Ten-Year Plan

North Dakota

Prepared for the North Dakota Public Service Commission

June 29, 2018

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NorthWestern Corporation d/b/a NorthWestern Energy ("NorthWestern") submits this Ten-Year Plan for North Dakota facilities in accordance with the rules and regulations of the North Dakota Public Service Commission governing the siting of energy conversion and transmission facilities pursuant to Chapter 49-22 of the North Dakota Century Code.

Section A: Existing Energy Conversion Facilities

1. NorthWestern owns 10% of the 427-MW Coyote Generating Station, which is located near Beulah in Mercer County. This plant began commercial operation May 1, 1981. The other owners of the plant are Otter Tail Power Company (35%), Minnkota Power Cooperative, Inc. (30%), and Montana-Dakota Utilities Co. (25%). Otter Tail operates the plant. Please refer to Otter Tail's Ten-Year Plan[1] for additional data.

2. NorthWestern does not plan to remove any generating facilities in North Dakota from service during the next ten years.

Section B: Proposed Energy Conversion Facilities under Construction

None.

Section C: Proposed Energy Conversion Facilities on Which Construction is intended within the Ensuing Five Years

None.

Section D: Proposed Energy Conversion Facilities during the Next Ten-Year Time Period

None.

[1] Otter Tail's 2016 North Dakota Ten-Year Plan was filed in Docket No. PU-16-486.

Section E: Existing Transmission Facilities (Electric)

1. NorthWestern's transmission facilities in North Dakota are:

    - A segment of 115-kV line from Ellendale south to the South Dakota border; and
    - Approximately the first 23.1 miles of the 345-kV line from the Coyote Plant towards Center. This line was put into service in 1980.

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

Section F: Existing Transmission Facilities (Pipeline)

None.

Section G: Proposed Transmission Facilities on which Construction is intended within the Ensuing Five Years (Electric)

None.

Section H: Proposed Transmission Facilities on which Construction is intended within the Ensuing Five Years (Gas)

None.

Section I: Proposed Transmission Facilities during the Next Ten-Year Time Period (Electric and Pipeline)

None.

Section J: Regional Coordination

In South Dakota, NorthWestern Energy is a 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 a large portion of its South Dakota electric transmission facilities to SPP on October 1, 2015, and continues to update the qualifying facilities under the SPP Tariff on an annual basis.

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, comprised of organizations with load and transmission facilities registered under Zone 19. NorthWestern also actively participates in the SPP Integrated Transmission Planning (ITP) process, which analyzes reliability, economic, and policy needs within the region and along the seams of neighboring Regional Transmission Organizations ("RTOs").

In North Dakota, NorthWestern has interconnection agreements with Otter Tail Power Company and Montana-Dakota Utilities Co. NorthWestern is a co-owner of the 427-MW Coyote Generating Station and its associated bulk transmission facilities with Minnkota Power Cooperative, Inc., Otter Tail Power Company, and Montana-Dakota Utilities Company. Similar joint ventures in both South Dakota and Iowa permit NorthWestern and the other owners to realize economies in construction of large generation stations and to provide services required by our customers through fewer facilities with minimal environmental impact.

Montana-Dakota Utilities, Northern States Power, Otter Tail, Minnkota Power Cooperative, Minnesota Power, and NorthWestern Energy (f.k.a. NorthWestern Public Service) formed the Dakotas-Montana Power Suppliers Group in 1979. The group's objective is to provide regional planning coordination to the respective state regulatory bodies.

Section K: Environmental Impact

Environmental considerations continue to be a critical aspect of NorthWestern's planning process. We are committed to providing utility services that reliably and cost-effectively meet our customers' needs, while protecting the quality of the environment. We are vigilant in monitoring the impacts of our operations on the environment, in complying with the spirit, as well as the letter, of environmental laws and regulations, and in responsibly managing the natural resources under our stewardship.

NorthWestern's Statement of Environmental Policy

NorthWestern Energy'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.
6. We support providing energy through non-carbon emitting and renewable resources when consistent with our statutory requirement to provide cost effective energy.
7. We strive to minimize the generation of wastes and promote the reuse and/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, mentored and rewarded.
10. Our contractors and consultants must comply with this policy when working for or representing NorthWestern Energy.

Section L: Projected Demand for Service

Historical Growth and Long-Range Forecast

The ten-year historical growth of NorthWestern's loads, all of which are geographically located in eastern South Dakota, is as follows:

Year	Peak Demand (MW)	Increase (%)	Increase (MW)
2007	315	2.6	8
2008	284	(9.8)	(31)
2009	286	0.01	2
2010	311	8.7	25
2011	341	9.6	30
2012	329	(3.5)	(12)
2013	295	(10.3)	(34)
2014	302	2.4	7
2015	306	1.3	4
2016	331	8.2	25
2017	329	(.01)	(2)

The projected future growth for the next ten-year time period is as follows:

Year	Peak Demand (MW)	Increase (%)	Increase (MW)
2018	327	(.01)	(2)
2019	327	0	0
2020	328	.003	1
2021	328	0	0
2022	328	0	0
2023	328	0	0
2024	329	.003	1
2025	329	0	0
2026	329	0	0
2027	330	.003	1
2028	330	0	0

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.

Description of Generation Facilities

NorthWestern owns 23.4% of the Big Stone Plant in northeast South Dakota. Other owners of the 475-MW coal-fired facility are Montana-Dakota Utilities and Otter Tail. This facility came online in May 1975.

NorthWestern owns 8.7% of Neal Electric Generating Unit 4, located near Sioux City, Iowa. NorthWestern is one of 13 owners in this 644-MW coal-fired facility. This unit came online in July 1979.

NorthWestern installed a simple-cycle 52-MW combustion turbine addition within its South Dakota service territory in Aberdeen, South Dakota. This unit came online in April 2013.

NorthWestern purchased the 80-MW Beethoven Wind Farm, located south of Tripp, South Dakota, from Beethoven Wind, LLC, on September 25, 2015. This wind farm went into commercial operation in May 2015.

Power Purchase Agreements

NorthWestern entered into a Power Purchase Agreement ("PPA") for 25 MWs of wind energy from the Titan I Wind Project located by Ree Heights, South Dakota. This wind farm went into commercial operation in December 2009.

NorthWestern entered into a PPA for 19.5 MWs of wind energy from the Oak Tree Wind Farm located by Clark, South Dakota. This wind farm went into commercial operation in December 2014.

In February 2018 NorthWestern entered into a PPA for 20 MWs of wind energy with CED Aurora County Wind, LLC, located by White Lake, SD. This wind farm is scheduled for commercial operation in September 2018.

In February 2018 NorthWestern entered into a PPA for 20 MWs of wind energy with CED Brule County Wind, LLC, located by Kimball, SD. This wind farm is scheduled for commercial operation in September 2018.