500 West Russell Street
Sioux Falls, SD 57104

July 1, 2026

—Via Electronic Filing—

Ms. Leah Mohr, Executive Director
South Dakota Public Utilities Commission
Capitol Building, 1st Floor
500 E. Capitol Ave.
Pierre, SD 57501-5070

RE: NORTHERN STATES POWER COMPANY
BIENNIAL 10-YEAR PLAN

Dear Ms. Mohr:

In accordance with S.D. Admin. R. Chapter 20:10:21 and S.D. Codified Laws § 49-41B-3, Northern States Power Company, doing business as Xcel Energy, hereby submits its Biennial 10-Year Plan for Major Generation and Transmission Facilities in the State of South Dakota.

The Company respectfully requests confidential treatment of certain portions of the information provided in this report. Pursuant to ARSD 20:10:01:41, the Company submits the following justification for confidential treatment.

(1) An identification of the document and the general subject matter of the materials or the portions of the document for which confidentiality is being requested.

The estimated production for generation facilities, stored and discharged energy for battery energy storage systems (BESS), and estimated costs of the Sherco West BESS, Lyon County CT, Sherco Solar 4, Blue Lake BESS, Sherco South BESS, Nobles BESS, Little Rock Wind, and Box Car Wind included in Tables 2 through 5 are confidential information. This confidential information includes financial information that is not available to the general public and that the Company takes efforts to protect from public disclosure, the disclosure of which would result in material damage to the Company's financial or competitive position, and which thus has independent economic and commercial value from not being generally known to, and

not being readily ascertainable by other parties, who could obtain economic value from its disclosure or use.

(2) The length of time for which confidentiality is being requested and a request for handling at the end of that time. This does not preclude a later request to extend the period of confidential treatment.

The Company requests that certain portions of Tables 2 through 5 be recognized as confidential data in perpetuity.

(3) The name, address, and phone number of a person to be contacted regarding the confidentiality request.

Steve T. Kolbeck
Director, State Affairs and Business Relations
500 W. Russell Street
P.O. Box 988
Sioux Falls, SD 57101
(605) 339-8350
steve.t.kolbeck@xcelenergy.com

(4) The statutory or common law grounds and any administrative rules under which confidentiality is requested. Failure to include all possible grounds for confidential treatment does not preclude the party from raising additional grounds in the future.

We request confidential treatment on the grounds that the material is proprietary and trade secret information, the disclosure of which would result in material damage to the Company's financial or competitive position. The claim for confidential treatment is based on ARSD § 20:10:01:39(4) and SDCL § 1-27-30. The information contained meets the definition of "trade secret" under SDCL § 37-29-1(4)(1), the South Dakota Uniform Trade Secrets Act, which is defined as information that, "derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and … is the subject of efforts that are reasonable under the circumstances to maintain its secrecy." The information also meets the definition of "proprietary information" under SDCL § 1-27-28, which is defined as "information on pricing, costs, revenue, taxes, market share, customers, and personnel held by private entities and used for that private entity's business purposes."

(5) The factual basis that qualifies the information for confidentiality under the authority cited.

Tables 2 through 5 contain confidential information Xcel Energy protects as not-public information for the reasons detailed in Part (1) above.

Please contact Josh DePauw at (612) 216-8039 or joshua.a.depauw@xcelenergy.com or contact me at (605) 339-8350 or steven.t.kolbeck@xcelenergy.com if you have any questions regarding this filing.

Sincerely,

/s/

STEVE KOLBECK
DIRECTOR, STATE AFFAIRS AND BUSINESS RELATIONS

ENCLOSURES
cc: Service List

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Northern States Power Company, doing business as Xcel Energy (Xcel Energy or the Company), submits its 10-year plan to the South Dakota Public Utilities Commission as required by S.D. Admin. R. § § 20:10:21:02 to 20:10:21:21 and SDCL § 49-41B-3.[1]

These administrative rules and law require every utility that owns or operates, or plans within the next ten years to own or operate, energy conversion facilities to develop and submit a 10-year plan that contains the following:

(1) A description of the general location, size, and type of energy conversion facilities or transmission facilities of two hundred fifty kilovolts or more to be owned or operated by the utility during the ensuing ten years, as well as those facilities to be removed from service during the planning period;

(2) A description of the efforts by the utility to coordinate the plan with other utilities so as to provide a coordinated regional plan for meeting the utility needs of the region;

(3) A statement of the projected demand for the service rendered by the utility for the ensuing ten years and the underlying assumptions for the projection, with such information being as geographically specific as possible and a description of the manner and extent to which the utility will meet the projected demand; and

(4) Any other relevant information as may be requested by the commission.

We present the information required for our 10-year plan in sequence as provided in §§ 20:10:21:04 to 20:10:21:18 inclusive, and additionally provide any further information required by SDCL 49-41B-3 along with the closest related administrative rule requirement.

BIENNIAL REPORT

20:10:21:04 EXISTING ENERGY CONVERSION FACILITIES

This section outlines the Company's electric generation facilities. We provide the details required by S.D. Admin. R. § § 20:10:21:04 for Company-owned generating facilities located in South Dakota and provide a list of the other generating facilities that comprise the NSP System that serves our South Dakota customers.[2]

Xcel Energy has three existing energy conversion facilities in South Dakota. Table 1 below provides the required information on these facilities.

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[1] The rules incorporate and put into effect the requirements outlined under S.D. Codified Laws § 49-41B-3.

[2] The NSP System is comprised of electric generating plants and transmission facilities located and serving customers in the states of Michigan, Minnesota, North Dakota, South Dakota, and Wisconsin.

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Table 1
South Dakota Electric Generating Facilities

		Angus Anson Plant	Crowned Ridge	Dakota Range
1	Location	Minnehaha County, South Dakota	Codington, South Dakota	Codington & Grant, South Dakota
2	Type Nameplate Capacity	Simple Cycle Combustion Turbine 109 MW (unit 2) 109 MW (unit 3) 168 MW (unit 4)	Wind Turbines 200 MW (87 units @ 2.3 MW)	Wind Turbines 300 MW (150 units @ 2.0 MW)
3	Net Capacity			
	2024	109 MW (unit 2) 109 MW (unit 3) 168 MW (unit 4)	200 MW	300 MW
	2025	109 MW (unit 2) 109 MW (unit 3) 168 MW (unit 4)	200 MW	300 MW
	Annual Production (Total Site)			
	2024	239,772 MWh	829,151 MWh	1,037,615 MWh
	2025	241,064 MWh	864,611 MWh	1,017,571 MWh
4	Water Source and Annual Consumption	Ground Water	N/A	N/A
	2024:	23,845,430 gal		
	2025:	23,005,872 gal		

5	Fuel Type Source Annual Consumption 2024 2025	Natural Gas Northern Natural Gas Co.[3] 2,706,963 MMBtu 2,757,371 MMBtu	Fuel Oil 3,936 gal 3,990 gal	Wind	Wind
6	Projected Retirement Date		Unit 2 & 3: 2041 Unit 4: 2045	2045	2047

We provide a list of our other NSP System generating facilities and Power Purchase Agreements (PPA) as Attachment A to this report.

20:10:21:05 PROPOSED ENERGY CONVERSION FACILITIES

This rule requires utilities to provide the specific electric generating facilities that have been proposed but are not yet in commercial operation in the 10-year period of the biennial report.

Since our last biennial report, as a result of our 2024 Integrated Resource Plan (IRP), we have advanced multiple complementary resource acquisition efforts, including:

- Firm Dispatchable Request for Proposals (RFP) / Minnesota IRP Settlement
- 2024 NSP Wind, Solar, and Storage Request for Proposals (2024 RFP)
- Expedited Resource Addition Study (ERAS) processes (ERAS I and ERAS II)
- Wind Development Transfer Request for Proposals (Wind Dev-Transfer)

We address each process briefly below, and Tables 2 through 5 provide the details for each of these Company-owned, planned facilities as required by S.D. Admin. R. § § 20:10:21:04. Together, these planned resources address near-term and medium-term system needs for capacity, energy, and flexibility, while enabling efficient reuse of valuable interconnection rights and capturing time-sensitive federal tax incentives that benefit South Dakota customers. The processes listed above and discussed below also resulted in PPA resources, which are shown in Attachment A.

[3] The natural gas fuel is purchased from independent third party suppliers and delivered through the Northern Natural Gas interstate pipeline system.

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Firm Dispatchable RFP / Minnesota IRP Settlement

In 2023, the Company initiated resource procurement process to meet the need for up to 800 MW of firm dispatchable generation. The need was identified in the Company's 2019 Integrated Resource Plan. The process was conducted under a competitive framework approved by the Minnesota Public Utilities Commission. In February 2024, the Company filed its 2024 Resource Plan, and after a robust procedural process, entered into a Settlement Agreement in October 2024, which included the Company-owned projects selected through the firm dispatchable RFP process.

Table 2
Resources Planned via the Firm Dispatchable RFP / MN IRP Settlement

		Sherco West Battery Energy Storage System	Lyon County Combustion Turbine
1	Location	Becker, Minnesota	Lyon County, Minnesota
2	Type Nameplate Capacity	Battery Energy Storage System 300 MW	Gas combustion turbine 420 MW
3	Estimated Production*	**[PROTECTED DATA BEGINS…**	**…PROTECTED DATA ENDS]**
4	Water Source	N/A	Reliable and sufficient water supply from on-site well(s)
5	Fuel Type	N/A – energy storage	Natural gas
6	Disposal Plans	TBD	TBD
7	Associated Facilities	Sherco Generating Plant Substation	Sherco Gen-Tie
8	Operating life with SD Fuels	N/A	N/A
9	Projected End of Life	20 years (2047)	40 years (2068)
10	Estimated Cost	**[PROTECTED DATA BEGINS…**	**… PROTECTED DATA ENDS]**
11	Projected In-Service Date	December 2027	December 2028

* Values shown for BESS assets reflect total estimated stored and discharged energy; the assets do not produce energy, and figures shown are not reflective of estimated round-trip efficiency.

2024 RFP

The Company initiated the 2024 RFP to procure up to approximately 1,600 MW of wind, solar, storage, and hybrid resources needed to meet system capacity and energy requirements identified in the 2024 IRP Five-Year Action Plan. The RFP was also designed to enable reuse of interconnection rights made available by the planned retirement of Sherco Units 1 and 3 and Blue Lake units.

Table 3
Resources Planned via the 2024 RFP

		Sherco Solar 4	Blue Lake BESS	Sherco South BESS[4]
1	Location	Clear Lake Township, Minnesota	Shakopee, Minnesota	Becker, Minnesota
2	Type Nameplate Capacity	Solar PV 200 MW	BESS 135.5 MW	BESS 300 MW
3	Estimated Production*	**[PROTECTED DATA BEGINS…**		**… PROTECTED DATA ENDS]**
4	Water Source	N/A	N/A	N/A
5	Fuel Type	Solar	N/A – energy storage	N/A – energy storage
6	Disposal Plans	TBD	TBD	TBD
7	Associated Facilities	Sherco Generating Plant Substation	Blue Lake Substation	Sherco Generating Plant Substation
8	Operating life with SD Fuels	N/A	N/A	N/A
9	Projected End of Life	35 years (2064)	20 years (2047)	20 years (2047)

[4] The Sherco South BESS project was selected as a result of the 2024 RFP and planned to use surplus interconnection. The Company is seeking independent interconnection through the ERAS II process.

10	Estimated Cost	**[PROTECTED DATA BEGINS…**		**… PROTECTED DATA ENDS]**
11	Projected In-Service Date	October 2029	Q2 2027	Q4 2027

* Values shown for BESS assets reflect total estimated stored and discharged energy; the assets do not produce energy, and figures shown are not reflective of estimated round-trip efficiency.

ERAS I and ERAS II

In response to persistent delays in MISO's Definitive Planning Phase (DPP) interconnection studies and growing concerns about tightening resource adequacy margins across the region, MISO established the ERAS process as a temporary mechanism to accelerate interconnection reviews for projects needed to address near-term reliability risks. Unlike the standard DPP queue, which can take multiple years to complete, ERAS provides a streamlined pathway to a Generator Interconnection Agreement, with studies typically completed within three to six months for projects that can demonstrate urgent reliability value and meet stringent eligibility requirements. This reform is intended to ensure that essential generation projects can proceed without being stalled by broader queue backlogs.

The ERAS portfolio includes projects that were not sourced through a competitively bid process. However, these projects supplement the Company's recent broader efforts to competitively procure resources, which also served to inform pricing.

The Company has proposed one self-build project in the ERAS process, shown in Table 4 below. In addition, the Company has proposed an independent interconnection for the Sherco South BESS that was selected in the 2024 RFP, as noted above.

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Table 4
ERAS Process Resource

		Nobles BESS
1	Location	Nobles County, MN
2	Type Nameplate Capacity	BESS 300 MW
3	Estimated Production*	**[PROTECTED DATA BEGINS…** **… PROTECTED DATA ENDS]**
4	Water Source	N/A
5	Fuel Type	N/A – energy storage
6	Disposal Plans	TBD
7	Associated Facilities	Nobles Substation
8	Operating life with SD Fuels	N/A
9	Projected End of Life	20 years (2048)
10	Estimated Cost	**[PROTECTED DATA BEGINS…** **… PROTECTED DATA ENDS]**
11	Projected In-Service Date	Q2 2028

*Value shown for BESS assets reflect total estimated stored and discharged energy; the assets do not produce energy, and figures shown are not reflective of estimated round-trip efficiency.

Wind Dev-Transfer

The wind dev-transfer RFP aimed to secure renewable resources capable of reusing the remaining Sherco interconnection rights. The DT acquisition process allows the Company to take ownership of projects at an earlier stage – after a majority of the development work has been completed but before construction activities begin. The RFP was issued on October 31, 2023, and the two projects shown in Table 5 below are pending approval with the Minnesota Public Utilities Commission.

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Table 5
Wind Dev-Transfer Resources

		Little Rock Wind	Box Car Wind (Phases 1-4)
1	Location	Worthington, Minnesota	Balaton, Minnesota
2	Type Nameplate Capacity	Wind 300 MW	Wind 969 MW
3	Estimated Production	**[PROTECTED DATA BEGINS…**	**… PROTECTED DATA ENDS]**
4	Water Source	N/A	N/A
5	Fuel Type	Wind	Wind
6	Disposal Plans	N/A	N/A
7	Associated Facilities	Sherco Gen-Tie	Sherco Gen-Tie
8	Operating life with SD Fuels	N/A	N/A
9	Projected End of Life	25 years (2055)	25 years (2054/2055)
10	Estimated Cost	**[PROTECTED DATA BEGINS…**	**… PROTECTED DATA ENDS]**
11	Projected In-Service Date	Q4 2030	Phases 1 and 2 (498 MW): December 2029 Phases 3 and 4 (471 MW): December 2030

20:10:21:06 EXISTING TRANSMISSION FACILITIES

This rule requires utilities to provide a description of their existing transmission facilities. Similar to the information we provided about our electric generating

facilities, we provide the details required by S.D. Admin. R. § § 20:10:21:04 for Company transmission facilities located in South Dakota, and provide information about other transmission facilities that comprise the NSP System that serves our South Dakota customers as Attachment B.

South Dakota Transmission Facilities

Listed below are our existing transmission facilities operating at 115 kV or above in South Dakota. They are all located in the eastern portion of the state. As noted above, a map showing the location of our transmission lines is included as Attachment B. Currently none of these facilities are projected to be removed from service.

A. Type 115 kV – AC

1. Lawrence Substation in Sioux Falls to the Lincoln County Substation south of Sioux Falls – 11 miles.
2. Lincoln County Substation south of Sioux Falls to the Louise Substation (southwest side of Sioux Falls) – 3 miles.
3. Louise Substation (southwest corner of Sioux Falls) to the Cherry Creek Substation (west side of Sioux Falls) – 7 miles.
4. Cherry Creek Substation to the Grant Substation west of Sioux Falls – 24 miles.
5. Grant Substation west of Sioux Falls to Northwestern Energy (Northwestern) at Mitchell – 24 miles to Wolf Creek Interconnection owned by Xcel Energy; the remainder is owned by Northwestern.
6. Lawrence Substation in Sioux Falls to the Western Area Power Administration (WAPA) Substation in Sioux Falls – 1 mile.
7. Lawrence Substation in Sioux Falls to the Split Rock Substation approximately 5 miles northeast of Sioux Falls (circuit #1) – 2 miles.
8. Split Rock Substation to the Pathfinder Substation to the Pipestone Substation in Pipestone, Minnesota. Approximately 35.5 miles of this line are in the state of South Dakota – 44.5 miles total.
9. Lawrence Substation in Sioux Falls to the Split Rock Substation approximately 5 miles northeast of Sioux Falls (circuit #2). Approximately 1 mile of this line is double-circuited with the Split Rock-Magnolia 161 kV line; 2.2 miles total.
10. Split Rock Substation to the West Sioux Falls Substation – 17.3 miles.
11. West Sioux Falls Substation to the Great Plains Substation – 1.5 miles.
12. Great Plains Substation to the Cherry Creek Substation – 2.0 miles.
13. Split Rock Substation to South Renner Substation – 8.7 miles.
14. South Renner Substation to Cherry Creek-7.8 miles.

15. Split Rock to Angus C. Anson generating plant #1 – 0.28 miles.
16. Split Rock to Angus C. Anson generating plant # 2 – 0.43 miles.
17. Brookings County to Yankee #1 – 3.7 miles of this line is in South Dakota; 13 miles total.
18. Brookings County to Yankee #2 – 6.5 miles of this line is in South Dakota; 13 miles total.
19. West Sioux Falls to Falls Substation-3.6 miles
20. Falls Substation to Split Rock Substation-8.25 miles

B. Type 161 kV – AC

1. Split Rock Substation approximately 5 miles northeast of Sioux Falls to ITC Midwest, LLC (ITC Midwest) interconnection near Luverne, Minnesota.[5] Approximately 1 mile of this line is double-circuited with the second Lawrence- Split Rock 115 kV line. Approximately 11 miles of this line are in the state of South Dakota - 20 miles total.

C. Type 230 kV – AC

1. Split Rock Substation to the WAPA Sioux Falls Substation – 1 mile.

D. Type 345 kV – AC

1. Split Rock Substation northeast of Sioux Falls to the WAPA's 345 kV line to Watertown. This is a 5.1 mile line with 2.5 miles double circuit but one circuit is not energized.
2. Split Rock Substation northeast of Sioux Falls to the WAPA's 345 kV line to Sioux City. This is a double-circuit line – 5.1 miles with the Split Rock-Nobles line.
3. Split Rock-Nobles County-Lakefield Junction. 345 kV line approximately 10 miles of this line are in the state of South Dakota – 90.8 miles total. 5.1 miles are double circuit with the Split Rock-Sioux City line.
4. Brookings County-White 345 kV line #1. This is a 0.4 mile line.
5. Brookings County-White 345 kV line #2. This is a 0.4 mile line.
6. A 230 mile, 345 kV line double circuit between Brookings, South Dakota, and the southeast Twin Cities, plus a related 30 mile, 345 kV line between Marshall, Minnesota, and Granite Falls, Minnesota (Brookings Project).
7. Big Stone South to Brookings Co Substation is a 72 mile long line with the ownership split evenly between Xcel Energy and Otter Tail Power Company.

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[5] In early 2008, ITC Midwest purchased all of the high voltage electric transmission facilities of Interstate Power and Light Company (Alliant Energy) in Iowa, Minnesota and Illinois.

As noted above, a map of our total NSP System transmission facilities is provided as Attachment B to this report.

20:10:21:07 PROPOSED TRANSMISSION FACILITIES
This rule requires utilities to provide the specific transmission facilities that have been proposed but are not yet in operation in the 10-year period of the biennial report.

1. Rebuild 2 miles 115 kV Cherry Creek - Great Plains.
2. Falls Substation to Lawrence Substation – 1.7 mile 115 kV line.
3. Falls Substation to Lincoln Substation – 6.91 mile 115 kV line.
4. Big Sioux River Substation to West Sioux Falls Substation – 3.9 mile 115 kV line.
5. Big Sioux River Substation to Lincoln Substation – 5.0 mile 115 kV line.

The transmission system is analyzed annually, and any future projects will be included as necessary.

20:10:21:08 COORDINATION OF PLANS
This rule requires utilities to describe how their plans coordinate with other utilities serving the region.

Xcel Energy is a member of the Midwest Reliability Organization (MRO). The purpose of the MRO is to ensure the reliability and security of the bulk power system covering the states of Wisconsin, Iowa, Minnesota, Nebraska, and most of South Dakota as well as the Canadian provinces of Saskatchewan and Manitoba. As such, the members of the non-profit organization meet to discuss reliability and security issues. There are numerous committees that develop standards, guidelines, and reporting procedures for everything from load shedding to vegetation management. More information about the organization can be found at:

http://www.midwestreliability.org.

All major transmission planning performed by the Company is coordinated through the MISO on a regional basis, consistent with the Federal Energy Regulatory Commission (FERC) Orders (a) dated May 19, 2000 (FERC Docket No. EC00-60-000) authorizing the transfer of functional control of our high voltage transmission system to the MISO; (b) dated December 20, 2001[6] finding MISO to be the first

[6] FERC Docket Nos. RT01-87-000, RT01-001, ER02-106-000 and ER02-108-000.

FERC-approved regional transmission organization (RTO); and dated February 15, 2007 (Order No. 890), requiring RTOs and their member utilities to use coordinated regional planning.[7] MISO issues an annual MTEP after coordinated planning and stakeholder review. Prior to 2007, these plans were issued biennially. The current MTEP 2025 series of projects was approved by the MISO Board of Directors in December of 2025 and is available at the MISO website at

MTEP25 Report (misoenergy.org)

As a result of complying with the FERC Order No. 890 rules, MISO has implemented its own Sub-Regional Planning Meetings. We participate in the Western Region meetings. This group provides a forum for stakeholder input and coordination of plans and we actively participate in this. This joint planning is intended to maximize use of existing facilities and minimize the amount of new facilities.

Another example of this coordination by the utilities is the formalization of the Minnesota Transmission Owners (MTO) organization. The MTO consists of all transmission owning utilities in Minnesota. The MTO was formed to submit coordinated biennial transmission planning reports to the Minnesota Commission as required by Minn. Stat. § 216B.2425. Some MTO utilities also serve eastern North Dakota and eastern South Dakota. The MTO group is presently developing coordinated short-term regional plans and longer-term vision plans for the bulk transmission needs throughout the Upper Midwest and the transmission required to meet the various states' Renewable Energy Standards. The MTO group also performs an annual 10-year assessment of the members' utility systems for compliance with the North American Electric Reliability Corporation Transmission Planning (TPL) standards. The MTO utilities also coordinate their planning with CapX2020 and subsequent regional transmission initiatives.

In addition, as noted previously, the Company prepares Integrated Resource Plans for the NSP System and submits a copy of those plans to the Commission consistent with the Commission's requirements in Docket No. EL08-028 and the Settlement Stipulation and Commission Order in Docket No. EL09-009.

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[7] *Preventing Undue Discrimination and Preference in Transmission Service*, 72 FR 12266, ORDER NO. 890 (March 15, 2007), FERC Stats. & Regs. ¶ 31,241 (2007) (Order No. 890), *order on reh'g*, 73 Fed. Reg. 2984 (Jan. 16, 2008), FERC Stats. & Regs. ¶ 31,261 (2008) (Order No. 890-A); *order on reh'g* 123 FERC ¶ 61,299 (Order No. 890B) (June 23, 2008). MISO's Order No. 890 regional transmission planning process was conditionally accepted for filing in *Midwest Independent Transmission System Operator, Inc.*, 123 FERC ¶ 61,164 (May 15, 2008).

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20:10:21:09 SINGLE REGIONAL PLANS

This rule requires utilities to state whether the facilities it has proposed comprise all or part of a single regional plan. As described in the previous sections, the Company serves its South Dakota customers from an integrated NSP System that serves portions of Michigan, Minnesota, North Dakota, South Dakota, and Wisconsin. As discussed above, we periodically evaluate our customers' needs and federal and state requirements and develop Integrated Resource Plans that look 15 years into the future to ensure we continue to meet our reliability requirements and customer needs. We additionally continue to work with MISO and other coordinated regional utility groups to evaluate potential transmission needs in the future and to develop coordinated regional plans as required to meet those needs.

The Company is involved in the MISO Long-Range Transmission Plan 2.1 (LRTP), which was created to build on the foundation of Tranche 1. The Tranche 2.1 portfolio ensures future reliability while providing benefits that exceed costs. This analysis chose three different futures to understand the impact of generation portfolio change across the system and the impacts on the transmission system. Several aspects of the system were analyzed as part of this study, reliability impacts, economic impacts, and congestion impacts were the major benefits studied.

Study and meeting materials can be found on the MISO website.

Long Range Transmission Planning (misoenergy.org)

The LRTP 2.1 approved portfolio can be found at:

LRTP 2.1 Approved Plan

In addition, the Company is involved in the Joint Targeted Interconnection Queue (JTIQ). JTIQ is a coordinated planning effort between MISO and the Southwest Power Pool (SPP) that identifies and advances transmission upgrades needed to address interconnection constraints along the seam between the two regions. Through a portfolio-based approach, JTIQ evaluates transmission solutions collectively through joint stakeholder processes. The resulting upgrades allow for efficient integration of new generation, improved transfer capability, and reduced congestion. The resulting upgrades developed are incorporated into regional transmission planning to support reliable and cost-effective expansion across both regions.

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The JTIQ Executive Summary can be found at:

JTIQ MISO – SPP Collaborated Report

20:10:21:10 SUBMISSION OF REGIONAL PLANS
This rule requires utilities proposing facilities that comprise all or part of a regional plan to submit the plan(s). As noted previously, we submit our Integrated Resource Plans to the Commission as they are developed.

Regional transmission plans, by virtue of their geographic coverage, involve a collaborative effort of multiple utilities. This analysis includes active participation in the MTO and the MISO planning efforts. This effort is part of the MTEP regional planning process. As specific plans for additional facilities are developed, they will be submitted with subsequent 10-year plans. The MTEP is subject to review and approval by MISO's independent Board of Directors. Proposals to construct specific MTEP-approved facilities in South Dakota would be submitted for Commission approval, as required.

20:10:21:11 UTILITY RELATIONSHIPS
This rule requires utilities to describe any relationship of the utility to other utilities and regional associates, power pools, and networks.

Northern States Power Company-Minnesota (NSPM) is an operating company subsidiary of Xcel Energy Inc., a public utility holding company, and we are affiliated with three other regulated public utilities: Northern States Power Company-Wisconsin (NSPW), Public Service Company of Colorado, and Southwestern Public Service Company. NSPM and NSPW plan, build, and operate a single integrated electric and production system (the NSP System) to meet the electrical needs of both utilities' customers under an agreement accepted by the Federal Energy Regulatory Commission, known as the Interchange Agreement.

NSPM is a member of MISO, the first FERC-approved RTO. As an RTO, MISO provides regional tariff administration services and operates a Day-ahead and Real-time regional wholesale energy market pursuant to its Open Access Transmission, Reliability Planning NERC TPL-001, and Energy and Operating Reserve Markets Tariff. MISO implemented a regional planning reserve market in 2009, pursuant to Module E of the Open Access Transmission, Energy and Operating Reserve Markets Tariff. MISO is also the Regional Reliability Coordinator for the NSPM and NSPW integrated electric generation and transmission system (NSP System).

Outside of MISO, NSPM serves a small amount of retail load in Berthold, ND. For that, NSPM is also a transmission customer and market participant under Southwest Power Pool's (SPP) Open Access Transmission Tariff.

We are also a member of the MRO, which is the Regional Entity responsible for the enforcement of mandatory electric reliability standards adopted by the North American Electric Reliability Corporation.

20:10:21:12 EFFORTS TO MINIMIZE ADVERSE EFFECTS

This rule requires utilities to describe in detail their methodology used and efforts to identify, minimize, or avoid adverse environmental, social, economic, health, public safety, and historic or aesthetic preservation effects.

The Company uses a multi-step approach to minimize adverse effects resulting from siting, constructing, operating, and maintaining large electric generating plants and high-voltage transmission lines. These efforts relate to long-range planning and coordination, environmental site and route analysis, and ensuring that the effects of construction and operational practices are minimized.

High voltage transmission facility plans are coordinated with MISO, other area power suppliers and load serving entities in order to develop, whenever possible, joint use facilities. Coordination with others can reduce the number of facilities by providing for joint ownership and operation of facilities.

Once the need for generation or transmission is identified, an initial site or route search is begun by defining a broad study area to locate the facility. A broad range of information about the physical, biological and cultural environment within the study area is then collected. As information on such factors as land use, air and water quality, plants and animals, transportation and social services, and local and regional employment becomes available, various siting criteria are used to define preferred and alternate routes and sites. We prefer to develop a project with the cooperative assistance of state and local agency officials, neighboring transmission utilities (such as Northwestern, WAPA, Missouri River Energy Services and ITC Midwest), and affected landowners in order to assure the widest possible considerations of information, concerns and options. It is our policy to ensure compliance with all local, state and federal regulatory requirements in the development and location of proposed projects.

Because of the detail involved in a major generation or transmission project, we continue to refine site and route engineering once permits have been granted. This

allows us to adjust for new developments that may arise during construction, such as the need for changes in locations, land use or construction techniques, and allows any concerns to be addressed and mitigated without undue delay and expense. We are committed to working with affected landowners to mitigate environmental and land use problems that may arise as a result of construction and maintenance activities.

We discuss our other efforts to respond to the evolving utility landscape in our 2024-2040 Upper Midwest Integrated Resource Plan submitted to the Commission as an informational, non-docketed submission on February 1, 2024.

20:10:21:13 LOAD MANAGEMENT EFFORTS

This rule requires utilities to describe their efforts toward efficient load management.

The Company's load management efforts in South Dakota reduce peak demands, which can help delay or avoid more expensive electric generation and purchased power needs.

The Company has three load management programs in South Dakota:

- AC Rewards
- Saver's Switch
- Peak and Energy Control

AC Rewards and Saver's Switch allow customers to participate in direct load control with the Company, reducing load during hot summer months, and receive an incentive for participation. Peak and Energy Control is offered to any business customer that can reduce their load by at least 50 kW. Control periods can be initiated by the Company or by MISO. Business customers receive a rate reduction by tariff for the committed load reduction.

Currently the Company has approximately 19,900 residential customers and 692 commercial customers participating for approximately 32.6 MW of load reduction in our load management portfolio.

Load management is one of our many demand side management (DSM) offerings provided to customers in South Dakota. On January 1, 2012, we launched DSM programs in South Dakota, approved in the Order in Docket No. EL11-013. The DSM portfolio also includes energy efficiency and consumer education programs, as well as load management, aimed at both residential and commercial customers.

Commercial programs in the DSM portfolio include:

- Lighting Efficiency (energy efficiency)
- HCAV+R (energy efficiency)
- Business Saver's Switch (load management)
- Peak and Energy Control (load management)

Residential programs in the DSM portfolio include:

- Residential Demand Response, including
  - Saver's Switch (load management)
  - AC Rewards (load management)
- Consumer Education

Since their launch in 2012, these programs have reduced peak demand by about 34 MW and have conserved approximately 88 GWh. It is forecasted that in 2026 the programs will achieve an additional 2 MW in peak reduction and 3.2 GWh in conservation.

Our 2024 Status Report was filed on May 1, 2025, and our 2026 Demand Side Management Plan was filed on August 1, 2025, with the South Dakota Public Utilities Commission in Docket No. EL24-016. We additionally provide details regarding the Company's DSM efforts in our Upper Midwest Integrated Resource Plan.

20:10:21:14 LIST OF REPORTS RELATED TO PROPOSED FACILITIES
This rule requires utilities to provide a list of all reports or studies filed or proposed to be filed with federal or other state agencies relating to the proposed facilities.

A. Electric Generation Facilities

At this time, we do not anticipate additional filings with federal or other state agencies for the proposed facilities listed above.

B. Transmission Facilities

2025 MISO Transmission Expansion Plan (MTEP) Report
MTEP25 Report (misoenergy.org)

Previous MISO Transmission Expansion Plan (MTEP) Reports
Previous MTEP Reports

20:10:21:15 CHANGES IN STATUS OF FACILITIES

This rule requires utilities to list changes in the status of the utility's facilities during the past two years, or since submission of its most recent 10-year plan.

There have been no changes in the status of Xcel Energy's facilities in South Dakota in the past two years.

20:10:21:16 PROJECTED ELECTRIC DEMAND

The NSP System serves customers in South Dakota, North Dakota, Minnesota, Wisconsin, and Michigan. The forecast of our native energy requirements and peak demand for the State of South Dakota jurisdiction is shown in Table 6. We produce long-range "Base" forecasts of native energy requirements, summer peak, and winter peak demand. We plan to meet the needs of the integrated NSPM/NSPW generation and transmission system. Tables 6 through 8 show the long-range system forecast of native energy requirements, summer peak, and winter peak demand for the NSP System. Table 6 shows the South Dakota portion of the NSP System forecast.

The forecast for the NSP System is based on forecasts of jurisdictional sales by major customer class: residential with and without space heating, small commercial and industrial, and large commercial and industrial. Each customer class is modeled independently for the five states included in the NSP System. The native energy requirements are determined by applying a loss factor on total sales.

South Dakota's NSP-coincident peak was calculated using an 8760 modeling approach[8], where base load by state, electric vehicles, beneficial electrification, and energy efficiency are all given hourly shapes and aggregated. The overall NSP peak is then identified as the highest point in this aggregated hourly profile for month, season, or year. The South Dakota loads shown in Table 6 are the loads coincident with the forecast NSP peak. This "coincident" demand is appropriate for generating capacity requirement forecasting.

It is important to note, however, that a "non-coincident" peak demand must be used in evaluating transmission capacity requirements. This is because the transmission system must be able to supply the full local customer demand at all times. Due to load diversity caused by weather variations within the multi-state NSP System, peak customer demands in our South Dakota service areas can be as much as 10 percent higher than the demands registered during the hour in which the total System peak

[8] This process is described in the Company's 2024-2040 Upper Midwest Integrated Resource Plan, Appendix E: Load and DER Forecasting.

demand occurs. It is these local "non-coincident" peak demands that determine the need for transmission improvements required for load serving functions.

20:10:21:17 CHANGES IN ELECTRIC ENERGY

Table 6 shows the projected volume and percentage increase in energy demand for our South Dakota service territory for each year. Tables 7 and 8 provide the projected energy and demand for the NSP System, which includes the five states we serve across the Upper Midwest.

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Table 6
Forecast of Electric Energy Requirements and Peak Demand

	Summer Peak (MW)	Winter Peak (MW)	Energy Requirements (GWh)	Change In Energy (GWh)	% Change In Energy
2026	532	351	2,445		
2027	554	366	2,540	95	3.89%
2028	560	373	2,579	39	1.52%
2029	565	378	2,594	15	0.59%
2030	569	383	2,621	27	1.04%
2031	575	386	2,645	23	0.89%
2032	580	391	2,679	35	1.31%
2033	585	387	2,701	21	0.80%
2034	589	392	2,727	27	0.99%
2035	594	404	2,753	26	0.94%
2036	599	425	2,793	40	1.45%
2037	604	430	2,822	29	1.05%
2038	609	437	2,860	38	1.33%
2039	615	436	2,905	45	1.59%
2040	622	444	2,960	55	1.89%
2041	629	461	3,006	46	1.56%
2042	636	471	3,062	55	1.84%
2043	642	480	3,119	57	1.87%
2044	651	491	3,186	67	2.16%

Compound Annual Growth Rate (2026-2044)
% Growth: **1.13%** **1.88%** **1.48%**

Notes:
1) Peak Load is ***coincident*** to the NSP System peak.
2) Winter Peak = MISO Winter Peak season

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Table 7
NSP System Net Energy Requirements

Year	Base (MWh)
2026	44,550,362
2027	45,074,254
2028	45,781,493
2029	49,149,367
2030	52,819,303
2031	54,555,695
2032	55,513,328
2033	55,925,835
2034	56,521,052
2035	57,174,134
2036	58,155,796
2037	58,838,662
2038	59,684,901
2039	60,623,892
2040	61,758,314
2041	62,553,630
2042	63,487,568
2043	64,464,222
2044	65,619,701

Compound Annual Growth Rate (2026-2044)
% Growth: **2.17%**

Notes:
1) NSP System Net Energy Requirements have been adjusted for DSM (Demand Side Management)

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Table 8
NSP System Net Summer Peak

Year	Base (MW)
2026	9,256
2027	9,359
2028	9,492
2029	9,928
2030	10,427
2031	10,625
2032	10,741
2033	10,822
2034	10,907
2035	10,993
2036	11,095
2037	11,170
2038	11,255
2039	11,371
2040	11,496
2041	11,571
2042	11,658
2043	11,741
2044	11,866

Compound Annual Growth Rate (2026-2044)

% Growth: **1.39%**

Notes:

1) NSP System Net Energy Requirements have been adjusted for DSM (Demand Side Management)

2) Summer Peak = MISO Summer Peak season

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20:10:21:18 MAP OF SERVICE AREA

This rule requires utilities to provide a map or maps showing the specific geographic location of the utility's service area or areas.

This information is available for digital viewing on the South Dakota Public Utilities Commission's website.[9]

[9] *See Electric Service Territory*

Table 9
NSP System Generating Resource Summary

Plant	Own/PPA	Type	Fuel
A.S. King	Own	Thermal	Coal
Sherburne County 1, 3	Own	Thermal	Coal
Bayfront 5, 6	Own	Thermal	Biomass
French Island 1, 2	Own	Thermal	Biomass
Redwing 1, 2	Own	Thermal	Biomass
St. Paul Co-Gen	PPA	Thermal	Biomass
Wilmarth 1, 2	Own	Thermal	Biomass
Barron County	Own	Thermal	Biomass
Shakopee Biomass	PPA	Thermal	Biomass
Black Dog 2/5	Own	Combined Cycle	Natural Gas
High Bridge	Own	Combined Cycle	Natural Gas
LSP Cottage Grove	PPA	Combined Cycle	Natural Gas
Mankato Energy Center 1	PPA	Combined Cycle	Natural Gas
Mankato Energy Center 2	PPA	Combined Cycle	Natural Gas
Riverside	Own	Combined Cycle	Natural Gas
Cannon Falls 1	PPA	Combustion Turbine	Natural Gas
Cannon Falls 2	PPA	Combustion Turbine	Natural Gas
Inver Hills 1-6	Own	Combustion Turbine	Natural Gas
Angus Anson 2, 3, 4	Own	Combustion Turbine	Natural Gas
Black Dog 6	Own	Combustion Turbine	Natural Gas
Blue Lake 7, 8	Own	Combustion Turbine	Natural Gas
Wheaton 8	Own	Combustion Turbine	Natural Gas
Wheaton 9-13	Own	Combustion Turbine	Natural Gas
Blue Lake 9-11	Own	Combustion Turbine	Natural Gas
Monticello	Own	Thermal	Nuclear
Prairie Island 1	Own	Thermal	Nuclear
Prairie Island 2	Own	Thermal	Nuclear
French Island 3, 4	Own	Combustion Turbine	Oil
MN Hydro - Owned	Own	Hydro	Hydro
WI Hydro - Owned	Own	Hydro	Hydro
Small Hydro PPAs – 24 MW, nameplate	PPA	Hydro	Hydro
Sherco Solar 1	Own	Solar	Solar
Sherco Solar 2	Own	Solar	Solar
Solar PPAs – 468 MW, nameplate	PPA	Solar	Solar
Blazing Star 1	Own	Wind	Wind
Blazing Star 2	Own	Wind	Wind
Border	Own	Wind	Wind
Community Wind North 1, 2	Own	Wind	Wind
Courtenay	Own	Wind	Wind

Plant	Own/PPA	Type	Fuel
Crowned Ridge 2	Own	Wind	Wind
Dakota Range 1, 2	Own	Wind	Wind
Ben Fowke (formerly Grand Meadow)	Own	Wind	Wind
Foxtail	Own	Wind	Wind
Freeborn	Own	Wind	Wind
Jeffers	Own	Wind	Wind
Lake Benton 1, 2	Own	Wind	Wind
Mower	Own	Wind	Wind
Nobles	Own	Wind	Wind
Northern	Own	Wind	Wind
Pleasant Valley	Own	Wind	Wind
Rock Aetna	Own	Wind	Wind
Wind PPAs – 2,010 MW, nameplate	PPA	Wind	Wind

In addition to the resources above and the Company-owned resources shown in the "Proposed Energy Conversion Facilities" section, the Company has entered into new PPAs since our last report. The table below summarizes these PPA resources that will serve South Dakota customers. Two of these projects – Grant Solar and Crowned Ridge BESS – are located in South Dakota.

Table 10
Planned Power Purchase Agreements

Plant	Own/PPA	Type	Fuel	In-Service
Grant Solar	PPA	Solar	Solar	2027
Crowned Ridge BESS	PPA	BESS	n/a, energy storage	2027
North Star BESS	PPA	BESS	n/a, energy storage	2027
Fillmore County Solar (expansion)	PPA	Solar	Solar	2026
Cottage Grove BESS	PPA	BESS	n/a, energy storage	2028
Lake Wilson BESS	PPA	BESS	n/a, energy storage	2028
Gopher State Solar	PPA	Solar	Solar	2029
Lemon Hill Solar	PPA	Solar	Solar	2028
Crane BESS	PPA	BESS	n/a, energy storage	2028
Sandhill BESS	PPA	BESS	n/a, energy storage	2028
Mayhew Lake BESS	PPA	BESS	n/a, energy storage	2028
Benton II BESS	PPA	BESS	n/a, energy storage	2029

Northern States Power Company
South Dakota 10-Year Plan
Attachment B - Page 1 of 1

North Dakota

South Dakota

Minnesota

Iowa

Wisconsin

Michigan

Above Ground Transmission by Voltage

- Under 115 kV
- 115 kV
- 161 kV
- 230 kV
- 345 kV
- 500 kV

Document Path: S:\General Offices\EO-Trans\SLR-Mapping\GIS Projects\System Maps\NSP\CenterlineMap.aprx

NSPM and NSPW Overhead Centerlines

Updated: June 2026

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Xcel Energy®

CERTIFICATE OF SERVICE

I, Victor Barreiro, hereby certify that I have this 1st day of July 2026 served paper copies of the foregoing document on the attached list of persons.

South Dakota Biennial 10-Year Plan Service List

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Pierre, SD 57501

South Dakota Aeronautics Commission
Becker Hansen Building
700 East Broadway Avenue
Pierre, SD 57501

South Dakota State Engineer
Foss Building
523 East Capitol Avenue
Pierre, SD 57501

South Dakota Department of Agriculture & Natural Resources
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South Dakota Department of Game, Fish, and Parks
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South Dakota Office of the Attorney General
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South Dakota State Geologist
Akeley – Lawrence Science Center, USD
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South Dakota Department of Labor and Regulation
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South Dakota Governor's Office of Economic Development
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