires more electricity from renewable sources than it currently needs to meet the statutory requirements, subdivision 4(d) permits the utility to earn *renewable energy credits* (RECs) for the surplus. The utility may then use those credits to demonstrate compliance with the REO-RES in later periods, or sell credits to (or buy credits from) other utilities, subject to conditions.¹⁰
- Renewable Energy and Conservation Scenarios: In addition to the REO-RES, Minn. Stat. § 216B.2422, subd. 2, directs utilities to include in their resource plan filings the least-cost plan for meeting 50 percent of the need for any new or refurbished capacity through a combination of conservation and capacity powered by renewable sources of energy. The statute further directs utilities to include the least-cost plan for meeting 75 percent of this capacity with conservation and renewable energy resources.
- Distributed Generation: Minn. Stat. §§ 216B.169, 216B.243, 216B.1611, 216B.2411, and 216B.2426 encourage utilities to place greater reliance on acquiring electricity from

⁸ See *In the Matter of Establishing an Estimate of the Costs of Future Carbon Dioxide Regulation on Electricity Generation Under Minnesota Statutes § 216H.06*, Docket No. E-999/CI-07-1199, Order Establishing 2012 and 2013 Estimate of Future Carbon Dioxide Regulation Costs (November 2, 2012).

⁹ Minn. Stat. § 216B.1691, subd. 2b. Of the 30 percent in 2020, at least 25 percent must be generated from wind power.

¹⁰ See *In the Matter of a Commission Investigation into a Multi-State Tracking and Trading System for Renewable Energy Credits*, Docket No. E999/CI-04-1616, Order Approving Midwest Renewable Energy Tracking System (MRETS) under Minn. Stat. §216B.1691, Subd. 4(d), and Requiring Utilities to Participate in M-RETS (October 9,2007).

multiple smaller generators distributed throughout the utilities' service areas (distributed generation) and less reliance on large generators located far from customers.

- The Federal Production Tax Credit: A tax credit that subsidizes the generation of electricity from wind power will expire by the end of 2012 unless Congress renews it.¹¹
- Federal Environmental Regulations: The federal Environmental Protection Agency (EPA) had adopted, and is continuing to develop, rules restricting various types of pollution. For example, the EPA recently adopted its Mercury and Air Toxics Standards and other policies designed to control the emissions of mercury (a neurotoxin), sulfur dioxide (a contributor to fine particulate pollution), and nitrogen oxides (a contributor to both particulates and ozone).¹² These policies may cause utilities to choose between retiring certain plants or installing new emissions-controlling equipment.

Finally, a utility not only has the duty to file a resource plan, it has the duty to inform the Commission and other parties of changed circumstances that "may significantly influence the selection of a resource plan."¹³

III. Xcel's Resource Planning Process

In developing its resource plan, Xcel forecasts the amount of energy, and the amount of generating and transmission capacity, needed to meet customer needs. Xcel then evaluates how well its existing supply- and demand-side resources could meet those forecasted needs. On this basis, Xcel estimates its future resource needs – identifying the magnitude of new resources needed, and when those resources would be needed.

Xcel then selects a reference case or base case – that is, a set of supply- and demand-side resources to be evaluated, and against which to compare alternative combinations of supply- and demand-side resources. Using a computer model, Xcel then evaluates how well any given resource plan would perform under a variety of conditions, or scenarios. Xcel varies assumptions about the amount of customer demand; the amount of fuel costs; the cost of complying with environmental regulations, including CO₂ costs; and whether Congress extends the Production Tax Credit.

On this basis, Xcel selects a preferred resource plan. Xcel then subjects this preferred plan to more focused analyses before confirming its plan choice.

¹¹ 26 U.S.C. § 45(d)(1).

¹² See, for example, National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial- Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units, 77 Fed. Reg. 9304 (Feb. 16, 2012), codified at 40 C.F.R. 60 *et seq.* (Mercury and Air Toxics Standards, or MATS).

¹³ Minn. R. 7843.0500, subp. 5.

IV. Xcel's Resource Plan and Five-Year Action Plan

Following its planning process, Xcel initially developed a five-year action plan in which Xcel proposed to do the following:

- Develop a plan to either update or replace Sherco Units 1 and 2, the two oldest coal-powered generators at Xcel's largest plant.
- Retire the coal-powered Units 3 and 4 at the Black Dog Generating Station, and replace their 270 MW of capacity with a new 700 MW natural gas unit in 2016.
- Add more generating capacity, or uprate, the Prairie Island Plant.
- Seek proposals for building up to 250 MW of wind-powered generation in the near term, and plan for an additional 400 MW between 2013-2016 and 500 MW between 2017-2020.
- Expand the amount of electricity it derives from solar power.
- Use demand-side management to reduce energy sales by 1.3 percent, and work with stakeholders to achieve a 1.5 percent reduction.

But Xcel subsequently revised its resource plan to reflect, among other things, slower-than-projected economic growth, a loss of wholesale customers, changes in Xcel's wind procurement strategy, reassessments of Xcel's program for refurbishing Black Dog Units 3 and 4 and the Prairie Island Plant, and the anticipated expiration of the Production Tax Credit. Xcel has revised its five-year action plan and now proposes to do the following:

- Continue developing plans to either update or replace Sherco Units 1 and 2.
- Retire Black Dog Units 1 and 2, but cancel plans to acquire replacement power.
- Reassess the need to complete the uprate of the Prairie Island Plant.
- Reassess the need for more wind-powered electricity.
- Continue its Solar*Rewards program, but with lower subsidies for enrollees.
- Continue to use demand-side management to reduce energy sales by 1.3 percent, and work with stakeholders to achieve a 1.5 percent reduction in the near term, but anticipate reduced savings in the future as Xcel depletes the most cost-effective opportunities for load management and conservation.

While Xcel's initial filing incorporated CO₂ costs into its base case, its revised filings excluded CO₂ costs from the base case. Xcel did, however, consider scenarios that included a range of CO₂ costs.

Based on its new analysis, Xcel now projects that its current supply- and demand-side resources will be sufficient to meet customers' forecasted needs until 2017. Xcel concludes that between 2017 and 2019 it will need to add 400-600 MW of generating capacity – and perhaps more, to offset the capacity that Xcel no longer proposes to add to its Prairie Island Plant.

V. Commission Analysis and Action

A. Xcel's Resource Plan

Parties offer various recommendations about whether the Commission should approve, reject, or modify Xcel's resource plan, including its five-year action plan. The Department, among others, argues that the parties have not had sufficient opportunity to review the multiple changes Xcel has filed. The Department argues, and Xcel agrees, that the Commission's judgment would benefit from additional analysis.

The Commission concurs; the latest developments in Xcel's resource plan require further analysis. Consequently the Commission will decline to act on Xcel's resource plan at this time. Instead, the Commission will direct parties to continue analyzing and developing a resource plan for Xcel – and in particular, to develop the base level of Xcel's resource needs sufficiently to enable the Commission to identify the size, type, and timing of any new resources required.

To this end, the Commission will establish a schedule by which the Department and Xcel must file their analyses based on their revised computer models – incorporating, for example, any changed assumptions regarding the Prairie Island Plant's generating capacity. Other parties will be free to file comments at that time as well. The Commission will receive a final round of comments thereafter.

These steps will provide a suitable foundation for the Commission to render its findings on Xcel's resource plan and close the docket.

B. Additional filings

While the record is not yet sufficient to permit the Commission to act on Xcel's resource plan, it is sufficient to demonstrate the need for further analyses – including analyses that will extend beyond the scope of the current docket. Consequently the Commission will direct Xcel to make three additional filings.

1. Competitive Resource Acquisition Process

Statute authorizes Xcel to invite outside parties to propose means by which Xcel should meet its resource needs.¹⁴ Xcel has established a process for doing so.¹⁵ Under this process when Xcel identifies the need for substantial new sources of generation, Xcel prepares a plan for notifying

¹⁴ Minn. Stat. § 216B.2422. subd. 5.

¹⁵ See generally *In the Matter of Northern States Power Company d/b/a Xcel Energy's Application for Approval of its 2005 - 2019 Resource Plan*, Docket No. E-002/RP-04-1752.

potential resource providers – developers of electric generators, for example -- of the opportunity to file proposals for meeting the need.¹⁶

While aspects of Xcel's resource plan remain unresolved, it is clear that Xcel will need to acquire additional resources to meet customer need. Consequently the Commission will direct Xcel to prepare and file a notice plan for soliciting proposals from outside parties.¹⁷ This filing will coincide with the deadline for parties to file reply comments on Xcel's resource plan.

2. Fuel Acquisition and Risk Management Plan

The Commission will direct Xcel to file by July 1, 2013, a fuel acquisition and risk management plan. Xcel already files an annual fuel procurement plan.¹⁸ But as the Chamber notes, and Xcel acknowledges, Xcel's preferred plan relies heavily on generating electricity with natural gas, a fuel with a history of price volatility. This fact prompts the Chamber to recommend that the Commission direct Xcel to solicit proposals for a 20-year fixed price contract for gas. While that proposal is premature, the Commission finds that the record demonstrates the need for Xcel to explore in greater depth the fuel price risks of its proposed resource plan, and the opportunities and terms available for long-term supply contracts to mitigate those risks.

3. Life Cycle Management Study for Sherco Units 1 and 2

The Commission will direct Xcel to evaluate how best to manage the two oldest generators at its largest power plant, Sherco Units 1 and 2, over the rest of the generators' useful lives. Xcel states that it plans to complete a Life Cycle Management Study for Units 1 and 2 by July 1, 2013, but notes that the scope of the study is still evolving. As part of that study, the Commission will direct Xcel to examine the feasibility and cost-effectiveness of continuing to operate, retrofitting, or retiring these generators, and to file a report which includes the following items:

- a. An analysis of how the cessation of operations at either of the two oldest Sherco generators – whether due to retirement or to install new emissions controls – would affect the reliability of Xcel's entire system.

¹⁶ See, for example, *id.*, Order After Reconsideration Clarifying Filing Requirements, Requiring Notice to Alternative Providers, Setting Deadline for Baseload Proposals, and Accepting Reports (October 18, 2006) at 4-5.

¹⁷ See *In the Matter of the Petition by Northern States Power Company d/b/a Xcel Energy to Initiate a Competitive Resource Acquisition Process*, Docket No. E-002/CN-12-1240, Order Closing Docket, Establishing New Docket, and Schedule for Competitive Resource Acquisition Process (November 21, 2012).

¹⁸ See, for example, E-002/M-02-633, *In the Matter of Northern States Power Company d/b/a Xcel Energy Inc. Petition For Approval of its 2012 Emissions Reduction Project Revenue Requirement and Tracker Balance Report*.

- b. Specific estimates of the cost to install and operate equipment for controlling power plant emissions, and other required investments.
- c. A base case that accounts for all likely EPA regulations, as well as the values this Commission has established for environmental externalities and CO₂ regulatory costs.
- d. Consideration of a wide range of scenarios, including --
 - A range of updated externality values – not merely those adopted by this Commission, but those used by the federal government for regulatory impact analyses;
 - A wide range of fuel prices;
 - Least-cost scenarios to reduce greenhouse gasses relative to 2005 levels by at least 15 percent by 2015, 30 percent by 2025, and 80 percent by 2050;
 - A least-cost plan for replacing 50 percent of the capacity of Sherco Units 1 and 2 through a combination of conservation and capacity powered by renewable sources of energy; and
 - A least-cost plan for replacing 75 percent of the capacity of Sherco Units 1 and 2 through a combination of conservation and capacity powered by renewable sources of energy.

As this report is prepared, interested parties must have the opportunity to intervene, conduct discovery, and provide comment. Participation by interested and knowledgeable parties will help ensure that the broadest range of factors is considered.

C. Xcel's Next Resource Plan

Consistent with the request of various parties, the Commission finds it reasonable to set the date for Xcel's next resource plan filing at February 1, 2014. This should provide Xcel with sufficient time to analyze the relevant issues, and to prepare the filing in the manner prescribed by the Legislature and the Commission. In particular, the Commission will direct Xcel to include the following items:

First, Xcel should include scenarios exploring whether Xcel can achieve higher levels of cost-effective and feasible demand response, as recommended by parties ranging from the Chamber to the Environmental Intervenors. Demand response programs are designed to reduce the consumption of electricity during periods of high system usage. The percentage of customers that participate in these programs varies from utility to utility. Xcel's current plan assumes that Xcel will continue to enroll customers into these programs at its current rate. But the Environmental Intervenors cite Xcel's 2012 Demand-Side Management Market Potential Assessment for the proposition that Xcel could, with reasonable effort, achieve participation rates in these programs that would be among the top 25 percent in the nation. This strategy may help Xcel meet customer demand – especially in 2017-2019, when Xcel anticipates needing additional resources.

Second, Xcel should include a reevaluation of its decision to acquire new sources of wind-powered electricity. Xcel had initially proposed to add 100 MW of wind-powered generation in 2015 or 2016, but is now reconsidering this plan. The Chamber opposes the purchase of new wind power as uneconomic in the current environment, whereas the Department's analysis still favors the acquisition of more wind power in that timeframe. The Commission notes that Xcel's current portfolio of wind-powered generators and renewable energy credits mean that Xcel currently has no regulatory compliance need for more electricity from wind power. And given the uncertainty surrounding greenhouse gas regulations and the extension of the federal production tax credits, the Commission finds that Xcel is justified in reconsidering its wind power acquisition strategy.

Third, Xcel should evaluate the costs, benefits, and effects of including higher levels of distributed generation. The Chamber recommends that Xcel evaluate industrial-sized distributed generation and generators that produce both power and heating. The Environmental Intervenors recommend that Xcel evaluate utility-scale solar power. The Commission concurs on both counts. Distributed generation has the prospect of increasing system reliability, reducing transmission congestion, exploiting efficiencies through coordination with customer-owned facilities, and reducing emissions. Larger distributed generation projects hold the possibility of achieving these benefits combined with economies of scale.

Fourth, Xcel should include a comprehensive section on all EPA rules that may affect Xcel's operations. Recent changes may have substantial consequences for Xcel's resource choices.

Finally, Xcel should comply with the various requirements for resource plans. For planning purposes, Xcel should develop its base case scenario assuming that Xcel will incur \$9 to \$34 per ton of CO₂ emitted, beginning in 2017. Xcel omitted this factor from the base case of its revised resource plan. While this choice did not alter the results of Xcel's analysis in this case, prospectively the Commission expects Xcel to incorporate these regulatory costs into its base case for purposes of comparing potential resources.

Similarly, Xcel should comply with the requirements of Minn. Stat. § 216B.2422 to include least-cost 50 percent and 75 percent renewables and conservation scenarios for all new and refurbished capacity. Xcel should provide least-cost scenarios to reduce greenhouse gasses relative to 2005 levels by at least 15 percent by 2015, 30 percent by 2025, and 80 percent by 2050, consistent with the state's greenhouse gas goals set forth in Minn. Stat. § 216H.02.

And, as noted above, Minn. R. 7843.0400, subp. 4, requires a resource plan to identify the likely effect on electric rates and bills if the utility implements its preferred plan. The Commission expects Xcel to work with interested parties on identifying useful ways to measure these likely effects on rates and bills, and to incorporate these measures into Xcel's resource plan filing.

ORDER

1. With respect to the current docket, the Commission establishes the following procedural schedule:

- December 18, 2012: Deadline to file comments. The Department and Xcel shall file any final revisions to their models and analysis.
 - January 16, 2013: Deadline to file reply comments.
 - February 2013: Commission action and docket closure.
2. By January 16, 2013, Xcel shall file a notice plan for soliciting bids as part of Xcel's competitive resource acquisition process, as provided in *In the Matter of the Petition by Northern States Power Company d/b/a Xcel Energy to Initiate a Competitive Resource Acquisition Process*, Docket No. E-002/CN-12-1240, Order Closing Docket, Establishing New Docket, and Schedule for Competitive Resource Acquisition Process (November 21, 2012).
 3. By July 1, 2013, Xcel shall file a fuel acquisition and risk management plan.
 4. By July 1, 2013, Xcel shall submit a Sherco Life Cycle Management Study that examines the feasibility and cost-effectiveness of continuing to operate, retrofitting, or retiring Sherburne County (Sherco) Generating Station Units 1 and 2. Procedurally, interested parties shall have the opportunity to intervene, conduct discovery, and comment. Substantively, the study shall include --
 - A. Specific cost estimates of controls and other required investments.
 - B. An analysis of how a temporary or permanent outage at either Sherco Units 1 or 2 would affect system reliability.
 - C. A base case that includes Commission-adopted carbon dioxide (CO₂) costs and externality values.
 - D. A base case that accounts for all likely federal Environmental Protection Agency (EPA) regulations.
 - E. Analysis of scenarios that include the following:
 - A range of updated externality values based on those used by this Commission and the federal government for regulatory impact analyses.
 - A wide range of fuel prices.
 - Least-cost scenarios to reduce greenhouse gasses relative to 2005 levels by at least 15 percent by 2015, 30 percent by 2025, and 80 percent by 2050.
 - A least-cost plan for replacing 50 percent of the capacity of Sherco Units 1 and 2 through a combination of conservation and capacity powered by renewable sources of energy

- A least-cost plan for replacing 75 percent of the capacity of Sherco Units 1 and 2 through a combination of conservation and capacity powered by renewable sources of energy.
5. By February 1, 2014, Xcel shall file its next resource plan.
- A. In preparing this plan, Xcel shall do the following:
- Consider the goal of achieving participation rates for demand response programs in the top 25 percent of such programs nationwide, as addressed in Xcel's 2012 Demand-Side Management Market Potential Assessment, to help meet projected demand in the 2017-2019 timeframe.
 - Reassess acquiring new wind generation for the 2015-2016 timeframe.
 - Evaluate the costs, benefits, and effects of including higher levels of distributed generation, including industrial-sized distributed generation, utility-scale solar, and combined heat and power.
 - Work with interested parties to identify useful ways to estimate how implementing Xcel's preferred resource plan would affect customer rates and bills, and incorporate those estimates into the resource plan filing.
- B. In the plan, Xcel shall include the following:
- Scenarios that evaluate higher levels of cost-effective and feasible demand response capability.
 - A base case with CO₂ values consistent with the Commission-approved range of \$9 to \$34 per ton beginning in 2017.
 - Least-cost scenarios to reduce greenhouse gasses relative to 2005 levels by at least 15 percent by 2015, 30 percent by 2025, and 80 percent by 2050.
 - An assessment of Xcel's prospects for acquiring more electricity generated by wind power.
 - A least-cost scenario for meeting 50 percent of the need for any new or refurbished capacity through a combination of conservation and capacity powered by renewable energy, and a least-cost scenario for meeting 75 percent of this need through conservation and renewable sources, consistent with Minn. Stat. § 216B.2422.
 - A comprehensive section on all EPA rules which may affect Xcel's operations.

6. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION

Burl W. Haar
Executive Secretary



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