

**STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION**

**Northern States Power Company Case
Advanced Prudence –
460 MW Solar – Sherburne Cnty. MN**

**No. PU-21-152
OAH File No. 20210274**

**APPLICANT'S PROPOSED
FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER**

September 14, 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. 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 in 2030. There is no record evidence to contradict NSP's forecasted need for capacity.
3. NSP testified that it is a summer-peaking system. Although the Midcontinent Independent System Operator, Inc. (MISO) has not yet proposed a new methodology for accrediting the capacity of non-thermal resources, including solar, NSP explained that accreditation for solar resources will be highest in the summer, when that capacity is most needed. There is no contradictory record evidence.
4. NSP testified it must address the capacity need identified in its IRP to fulfill its load serving obligations under MISO's tariff. NSP testified that it is its policy to satisfy these obligations with capacity it owns or contracts for bilaterally. NSP testified that it would not be prudent for it to become reliant upon bilateral zone resource credit purchases or the Planning Resource Auction (PRA) to meet these requirements. NSP testified that doing so would unnecessarily expose North Dakota customers to volatile, and likely heightened, prices. NSP further testified that it should not rely on the PRA for capacity needs because it is the largest supplier of capacity in MISO Zone 1 and accounts for approximately half the load planning requirements in Zone 1.
5. NSP testified that the capacity from the Sherco Solar Project is a part of a multi-resource response to its forecasted capacity need and that the Project will help satisfy that need in 2026. This multi-resource strategy includes 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.

6. NSP testified that it is locating the Project at the Sherburne County Generation Station because the retirement of the Sherco 2 and Sherco 1 coal-fired generating units in 2023 and 2026, respectively, will result in interconnection rights NSP can reuse to avoid the expense and likely delay of the MISO Generator Interconnection Queue.
7. NSP testified that the Project is anticipated to qualify for two tax credits under the Inflation Reduction Act: the full 10-year production tax credit and a 10 percent “energy community” bonus credit.
8. NSP testified that as a result of the economic benefit of reusing its existing interconnection rights and the Inflation Reduction Act tax credits, Sherco Solar is the least cost resource to satisfy its capacity need.
9. NSP testified that its EnCompass model selected solar as the least cost resource under North Dakota planning principles and that its selection does not rely on environmental externality values.
10. Although Sherco Solar is more costly than the generic solar resource, NSP testified that an expansion plan which includes Sherco Solar has a lower present value of revenue requirement than the IRP Reference Case by approximately \$466 million and that the Project is as, or more, cost-effective than recent solar projects bid in the region and the median price of solar in the MISO market for the first quarter of 2023.
11. There is no record evidence that any other resource addition would result in a lower levelized cost of energy than Sherco Solar.
12. NSP proposed, as an alternative in the event the Commission did not find the Project prudent, a proxy pricing methodology pursuant to which North Dakota customers would be able to pay their fair share of the accredited capacity from the Project and the energy North Dakota customers actually consumed. The Company 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. The Company also proposed MISO’s cost of new entry (CONE) for the year 2024–2025 to value the accredited capacity added to the Company’s system which would be applied to the accredited capacity value of the Project for its full life.

13. LMP is a market-determined price, and no party opposed the Company's proposal of using hourly day-ahead LMP as the value of the energy consumed from the Project.
14. MISO CONE is an industry-standard, third-party generated estimate of the cost of constructing a greenfield CT.
15. Advocacy Staff agreed in its testimony that there needs to be a mechanism for North Dakota customers to pay their fair share of energy and accredited capacity from the Project.
16. Advocacy Staff disputed, however, that CONE was an appropriate proxy to use in valuing the Project's accredited capacity. They testified that the appropriate proxy should be based on a brownfield natural gas combustion turbine (CT) because the Sherco site is a brownfield.
17. Advocacy Staff did not, however, provide evidence that a CT could be added at the Sherco Generating Station site, or any other site available to NSP. NSP testified that there is no existing natural gas line at Sherco and that it would be prohibitively costly to add one. NSP also testified that it is currently developing a CT at the Wheaton Generating Station, which is the only other feasible brownfield site.
18. Advocacy Staff also opposed the use of the year 2024–2025 CONE price, but it did not disagree that the proxy price is intended to reflect the value of market energy in addition to the value of capacity from the Project once that capacity is being generated, which will occur in 2024–2025.
19. Advocacy Staff also suggested that NET CONE would be a better price than CONE. As NSP testified, however, capacity credits do not confer any energy value and the value of energy from Sherco Solar is incremental to the capacity value and should not be subtracted.
20. The South Dakota Public Utilities Commission has previously approved proxy pricing using MISO CONE and day-ahead locational marginal pricing for valuing the capacity and energy from NSP projects.
21. The Commission finds that the proposed Sherco Solar Project is not a prudent resource addition to satisfy the capacity need identified in NSP's IRP.
22. However, the Commission finds that the Company's proposed proxy price methodology will allow North Dakota customers to pay their fair share of the

accredited capacity and energy used from Sherco Solar, is reasonable, and is the proper measure of that proxy price.

Conclusions of Law

1. The Commission has jurisdiction in this matter.
2. NSP has complied with the provision of N.D.C.C. section 49-05-16 as well as the Settlement Agreements in Case Nos. PU-07-776 and PU-12-813. Additionally, NSP has complied with its commitments in Case No. PU-12-59.
3. The 460 MW Sherco Solar Project is not a prudent Project for North Dakota at this time. However, NSP has demonstrated that LMP, determined on an hourly basis, is an appropriate measure to use in valuing the energy that will be provided by the Project to North Dakota customers and MISO CONE, as measured in 2024–2025, is an appropriate proxy to use in valuing the North Dakota portion of the accredited capacity that will result from adding Sherco Solar to the NSP system. Through the use of proxy mechanism based on LMP and CONE, North Dakota customers can pay their fair share of the energy and accredited capacity the Project will provide.

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 Sherco Solar is DENIED.
2. NSP shall be permitted to recover the costs of capacity and energy provided by Sherco Solar to North Dakota customers pursuant to its proposed proxy price methodology. Specifically:
 - a. The Company shall recover day-ahead, hourly LMP at the Company's MISO commercial pricing node NSP.NSP for energy generated by Sherco Solar as a system cost of fuel; and
 - b. The Company shall recover the 2024-2025 value of MISO CONE on a per kw/year basis for each kW of accredited capacity resulting from the addition of Sherco Solar to the Company's system, calculated annually for the life of the Project as a capacity cost which may be recovered through the Company's Renewable Energy Rider, base rates, or any other authorized recovery mechanism, and any waivers necessary to permit recovery of such cost are hereby granted.

PUBLIC SERVICE COMMISSION

**Sheri Haugen-Hoffart
Commissioner**

**Randy Christmann
Chair**

**Julie Fedorchak
Commissioner**