

Before the Public Service Commission
of
The State of North Dakota

In the Matter of the Application of
BASIN ELECTRIC POWER COOPERATIVE

Consolidated Application
for a Certificate of Corridor Compatibility and Route Permit
Wheelock to Saskatchewan 230-kV Transmission Line; and

Consolidated Application
for a Certificate of Corridor Compatibility and Route Permit
Tande to Saskatchewan 230-kV Transmission Line

Case Nos. PU-25-283 and PU-25-284

Pre-filed Testimony
of
Philip Westby

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I. **Introduction**

Q.1. **Please state your name, employer, and business address.**

A.1. My name is Philip Westby. I am employed by Basin Electric Power Cooperative (“Basin Electric”). My business address is 1717 East Interstate Avenue, Bismarck, North Dakota.

Q.2. **What is your position with Basin Electric?**

A.2. I am the Manager of Transmission Services. My responsibilities include supervising transmission studies that affect Basin Electric and its customers. As part of this, I complete and review any study that would affect Basin Electric’s existing and new facilities.

Q.3. **Please describe your educational and professional background.**

A.3. I received a Bachelor of Science degree in Computer Engineering from North Dakota State University in 2008. I am a licensed professional engineer in North Dakota.

I have been employed by Basin Electric since 2009 in the Transmission Planning Division. I was hired as an Electrical Engineer and was promoted to Manager of Transmission Services in April 2023.

Q.4. **What is your role with respect to the Wheelock to Saskatchewan 230-kV Transmission Line (“Wheelock Circuit”) and the Tande to Saskatchewan 230-kV Transmission Line (“Tande Circuit”), which are collectively referred to as the “Project”?**

A.4. My role with respect to the Project is to provide transmission planning and regulatory support on behalf of Basin Electric. In this capacity, I am responsible for explaining how the Project was identified through the Southwest Power Pool (“SPP”) Aggregate Transmission Service Study (“ATSS”) process and for presenting the planning rationale, system need, and reliability considerations that led to its development.

Q.5. **Are you familiar with the contents of Basin Electric’s Amended Consolidated Applications for a Certificate of Corridor Compatibility and Route Permit for the Wheelock Circuit and the Tande Circuit (the “Applications”)?**

A.5. Yes. I am familiar with the Applications' contents.

Q.6. **What is the purpose of your testimony?**

A.6. The purpose of my testimony is to describe the origin and development of the Project and to explain the SPP ATSS process that led to its identification. My testimony provides an overview of the ATSS process as established under the SPP Tariff and outlines how the results of that process apply specifically to the Project before the Commission. Together with the Applications and other supporting evidence, my testimony will demonstrate that the Project will ensure continuing system reliability and integrity and ensure that energy needs are met and fulfilled in an orderly and timely fashion.

II. **SPP ATSS Process**

Q.7. **What is SPP?**

A.7. SPP is a Regional Transmission Organization ("RTO") mandated by the Federal Energy Regulatory Commission ("FERC") to ensure reliable supplies of power, adequate transmission infrastructure, and competitive wholesale electricity prices on behalf of its members, including Basin Electric. As the RTO, SPP is responsible for transmission planning and expansion within the SPP region, which includes the Project area.

Q.8. **Please generally explain SPP's ATSS process.**

A.8. SPP's ATSS process is the tariff defined method SPP uses to evaluate long-term transmission service requests by grouping them into a single study portfolio and assessing their combined impact on the regional transmission system. Through this process, SPP determines whether requested service can be reliably provided, identifies any Network Upgrades required to support that service, and allocates upgrade costs among customers based on their contribution to the need. The ATSS includes multiple technical study iterations, incorporates power flow and reliability analysis, and culminates in a final set of required upgrades and cost responsibilities. Following customer acceptance, SPP issues Notifications to Construct ("NTC") to the appropriate Transmission Owners, formally directing construction of the upgrades needed to provide long-term firm transmission service.

Q.9. Please describe Basin Electric's role in the ATSS process.

A.9. Basin Electric participates in the SPP ATSS process as a Transmission Owner and transmission service customer, providing system data, technical review, and study coordination to ensure that SPP's analysis accurately reflects the configuration and capabilities of Basin Electric's transmission system. As part of each ATSS cycle, Basin Electric supplies updated facility ratings, planned project information, and modeling inputs; reviews SPP's study assumptions and preliminary results; and evaluates the feasibility and constructability of any Network Upgrades assigned to Basin Electric.

Q.10. What happens once SPP identifies that a transmission project needs to be constructed?

A.10. When the ATSS identifies upgrades required to support long-term transmission service, Basin Electric is responsible for assessing scope, cost, and schedule, and, upon issuance of a NTC, executing the design, permitting, and construction of those facilities in accordance with SPP's tariff and Basin Electric's internal standards.

III. Project Need and Benefits

Q.11. Which SPP transmission planning process did the Project arise out of?

A.11. The Project arose out of SPP's 2021AG2 ATSS, which identified the need for additional 230-kV transfer capability between SPP and Saskatchewan to support long-term firm transmission service requests.

Q.12. What did the 2021-AG2 study conclude?

A.12. SPP's 2021AG2 ATSS concluded that additional 230-kV transmission capability was required at the northern edge of the SPP footprint to reliably provide long-term firm transmission service between SPP and SaskPower. The study, which is included as an exhibit to the pre-filed testimony, found that existing 230-kV facilities in northwestern North Dakota were insufficient to support the requested northbound and southbound transfers without violating thermal and voltage criteria. (Ex. 7 to Pre-filed Test.) To meet SPP reliability standards and accommodate the long-term service

requests, the study identified the need for two new 230-kV transmission lines extending from Wheelock and Tande to the United States/Canadian border. Based on these findings, SPP assigned the required Network Upgrades to Basin Electric and subsequently on June 9, 2023, issued NTC 220722 directing Basin Electric to build the new 230-kV cross border facilities. (Wheelock Amended Application, Appx. D, Docket No. 2; Tande Amended Application, Appx. D, Docket No. 2.) NTC 220722 is also included as an exhibit to the pre-filed testimony. (Ex. 8 to Pre-filed Test.)

Q.13. Describe the Project benefits to North Dakota.

A.13. The Project provides multiple reliability, operational, and economic benefits to North Dakota. By adding two new 230-kV transmission paths at the northern edge of the SPP footprint, the Project strengthens the transmission network in northwest North Dakota, improving voltage support, enhancing system robustness, and increasing operational flexibility during contingencies, maintenance outages, and highload conditions. The new facilities also expand transfer capability in both directions, allowing North Dakota generated electricity to be exported to other energy markets while also enabling imports of power into the state when needed for reliability or market conditions.

In addition, the Project creates new high voltage infrastructure that can support future load interconnections in an area that is currently served by a long radial 115-kV line originating from the Neset 115-kV Substation near Tioga. This existing radial configuration limits redundancy and voltage support for the communities along the corridor. The introduction of new 230-kV facilities provides opportunities for future delivery points that would enhance local reliability, reduce dependence on the long radial feed, and improve service resilience for the surrounding region.

Q.14. Why are there two independent circuits?

A.14. The two circuits are independent to ensure system redundancy and to avoid creating a single commonmode outage that could remove both lines simultaneously. In transmission planning, two circuits placed on the same structures are treated as a common outage under North American Reliability Corporation (“NERC”) contingency category P7, meaning a single event, such as a structure failure, severe weather, or a

right-of-way incident, could take both circuits out of service at once. Constructing the circuits independently provides the redundancy necessary to maintain stable import and export capability, supports real-time system balance, and enhances operational flexibility and reliability for the broader regional transmission network

Q.15. What are the implications if the Project is not built?

A.15. If the Project is not built, Basin Electric, as the Designated Transmission Owner, would be unable to fulfill the requirements of the NTC issued by SPP. Failure to construct the facilities identified in the NTC would undermine Basin Electric's obligations under the SPP Tariff and would prevent SPP from implementing the set of Network Upgrades required to reliably provide the long-term transmission service that was studied and approved through the ATSS process.

Q.16. What alternatives were considered to meet the need in the region?

A.16. SPP evaluated several alternatives to address the transmission need in northwestern North Dakota, including both 230-kV and 345-kV options. As part of the 2021AG2 ATSS, SPP first assessed whether the existing 230-kV network could support the requested northbound and southbound transfers without new construction, but the study showed that the current system lacked the thermal capacity, voltage support, and redundancy required to reliably provide the long-term firm service.

SPP then evaluated higher voltage 345-kV transmission solutions, including new 345-kV lines and upgrades to existing facilities. While these options could technically meet the need, they were significantly more expensive and did not provide additional benefits that would justify the higher cost. Under the SPP Tariff, the ATSS process is required to select the least cost set of Network Upgrades that fully satisfies the transmission service request. Because the 230-kV alternatives met all reliability and operational requirements at a lower cost, they were selected as the preferred solution.

Q.17. Are there any plans for expansion of this transmission line?

A.17. There are no formal plans today to expand the Project beyond the two independent 230-kV circuits identified in the 2021AG2 ATSS. The facilities being proposed represent the full set of Network Upgrades required by SPP to reliably provide the

long-term firm transmission service requested between SPP and SaskPower.

The Project creates a new high voltage backbone in an area of northwestern North Dakota that currently lacks networked infrastructure. Because of this, the new 230-kV lines could support future load interconnections, new delivery points, or additional regional reinforcements if future SPP studies or local reliability needs identify them. Any such expansions would occur only through future SPP planning processes—such as the ATSS, ITP, or Generator Interconnection processes, and would require separate approvals.

IV. Conclusion

Q.18. Based on your knowledge of the Project, will it ensure continued system reliability and integrity?

A.18. Yes. The Project will ensure continued system reliability and integrity by enabling both exports and imports between the SPP system and SaskPower system to the north, allowing the transmission network to be utilized more efficiently and operated with greater flexibility. The Project has been designed to comply with all applicable NERC TPL0015 reliability criteria. By adding two new 230-kV transmission paths and strengthening the networked infrastructure in northwestern North Dakota, the Project enhances operational flexibility, improves system redundancy, and supports the reliable delivery of power under both normal and contingency conditions.

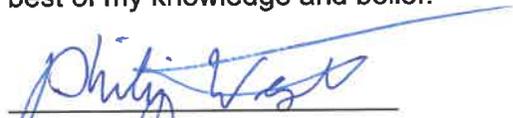
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Case Nos.: PU-25-283 and PU-25-284:
OAH File No. 20250371

**AFFIDAVIT OF
PHILIP WESTBY**

I, the undersigned, being duly sworn, state as follows: (1) I have read the pre-filed testimony and exhibits submitted in the above captioned matters under my name; (2) they were prepared by me or under my direction and I know their contents; and (3) they are true and correct to the best of my knowledge and belief.


Philip Westby

Subscribed and sworn to before me, this 5 day of March, 2026.


Notary Public
My Commission Expires: 10.19.26

