



Hub City Energy Park

Aberdeen, South Dakota

Application for an Energy Conversion Facility Permit

Docket EL26-XXX

Appendix N – Capacity Accreditation

October 2026

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The Project was advanced to address capacity and reliability needs identified through NorthWestern’s integrated resource planning process and the Southwest Power Pool, Inc. (“SPP”) Expedited Resource Adequacy Study (“ERAS”) Procedures. This Appendix documents the capacity need identified when the Project was advanced, subsequent changes in planning information, and NorthWestern’s current capacity position. The purpose is to distinguish the information supporting the original decision from later planning updates and to present both transparently.

Capacity Need at the Time the Project Was Advanced

NorthWestern’s need for additional capacity was identified before the establishment of the ERAS Procedures. The 2024 IRP identified projected 2030 capacity deficiencies of approximately 38 MW in winter and 71 MW in summer under the planning assumptions evaluated in that filing. This established a capacity need independent of the subsequent analysis related to the ERAS Procedures.

SPP subsequently identified a larger 2030 capacity need within the analysis related to the ERAS Procedures. For the ERAS Procedures, SPP relied on class-average accreditation assumptions rather than conducting a new, unit-specific re-accreditation of NorthWestern’s existing portfolio. The final analysis by SPP under the ERAS Procedures identified an approximately 79.7 MW winter deficiency and 42.2 MW summer deficiency. This represents the final capacity need established by SPP through its ERAS Procedures and is the need used in developing the Project for inclusion in SPP’s ERAS Procedures.

NorthWestern does not present the 79.7 MW winter deficiency as its current capacity position. Rather, it documents the need identified when NorthWestern was required to determine whether to advance a new capacity resource. Given the time required to develop, permit, procure, interconnect, and construct generation, NorthWestern advanced the Project based on the planning information available at that time.

Table 1: 2030 Capacity Positions

Planning Snapshot	Summer Net Position (MW)	Winter Net Position (MW)	Context
2024 IRP	(71)	(38)	Capacity need identified before ERAS Procedures
September 2025 (ERAS Procedures)	(42.2)	(79.7)	SPP ERAS Procedures need determination
May 2026 SPP Trend Forecast – excluding Aberdeen 3	24	(2)	Current forecast; existing resources only
May 2026 SPP Trend Forecast – including Aberdeen 3	112	89	Current forecast plus Aberdeen 3 project accreditation

Note: Negative values shown in parentheses indicate a capacity deficiency. Planning snapshots are not directly comparable because load forecasts, planning reserve margins, accreditation methodologies, and resource assumptions changed over time. May 2026 values use the current forecast workbook for existing resources and capacity requirements and the Aberdeen 3 project-specific planning accreditation shown in Table 2. The Project proposal advanced by NorthWestern was based on the final ERAS Procedures need workbook as well as the 2024 IRP.

Subsequent Planning Updates

Resource adequacy information continued to evolve during and after the implementation of the ERAS Procedures. During 2025, SPP provided interim accreditation information that indicated higher winter accreditation for certain existing resources than the class-average assumptions used to estimate the need under the ERAS Procedures. Those interim values were not calculated based on SPP’s latest performance-based accreditation methodology. Nor did the interim accreditation result in a revised ERAS Procedures need determination, and SPP did not rerun the ERAS Procedures using a fully updated unit-specific accreditation of NorthWestern’s portfolio under the subsequently implemented accreditation framework.

The interim 2025 information is relevant because it demonstrates that accreditation values were changing during the period in which the Project was being developed. Planning reserve margin requirements and accreditation methodologies were also evolving. For that reason, the capacity positions shown in Table 1 should be understood as point-in-time planning results rather than as directly comparable estimates produced under one consistent methodology.

By May 2026, NorthWestern current planning forecast reflected updated performance-based accreditation for conventional resources and effective-load-carrying-capability treatment for variable resources, together with updated planning reserve margin requirements as provided by SPP. These changes materially altered the amount of accredited capacity and the calculated net capacity position. Table 2 shows the calculations from the May 2026 workbook for existing-resource accreditation and capacity requirements, and also separately estimates the Project contribution based on the Aberdeen 2 proxy performance. Table 3 shows the current net position Based on the May 2026 Capacity Forecast.

Table 2: Project Accreditation Estimate

Project Metric	Summer	Winter	Basis
Nameplate Capacity	131 MW	131 MW	Aberdeen 3 simple-cycle configuration
Estimated Maximum Delivered	91.7 MW	120.0 MW	Seasonal deliverability estimate
Maximum Delivered / Nameplate	69.4%	90.8%	Calculated
Accreditation Factor	96.1%	76.0%	Aberdeen 2 simple-cycle proxy
Estimated Accredited Capacity	88.1 MW	91.2 MW	Planning estimate

Note: The Project is a 131 MW (gross) simple-cycle resource. The summer maximum-delivered estimate reflects expected seasonal derating and is scaled consistently with Aberdeen 2's observed summer deliverability. Until the Project develops its own operating history, including maximum delivered testing, the current Aberdeen 2 simple-cycle accreditation factors are used as a planning proxy. Actual SPP accreditation will be determined under the applicable SPP methodology and updated as operating history becomes available.

Table 3: May 26, 2026 Accredited Capacity and 2030 Capacity Position

Resource / Metric	Summer (MW)	Winter (MW)
Thermal / Natural Gas Generation – Online	141.72	122.61
Thermal / Coal Generation – Online	194.0	167.4
Wind Generation – Online	51.2	81.5
Existing Accredited Capacity – Subtotal	387	372
2030 Capacity Requirement	363	374
2030 Net Position – Excluding Project	24	(2)

The May 26, 2026 South Dakota Seasonal Load and Capacity Forecast and supporting accreditation workbook for existing-resource accreditation and the 2030 capacity requirement. The Project contribution is the planning estimate shown in Table 2.

Planning Reserve Margins, Accreditation, and Load Forecast Uncertainty

The planning record shows how changes in reserve margins, resource accreditation, and load forecasts can materially alter the calculated capacity need.

The planning reserve margin increased from 12% in 2022 to 15% in 2024, while sensitivity analyses considered margins of 36% in 2024 and 38% in early 2025 based on SPP's guidance. During the same period, SPP was developing its performance-based accreditation methodology. NorthWestern's resources were not fully accredited by SPP under the new methodology until May 2026, well after the deadline to participate in the ERAS Procedures. Together, these uncertainties contributed to the material capacity needs identified in the 2024 IRP and the 2025 Interconnection Request submitted under the ERAS Procedures.

Accreditation changes illustrate the extent of that uncertainty. The calculated net capacity need at the time of implementation of the ERAS Procedures included 35.4 MW of winter wind accreditation, compared to 81.5 MW in the May 2026 capacity workbook, a difference of more than 45 MW.

Load forecasting is also evolving. NorthWestern's current trend-based forecast reflects recent peak-demand history, including several relatively warm winters. Because winter weather can materially affect peak demand, NorthWestern is evaluating weather-normalized forecasting approaches while monitoring SPP's related methodological developments. For consistency, however, this Appendix does not substitute an alternative weather-normalized net capacity forecast; it uses the May 26, 2026 forecast as the current planning reference.

Project Justification

The Project is a 131 MW (gross) simple-cycle resource. For current planning purposes, its seasonal deliverability and accreditation are estimated at approximately 91.2 MW of winter accredited capacity and 88.1 MW of summer accredited capacity (Table 2). Under the May 2026 capacity forecast, for year 2030 and excluding the Project, results in an approximately 2 MW winter deficiency with no summer deficiency. Including the Project produces an approximately 89 MW winter surplus and 112 MW summer surplus (Table 1).

These current values do not recreate the 80 MW winter capacity deficiency identified through the ERAS Procedures; instead, they show how adding the Project affects the current planning position. The Project was sized and advanced when the 2024 IRP and subsequent planning under the ERAS Procedures identified material capacity needs. Later changes in load forecasts, planning reserve margins and resource accreditation reduced the calculated deficiency. Accordingly, the current surplus is presented transparently as the result of those later planning changes.

NorthWestern's decision to advance the Project was based on the information and reliability requirements available in 2024 along with the 2025 ERAS Procedures. The 2024 IRP identified a future capacity deficiency and SPP's subsequent ERAS Procedures also identified a material capacity need under the assumptions used for that process.