

**STATE OF NORTH DAKOTA**  
**PUBLIC SERVICE COMMISSION**

**Northern States Power Company  
Advance Prudence – 460-MW Solar- Sherburne Cnty. MN  
Application**

**Case No. PU-21-152**

**FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER**

**December 13, 2023**

**Appearances**

Commissioners Randy Christmann, Sheri Haugen-Hoffart, Julie Fedorchak

Zeviel T. Simpser, Attorney, Dorsey & Whitney LLP, 50 South 6th Street, Suite 1500, Minneapolis, Minnesota 55402

Mitchell D. Armstrong, Special Assistant Attorney General, 122 East Broadway Avenue, Bismarck, North Dakota 58501, on behalf of Public Service Commission Advocacy Staff;

John M. Shuh, General Counsel, Public Service Commission, State Capitol, 600 East Boulevard Avenue, Bismarck, North Dakota 58505, on behalf of the Public Service Commission Advisory Staff.

**Preliminary Statement**

On April 26, 2021, Northern States Power Company (NSP), d/b/a/ Xcel Energy, filed an application with the North Dakota Public Service Commission (Commission) seeking an advance determination of prudence (ADP) under North Dakota Century Code (N.D.C.C.) Section 49-05-16 for a 460 megawatt (MW) solar facility located at the Sherburne County Generation Station (Sherco Solar or the Project).

On April 12, 2023, the Commission issued a Notice of Public Hearing, scheduling a public hearing for July 11, 2023 at 8:30 a.m. in the Commission Hearing room, 12th Floor, State Capitol, 600 East Boulevard Avenue, Bismarck, North Dakota 58505. The Notice specified that the issue to be considered was whether NSP should be granted an advanced determination that its proposed resource addition is prudent.

On July 11, 2023, the public hearing was held as noticed.

Having allowed all interested persons an opportunity to be heard and having heard and considered all testimony and evidence presented, the Commission makes the following:

### **Findings of Fact**

1. NSP is an investor-owned electric utility headquartered in Minneapolis, Minnesota, authorized to provide public utility service in North Dakota under the regulatory jurisdiction of the Commission.
2. At the time of its application, NSP's 2020–2034 Upper Midwest Supplement, filed with the Commission on June 30, 2020, forecasted a 92 MW net capacity deficit on the system arising in 2026 and growing to 1,016 MW by 2030 caused in part by NSP's plan to cease coal operations at Sherco Units 1 and 2 in 2023 and 2026.
3. NSP's planning model selected a 500 MW solar resource as optimal to add in 2025 to fill the capacity need in 2026. NSP's planning model factors in the externality values of various generation types, carbon-reduction goals set by NSP, and other Minnesota policy priorities. North Dakota planning assumptions prohibit the consideration of externality values and the model selected 374 MW of firm dispatchable capacity as optimal.
4. NSP's most recent 2020–2034 Upper Midwest Integrated Resource Plan (IRP) forecasted that NSP will have a system capacity need of 210 MW in 2026 that is anticipated to grow to 2,443 MW by 2030.
5. The Application requests an advanced determination of prudence for a 460 MW solar facility located at the Sherburne County Generation Station. NSP anticipates installed capital costs of \$690.1 million, or \$1,500/kW, with full operation beginning in the fourth quarter of 2024. NSP testified that it is locating the Project at the Sherburne County Generation Station because the retirements of the Sherco Units 1 and 2 will result in the loss of MISO interconnection rights if not replaced. NSP proposes reusing the existing interconnection rights to avoid the expense and likely delay of connecting new generation through the MISO Generator Interconnection Queue.
6. NSP submits that the Project addresses the capacity deficit arising in 2026. NSP testified it must address this capacity deficit to fulfill its load serving obligations under the Midcontinent Independent System Operator, Inc. (MISO)'s tariff. NSP expressed its policy to satisfy capacity obligations with owned resources or bilateral contracts so as to not become reliant on bilateral zone resource credit purchases or MISO's Planning Resource Action.
7. NSP testified that the capacity from the Project is part of a multi-resource strategy including the repowering of the gas-powered Wheaton Generating Station in

Chippewa, Wisconsin with a new combustion turbine and five Reciprocating Internal Combustion Engine (RICE) units, the addition of solar resources, and additional firm dispatchable resources.

8. In response to the capacity need and the Minnesota Public Utilities Commission's request that NSP explore projects which might provide economic stimulus during the recessionary conditions resulting from the COVID-19 pandemic, NSP issued a Request for Proposals and conducted a competitive solicitation for solar projects specific to the Sherburne County Generation Station site. The Project was selected, and further evaluation found it would provide lower cost energy than any solar facility that was currently operating on NSP's system.
9. At the time of its application, NSP recognized that the Project was not the least-cost resource to fill its capacity need and proposed a proxy pricing methodology to assess costs of the Project to North Dakota customers. NSP proposed to use the day-ahead locational marginal pricing (LMP) at its MISO commercial pricing node, to be determined on an hourly basis, to account for the value of the energy produced from the Project. NSP also proposed MISO's cost of new entry (CONE), modeled using generic greenfield natural gas combustion turbine (CT) costs, for the year 2024–2025, to value the accredited capacity added to the NSP's system which would be applied to the accredited capacity of the Project for its full life.
10. During the proceeding, the Inflation Reduction Act (IRA) was enacted and NSP anticipates that the Project will qualify for the 10-year production tax credit and a 10 percent "energy community" bonus credit.
11. NSP testified that as a result of the economic benefits of reusing its existing interconnection rights and the IRA tax credits, the Project now is the least cost resource to satisfy its capacity deficit.
12. The Commission granted rate recovery for the Sherco Units 1 and 2 and set a depreciation schedule through 2034. The early retirement of Sherco Units 1 and 2 has significantly contributed to the capacity deficit that NSP is projecting in 2026 by retiring over 1.3 GW of dispatchable generation. The Commission has not approved an early retirement of these units and North Dakota customers are currently still paying for these units through 2034.
13. NSP predicts that the Project will have an initial capacity factor of 50% that will decline every year thereafter. Since this assumption was made, MISO has implemented a seasonal construct for capacity accreditation and will be implementing a direct loss of load approach to resource accreditation. The results for both indicate a marked decrease in accredited capacity. These changes are anticipated to be impactful to the economics of this project.
14. Advocacy Staff recommends a denial of the application. Jim Heidell, Advocacy Staff's witness, recommended a denial because the Project was not a least cost

capacity resource. Despite the passage of the IRA, Mr. Heidell recommended a denial as a result of outdated assumptions about accredited capacity.

15. Advocacy Staff also opposed the use of a proxy pricing methodology. However, if the Commission deemed it appropriate to employ proxy pricing, Mr. Heidell proposed several modifications. Mr. Heidell testified that a more appropriate proxy methodology, if used, should be a brownfield CT and that Net CONE, wherein expected inframarginal rents from energy & ancillary services are subtracted from the CONE value, should be utilized.
16. The Project, at the time of selection, was not a least-cost resource addition or established as a prudent resource to meet the capacity needs. The substantial changes in the economics, as a post hoc justification for the non-prudent selection, does not support that granting an advanced determination of prudence is in the public interest particularly in view of further changes in future capacity accreditation anticipated to degrade the value of the Project. As a result, the Commission finds that NSP has not met the burden of demonstrating that an application for advanced determination of prudence should be granted.
17. Although proxy pricing may be appropriate in some cases to address disputed resources, the Commission declines to create an alternative pricing mechanism in this proceeding. A proxy price for the Project would be better addressed in a future rate proceeding considering all circumstances to determine just and reasonable rates.

### **Conclusions of Law**

1. The Commission has jurisdiction in this matter.
2. NSP has not established the 460 MW Sherco Solar Project merits an advanced determination of prudence under N.D.C.C. § 49-05-16.

From the foregoing Findings of Fact and Conclusions of Law, the Commission issues its:

### **Order**

1. NSP's application for an advanced determination of prudence for its solar resource addition at Sherco is DENIED.
2. NSP shall not recover costs associated with Sherco Solar Project through its North Dakota Fuel Cost Recovery Rider without approval from the Commission.

PUBLIC SERVICE COMMISSION

*Sheri Haugen-Hoffart*

Sheri Haugen-Hoffart  
Commissioner

*Randy Christmann*

Randy Christmann  
Chair

*Julie Fedorchak*

Julie Fedorchak  
Commissioner