



Ten-Year
Energy Facility Plan
2026–2035

Prepared for the South Dakota Public Utilities Commission

Submitted July 1, 2026

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Ten-Year Energy Facility Plan | 2026-2035

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Pursuant to SDCL § 49-41B-3 and ARSD ch. 20:10:21, NorthWestern Energy Public Service Corporation d/b/a NorthWestern Energy ("NorthWestern") submits this Ten-Year Energy Facility Plan for its South Dakota facilities.

ARSD 20:10:21:04 Existing Energy Conversion Facilities¹

NorthWestern owns a 23.4% interest in the Big Stone Plant, which is located near Big Stone City, South Dakota. The other owners of this coal-fired plant are Otter Tail Power Company and Montana-Dakota Utilities Co. (MDU). Otter Tail operates the plant and reports the information required by ARSD 20:10:21:04.²

ARSD 20:10:21:05 Proposed Energy Conversion Facilities

Aberdeen 3

Pursuant to SDCL § 49-41B-5 and ARSD ch. 20:10:22_02, NorthWestern submitted a notice of intent to apply for an Energy Conversion Facility for the Aberdeen 3 (ABD3) project on October 31, 2025 (Docket No. EL25-038).

The ABD3 generating station is a proposed simple cycle natural gas-fired generation facility being developed to address growing electricity demand and to improve the reliability of the grid. The ABD3 project is being developed adjacent to NorthWestern's existing Aberdeen Generating Station (AGS) near Aberdeen, South Dakota, with the site selected based on close proximity to (i) the 115 kV electric transmission backbone, (ii) strong natural gas supply, and (iii) existing NorthWestern facilities. The ABD3 facility is rated at nominally 131 MW (gross) utilizing three combustion turbines, and it is expected to provide approximately 91 MW of accredited capacity in the 01 North Zone of the Southwest Power Pool (SPP) when completed in the 2030 timeframe. This project is intended to improve system reliability, provide operational flexibility, and reduce risk from uncertain future load growth and changing SPP accreditation rules. Project

¹ An "energy conversion facility" is a facility or facility expansion designed for or capable of generation of 100 MW or more of electricity, but does not include wind energy facilities. SDCL § 49-41B-2(6).

² Otter Tail Power Company's 2024 Ten-Year Biennial Plan was filed in Docket No. PU-24-285.

dispatch will be determined by market conditions and system demand, with the ABD3 facility capable of supporting peaking to baseload operations, as required.

The ABD3 project submitted an Interconnection Request under SPP’s Expedited Resource Adequacy Study (ERAS) Procedures, with the project currently advancing through the expedited grid interconnection process. Under the ERAS Procedures, a Generator Interconnection Agreement (GIA) is expected later in 2026.

The ABD3 facility will utilize natural gas fuel only, sourced from a nearby interstate pipeline. The estimated maximum fuel consumption is approximately 30,000 Dkt/Day. The simple cycle facility requires minimal water consumption, with a municipal connection providing service and potable water needs. During operation, the facility will produce minimal wastes, with sanitary wastes and treated process water routed to a municipal connection. Minimal solid wastes will be disposed of at licensed landfills.

Anticipated associated facilities of ABD3 are primarily the electric grid and natural gas system interconnections. See discussion in 20:10:21:07 below for anticipated electric transmission associated facilities. Natural gas for the existing AGS is provided via a lateral from a nearby interstate pipeline, with the same pipeline planned to be the source for ABD3 via a new lateral.

Estimated construction costs are approximately \$350 million, with early expenditures already incurred for turbine procurement and development activities. With the project designed for a minimum 30 year life, ABD3 is positioned as a long-term capacity solution to meet both current and future demand in NorthWestern’s South Dakota service territory.

ARSD 20:10:21:06 Existing Transmission Facilities

For existing transmission facilities,³ which are facilities through which electricity is being transmitted, the utility shall provide information as follows: (1) Location; (2) Type and transmission voltage; and (3) Projected date of removal from service and reason for removal.

NorthWestern’s 115 kV transmission facilities run from Ellendale, North Dakota, to Yankton, South Dakota (north to south). A map of these facilities is attached as Exhibit A.

From	To	Type	Voltage
Ellendale Substation (Ellendale, ND)	Aberdeen A-Tap (2 miles west of Aberdeen, SD)	AC	115 kV

³ A “transmission facility” is an electric transmission line and associated facilities with a design of more than 115 kV. SDCL § 49-41B-2.1.

From	To	Type	Voltage
Aberdeen A-Tap	• Aberdeen Seibrecht Substation (Aberdeen, SD) • Aberdeen City Substation (Aberdeen, SD)	AC	115 kV
Aberdeen Siebrecht Substation	• Western Area Power Administration's (WAPA) Groton Substation (south of Groton, SD) • Aberdeen Industrial Park Substation (Aberdeen, SD) • Redfield Transmission Substation (Redfield, SD)	AC	115 kV
Redfield Transmission Substation	WAPA Huron Substation (1 mile south of Broadland, SD)	AC	115 kV
WAPA Huron Substation (two circuits)	Huron West Park Substation (Huron, SD)	AC	115 kV
Huron West Park Substation	Mitchell Northwest Substation (Mitchell, SD)	AC	115 kV
Mitchell Northwest Substation	Mitchell Transmission Substation (Mitchell, SD)	AC	115 kV
Mitchell Transmission Substation	• Interconnection with Xcel Energy (near McCook County line, approximately 23 miles east of Mitchell, SD) • WAPA Letcher Substation (10 miles northeast of Mitchell, SD) • Tripp Junction Substation (5 miles south of Tripp, SD)	AC	115 kV
Tripp Junction Substation	• Schroeder Substation (5 miles southwest of Tripp, SD) • Menno Junction Substation (4 miles north of Lesterville, SD)	AC	115 kV
Menno Junction Substation	WAPA Utica Junction Substation (2 miles northeast of Lesterville, SD)	AC	115 kV
WAPA Utica Junction Substation	NAPA Junction Substation (5 miles northwest of Yankton, SD)	AC	115 kV
NAPA Junction Substation	• Yankton East Substation (1 mile east of Yankton, SD) • Yankton Junction Substation (4 miles west of Yankton, SD)	AC	115 kV

In addition, NorthWestern is a joint owner (along with MDU and Otter Tail) of the Big Stone Plant Transmission Facilities. NorthWestern owns 18.17 miles of the Big Stone Plant-to-Gary 230 kV transmission line near Big Stone City, South Dakota.

NorthWestern does not project the retirement of any transmission facilities rated 115 kV or above within the next 10-year time period.

ARSD 20:10:21:07 Proposed Transmission Facilities (Electric)

ABD3 Interconnection Substation and Siebreicht Substation Modification: A new, 115 kV breaker-and-a-half (BAAH) substation will facilitate ABD3 electrical grid interconnection. The interconnection substation will be located on the ABD3 project site and tie into NorthWestern's existing Siebreicht substation located directly south at the existing AGS site. To improve local system reliability, the 115 kV lines entering the Siebreicht substation from the east will be routed to the ABD3 interconnection substation.

Faulkton Tie (now called Wacota): NorthWestern's Faulkton load is currently served from a radial 34.5 kV line. In order to increase reliability to the area, NorthWestern is working with East River Electric on a possible interconnection.

Redfield Transmission substation rebuild: NorthWestern is currently in the process of rebuilding the Redfield Transmission substation. The existing substation currently sits in a floodplain and has experienced past flooding issues. The substation will be rebuilt out of the floodplain. In addition, there are asset life concerns with the existing substation equipment.

Huron West Park rebuild: NorthWestern is planning on rebuilding the Huron West Park substation. The existing substation has several asset life and reliability concerns. Due to the configuration of the substation, a new greenfield substation will be built to address these concerns.

ARSD 20:10:21:08 Coordination of Plans

The utility shall provide a statement describing how the utility's plan or plans coordinate with those of other utilities serving the region.

In South Dakota, NorthWestern is both a transmission customer and transmission-owning member of the Southwest Power Pool (SPP), located in Zone 19, a.k.a. the Upper Missouri Zone (UMZ). NorthWestern transferred functional control of its South Dakota electric transmission facilities to SPP on October 1, 2015, and updates the qualifying facilities under the SPP Tariff annually.

NorthWestern has been coordinating and planning with other systems since 1950, resulting in interconnections, interchange contracts, and the joint construction of facilities. This joint planning effort with neighboring utilities continues today, as NorthWestern is an active participant in the UMZ Coordination Group (UMZCG), which comprises entities with load and transmission facilities registered under Zone 19.

NorthWestern also actively participates in SPP's regional ITP process, which analyzes reliability, economic, and policy needs within the region and along the seams of neighboring Regional Transmission Organizations (RTOs). Within the UMZ, NorthWestern and the other transmission owners have also adopted Zonal Planning Criteria (ZPC) that the zone submits to SPP annually, prior to the April 1 deadline. The ZPC, which SPP incorporates into their annual ITP process, was developed to identify transmission needs on a more local or zonal level.

ARSD 20:10:21:09 Single Regional Plans

The utility shall state whether the proposed facilities comprise all or part of a single regional plan.

The Yankton Junction project originated from a formal request process under SPP's tariff to add or modify delivery points on the transmission system.. NorthWestern performed a separate independent study of this request to ensure added connectivity in the area did not negatively impact the transmission system. As a result, no negative impacts were identified. NorthWestern and East River are proceeding with constructing Yankton Junction.

The upgrades to the Big Stone transmission came out of the Midcontinent Independent System Operator (MISO) generator interconnection study process that flagged NorthWestern's 230 kV line as an affected system. MISO identifies this project as J722 in their generator interconnection process.⁴

ARSD 20:10:21:10 Submission of Regional Plan

If proposed facilities comprise all or part of a regional plan, the utility shall submit the plan.

As mentioned in Section 20:10:21:09, neither of the possible projects originated from a regional transmission planning process.

⁴ MISO DPP 2017 August West Area Study Phase 1 Final Report (Oct 3, 2019), *available at* https://cdn.misoenergy.org/GI-DPP-2017-AUG-West-Phase1_System_Impact_Report_PUBLIC388157.pdf

ARSD 20:10:21:11 Utility Relationships

The utility shall describe any relationship of the utility to other utilities and regional associations, power pools, and networks.

As discussed in Section 20:10:21:08, NorthWestern is a member of the SPP and actively participates in SPP's ITP process, working groups, and committees. NorthWestern is also an active participant in the UMZ Coordination Group and has played an important role in the development of the goals for the group, and the implementation of the ZPC.

ARSD 20:10:21:12 Efforts to Minimize Adverse Effects

The utility shall provide a detailed statement describing methodology used and efforts of the utility to identify, minimize, or avoid adverse environmental, social, economic, health, public safety, and historic or aesthetic preservation effects.

NorthWestern's policy is to provide cost-effective, reliable, and stably-priced energy while being good stewards of the natural resources and complying with environmental regulations. We apply the following environmental principles in our day-to-day business:

1. Our business practices reflect a respect for, and a commitment to, sustainability and the long-term quality of the environment.
2. One of our priorities is being good stewards of natural and cultural resources at our hydroelectric projects.
3. We comply with the spirit as well as the letter of environmental laws and regulations.
4. Environmental issues and impacts are an integral part of our planning, operating, and maintenance decisions.
5. We promote our customers' efforts to conserve energy, subject to regulatory approval.
6. We support providing energy through non-carbon emitting and renewable resources when consistent with our statutory requirement to provide cost-effective and reliable energy.
7. We strive to minimize the generation of wastes and promote the reuse or recycling of materials.
8. We seek to continuously improve our environmental compliance and stewardship.
9. We embrace a team culture where positive environmental stewardship and compliance are encouraged.
10. Our contractors and consultants must comply with this policy when working for or representing NorthWestern.

Promoting safety is an important part of NorthWestern's public service commitment. Our goal is to prevent all incidents by doing our best to warn the public of the potential dangers of working

or playing near electric and natural gas lines and facilities. Below is a list of measures we take to protect and educate the public:

1. The public must be protected from hazards generated by NorthWestern's operations and construction activities. NorthWestern's operating personnel take the appropriate safeguards to minimize and prevent, if possible, any hazards to the general public. Tailboards include a discussion of any public hazards that could be created by work activities.
2. Contractors and equipment rental shops are targeted for education due to their high exposure and potential for digging up natural gas lines or contacting overhead power lines.
3. First Responders are another specific audience that is targeted to ensure that they are educated about how to respond to natural gas or electrical emergencies.
4. NorthWestern offers a variety of educational materials to support our efforts and commitment to public safety. Our public website maintains an extensive safety section for all types of audiences.⁵
5. We offer electric and natural gas safety education programs targeted to third and fourth/fifth grade students.

ARSD 20:10:21:13 Efforts Relating to Load Management

The utility shall provide a statement describing its efforts toward efficient load management.

NorthWestern works with customer requests by utilizing load-research monitoring equipment in an effort to explain usage patterns and causes. NorthWestern also offers time-of-use rates and off-peak rates with curtailment programs to assist commercial or irrigation customers and control demand.

ARSD 20:10:21:14 List of Reports

The utility shall 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.

Aberdeen 3

NorthWestern is currently developing a SD PUC Energy Conversion Facility construction permit application pursuant to SDCL § 49-41B and ARSD ch. 20:10:22 and a minor modification permit application package for the existing AGS air permit for submittal to the SD DANR. Additionally,

⁵ <http://www.northwesternenergy.com/safety/safety>

NorthWestern will obtain all applicable federal and state permits and approvals for the proposed project. A list of anticipated federal and state permits and approvals is listed below:

- SPCC Plan – USEPA
- EPCRA – USEPA/SERC
- NPDES Stormwater Discharge Permit – SD DANR
- Various SD DOT permits
- Federal T&E Species Review – USFWS
- Clean Water Act Section 404 – USACE (also SD DANR depending on determination)
- Endangered Species Review – SD Game, Fish, and Parks
- Cultural and Historic Resources Review – SHPO
- SDCL 49-41B Energy Conversion Facility - SDPUC
- Conditional Use Permit – Brown County
- Construction Air Permit – DANR
- Title V Operating Permit – DANR

ARSD 20:10:21:15 Changes in Status of Facilities

The utility shall provide a list of changes in status of the utility's facilities during the past two years or since submission of its last previous 10-year plan.

Upgrades were made to Aberdeen-Siebrecht substation to accommodate generation upgrades at the Aberdeen Generating Station (AGS). The existing AGS unit #1 will be replaced with two natural gas turbines for a total of 33MW (net increase of 5 MW). This work is expected to be complete by the end of 2026.

Several upgrades were made in 2025 at the Redfield substation on the 34.5 kV side. These upgrades included breaker replacements, relay replacements, a new control house, and replacement of a 34.5 kV/12.5 kV transformer. Additional upgrades on the 69 kV and 115 kV are anticipated in 2027-28.

ARSD 20:10:21:16 Projected Electric Demand

The utility shall provide a statement of the projected demand, both in-state and out-of-state, for the electric service to be rendered by the utility for each of the ensuing 10 years.

Projected Electric Demand | South Dakota Service Territory

Year	Peak Demand (MW)	Increase (%)	Increase (MW)
2026	331	1.6	5
2027	333	0.7	2
2028	341	2.4	8
2029	343	0.6	2
2030	345	0.6	2
2031	348	0.6	2
2032	350	0.6	2
2033	352	0.6	2
2034	354	0.6	2
2035	356	0.6	2

These projections are based upon historical trends and known changes for a 50/50 forecast for NorthWestern's South Dakota service territory based on guidance from SPP.

ARSD 20:10:21:17 Changes in Electric Energy

The utility shall present a table showing the increase or decrease of projected electric energy demand and allocation by volume and percentage for each year relative to the prior year.

Projected Electric Usage | South Dakota Service Territory

Year	Electric Energy (MWh)	Annual Load Growth
2026	1,729,714	0.1%
2027	1,731,029	0.1%
2028	1,732,343	0.1%

Year	Electric Energy (MWh)	Annual Load Growth
2029	1,733,657	0.1%
2030	1,734,972	0.1%
2031	1,736,286	0.1%
2032	1,737,601	0.1%
2033	1,738,915	0.1%
2034	1,740,229	0.1%
2035	1,741,544	0.1%

ARSD 20:10:21:18 Map of Service Area

The utility shall include a map or maps indicating the specific geographic location of the utility's service area or areas.

A map of NorthWestern's South Dakota service territory is below.

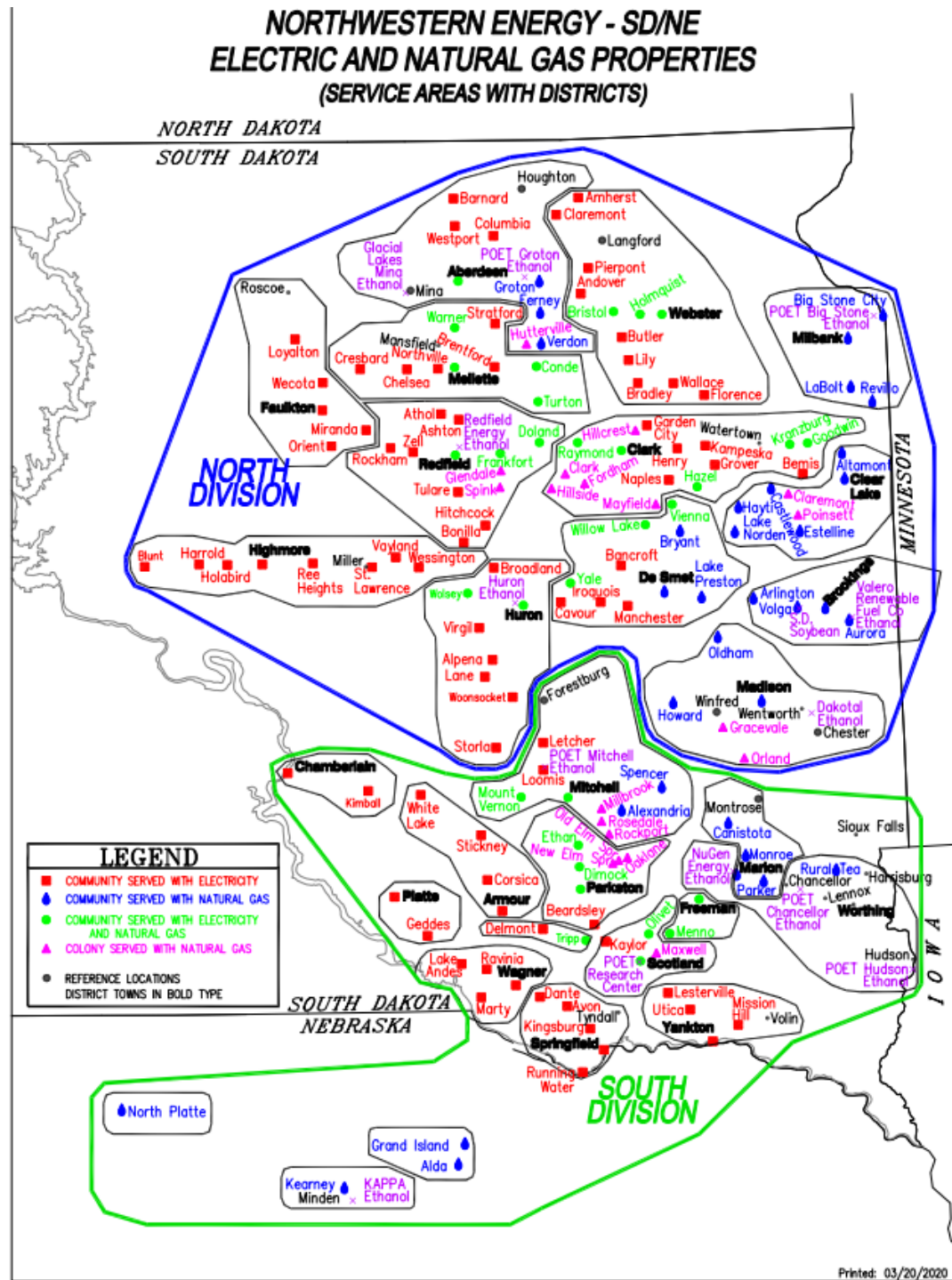
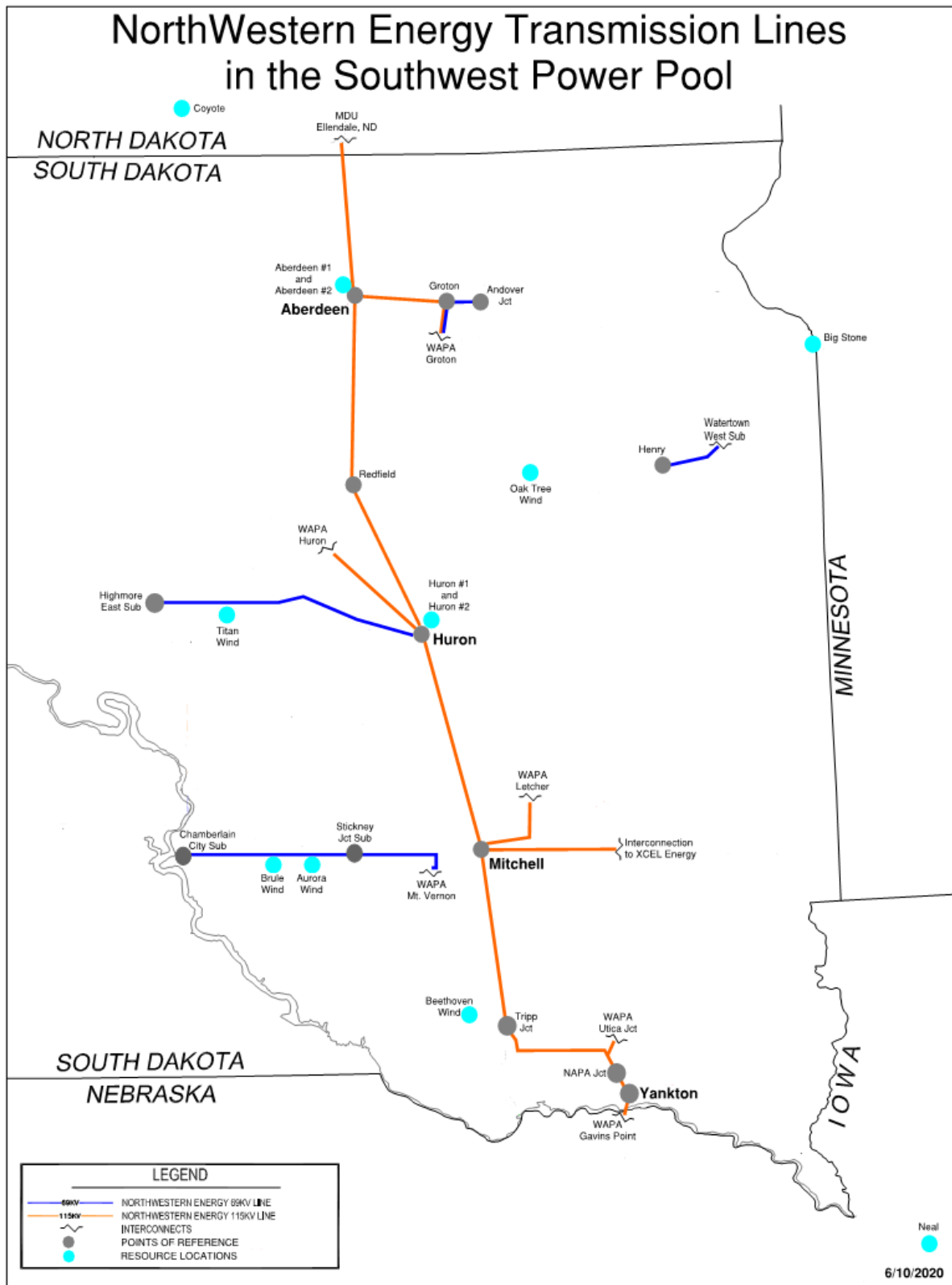


Exhibit A Map of Existing Transmission Facilities



Certificate of Service

I hereby certify that, in accordance with ARSD 20:10:21:23, I have this day served electronic notice of NorthWestern Energy's plan filing to the following state agencies and officers:

- (1) Aeronautics Commission
bandc@state.sd.us
- (2) Department of Agriculture
agmail@state.sd.us
- (3) Attorney General
marty.jackley@state.sd.us
- (4) Department of Revenue
andy.gerlach@state.sd.us
- (5) Governor's Office of Economic Development
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- (9) State Geologist
derric.iles@state.sd.us
- (10) Office of the Governor
tony.huizen@state.sd.us (Chief of Staff)
- (11) Department of Health
DOHino@state.sd.us
- (12) Department of Tribal Relations
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- (13) Department of Labor & Regulation
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- (14) Legislative Research Council
LRC@sdlegislature.gov
- (15) Department of Environment and Natural Resources
DENRINTERNET@state.sd.us
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Dated this 1st day of July 2026.

s/ Thomas Pankratz

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