

Steve Rakow

Minnesota Department of Commerce
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St. Paul, MN 55101-2145

Professional Background

1996 to present Public Utilities Analyst Coordinator • Minnesota Department of Commerce. Analyze resource plans, certificates of need, and miscellaneous public policy issues. Testify before the Minnesota Public Utilities Commission in contested-case proceedings. A list of related filings analyzed and testimony presented is included below.

1999 to 2005 Board of Governors • MinforMed, L.L.C. Wrote portions of and advised on the economic and business sections of several grant proposals and the 2002 business plan. Named to Board of Directors, March, 2000.

1995 Instructor • University of Nebraska-Omaha. Taught Principles of Macroeconomics.

1993 to 1994 Instructor and Academic Assistant to the Rector • Concordia International University-Estonia. Taught Introduction to Economics. Wrote Student Handbook and Faculty Introduction to Tallinn Handbook.

1993 Instructor • Concordia University-Nebraska. Taught Principles of Microeconomics.

1989 to 1993 Graduate Teaching Assistant • University of Nebraska. Taught Introduction to Economics, Principles of Microeconomics, Principles of Macroeconomics, Current Economic Issues and Intermediate Macroeconomics. Specialized in public policy, economic history and comparative economics.

Education

Doctor of Philosophy, Economics, University of Nebraska, December 1994

Master of Arts, Economics, Mankato State University, March 1989

Bachelor of Arts, Economics, Moorhead State University, May 1987

Bachelor of Science, Accounting, Moorhead State University, May 1987

Testimony in Contested Case Proceedings

Docket No.	Company	Description	Subjects
G002/GR-21-678	Xcel Energy	Rate Case	Sales to Electric Generators
E002, ET6675/CN-17-184	Xcel Energy, ITC Midwest	Huntley-Wilmarth 345 kV	Need
E015/AI-17-568	Minnesota Power	Nemadji Trail CC	Resource Plan, Contracts
E015/GR-16-664	Minnesota Power	Rate Case	Avoided Cost, Terms of Service
E015/CN-12-1163	Minnesota Power	Manitoba-Minnesota 500 kV	Alternatives, Policy
ET6675/CN-12-1053	ITC Midwest	Minnesota-Iowa 345 kV (MVP3)	Alternatives, Policy
E002/CN-12-1240	Xcel Energy	Competitive Resource Acquisition	Alternatives
E002/CN-12-113	Xcel Energy	Hollydale 115 kV	Alternatives, Policy
E017/M-10-1082	Otter Tail	Big Stone AQCS	Alternatives
E017/GR-10-239	Otter Tail	Rate Case	Big Stone II Background
E015/PA-09-526	Minnesota Power	Purchase DC Line	Alternatives
E002/CN-08-510	Xcel Energy	Prairie Island ISFSI	Planning, Alternatives, Policy
E002/CN-08-509	Xcel Energy	Prairie Island EPU	Planning, Alternatives, Policy
E002/CN-08-185	Xcel Energy	Monticello EPU	Planning, Alternatives, Policy
E002, ET2/CN-06-1115	Xcel Energy , GRE	CapX 161/230/345 kV	Planning Background, Alternatives, Policy
E002, ET3/CN-04-1176	Xcel, Dairyland	Chisago-Apple R. 115/161 kV	Planning Background, Alternatives, Policy
E017 et al/ CN-05-619	Otter Tail Power, et al	Big Stone-Morris 230 kV Big Stone-Granite Falls 345 kV	Planning Background, Alternatives, Policy
E002/CN-05-123	Xcel Energy	Monticello ISFSI	Planning Background, Alternatives, Policy
E002/CN-04-76	Xcel Energy	Blue Lake CT	Alternatives
IP6339/CN-03-1841	Trimont LLC	Trimont Wind	Settlement-Alternatives
E001/GR-03-767	Interstate Power	Rate Case	Rate of Return
IP6202/CN-02-2006	MMPA	Faribault CC	Settlement, Environmental Report
ET2/CN-02-536	GRE	Plymouth-Maple Gr. 115 kV	Forecasting
E002/CN-01-1958	Xcel Energy	SW Minn. 115/161/345 kV	Forecasting
PL9/CN-01-1092	Lakehead	Clearbrook-Superior Pipeline	Alternatives, Social Consequences
E002/CN-99-1815	Northern States Power	Black Dog CC	Alternatives, Forecasting
ET2/CN-99-976	GRE	Pleasant Valley CT	Forecasting, Environmental Report, Social Consequences
IP3/CN-98-1453	Tenaska, NRG	Lakefield Junction CT	Alternatives, Environmental Report, Social Consequences
PL9/CN-98-327	Lakehead	Clearbrook-Donaldson Pipeline	Alternatives, Social Consequences

Comments in Planning and Resource Acquisition Proceedings

Docket No.	Company	Type	Subjects
E017/RP-21-339	Otter Tail Power	Resource Plan	Astoria Dual Fuel
ET2/GS-22-122	Great River Energy	Generation Siting	CN Requirements
E015/RP-21-33	Minnesota Power	Resource Plan	Forecast, Policy
IP7014/CN-19-486	Red Rock Solar	Need -Solar	All Areas
IP7013/CN-19-408	Big Bend Wind	Need-Wind	All Areas
E002/M-20-891	Xcel Energy	Acquisition-Sherco Solar	All Areas
IP7053/CN-21-112	Hayward Solar	Need-Wind	All Areas
E002/CN-08-510	Xcel Energy	Need-Cask Bidding	All Areas
E999/CI-19-704	All Electric	Baseload Dispatch	All Areas
IP7041/CN-20-764	Byron Solar	Acquisition-Solar	All Areas
E002/M-20-844	Otter Tail Power	Acquisition-Solar	Modeling
E002/M-20-806	Xcel Energy	Acquisition-Wind	All Areas
E002/M-20-620	Xcel Energy	Acquisition-Wind	Modeling
E002/AI-19-810	Xcel Energy	Acquisition-Wind	Economics
E002/RP-19-368	Xcel Energy	Resource Plan	Modeling
E999/CI-19-704	All Utilities	Dispatch-Coal	All Areas
E002/M-19-809	Xcel Energy	Dispatch-Coal	Economics
IP7026/CN-20-269	Walleye Wind	Need-Wind	Exemption
E002/M-19-268	Xcel Energy	Acquisition-Wind	All Areas
E002/PA-19-553	Xcel Energy	Acquisition-Wind	Modeling
E002/PA-18-702	Xcel Energy	Acquisition-Gas CC	Economics
E015/M-18-600	Minnesota Power	Acquisition-Wind	All Areas
E015/M-18-545	Minnesota Power	Acquisition-Wind	All Areas
IP6964/CN-16-289	Nobles 2 Power	Need-Wind	All Areas
ET9/RP-17-753	SMMPA	Resource Plan	Modeling
E002/M-17-551	Xcel Energy	Termination-Biomass	Economics
E002/M-17-532	Xcel Energy	Acquisition-RDF	Economics
E002/M-17-531	Xcel Energy	Termination-Landfill	Economics
E002/M-17-530	Xcel Energy	Termination-Biomass	Economics
IP6981/CN-17-306	Dodge County Wind	Need-Wind	Exemption
ET2/RP-17-286	Great River Energy	Resource Plan	Supply
E002/M-16-777	Xcel Energy	Acquisition-Wind	Economics
ET10/RP-16-509	Missouri River	Resource Plan	Modeling
E017/RP-16-386	Otter Tail Power	Resource Plan	Modeling
E002/M-16-209	Xcel Energy	Acquisition-Wind	Economics
E002/M-15-962	Xcel Energy	Distribution Plan	All Areas
E015/RP-15-690	Minnesota Power	Resource Plan	Modeling
E002/M-15-330	Xcel Energy	Acquisition-Solar	All Areas
E002/RP-15-21	Xcel Energy	Resource Plan	Modeling
E015/M-14-926	Minnesota Power	Acquisition-Hydro	All Areas

Docket No.	Company	Type	Subjects
E015/M-14-960	Minnesota Power	Acquisition-Hydro	All Areas
E002/M-14-162	Xcel Energy	Acquisition-Solar	Modeling
ET6/RP-14-536	Minnkota	Resource Plan	Forecasting
E001/RP-14-77	Interstate Power	Resource Plan	Modeling
E015/RP-13-53	Minnesota Power	Resource Plan	Modeling
E015/M-12-1349	Minnesota Power	Acquisition-Biomass	Modeling
ET2/CN-12-1235	Great River Energy	Need-Transmission	All Areas
ET3/RP-11-918	Dairyland	Resource Plan	Supply
E002, ET2/CN-11-826	Xcel Energy, GRE	Need-Transmission	Alternatives, Policy
ET6133/RP-11-771	MMPA	Resource Plan	Supply
IP6853, IP6866/CN-11-471	Black Oak & Getty	Need-Wind	All Areas
E999/M-11-445	All Utilities	Transmission Plan	All Areas
E002/CN-11-332	Xcel Energy	Need-Transmission	Alternatives, Policy
E002/RP-10-825	Xcel Energy	Resource Plan	Modeling
ET6/RP-10-782	Minnkota	Resource Plan	Modeling
E002/CN-10-694	Xcel Energy	Need-Transmission	Alternatives, Policy
E017/RP-10-0623	Otter Tail Power	Baseload Study	Modeling
E017/RP-10-0623	Otter Tail Power	Resource Plan	Modeling
E002/M-10-0486	Xcel Energy	Acquisition-Digester	Modeling
ET6838/CN-10-0080	Geronimo Wind	Need-Wind	All Areas
E002/CN-09-1390	Xcel Energy	Need-Transmission	Alternatives, Policy
E015/RP-09-1088	Minnesota Power	Baseload Study	Modeling
IP6701/CN-09-1186	National Wind	Need-Wind	All Areas
IP6830/CN-09-1110	Geronimo Wind	Need-Wind	All Areas
E015/RP-09-1088	Minnesota Power	Resource Plan	Modeling
E002/M-09-0821	Xcel Energy	Acquisition-Biomass	Modeling
E999/M-09-0602	All Utilities	Transmission Plan	All Areas
ET9/RP-09-0536	SMMPA	Resource Plan	Modeling
E015/PA-09-0526	Minnesota Power	Acquisition-Transmission	Need, Alternatives
E002/CN-08-0992	Xcel Energy	Need-Transmission	All Areas
IP6688/CN-08-0961	EcoHarmony Wind	Need-Wind	All Areas
ET6125/RP-08-0846	Basin	Resource Plan	Supply
ET2/RP-08-0784	Great River Energy	Resource Plan	Supply
E001/RP-08-0673	Interstate Power	Resource Plan	Modeling
E002/RP-07-1572	Xcel Energy	Resource Plan	Modeling, Nuclear
E017 et al/CN-07-1222	MP, OTP, Minnkota	Need-Transmission	Alternatives, Policy
E999/M-07-1028	All Utilities	Transmission Plan	All Areas
E017/CN-06-0677	Otter Tail	Need-Transmission	All Areas
ET9/RP-06-0605	SMMPA	Resource Plan	Supply
E001/RP-05-2029	Interstate Power	Resource Plan	Supply
E999/TL-05-1739	GRE, MP	Need-Transmission	All Areas

Docket No.	Company	Type	Subjects
E999/TL-05-1739	All Utilities	Transmission Plan	All Areas
ET10/RP-05-1102	Missouri River	Resource Plan	Modeling
ET2/RP-05-1100	Great River Energy	Resource Plan	Supply
E017/RP-05-0968	Otter Tail Power	Resource Plan	Supply
E002/RP-04-1752	Xcel Energy	Resource Plan	Modeling, Bids
E015/RP-04-0865	Minnesota Power	Resource Plan	DSM, Supply
E002/M-04-0091	Xcel Energy	Acquisition-Biomass	All Areas
E999/TL-03-1752	All Utilities	Transmission Plan	All Areas
ET2/RP-03-0974	Great River Energy	Resource Plan	DSM
E002/M-03-0547	Xcel Energy	Acquisition-Hydro	All Areas
E002/RP-02-2065	Xcel Energy	Resource Plan	DSM, Nuclear
ET6/RP-02-1145	Minnkota	Resource Plan	Forecast, Contingency
E999/TL-01-0961	All Utilities	Transmission Plan	All Areas
ET2/RP-01-0160	Great River Energy	Resource Plan	DSM
ET3/RP-00-1619	Dairyland	Resource Plan	All Areas
ET9/RP-00-0863	SMMPA	Resource Plan	Forecasting
E002/RP-00-0787	Xcel Energy	Resource Plan	DSM, Nuclear
E015/RP-99-1543	Minnesota Power	Resource Plan	DSM, Forecast
E017/RP-99-0909	Otter Tail Power	Resource Plan	Rate Design
ET10/RP-98-0938	Missouri River	Resource Plan	Supply, Rate Design
ET2,3/RP-98-0366	CPA/Dairyland	Resource Plan	Supply
E002/RP-98-0032	NSP	Resource Plan	Supply, Nuclear
E015/RP-97-1545	Minnesota Power	Resource Plan	DSM
E001/RP-97-0955	Interstate Power	Resource Plan	Supply
ET9/RP-97-0954	SMMPA	Resource Plan	Forecasting
ET7/RP-97-0001	United Power	Resource Plan	DSM

Rules and Statutes Addressed in Testimony

Statute or Rule Citation	Notes	Witness
<p>7855.0120 CRITERIA. A certificate of need shall be granted to the applicant if it is determined that:</p>		
<p>A. the probable direct or indirect result of denial would be an adverse effect upon the future adequacy, reliability, safety, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states, considering:</p>		
<p>(1) the accuracy of the applicant's forecast of demand for the energy or service that would be supplied by the proposed facility;</p>		Shah
<p>(2) the effects of existing or expected conservation programs of the applicant, the state government, or the federal government;</p>	EnCompass Modeling	Rakow
<p>(3) the effects of promotional practices in creating a need for the proposed facility, particularly promotional practices that have occurred since 1974;</p>		Winner
<p>(4) the ability of current facilities and planned facilities not requiring certificates of need to meet the future demand; and</p>	EnCompass Modeling	Rakow
<p>(5) the effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources;</p>	addressed in Environmental Impact Statement	None (EERA)
<p>B. a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record by parties or persons other than the applicant, considering:</p>		
<p>(1) the appropriateness of the size, the type, and the timing of the proposed facility compared to those of reasonable alternatives;</p>	<ul style="list-style-type: none"> ● Generation Alternatives--Rakow; & ● Storage Alternatives--Winner. 	Rakow & Winner
<p>(2) the cost of the proposed facility and the cost of energy to be supplied by the proposed facility compared to the costs of reasonable alternatives and the cost of energy that would be supplied by reasonable alternatives;</p>	<ul style="list-style-type: none"> ● Generation Alternatives--Rakow; & ● Storage Alternatives--Winner. 	Rakow & Winner
<p>(3) the effects of the proposed facility upon the natural and socioeconomic environments compared to the effects of reasonable alternatives; and</p>	<ul style="list-style-type: none"> ● Generation Alternatives--Rakow; & ● Storage Alternatives--Winner. 	Rakow & Winner
<p>(4) the expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives;</p>		None
<p>C. it has been demonstrated by a preponderance of the evidence on the record that the consequences of granting the certificate of need for the proposed facility, or a suitable modification thereof, are more favorable to society than the consequences of denying the certificate, considering:</p>		
<p>(1) the relationship of the proposed facility, or a suitable modification thereof, to overall state energy needs;</p>		Shah

Rules and Statutes Addressed in Testimony

Statute or Rule Citation	Notes	Witness
(2) the effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility;	addressed in Environmental Impact Statement	None (EERA)
(3) the effects of the proposed facility, or a suitable modification thereof, in inducing future development; and	addressed in Environmental Impact Statement	None (EERA)
(4) the socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality; and	addressed in Environmental Impact Statement	None (EERA)
D. that it has not been demonstrated on the record that the design, construction, operation, or retirement of the proposed facility will fail to comply with those relevant policies, rules, and regulations of other state and federal agencies and local governments.		Winner
Minnesota Statutes § 216B.243 Subd. 3b Any certificate of need for additional storage of spent nuclear fuel for a facility seeking a license extension shall address the impacts of continued operations over the period for which approval is sought.	EnCompass Modeling	Rakow
Minnesota Statutes § 216B.243 Subd. 3 & Subd. 3 (8) Subd. 3: No proposed large energy facility shall be certified for construction unless the applicant can show that demand for electricity cannot be met more cost effectively through energy conservation and load-management measures ... Subd. 3 (8): any feasible combination of energy conservation improvements, required under section 216B.241, that can (i) replace part or all of the energy to be provided by the proposed facility, and (ii) compete with it economically	EnCompass Modeling	Rakow
Minnesota Statutes § 216B.243 subd. 3 (9) with respect to a high-voltage transmission line, the benefits of enhanced regional reliability, access, or deliverability to the extent these factors improve the robustness of the transmission system or lower costs for electric consumers in Minnesota	this statute does not apply	None

Rules and Statutes Addressed in Testimony

Statute or Rule Citation	Notes	Witness
<p>Minnesota Statutes §§ 216B.243 subd. 3a & 216B.2422, subd. 4 The commission may not issue a certificate of need under this section for a large energy facility that generates electric power by means of a nonrenewable energy source, or that transmits electric power generated by means of a nonrenewable energy source, unless the applicant for the certificate has demonstrated to the commission's satisfaction that it has explored the possibility of generating power by means of renewable energy sources and has demonstrated that the alternative selected is less expensive (including environmental costs) than power generated by a renewable energy source. For purposes of this subdivision, "renewable energy source" includes hydro, wind, solar, and geothermal energy and the use of trees or other vegetation as fuel.</p>	EnCompass Modeling	Rakow
<p>Minnesota Statutes § 216B.2426 The Commission shall ensure that opportunities for the installation of distributed generation, as that term is defined in section 216B.169, subdivision 1, paragraph (c), are considered</p>	EnCompass Modeling	Rakow
<p>Minnesota Statutes § 216B.1694, subd. 2 (a) (4) An innovative energy project...shall, prior to the approval by the commission of any arrangement to build or expand a fossil-fueled generation facility, or to enter into an agreement to purchase capacity or energy from such a facility for a term exceeding five years, be considered as a supply option for the generation facility, and the commission shall ensure such consideration and take any action with respect to such supply proposal that it deems to be in the best interest of ratepayers;</p>	this statute does not apply	None
<p>Minnesota Statutes § 216B.243 subd. 3 (10) Compliance with § 216B.1691 whether the applicant or applicants are in compliance with applicable provisions of sections 216B.1691 and 216B.2425, subdivision 7...</p>	RES Compliance	Winner
<p>Minnesota Statutes § 216B.243, subd. 3 (12) if the applicant is proposing a nonrenewable generating plant, the applicant's assessment of the risk of environmental costs and regulation on that proposed facility over the expected useful life of the plant, including a proposed means of allocating costs associated with that risk</p>		Winner
<p>Minnesota Statutes § 216B.243, subd. 3 (10) Compliance with § 216B.2425, subd. 7 whether the applicant or applicants are in compliance with applicable provisions of sections 216B.1691 and 216B.2425, subdivision 7...</p>	Transmission for RES Compliance	Winner

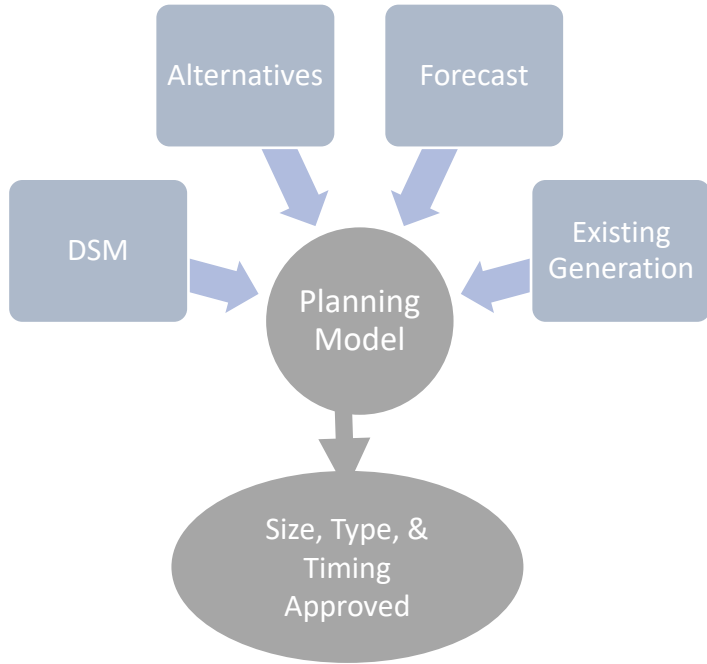
Rules and Statutes Addressed in Testimony

Statute or Rule Citation	Notes	Witness
Minnesota Statutes § 216H.03 on and after August 1, 2009, no person shall construct within the state a new large energy facility that would contribute to statewide power sector carbon dioxide emissions	this statute does not apply	None

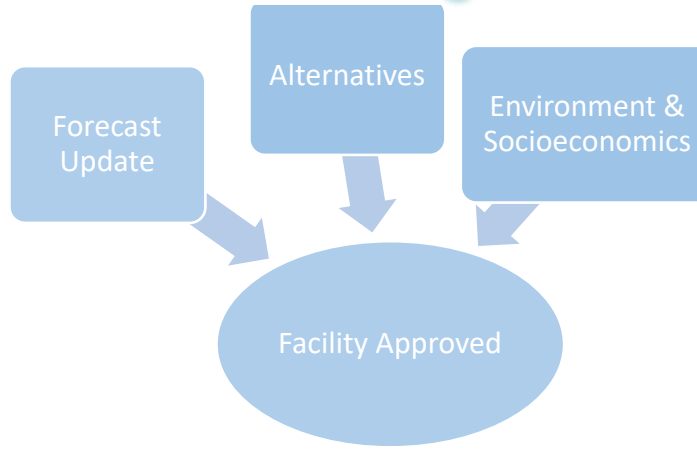
E002/CN-21-668

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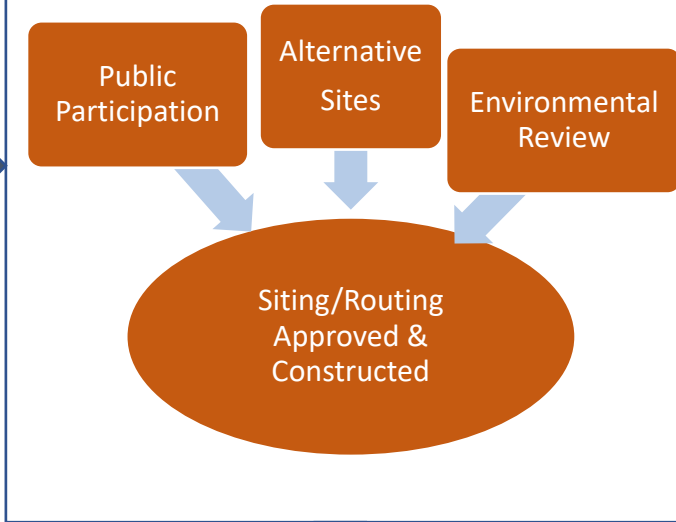
Resource Planning



Resource Acquisition

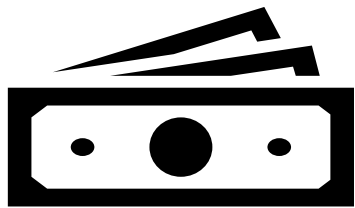


Facility Siting & Routing

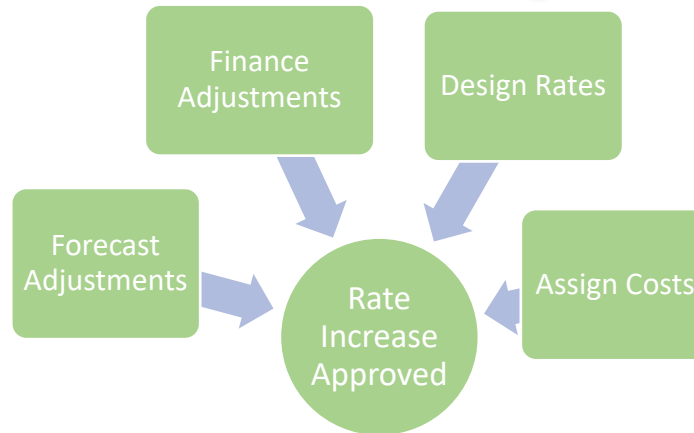


The Commission's Regulatory Process

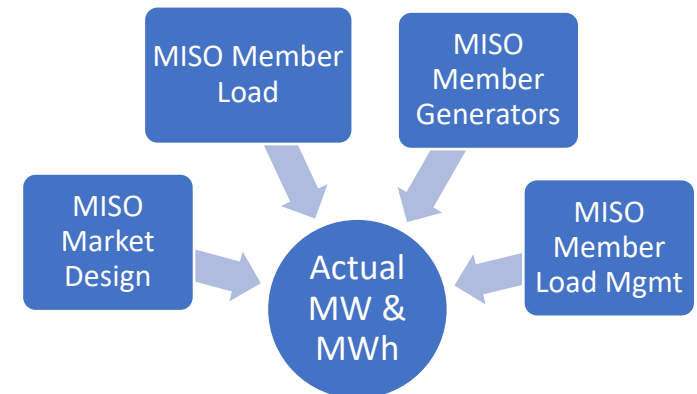
Customer Bill



Cost Recovery



Facility Operation



RESOURCE PLAN (Minn. Stat. 216B.2422, Minn. Rules 7843)

- DOES identify generic size, type, and timing of plants needed.
- DOES NOT identify specific power plants that would supply the deficit.
- Filed by every electricity provider (or its wholesale provider) with 100 MW of capacity and supplying electric service to 10,000 Minnesota customers.
- Consists of a 15-year forecast of projected power needs, existing energy supplies, and generic new additions to provide power to those projected customers.
- Results in a Commission determination of any projected deficits in supply on a generic basis i.e., identifies the size (how many MW), type (whether baseload, intermediate, peaking, wind, etc), and timing (which year) of resource needs.
- May substitute for a certificate of need process in circumstances prescribed by Minnesota Statute.

CERTIFICATE OF NEED (Minn. Stat. 216B.243, Minn. Rules 7849, 7851, 7853, and 7855)

- DOES identify specific large energy facilities.
- Filed by every electric provider (or its wholesale provider) for generation facilities above 50 MW and transmission facilities above 100 kV and 10 miles long or above 200 kV and 1,500 feet long.
- Consists of forecast of resource needs (the deficit to be addressed) and alternative projects to provide power to customers (supply).
- Starts with a resource plan-determined size, type, and timing of a need, confirms a specific need exists, and evaluates the economic, environmental, and social consequences of the alternatives to fulfill the need.
- Results in a Commission determination of the specific facility needed to fulfill demand (if any).

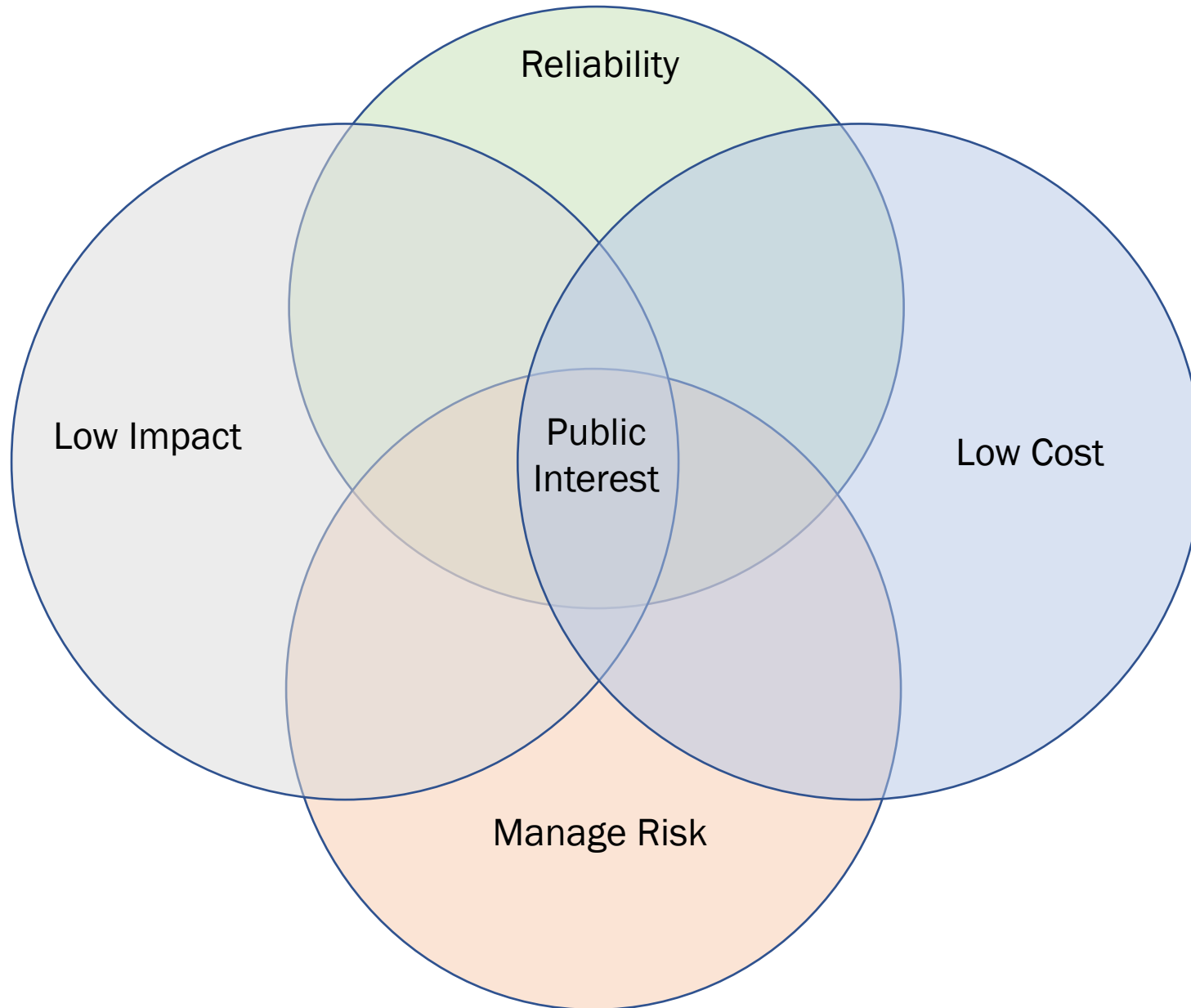
ROUTING AND SITING (Minn. Stat. 216E, Minn. Rules 7850, 7852, and 7854)

- Determines the location for new large energy facilities.
- Filed by every electric provider (or its wholesale provider) for generation facilities above 50 MW and transmission facilities above 100 kV and 1,500 feet long.
- May take place without a certificate of need for transmission facilities above 100 kV and between 1,500 feet and 10 miles in length.
- For other facilities, may take place simultaneously (at the same time as the certificate of need) or sequentially (after the certificate of need).
- Consists of a specific facility and one or more alternative locations.
- Starts with a certificate of need-determined facility and evaluates the economic, environmental, and social consequences of the alternative locations for the facility.
- Results in Commission determination of the specific location for a specific facility.

RATE CASE (Minn. Stat. 216B.16, Minn. Rules 7825)

- Determines the charges applied to customer bills for all utility services.
- Filed by every investor-owned retail electricity provider.
- Generally, new large energy facilities may only be included in a rate case only after they are constructed.
- Consists of one year's data on sales, utility costs, and customer rates on a forecasted or historic basis.
- Starts with the costs incurred and evaluates the prudence of the utility's costs.
- Results in specific rates being charged to specific customer classes.

Overlapping Decision Criteria in Planning & Acquisition Proceedings



Examples of Reliability in Decision Criteria:

Certificate of Need

- 216B.243 subd. 3 (5)—benefits of this facility, including its uses to .. increase reliability of energy supply in Minnesota and the region
- 216B.243 subd. 3 (9)—...the benefits of enhanced regional reliability, access, or deliverability to the extent these factors improve the robustness of the transmission system
- 7849.0120 A—the effect upon the future adequacy, reliability, or efficiency of energy supply
- 7849.0120 B (4)—the expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives

Resource Planning

- 7843.0500 Subp. 3 A—ability to maintain or improve the adequacy and reliability of utility service

Examples of Cost in Decision Criteria:

Certificate of Need

- 216B.243 subd. 3 (9)—with respect to a high-voltage transmission line, the benefits of enhanced regional reliability, access, or deliverability to the extent these factors improve the robustness of the transmission system or lower costs for electric consumers in Minnesota;
- 216B.243 subd. 3 (12)—if the applicant is proposing a nonrenewable generating plant, the applicant's assessment of the risk of environmental costs and regulation on that proposed facility over the expected useful life of the plant, including a proposed means of allocating costs associated with that risk.
- 7849.0120 B (2)—the cost of the proposed facility and the cost of energy to be supplied by the proposed facility

Resource Planning

- 7843.0500 Subp. 3 B—keep the customers' bills and the utility's rates as low as practicable

Examples of Risk in Decision Criteria:

Certificate of Need

- 216B.243 subd. 3 (12) —if the applicant is proposing a nonrenewable generating plant, the applicant's assessment of the risk of environmental costs and regulation on that proposed facility over the expected useful life of the plant, including a proposed means of allocating costs associated with that risk.

Resource Planning

- 7843.0500 Subp. 3 E—risk of adverse effects on the utility and its customers from financial, social, and technological factors that the utility cannot control

Examples of Impact in Decision Criteria:

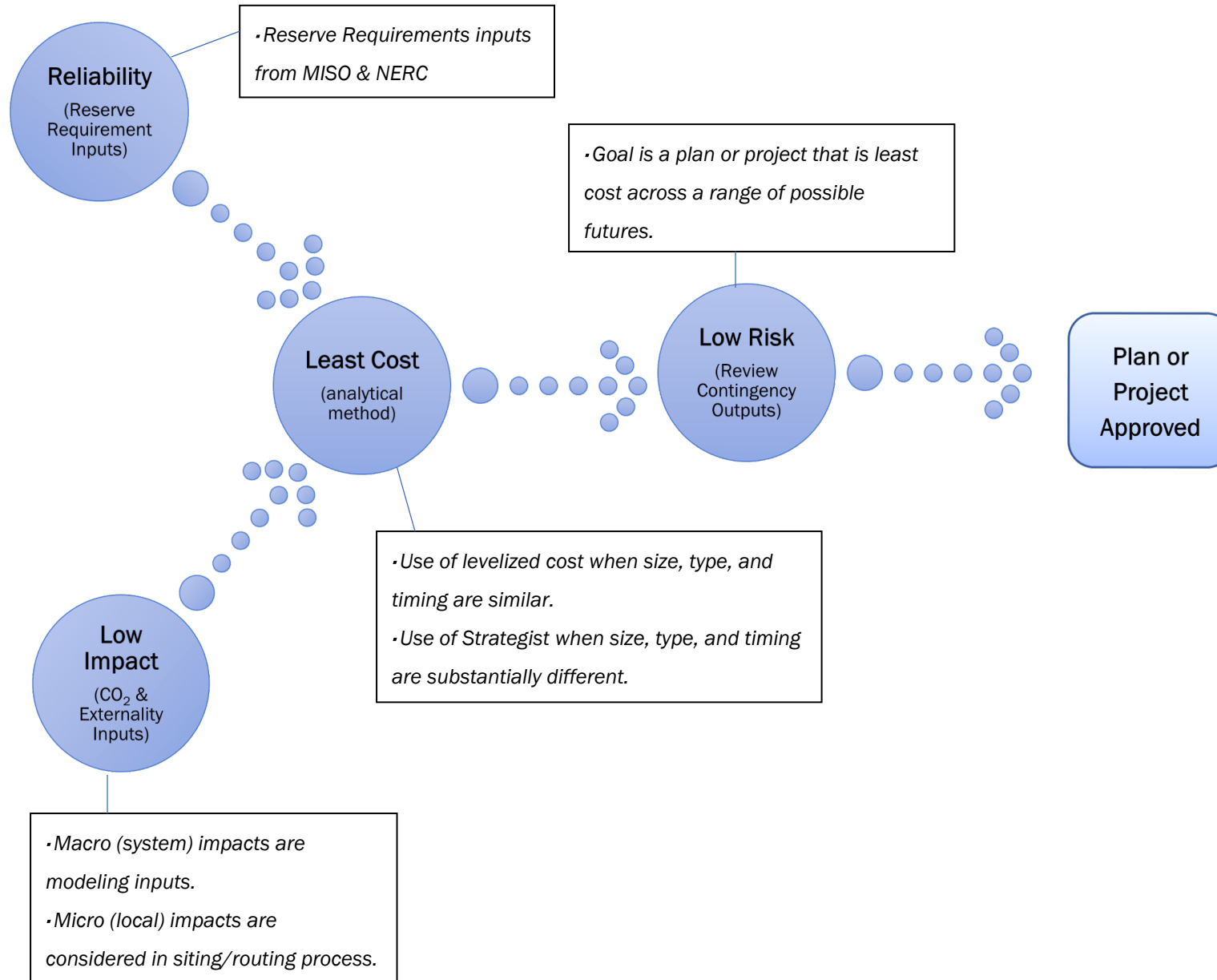
Certificate of Need

- 216B.243 subd. 3 (5)—benefits of this facility, including its uses to protect or enhance environmental quality
- 7849.0120 B (3)—the effects of the proposed facility upon the natural and socioeconomic environments compared to the effects of reasonable alternatives
- 7849.0120 C (2)—the effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility
- 7849.0120 C (4)—the socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality

Resource Planning

- 7843.0500 Subp. 3 C—minimize adverse socioeconomic effects and adverse effects upon the environment

Example of How the Criteria Guide the Department's Analysis



BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben	Chair
Valerie Means	Commissioner
Matthew Schuerger	Commissioner
Joseph K. Sullivan	Commissioner
John A. Tuma	Commissioner

Bria Shea
Regional Vice President, Regulatory Policy
Xcel Energy
414 Nicollet Mall (401–7th Floor)
Minneapolis, MN 55401

SERVICE DATE: November 2, 2022

DOCKET NO. E-002/M-20-620

In the Matter of Xcel Energy’s Purchase and Sale Agreements: Northern Wind & Rock Aetna Wind Repowering Projects

The above-entitled matter was considered by the Commission on October 18, 2022 and the following disposition made:

- 1. Granted a variance to the completeness requirements for miscellaneous filings of Minnesota Rules 7829.1300, subp. 3 A, B, and D and continued to apply the variance to the requirements of Minnesota Rules 7825.1800, subp. B from the Commission’s June 15, 2021 Order (Second Order) to the Northern Wind project.**
- 2. Approved the updated acquisition, as reflected in the two Purchase and Sale Agreements (PSAs) with ALLETE Clean Energy, Inc., and allowed Xcel to pursue cost recovery, in a future Renewable Energy Standard (RES) Rider filing.**
- 3. Continued to apply the ratepayer protections in the Second Order to the revised Northern Wind project:**
 - a. Xcel must justify any costs (including operations-and-management expense, ongoing capital expense—including revenue requirements related to capital included in rate base—insurance expense, land-lease expense, and property/production tax expense) that are higher than forecasted in this proceeding. Xcel bears the burden of proof in any future regulatory proceeding related to the recovery of costs above those forecasted in this proceeding.**
 - b. The Commission will otherwise hold the Company accountable for the price and terms used to evaluate the project.**
 - c. Ratepayers will not be put at risk for any assumed benefits that do not materialize.**

- d. **Xcel customers must be protected from risks associated with the non-deliverability of accredited capacity and/or energy from the project. The Commission may adjust Xcel's recovery of costs associated with this project in the future if actual production varies significantly from assumed production over an extended period.**
 - e. **Xcel must include in its Fuel Clause Adjustment true-up filings the amount of any curtailment payments for this project, along with explanations for the curtailments.**
 - f. **Xcel must clearly account for all costs incurred for the project.**
 - g. **Xcel must include updates on both Northern Wind and Rock Aetna in the Company's ongoing quarterly compliance reporting in the same docket for other wind repowering projects until Northern Wind and Rock Aetna are placed in-service.¹**
4. **Approved the Third Amendments to both PSAs, filed as Attachments A and B to Xcel's September 26, 2022 Supplemental filing.**
 5. **Xcel shall work with Murray County on providing more forward-looking production tax revenue impacts from operations and curtailments. By November 30, 2023, Xcel shall make a compliance filing describing how the curtailment reporting has worked out with Murray County.**

The Commission agrees with and adopts the recommendations of the Department of Commerce, which are attached and hereby incorporated into the Order. This Order shall become effective immediately.

BY ORDER OF THE COMMISSION



Will Seuffert
Executive Secretary



To request this document in another format such as large print or audio, call 651.296.0406 (voice). Persons with a hearing or speech impairment may call using their preferred Telecommunications Relay Service or email consumer.puc@state.mn.us for assistance.

¹ Order Point 6h of the January 22, 2021 Order Approving Wind Facility Repowering Projects in the above-referenced docket requires quarterly reporting of the Grand Meadows, Nobles, Border Winds, Pleasant Valley, and Ewington projects, until those projects are in service.



August 25, 2022

PUBLIC DOCUMENT

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: **PUBLIC Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. E002/M-20-620

Dear Mr. Seuffert:

Attached are the **PUBLIC** comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

Purchase and Sale Agreements: Northern Wind & Rock Aetna Wind Repowering
Projects.

The Petition was filed on July 13, 2022 by:

Bria Shea
Regional Vice President, Regulatory Policy
Xcel Energy
414 Nicollet Mall (401–7th Floor)
Minneapolis, MN 55401

The Department recommends **approval** and is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ STEVE RAKOW
Analyst Coordinator

SR/ja
Attachment



Before the Minnesota Public Utilities Commission

PUBLIC Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. E002/M-20-620

I. INTRODUCTION

A. FIRST ROUND

On July 28, 2020, Northern States Power Company doing business as Xcel Energy (Xcel or the Company) filed a letter in Docket Nos. E,G999/CI-20-492 and E002/M-20-620. The letter stated that, on July 27, 2020, Xcel issued a request for proposals (RFP) for repowered wind resources from among those assets that are already owned or contracted by Xcel.¹ The letter also stated that Xcel did “not set a specific capacity target for this solicitation; rather we will consider any already owned or contracted project for which repowering can reduce cost to customers and be placed into service by 2024.”

On September 29, 2020, Xcel filed a petition requesting that the Minnesota Public Utilities Commission (Commission) approve the acquisition of 718 megawatts (MW) of repowered wind projects resulting from the RFP:

- four facilities owned by Xcel (self-builds), totaling 651 MW:
 - Grand Meadow (100.5 MW);
 - Nobles (201 MW);
 - Border Winds (150 MW); and
 - Pleasant Valley (200 MW); and
- three power purchase agreements (PPAs), totaling 67 MW.
 - Ewington Wind (20 MW);
 - West Ridge Wind (9.5 MW); and
 - McNeilus Wind (37.5 MW).

On January 22, 2021 the Commission issued its *Order Approving Wind Facility Repowering Projects* (First Order) which approved Xcel’s proposal to repower the Grand Meadow, Nobles, Border Winds, and Pleasant Valley wind facilities and the proposed PPA for the Ewington Wind project. Also, the First Order kept the docket open for further consideration and potential approval of other repowering projects. Finally, the First Order required that, for future repowering petitions that include more than

¹ The RFP was only for projects currently owned by Xcel or that already sell power to Xcel through a PPA. For projects that Xcel already owns, Xcel would retain ownership but repower the projects. For projects where Xcel is a buyer in a PPA, Xcel would either modify the PPA or enter into a build-operate-transfer (BOT) agreement in which the PPA seller would transfer ownership to Xcel.

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one project, Xcel shall evaluate the proposed wind projects both on an individual basis and as a total portfolio.

B. SECOND ROUND

On February 16, 2021 Xcel filed a petition requesting the Commission approve the acquisition of the repowered Northern Wind project. ALLETE Clean Energy, Inc. (ACE) proposed the Northern Wind project as part of Xcel's initial RFP.² While ACE's bid was not initially selected, Xcel and ACE continued negotiations and eventually reached an agreement.

On June 15, 2021 the Commission issued an Order (Second Order) that:

1. Approved the request of Northern States Power Company d/b/a Xcel Energy (Xcel) to repower and acquire the Northern Wind project.
2. Approved Xcel's request for a variance of the requirements of Minn. R. 7825.1800, subp. B.
3. Limited any future cost recovery to the Minnesota jurisdictional allocators approved by the Commission.
4. Determined that any recovery through the RES Rider will require a separate Commission determination that the project is eligible.
5. Ordered that the following ratepayer protections apply to the Northern Wind project:
 - a. Xcel must justify any costs (including operations-and-management expense, ongoing capital expense—including revenue requirements related to capital included in rate base—insurance expense, land-lease expense, and property/production tax expense) that are higher than forecasted in this proceeding. Xcel bears the burden of proof in any future regulatory proceeding related to the recovery of costs above those forecasted in this proceeding.
 - b. The Commission will otherwise hold the Company accountable for the price and terms used to evaluate the project.
 - c. Ratepayers will not be put at risk for any assumed benefits that do not materialize.

² ACE is a wholly owned subsidiary of ALLETE, Inc. Note that the corporate entity involved in the Northern Wind project is ACE's subsidiary ACE Mid-West Holdings, LLC, a Delaware limited liability company (ACE Mid-West). In turn, ACE Mid-West owns Northern Wind Energy Redevelopment, LLC, a Delaware limited liability company (for the redevelopment of the 100 MW Chanarambie and Viking units) and Rock Aetna Power Partners LLC, a Delaware limited liability company (for the 20 MW greenfield expansion opportunity).

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- d. Xcel customers must be protected from risks associated with the nondeliverability of accredited capacity and/or energy from the project. The Commission may adjust Xcel's recovery of costs associated with this project in the future if actual production varies significantly from assumed production over an extended period.
 - e. Xcel must include in its Fuel Clause Adjustment true-up filings the amount of any curtailment payments for this project, along with explanations for the curtailments.
 - f. Xcel must clearly account for all costs incurred for the project.
 - g. Xcel must make a compliance filing on June 30, 2022, and annually thereafter, that provides an update on the status of the project. Until the project is in service, Xcel must report on any project failures along with the options available to the Commission to remedy any failures that occur.
6. Required Xcel, using the COVID Economic Recovery Reporting Template, to report on how the repowering projects approved in this order are consistent with the information requested in the May 20, 2020, notice issued in Docket No. E,G-999/CI-20-492.

C. *THIRD ROUND*

On July 13, Xcel filed the Company's *Purchase and Sale Agreements: Northern Wind & Rock Aetna Wind Repowering Projects* (Petition). The Petition requested that the Commission:

- approve the updated acquisition, as reflected in the two Purchase and Sale Agreements (PSA) with ACE; and
- allow Xcel to pursue cost recovery for the Northern Wind and Rock Aetna projects, including tax credit insurance costs, in a future Renewable Energy Standard (RES) Rider filing.

On July 28, 2022 the Commission issued a *Notice of Comment Period* (Notice) that stated the following topics are open for comment:

- Should the Commission approve the updated acquisition, as reflected in the two PSAs with ALLETE Clean Energy, as reasonable and in the public interest?
- Should the Commission continue to allow Xcel to pursue cost recovery for the Northern Wind and Rock Aetna projects, including tax credit insurance costs, in a future RES Rider filing?
- Are there other issues or concerns related to this matter?

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D. PROJECT OVERVIEW

The proposed Northern Wind project would be a complete replacement and expansion of the existing Chanarambie and Viking³ wind facilities to 100 MW along with a 20 MW greenfield expansion opportunity with Rock Aetna Power Partners, LLC (Rock Aetna) immediately adjacent to the existing facilities. The Petition requests Commission approval of two PSAs. According to Xcel the re-negotiated PSAs result in a small increase in the levelized cost of energy (LCOE) and were necessitated by “developments that directly affect the transaction and ALLETE’s ability to deliver both the Northern Wind and Rock Aetna projects as approved, including changes in anticipated production levels as well as supply chain issues and inflationary pressures.”

Xcel described the contractual situation as follows:

In its June 15, 2021 Order, the Commission approved the Company to acquire the repowered 120 MW Northern Wind and Rock Aetna facilities for \$210 million. As discussed, given the changes in annual production estimates and market challenges since that time, ALLETE could no longer deliver both projects at that price. To mitigate the cost increases and avoid a reduction to or termination of the projects, we renegotiated the agreement(s) with ALLETE for an additional \$5.6 million, which results in increased PTC benefits and therefore more production at a lower cost than would have otherwise been realized under the original PSA.

Note that the Petition states that “ALLETE has agreed to continue with construction activities for the Northern Wind project to ensure both projects remain on-track while the Company seeks approval of the updated acquisition and ALLETE seeks a partial transfer of the site permit to Rock Aetna.”⁴ According to Xcel the Northern Wind project broke ground in May and both the Northern Wind and Rock Aetna projects are slated to go into service this year.

The Department generally considers four criteria in evaluating resources in resource acquisition proceedings. The first criterion is that any resource acquisition must address a need reasonably tied to resource planning (IRP) outcomes unless a non-IRP related need is claimed. Resources not tied to IRP outcomes will raise overall system costs. The second criterion is that new resources must demonstrate

³ The Viking project consists of PPAs with Buffalo Ridge Wind Farm, LLC; Moulton Heights Wind Power Project, LLC; Muncie Power Partners, LLC; North Ridge Wind Farm, LLC; Vandy South Project LLC; Viking Wind Farm, LLC; Vindy Power Partners, LLC; and Wilson-West Windfarm, LLC.

⁴ The Department understands that issues related to the site permit will be addressed in Docket No. IP7046/WS-20-860.

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that they are least-cost—they are competitively priced considering the available alternatives and the risks. The third criterion is that the alternatives being evaluated must be compared using a societal benefit/cost test unless a different requirement applies. The fourth criterion applied by the Department during resource acquisition is that renewable resources are preferred. For examples of these criteria see Minnesota Statutes §§ 216B.243 Subd. 3 (least cost), 216B.2422 Subd. 3 (a) (use of a societal test), and 216B.2422 Subd. 4 (renewable preference).

Below are the comments of the Department regarding the topics specified in the Notice considering the four criteria.

II. DEPARTMENT ANALYSIS

A. GOVERNING STATUTES AND RULES

In the Petition Xcel did not cite any particular portions of Minnesota Statutes or Minnesota Rules as governing the Commission's consideration of the Petition. The Department concludes the following are the relevant Minnesota Statutes and Minnesota Rules.

1. *Property Transfer Statute*

Minnesota Statutes § 216B.50 Subd. 1 states:

No public utility shall sell, acquire, lease, or rent any plant as an operating unit or system in this state for a total consideration in excess of \$100,000, or merge or consolidate with another public utility or transmission company operating in this state, without first being authorized so to do by the Commission.

...

If the Commission finds that the proposed action is consistent with the public interest, it shall give its consent and approval by order in writing. In reaching its determination, the Commission shall take into consideration the reasonable value of the property, plant, or securities to be acquired or disposed of, or merged and consolidated.

The Commission's December 14, 1998 *Order Finding Jurisdiction and Approving Property Transfer* (1998 Order) in Docket No. E017/PA-98-1345 clarified the definition of an operating unit or system:

Otter Tail claimed that the Commission lacked authority over this property transfer because the sale of the Wahpeton Division Office did not meet the statutory standard of the sale of "any plant as an operating unit or system." Minn. Stat. § 216B.50, Subd. 1. The Company pointed to an earlier

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Commission decision finding that NSP's sale of an abandoned truck maintenance and repair center did not meet the statutory standard.¹

The Commission finds that the Wahpeton Division Office is an essential part of Otter Tail's Minnesota operating system and is therefore covered by the statute. Providing electric service requires not just power plants, but the repair, meter reading, customer service, and administrative functions performed in the Wahpeton Division Office. As Otter Tail notes in its reply comments, all these activities "play an integral role in keeping the lights on."

The Commission decision on which the Company relies is not on point, since the finding of no jurisdiction in that case rested not just on the fact that the facility was not a generating plant, but on the fact that, at the time the sales agreement was reached, it was not being used for any company purpose.

1 In the Matter of the Petition of Northern States Power Company for Approval of the Sale of the Long Lake Service Center, Docket No. E002/PA-95-260, ORDER DISMISSING PETITION (August 23, 1995).

In the Petition Xcel proposes to revise its acquisition of Northern Wind, clearly an operating unit as defined by the Commission, and the incremental consideration is in excess of \$100,000. Therefore, the Department concludes Minnesota Statutes § 216B.50 applies to the proposed transaction.

2. *Certificate of Need Statute*

Northern Wind is a 100 MW repowering of wind turbines at two existing sites and a 20 MW greenfield expansion via Rock Aetna's project. Minnesota Statutes § 216B.2421 defines a large energy facility as "any electric power generating plant or combination of plants at a single site with a combined capacity of 50,000 kilowatts or more..." Minnesota Statutes § 216B.243 Subd. 2 (CN Statute) requires a large energy facility to obtain a certificate of need (CN). However, Minnesota Statutes § 216B.243 Subd. 8 (a) provides that "This section does not apply to ... (6) the modification of an existing electric generating plant to increase efficiency, as long as the capacity of the plant is not increased more than ten percent or more than 100 megawatts, whichever is greater." The Department concludes that a CN is not required since proposed repowering project is proposed as an increase in efficiency; the Company states that "[t]he project proposed in this Petition will improve the efficiency and production of the existing facility." Since the Northern Wind project is an efficiency project and the plant's capacity is not being increased by more than 100 MW a CN is not required. The Rock Aetna project is less than 50 MW and thus is not a large energy facility and a CN is not required in any circumstance.

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If the CN Statute does apply (because the repowering is not considered an increase in efficiency), Minnesota Statutes § 216B.2422, Subd. 5 states in part:

- (b) Notwithstanding any other provision of this section, if an electric power generating plant, as described in section 216B.2421, subdivision 2, clause (1), is selected in a bidding process approved or established by the commission, a certificate of need proceeding under section 216B.243 is not required.

The Commission's May 31, 2006 *Order Establishing Resource Acquisition Process, Establishing Bidding Process Under Minn. Stat. § 216B.2422, Subd. 5, and Requiring Compliance Filing* in Docket No. E002/RP-04-1752 established Xcel's bidding process. The Northern Wind project arose from that Commission-approved bidding process. Therefore, the Department concludes that a CN is not required for the proposed Northern Wind project under the bidding exemption.

The Department notes that Minnesota Statutes § 216B.243, Subd. 9 provides a potential path related to the state's renewable energy standard for Xcel's proposed Northern Wind project to qualify for a CN exemption. However, since the proposed Northern Wind project already qualifies for a CN exemption the Department did not review this potential exemption.

3. *Property Transfer Information Requirements Variance*

Minnesota Rules 7825.1800, subpart B requires the Company to provide the information set forth in Minnesota Rules 7825.1400 parts A through J in a petition requesting approval of a property transfer. The Commission's Second Order granted Xcel a variance to the requirements of Minnesota Rules 7825.1800, subp. B. It is possible that the variance from the Second Order continues to apply to the Northern Wind project, including the Petition. If such already granted variance does not apply, the Department recommends that the same variance be granted to Xcel for the Petition for the same reasons as discussed in the Department's May 3, 2021 comments.

4. *Miscellaneous Tariff Filing Requirements*

The Petition falls within the definition of a "miscellaneous" filing under Minnesota Rules 7829.0100, subp. 11 since no determination of Xcel's revenue requirement is necessary. Minnesota Rules 7829.1300 contains the completeness requirements for miscellaneous filings. The Department reviewed the Petition for compliance with the completeness requirements and concludes that the Petition is not complete; several items are missing, including Minnesota Rules 7829.1300 Subp. 3 A, B, and D.

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Minnesota Rules 7829.1300, subp. 5 requires that “The Commission shall reject a filing found to be substantially out of compliance with this chapter or applicable statutory requirements.” Instead, the Department recommends the Commission grant a variance to the completeness requirements of Minnesota Rules 7829.1300 Subp. 3 A, B, and D. Minnesota Rules 7829.3200 allows the Commission to vary its rules if it finds:

- a) enforcement of the rule would impose an excessive burden upon the applicant or others affected by the rule;
- b) granting the variance would not adversely affect the public interest; and
- c) granting the variance would not conflict with standards imposed by law.

The requirements for a variance are met as follows:

- a) enforcement of the rule would impose an excessive burden by requiring Xcel to refile the petition with information that, for the most part, is commonly known;
- b) granting the variance would not adversely affect the public interest because the required information is easily determined, available in numerous other filings, and/or is commonly known; and
- c) to the Department’s knowledge granting the variance would not conflict with any standards imposed by law.

B. PRIOR EXAMPLES OF RENEGOTIATED AGREEMENTS

While reviewing utility contracts are quite standard, reviewing a renegotiated agreement is much less common. The Department reviewed past examples of renegotiated agreements.⁵

On August 22, 2018 in Docket No. E015/M-18-545 Minnesota Power, an operating division of ALLETE, Inc. (MP) filed a petition for approval of a power purchase agreement (PPA) with the Nobles 2 wind facility. In this case MP’s petition was for a project with a contract that had been re-negotiated after the RFP process was completed but prior to filing for Commission approval. For details, see the Department’s November 15, 2018 supplemental comments. As stated at the time:

The Department notes that there can be valid reasons to renegotiate a PPA. The validity of a decision to renegotiate is dependent upon the circumstances at the time and must be reviewed on a case-by-case basis.

⁵ On December 20, 2019 in Docket No. E002/M-16-777 Xcel filed two renegotiated agreements regarding NextEra Energy Resources, LLC’s Crowned Ridge facility. However, in the 2019 petition Xcel did not request any Commission approvals regarding the renegotiated agreements. Therefore, the Department concludes that this example does not provide a useful example or precedent for this proceeding since Xcel is requesting Commission approval for the Northern Wind PSAs.

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Ultimately, the Department recommended approval of MP's re-negotiated PPA because there was evidence that MP attempted to reduce the size of the cost increase and it was unlikely that better projects would be available if MP determined to not renegotiate the PPA and instead issue a new RFP. The Commission's January 23, 2019 order approved MP's petition. Therefore, the Department concludes that this example provides a useful example for this proceeding.

Finally, the Department notes that Minnesota Rules 7849.0400 deals with changed circumstances after a certificate of need has been approved but before the facility is placed in-service. The rule states that the Commission "shall order further hearings if and only if it determines that the change, if known at the time of the need decision on the facility, could reasonably have resulted in a different decision." While the rule clearly is not directly applicable to this proceeding, it does provide another criteria to potentially consider—that if the renegotiated agreement would have resulted in a different decision at the time of the original decision detailed investigation is warranted.

C. ACCOUNTING PROPOSAL

The Petition contains an accounting/cost recovery proposal as follows:

Because this [Tax Credit Insurance] policy would be insuring against a tax risk rather than a risk related to the construction of the projects, we would not record it as a capital cost for the project. Instead, we would record it separately as a prepayment in FERC Account 165 to be amortized over the ten-year life of the policy, and we would include it in RES Rider rate base where it would be treated consistent with other rate base items. This approach is consistent with Minn. Stat. § 216B.1645, Subd. 2a, which "allows recovery [through the RES Rider] of other expenses incurred that are directly related to a renewable energy project . . . provided that the utility demonstrates to the commission's satisfaction that the expenses improve project economics [and] ensure project implementation," among other things.

Department accounting staff reviewed Xcel's proposed accounting treatment of the tax credit insurance policy and concluded that the proposed treatment is reasonable.

D. REVISED ECONOMIC ANALYSIS

1. Changes to the Proposed Project

The first change impacting the PSAs noted by Xcel was a reduction in expected energy output. Xcel attributed the change in expected output "to a change in the final turbine type and placement, which

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was determined in the Site Permit docket (Docket No. IP7046/WS-20-860).” Since the change was triggered by a Commission order, no further analysis is needed.

The second change impacting the PSAs noted by Xcel is the impacts of supply chain challenges and inflation on raw material costs. The result of the impacts is that ACE is “positioned to take a slight loss on the sale as previously structured.” While ACE did partially mitigate the cost increases “the net result is a project that simply costs more to complete than when originally proposed in February 2021.”

The third change impacting the PSAs noted by Xcel is the potential to obtain increased production tax credits (PTC). The improved PTC qualification will lead to cost reductions, serving to counter the per MWh cost increases driven by reduced production, inflation, and supply chain issues discussed above.

2. *Decision Criteria*

Regarding the criteria if Xcel “attempted to reduce the size of the cost increase” the fact that Xcel and ACE reconfigured the project so as to obtain improved PTC qualification, and that the PTCs have been insured, is evidence that Xcel took steps to reduce the size of the cost increase. The result is that Xcel estimates the LCOE under the renegotiated PSAs is **[TRADE SECRET DATA HAS BEEN EXCISED]** lower than Xcel’s estimated LCOE if the revised Northern Wind project continued under the original PSA.

Note that the LCOE under the renegotiated PSAs is **[TRADE SECRET DATA HAS BEEN EXCISED]** higher than the LCOE in the original petition. Stated somewhat differently, the LCOE difference between the original PSA and the renegotiated PSAs is equivalent to a revenue requirement increase of **[TRADE SECRET DATA HAS BEEN EXCISED]**.

The Department also separated the change in cost into two parts, the cost of PTC insurance and the cost of the revised PSAs. If the cost of the PTC insurance is removed from the analysis, the LCOE under the renegotiated PSAs is **[TRADE SECRET DATA HAS BEEN EXCISED]** higher than the LCOE in the original petition. This translates into a revenue requirement increase of **[TRADE SECRET DATA HAS BEEN EXCISED]** This demonstrates that the majority of the LCOE increase is associated with the PTC insurance policy and the LCOE impact of the revised PSAs is minimal.

The LCOE impact of the renegotiated Northern Wind Project PSAs is summarized in Table 1.

Table 1: LCOE of Northern Wind Project

Item	LCOE
Original PSA	
Revised PSAs Combined	[TRADE SECRET DATA HAS BEEN EXCISED]
Increase	
Revised PSAs Combined, no PTC Insurance	
Increase	

Regarding the criteria “it was unlikely that better projects would be available if MP determined to not renegotiate the PPA and instead issue a new RFP.” The Department is not aware of any recent wind RFPs. Therefore, it is not possible to state whether better projects might be available if Xcel issued a new RFP instead of renegotiating the PSA. The overall impact of the renegotiated PSA is small, with a cost decrease in the first ten years—due to enhanced PTCs—and a cost increase in the last 15 years due to the higher capital cost. In conclusion, given the relatively small net change and the expense of running an RFP it is not clear that a new RFP could result in a better project.

Regarding the criteria “if the renegotiated agreement would have resulted in a different decision at the time of the original decision” the Department notes that the expected LCOE for the revised Northern Wind project, as calculated by Xcel, is still within the range of the expected LCOEs for the project as shown in the Department’s November 2, 2020 comments. Therefore, the revised LCOE would not have impacted the Department’s recommendation at that time. Note that the Second Order limited any future cost recovery to the Minnesota jurisdictional allocators approved by the Commission.

Based upon the above analysis the Department concludes that the revised PSAs are in the public interest.

3. *Curtailment*

According to Xcel’s response to Department Information Request No. 25 the original economic evaluation of the Northern Wind project used a curtailment estimate of **[TRADE SECRET DATA HAS BEEN EXCISED]** MWh. The new economic evaluation of the Northern Wind project used a curtailment estimate of **[TRADE SECRET DATA HAS BEEN EXCISED]** MWh. The Company’s response to Department Information Request No. 26 explained that the basis for the estimated annual MWh curtailment is that **[TRADE SECRET DATA HAS BEEN EXCISED]**. Department Information Request No. 27 requested percentage of wind energy on Xcel’s system curtailed annually for 2018 through 2021 and monthly for 2022. As part of the response Xcel stated that the Chanarambie and Viking wind projects

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did not experience any curtailment during the period in question (January 2018 to June 2022). Note that production of energy by Northern Wind may cause congestion that will trigger curtailment at other, higher cost generating units. However, analysis of such future curtailment would be speculative; therefore the Department did not pursue such information. In summary, based upon the above information the Department concludes that Xcel's estimate of curtailment is reasonable for purposes of evaluating the project at this time.

Finally, Table 2 below—taken from Xcel's Department Information Request No. 27—shows the percentage of wind energy that was curtailed on Xcel owned or contracted wind facilities. Table 2 shows that curtailment has been a growing issue for Xcel.

Table 2: Curtailment on Xcel owned or contracted wind facilities

Year/Month	Curtailment
2018	0.3%
2019	1.2%
2020	5.1%
2021	11.3%
Jan-22	15.3%
Feb-22	12.5%
Mar-22	10.1%
Apr-22	17.3%
May-22	13.8%
Jun-22	7.9%

E. REPLY TO COMMISSION NOTICE

The first issue listed in the Commission's Notice is "Should the Commission approve the updated acquisition, as reflected in the two PSAs with ALLETE Clean Energy, as reasonable and in the public interest?" The Department recommends that the Commission approve the updated acquisition, as reflected in the two PSAs.

The second issue listed in the Commission's Notice is "Should the Commission continue to allow Xcel to pursue cost recovery for the Northern Wind and Rock Aetna projects, including tax credit insurance costs, in a future RES Rider filing?" The Department recommends that the Commission allow Xcel to pursue cost recovery, including tax credit insurance costs, in a future RES Rider filing.

The third issue listed in the Commission's Notice is "Are there other issues or concerns related to this matter?" The Department has no other issues or concerns in this matter.

III. DEPARTMENT RECOMMENDATION

First, the Department recommends the Commission grant a variance to the completeness requirements for miscellaneous filings of Minnesota Rules 7829.1300 Subp. 3 A, B, and D and continue to apply the variance to the requirements of Minnesota Rules 7825.1800, subp. B from the Second Order to the Northern Wind project.

Second, the Department recommends that the Commission approve the updated acquisition, as reflected in the two PSAs with ACE, and allow Xcel to pursue cost recovery, including tax credit insurance costs, in a future RES Rider filing.

Third, the Department recommends that the Commission continue to apply the ratepayer protections in the Second Order to the revised Northern Wind project:

- a. Xcel must justify any costs (including operations-and-management expense, ongoing capital expense—including revenue requirements related to capital included in rate base—insurance expense, land-lease expense, and property/production tax expense) that are higher than forecasted in this proceeding. Xcel bears the burden of proof in any future regulatory proceeding related to the recovery of costs above those forecasted in this proceeding.
- b. The Commission will otherwise hold the Company accountable for the price and terms used to evaluate the project.
- c. Ratepayers will not be put at risk for any assumed benefits that do not materialize.
- d. Xcel customers must be protected from risks associated with the non deliverability of accredited capacity and/or energy from the project. The Commission may adjust Xcel's recovery of costs associated with this project in the future if actual production varies significantly from assumed production over an extended period.
- e. Xcel must include in its Fuel Clause Adjustment true-up filings the amount of any curtailment payments for this project, along with explanations for the curtailments.
- f. Xcel must clearly account for all costs incurred for the project.
- g. Xcel must make a compliance filing on June 30, 2022, and annually thereafter, that provides an update on the status of the project. Until the project is in service, Xcel must report on any project failures along with the options available to the Commission to remedy any failures that occur.