

Cheyenne River Sioux Tribe
Crow Creek Sioux Tribe
Flandreau Santee Sioux Tribe
Oglala Sioux Tribe



Rosebud Sioux Tribe
Standing Rock Sioux Tribe
Yankton Sioux Tribe

THE OCETI SAKOWIN POWER AUTHORITY

**RECOMMENDATION FOR NARROW GEOGRAPHICAL BOUNDARIES
FOR A POTENTIAL NIETC
AND SUPPORTING INFORMATION SUBMISSION**

February 2, 2024

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**THE OCETI SAKOWIN POWER AUTHORITY
RECOMMENDATION FOR NARROW GEOGRAPHICAL BOUNDARIES
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The Oceti Sakowin (pronounced O-CHET-ee Sha-KO-wee) Power Authority (OSPA) submits its Recommendation for Narrow Geographical Boundaries for a Potential National Interest Electric Transmission Corridor (NIETC), in response to the Guidance issued by the U.S. Department of Energy (DOE) Grid Deployment Office (GDO), on December 19, 2023 (Guidance).

I. Background

A. The Oceti Sakowin Power Authority and Its Mandate to Build Renewable Energy Projects on Tribal Lands

The Oceti Sakowin Power Authority (OSPA) was formed by, and is owned 100% by, seven Sioux Tribes that share territory with the states of South and North Dakota—the Cheyenne River, Crow Creek, Flandreau Santee, Oglala, Rosebud, Standing Rock, and Yankton Sioux Tribes. OSPA is a federally chartered “Section 17” corporation, formed under 25 U.S.C. § 5124 and certified by the U.S. Department of the Interior in 2015. OSPA meets the definition of Tribal Energy Development Organization (TEDO) in 25 C.F.R. § 224.30 (definition 1).

OSPA has a single purpose: to jointly develop the Tribes’ renewable resources through utility-scale and community-scale projects located within the exterior boundaries of the reservations of its member Tribes. The best statement of this mission can be found in the OSPA Charter:

Taku Skan Skan (Energy) is what moves the Universe. Taku Skan Skan is a gift to be respected and harnessed for the good of humanity and in a way that preserves Unci Maka (Our Grandmother Earth). Thus, we are empowered to come together to begin healing Unci Maka and guaranteeing lasting success in the wellbeing of the Oyate (People) through the responsible development of renewable energy by the Oceti Sakowin Power Authority. The initial emphasis of the Authority will be to develop the wind energy potential of our lands, in keeping with the relationship between our Oyate and the sacred four winds.

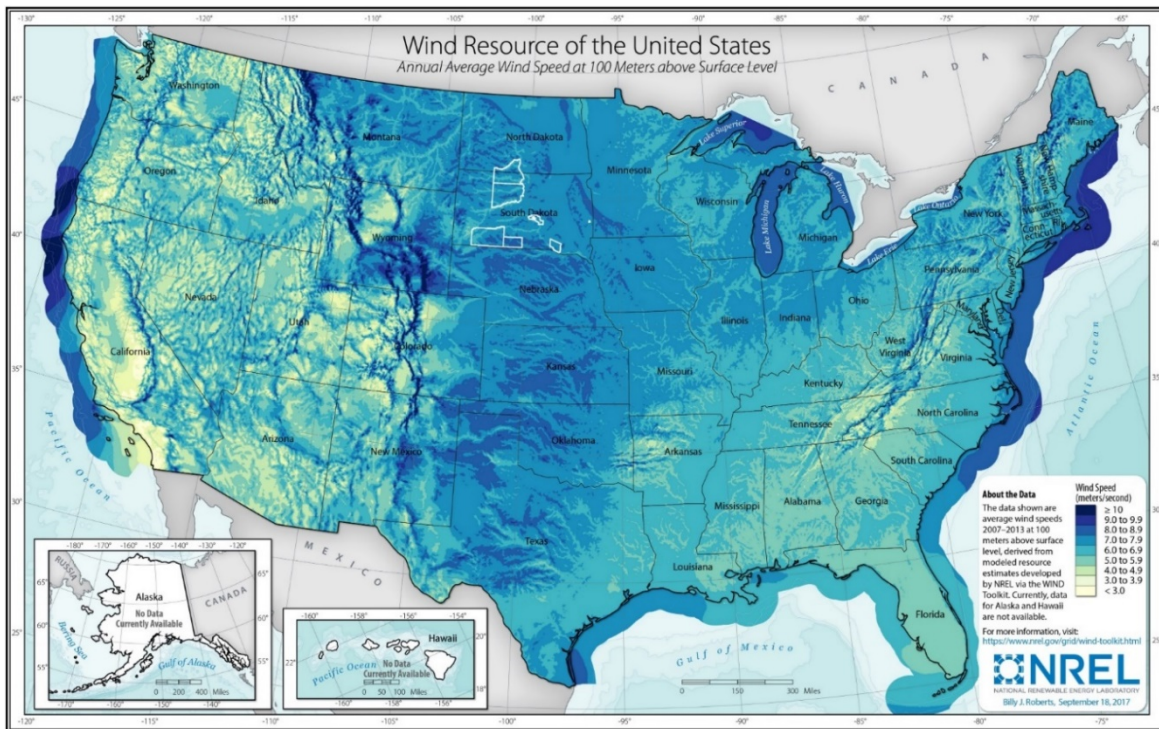
In the spirit of our ancestors, we as a people are collectively setting forth on a monumental journey to honor those that came before us and set in place a vision and future that will sustain our Oyate for the Next Seven Generations eternal. By drawing on the ancient foundations and wisdom of the past, and combining them with the technologies and methodologies of the present, the Oceti Sakowin will be embarking on a groundbreaking journey to recreate the renewable culture we once thrived in, as well as act as a beacon for the world to follow.

As Sitting Bull said, “Let us put our minds together, to see what life we can build for our children.”¹

B. OSPA Member Tribes Possess Some of the Finest On-Land Wind Resources in the United States, with Enormous Development Potential

Significant zones across central and western Nebraska, South Dakota, and North Dakota—including the lands occupied by OSPA member Tribes and outlined in the map below—have windspeeds greater than 8 m/s. And after five years of wind resource data collection, the first two wind farms being developed by OSPA—the Ta'teh Topah (Four Winds) wind farm on the Cheyenne River Reservation and the Pass Creek wind farm on the Oglala Pine Ridge Reservation—consistently demonstrate net capacity factors over 50%—the OSPA Tribes possess some of the strongest and most reliable on-land wind resources in the U.S. In fact, in a study referenced in the Transmission Needs Study, the National Renewable Energy Laboratory (NREL) ranks three of the OSPA Tribal reservations—Cheyenne River, Oglala Pine Ridge, and Standing Rock—among the top 10 Tribal lands with the highest technical potential for wind.²

Figure 1: U.S. Wind Resources and the OSPA Tribal Reservations

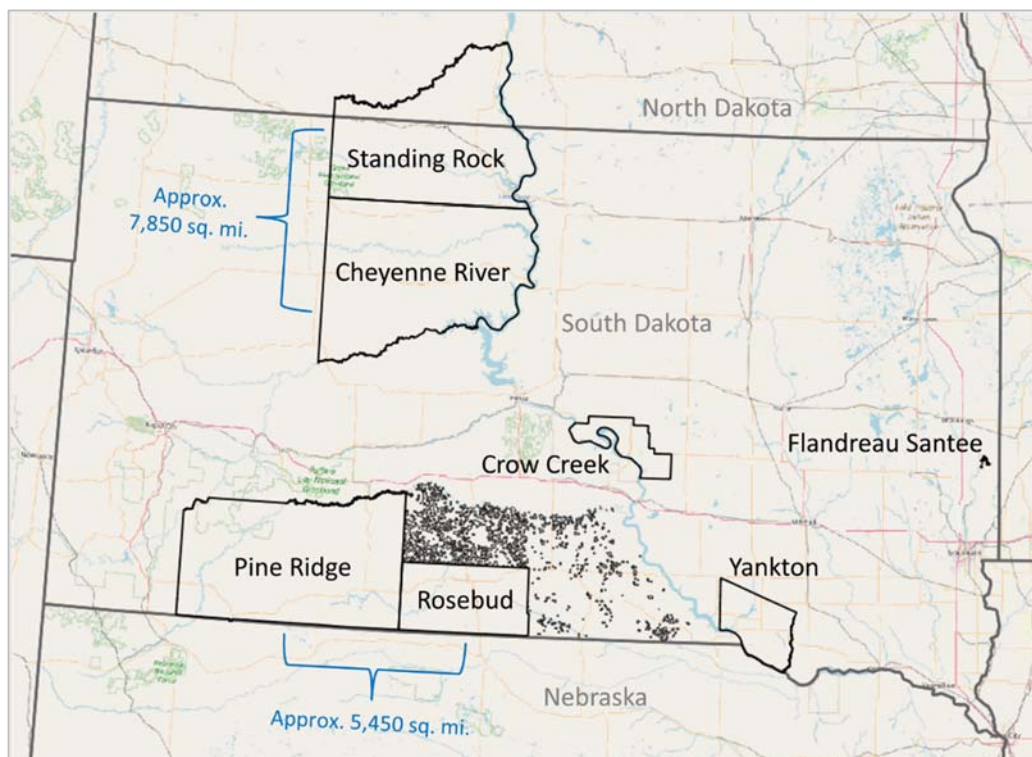


¹ Oceti Sakowin Power Authority Corporate Charter; <https://www.ospower.org/wp-content/uploads/2016/05/Oceti-Sakowin-Power-Authority-Corporate-Charter-Ratified-as-of-May-2016.pdf>

² Milbrandt, Anelia, Donna Heimiller, and Paul Schwabe, *TechnoEconomic Renewable Energy Potential on Tribal Lands* (2018), Golden, CO: National Renewable Energy Laboratory. NREL/TP-6A20-70807; www.nrel.gov/docs/fy18osti/70807.pdf

Moreover, the land areas occupied by the Tribes are enormous. The reservations of the seven OSPA member Tribes cover more than 14,000 square miles—almost 20% of the total land area of South Dakota. The three largest Tribes by land area—Cheyenne River, Oglala, Standing Rock—each have more land area than the states of Rhode Island and Delaware combined.

Figure 2: Reservations of the OSPA Member Tribes



The OSPA member Tribes offer unprecedented economies of scale and scope in the generation of wind energy, providing additional cost advantages to a technology that is already “one of the lowest-priced energy sources available today.”³ The developable renewable resources of the OSPA member Tribes are discussed further in Sections II(A) & (B) below.

C. OSPA is Developing Its First Two Wind Farms on Two Different Reservations

Over the last seven years, OSPA has completed early-stage development of its first two projects: the 120 MW Pass Creek wind farm on the Oglala Pine Ridge Reservation and the 450 MW Ta'teh Topah wind farm on the Cheyenne River Reservation. Both wind farms could be substantially larger, but the original design of the projects was constrained by available transmission capacity. In addition, the Ta'teh Topah wind farm requires a 40 mile generation tie line that crosses the Missouri River to reach an extra high voltage (EHV) line in eastern South Dakota to interconnect with the national power grid.

³ DOE Wind Energy Technologies Office, “Advantages and Challenges of Wind Energy;” <https://www.energy.gov/eere/wind/advantages-and-challenges-wind-energy>

Funded entirely with private funds and pro bono work, OSPA has completed substantial development work on these two projects, including obtaining long-term Tribal leases, applying for Southwest Power Pool (SPP) interconnection queue positions, collecting wind resource data, completing multi-year avian and bat studies, negotiating a BIA-approved lease for Tribal and Allotted Trust lands, and conducting preliminary power marketing outreach. In 2017, OSPA secured positions on the SPP interconnection queue for both projects, but had to withdraw them in 2022, after receiving an SPP impact study allocating a combined \$230M in interconnection and network upgrade costs to the projects and requiring payment of a \$48 million security deposit.

It is this experience that has compelled OSPA to seek a solution to the transmission capacity constraints and congestion that affect the geographic area in which most of its member Tribes are located, and to submit this NIETC Recommendation. OSPA has participated actively in every major transmission-related initiative and proceeding conducted by DOE during the current Administration, including DOE's solicitation of public comment for the design and implementation of the NIETC program.⁴ As OSPA discusses throughout this document, elimination of the transmission capacity constraints in the geographic area identified by OSPA is a desperately needed intra-regional transmission solution that will become part of the broader inter-regional solution discussed at length in the DOE's October 2023 Transmission Needs Study (Transmission Needs Study or Needs Study).⁵ The same transmission investment that will allow the OSPA member Tribes to develop their renewable energy resources will allow electricity consumers to access low cost energy throughout the Plains region and beyond.

D. Most of the OSPA Member Tribes Are Located in the Transmission Desert of Western South Dakota – Lack of Transmission Capacity Has Been an Insurmountable Barrier to Developing the Tribes' Wind Resources

Today, there is a massive swath of the northern Plains of the U.S., a region larger than the states of New York and Pennsylvania combined, that is devoid of EHV transmission. Within the Eastern Interconnection alone, this 40,000 square mile contiguous territory, rich with premier renewable energy potential, remains outside 50 miles from the nearest EHV infrastructure, averaging more than 120 miles from an EHV transmission line. This EHV transmission desert includes all of South Dakota west of the Missouri River—where most of the OSPA member Tribes are located. The critical need for additional

⁴ Comments of the Oceti Sakowin Power Authority in Response to U.S. Department of Energy's Request for Information: Designation of National Interest Electric Transmission Corridors, submitted July 31, 2023. OSPA has also participated in every phase of the Interconnection Innovation e-Xchange (i2X) initiative; the National Renewable Energy Laboratory (NREL) solicitation of public comment on its Interregional Renewable Energy Hub (IREZ) planning process; and the Federal Energy Regulatory Commission (FERC) rulemaking proceeding on interconnection reform (RM 22-14-000).

⁵ "[I]nterregional transfer capability can be limited by insufficient transmission capacity internal to a region (PJM 2023b)." Transmission Needs Study at 58.

EHV transmission capacity in the northern Plains in general, and on the OSPA Tribal reservations in particular, is discussed in detail in the following sections of this Recommendation.

The lack of available transmission capacity has proven to be an insuperable barrier to the development of the Tribes' wind resources. In 2022, the two wind farms under development by OSPA, and a 110 MW solar farm being developed by another group located on the Pine Ridge Reservation, were all forced to withdraw from the SPP interconnection queue because of the extraordinarily high costs of building and upgrading transmission, as computed by SPP. As detailed in Section II(B)(1)(b)-(d) below, the lack of capacity in the transmission desert of western South Dakota is demonstrably an absolute barrier to the development of utility-scale renewable energy on the reservations of the OSPA member Tribes, and across the entire area, down into central Nebraska.

E. OSPA Is Part of a Coalition Seeking to Expand Transmission in the Upper Great Plains that Will Enable Development of Renewable Energy on Tribal Lands and in Surrounding Communities

In late 2023, OSPA joined some of the most experienced transmission owners and renewable energy developers in the country for the purposes of planning and constructing the Great Plains Transmission and Renewable Interstate Bulk Electric System (TRIBES) Project (the Great Plains TRIBES Project or TRIBES Project). The TRIBES Project proposes to expand upon the existing EHV power system to create a new, critically needed 345 kV transmission backbone extending from North Dakota through South Dakota to Nebraska. It will bring new interstate power transfer capacity to the last electrical transmission frontier region that lacks infrastructure capable of supporting considerable development of renewable resources. With a north-south orientation on the westernmost edge of the Eastern Interconnection, the TRIBES Project will facilitate new development along rich and untapped expanses fertile with renewable energy, bringing GWs of inexpensive clean energy to load centers while strengthening transmission infrastructure initially built for service to Tribal and rural electric load customers only.

Key participants in the TRIBES Project include:

- **Western Area Power Administration – Upper Great Plains Region (WAPA-UGPR):** The largest of the four distinct regional utilities comprising WAPA. With a service territory of 378,000 square miles, WAPA-UGPR owns and maintains about 8,000 circuit miles of transmission and operates another 4,000 circuit miles on behalf of transmission owners—all within the SPP footprint. WAPA-UGPR delivers federal hydropower to rural electric cooperatives, municipalities, government agencies and Tribal Nations across Iowa, Minnesota, Montana, Nebraska, North Dakota, and South Dakota. WAPA-UGPR joined SPP in 2015 and fully participates in the SPP Integrated Marketplace which includes day-ahead energy, real-time energy, operating reserve, and Transmission Congestion Rights markets.

- **Basin Electric Power Cooperative (BEPC):** A consumer-owned, regional cooperative that generates and transmits electricity to 141-member rural electric systems in 9 states that together distribute electricity to 3 million+ consumers across a combined service area of 550,000 square miles. BEPC owns and maintains over 2,500 miles of high-voltage transmission. BEPC joined SPP in 2015 for its facilities located in Montana, North Dakota, and South Dakota. BEPC is the wholesale energy provider to the distribution co-ops that serve most of the OSPA member Tribes.
- **Southwest Power Pool (SPP):** 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 107 members. SPP, headquartered in Little Rock, Arkansas, manages the electric grid across 17 central and western U.S. states and provides energy services on a contract basis to customers in both the Eastern and Western Interconnections. The SPP service territory is over 550,000 square miles and encompasses more than 72,000 miles of transmission and 18 million people.
- **Vestas:** The world’s largest wind turbine manufacturer and leading service provider. Vestas is a market leader in the North American wind industry with 45,000 MW installed and 40,000+ MW under service in the U.S. and Canada. Vestas employs over 6,000 Americans in the manufacturing, installation, and service of onshore and offshore wind turbines. Vestas has two North American manufacturing facilities in Brighton and Windsor, Colorado specializing in blades and nacelles, and a world class Technical Training Facility in Portland, Oregon.
- **Steelhead Americas:** The North American development arm of Vestas. Steelhead leverages Vestas’ industry expertise and turbine technology to advance in existing markets and unlock new geographic markets to expand renewable energy across North America. Formed in 2016, Steelhead now fully develops wind assets and brings the benefits of renewable energy to local communities and industry partners. Steelhead has brought over 3 GW of wind projects to construction, with a development pipeline of 5+ GW spanning 20+ projects and 5 RTOs and Independent System Operators (ISOs).

F. Designation of OSPA’s Proposed NIETC Area Is an Essential Component in Providing the Grid Modernization and Increased Transmission Capacity Required for Tribes in Western South Dakota to Develop Their Renewable Energy Resources

OSPA discusses at length in this Recommendation that federal funding is required to start to cure the harm caused by the EHV transmission desert that exists across the Tribal lands and other communities in the western edge of the northern Plains. Without it, the Tribes would be forced to bear the costs of not only connecting their wind farms to the national power grid but also of upgrading the transmission network on and adjacent to their reservations—a grossly unfair outcome that forces the

Tribes to pay the cost of digging out of a hole that government policy has left them in. It is also completely beyond the means of some of the poorest Tribes and poorest communities in the country. NIETC designation is designed as an effective instrument to drive federal funding to high priority areas for transmission development to alleviate transmission capacity constraints and congestion,⁶ and as such would be critically important to the Tribes' efforts to develop their considerable renewable energy resources.

II. Phase 1 Information Submissions: Geographic Boundaries, Need, and Discretionary Factors

In this Section, OSPA addresses the topics listed in §§ V(B)(1) & (2) of the Guidance. The topics are reprinted for the convenience of DOE Staff and Recommendation reviewers and appear in the order presented in the Guidance.

A. Geographic Boundaries of Potential NIETC

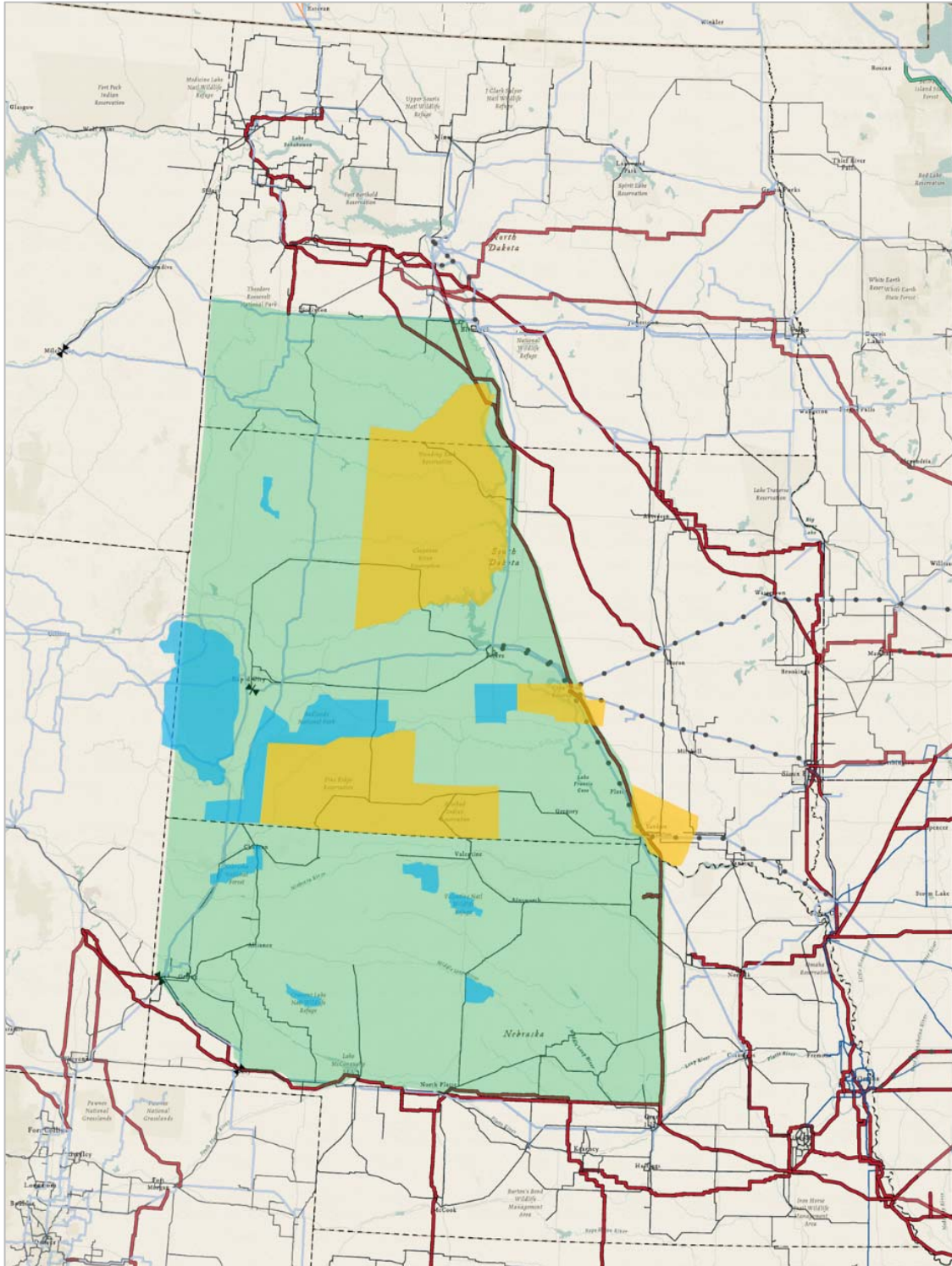
1. A description of the geographic boundaries of a potential NIETC and location maps of the potential NIETC geographic area within those geographic boundaries.





OSPA is proposing a NIETC geographic area that spans three states and seven Tribal Nations on the western edge of the northern SPP region. The area boundaries are:

- Western Boundary - starts in the north near Beach, ND and follows the western borders of North Dakota, South Dakota, and Nebraska to near Gering, NE.
- Northern Boundary - starts in the west near Beach, ND and runs east to near Bismarck, ND.
- Eastern Boundary - starts in the north near Bismarck, ND and travels south to South Dakota border to the BEPC Leland Olds-Chapelle Creek-Fort Thompson 345 kV line and follows that line to Fort Thompson, SD, and then follows the EHV lines that run from Fort Thompson, SD to Fort Randall, SD to near Grand Island, NE.
- Southern Boundary - starts in the west at the Nebraska border near Gering, NE and travels east through Sidney, NE to North Platte, NE to near Grand Island, NE.

⁶ *E.g.*, Guidance at 5 and 9-10.

Figure 3: Proposed NIETC Geographic Area



-  Federally Protected Lands
-  Tribal Reservations
-  Existing EHV Transmission
-  Proposed NIETC

2. A description of a geographic area for potential NIETC designation of sufficient scope and size to construct, maintain, and safely operate one or more transmission projects.

The geographic area that OSPA is recommending for NIETC designation covers approximately 93,500 square miles in the northern Plains. The vast majority of the area is designated as rural and remote by the National Center of Education Statistics,⁷ with an average population density of just over 5 people per square mile.⁸ While the area does not contain any EHV transmission lines, it does include a large network of transmission lines in the 115 to 230 kV range, over 8,000 miles combined, that are owned and operated by WAPA, Basin Electric, and the Nebraska Public Power District.

3. An explanation of which interconnection points for any potential transmission project(s) within the potential NIETC geographic area have been identified, secured, and/or assessed.

The recommended NIETC geographic area encompasses the proposed TRIBES Project designed jointly by WAPA, BEPC, OSPA and Steelhead. The TRIBES Project will add an 865 mile EHV backbone on the western edge of SPP-North, capitalizing on existing ROW (> 90%) to dramatically improve transfer capacity while minimizing greenfield transmission development. New lines will be constructed for two purposes only—to connect in North Dakota to relieve congestion and to directly integrate OSPA Tribal reservations in South Dakota. Those connection points are identified in the TRIBES Project plan.

4. A description of known federal authorizations and the status of these federal authorizations or permits that may be needed for a transmission project located within the potential NIETC geographic area.

As described above, the federal utility WAPA owns and operates a significant portion of the existing transmission infrastructure in the proposed NIETC geographic area. Any interconnection with WAPA facilities or significant upgrades to existing WAPA lines will require a National Environmental Policy Act (NEPA) review. In addition, the proposed NIETC geographic area sits within Sioux lands designated in the Fort Laramie Treaties of 1851 and 1868 and includes fully or partially seven Tribal reservations. Thus, any EHV transmission development will require Tribal consultation under the National Historic Preservation Act (NHPA).

As described below, the TRIBES Project will be taken through the SPP Integrated Transmission Planning process this year with federal and other permitting to follow. It is worth noting, however, that as a federal utility, WAPA consults and works with Tribes to identify traditional cultural properties,

⁷ <https://nces.ed.gov/programs/maped/LocaleLookup/>

⁸ U.S. Census Bureau data: Land Area - <https://www.census.gov/library/publications/2011/compendia/usa-counties-2011.html>; Population - Annual Estimates of the Resident Population for Counties, released March 2023 - <https://www.census.gov/data/datasets/time-series/demo/popest/2020s-counties-total.html>

traditional use areas and sacred sites to avoid, protect, provide access to, or mitigate effects from WAPA existing and proposed activities. The TRIBES Project will engage with Tribal Historic Preservation Offices (THPOs) and develop a plan to hire Tribal monitors and manage inadvertent discoveries of cultural significance during construction.

5. A statement as to whether any transmission developer within the potential NIETC geographic area has started any state and/or local siting and permitting processes, and the status thereof.

OSPA is not aware of any transmission developer within the potential NIETC geographic area having started any state or local siting and permitting processes.

The TRIBES Project will be submitted to the latest SPP Integrated Transmission Planning (ITP) annual cycle as is consistent with the SPP regional planning process and the requirements of FERC Order No. 1000. The SPP ITP process combines compliance, local planning, interregional planning, and tariff service processes to determine transmission investment to meet near- and long-term reliability, economic, public policy, and operational transmission needs. The objectives of the ITP are to:

- Resolve reliability criteria violations.
- Improve access to markets.
- Improve interconnections with SPP neighbors.
- Meet expected load-growth demands.
- Facilitate or respond to expected facility retirements.
- Mesh with other Open Access Transmission Tariff (OATT) processes (*e.g.*, Generation Interconnection, Transmission Service, and Delivery Point Addition).
- Address major persistent operational issues.⁹

During the 2024 ITP cycle, the TRIBES Project team will advocate beyond expanding clean energy development and benefiting OSPA Tribes, showing that this project forwards ITP objectives. The next major SPP ITP milestone occurs in March 2024 as the Detailed Project Proposal (DPP) window opens.¹⁰ WAPA, as an SPP member and Transmission Owner, will lead data submission and support the TRIBES Project during the 2024 SPP ITP reliability and economic needs assessments through to final portfolio development. Typically, the SPP ITP solidifies benefit-cost metrics for each adjudicated project, finalizing the annual portfolio by late summer. Any state or county permitting will be initiated after the project is approved and incorporated into the SPP ITP portfolio.

⁹ SPP Integrated Transmission Planning Manual, October 2023;
<https://spp.org/documents/70408/itp%20manual%20version%202.15.pdf>

¹⁰ SPP 2024 Integrated Transmission Planning Assessment Scope, May 2023;
<https://spp.org/documents/68855/2024%20itp%20assessment%20scope%20v1.3.pdf>

- 6. A statement as to whether any transmission developer within the potential NIETC geographic area intends to seek a federal permit pursuant to FPA section 216(b) from FERC, and if so, the status of any initiation of or participation in a FERC pre-filing process.**

OSPA is not aware of any transmission developer within the potential NIETC geographic area that intends to seek a federal permit pursuant to FPA section 216(b) from FERC.

B. Identification of Need and Relevant Discretionary Factors

Identification of Need

- 1. A description, with supporting documentation, of how the potential NIETC geographic area is experiencing or is expected to experience transmission capacity constraints or congestion and how that adversely affects consumers, whether those consumers are located within the NIETC geographic area or beyond its geographic boundaries.**

The NIETC geographic area proposed by OSPA encompasses the four largest reservations of its member Tribes, a combined 13,300 square miles, and extends partially into two other OSPA Tribal reservations on the eastern bank of the Missouri River. OSPA initiated its transmission planning discussions with WAPA after it became clear that this area lacked adequate transmission capacity to support the utility-scale wind and solar projects that OSPA and its member Tribes have committed to develop.

The Transmission Needs Study recognizes both the quality of renewable energy sources on Tribal lands, and the need for transmission capacity to unleash them: "Indian Country contains vast untapped energy resources. . . . Transmission is key in accessing these potential generation resources."¹¹ As OSPA discusses in this Section, the geographic area OSPA is recommending for NIETC designation is currently experiencing transmission capacity constraints and congestion that are presenting an insuperable barrier to renewable energy development. This is harming consumers, both within and outside the proposed NIETC area.

a) The Transmission Needs Study Analytical Method and General Conclusions

The Transmission Needs Study identifies and measures the economic impact of transmission capacity constraints and congestion by examining market price differences at selected hub zones across the country, both within Regional Transmission Organization regions and across regions.¹² Using this analysis, the Transmission Needs Study concludes that "[t]he greatest transmission value is found by

¹¹ Transmission Needs Study at 84.

¹² *Id.* at v, figure ES-3, and *passim*.

connecting regions in the middle of the country with their more eastern or western neighbors¹³ prices are low in northern and high in southern Plains region (SPP)¹⁴ Moreover, the Needs Study projects that the demand for transmission capacity in the Plains region will grow exponentially between now and 2035:

The largest relative growth of regional transmission deployment (see Figure ES-5) compared with the 2020 system will be needed in the Texas (140% median increase), Plains (119%), Midwest (112%), Mountain (90%), and Southeast (77%) regions by 2035 to meet moderate load and high clean energy growth future scenarios. These 2035 deployment needs increase even more under high load growth scenarios . . . for nearly all regions, but especially for the Plains (**408% median increase**), Delta (231%), Midwest (174%), and Mountain (173%) regions. * * * These changes in interregional transfer capacity need are significant, with anticipated 2035 need ranging from 25% (median California – Northwest transfer) to **3519%** (median Plains – Texas transfer) relative growth from the 2020 system¹⁵

b) The NIETC Designation Area Is Currently Experiencing Extreme Capacity Constraints and Congestion

The NIETC geographic area proposed by OSPA is on the western edge of the Plains region, one of the fifteen geographically designated regions used to present results in the National Transmission Needs Study. The Plains is one of three regions demonstrating all national transmission priorities with identified current or anticipated needs, including:

- Improve reliability and resilience.
- Alleviate congestion and unscheduled flows.
- Alleviate transfer capacity limits between regions.
- Deliver cost-effective generation to meet demand.
- Meet future generation and demand with additional within-region transmission.
- Meet future generation and demand with additional interregional transmission transfer capacity.

Heavily referenced in the Needs Study, the work of Dev Millstein, *et al.*, with Lawrence Berkeley National Laboratory (LBNL) focused on geographic differences between locational marginal prices as a strong indicator of the potential value of transmission expansion. In short, as a single measure, wholesale electricity price differences between two locations offer a simple, objective description of the cost of congestion without complexity introduced when including other reliability and production

¹³ Transmission Needs Study at 51.

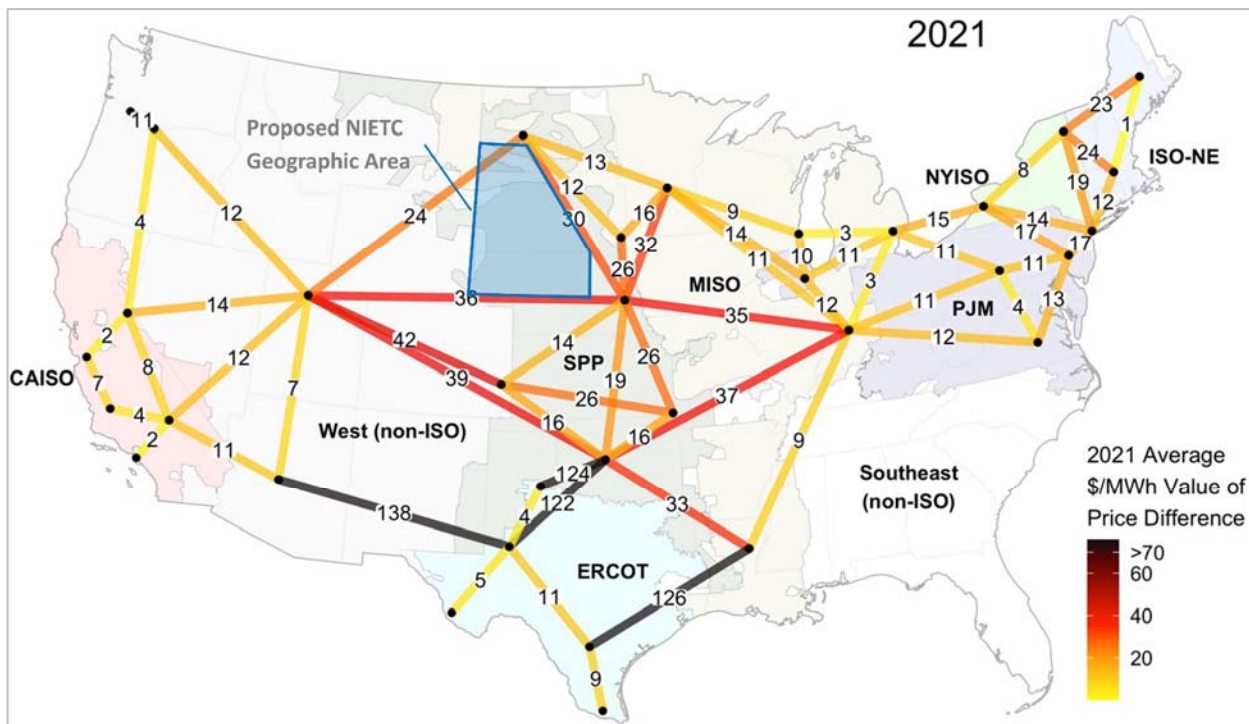
¹⁴ *Id.* at 32.

¹⁵ *Id.* at viii-ix (references deleted, emphasis added).

economic factors. Using this backdrop, the value of the TRIBES Project towards meeting national transmission needs by expanding SPP intraregional north-south transmission capacity, as well as relieving existing neighboring interregional transmission links can be described.

For brevity, the number of potential expanded transmission links was simplified in the LBNL assessment to focus on the value of interregional transmission across a set of aggregated pricing hubs. For the SPP region, this reduced the wide geographic footprint to north, south, east, and west hubs only. SPP ranked at the top of the LBNL assessment results for the potential marginal value relieving both interregional and intraregional congestion.¹⁶

Figure 4: Needs Study Map of Energy Price Differentials Nationwide with OSPA Proposed Geographic Boundary Area



Data Source: Figure ES-3: Average hourly difference in price between selected hub zones within and across regions between 2012 and 2020, National Transmission Needs Study, p. vi)

Specifically, SPP-North placed twice in the top twelve interregional transmission links, as well as twice in the top fifteen intraregional links, that yielded the highest estimated congestion relief. The LBNL assessment also evaluated the value of transmission congestion relief attributable during periods of maximum congestion including during extreme conditions that may arise from volatility in energy availability, extreme weather events, exceptional electricity demand, or infrastructure failures. For all

¹⁶ Transmission Needs Study at v-vi & 36-42, citing Dev Millstein, Ryan H. Wiser, Will Gorman, Seongeun Jeong, James Hyungkwan Kim, and Amos Ancell, *Empirical Estimates of Transmission Value using Locational Marginal Prices (2022)*.

transmission links studied, results indicated that congestion relieved during the top 5% of all congested hours could account for at least 35% of potential expansion value.¹⁷ This highlights the value of transmission capacity during periods of maximum congestion but may obscure a broader conclusion for transmission expansion that yields both sustained congestion relief as well as resilience during extreme events.

For example, the LBNL findings showed that almost all SPP-North transmission links ranked in the bottom quintile of proportional value derived during the top 5% hours of congestion, despite showing high absolute value from relieving SPP-North congestion on an annual basis. In other words, SPP-North transmission links indicated sustained high value for congestion relief across all hours of the simulated years, not simply deriving its benefits from punctuated congestion relief during extreme events. As a comparison, a SPP-to-ERCOT interregional transmission link showed about 75% of its total annual congestion relief value was derived from the top 5% of its most congested hours, with two-thirds of this relief occurring during extreme events. The SPP north-to-south intraregional transmission link indicated less than 40% of its total annual congestion relief value was derived from the top 5% of its most congested hours, with only 10% of this relief occurring during extreme events.¹⁸ While the results indicate the overall value of SPP north-to-south intraregional transmission congestion relief was less than half of the SPP-to-ERCOT interregional transmission congestion relief, when the influence of extreme conditions are removed, the mean value of overall transmission congestion relief between the transmission links becomes comparable.

The costs of congestion and the lack of transmission capacity continue to frustrate electricity customers. While the Needs Study primarily relied upon data between 2012 through 2020, average wholesale electricity prices escalated about 20% from 2020 to 2021, with the 2022 average SPP hourly real-time electricity price (\$43/MWh) growing 75% higher than in 2021.¹⁹ Specifically in the northern SPP pricing zone, the 2023 average real-time price for the largest Market Participant exceeded \$54/MWh, based on SPP marketplace settlement data through December 1, 2023.²⁰ Importantly, these price increases were not due to natural gas prices; the SPP North generation footprint is dominated by coal and hydropower. Rather, this harm to electricity consumers is a result of increased congestion. North-south transmission capacity in the central and northern zones of SPP is desperately needed to stabilize electricity costs by mitigating congestion and facilitating expanded low-cost renewable generation.

The TRIBES Project sited on the western edge of SPP-North will enhance operational flexibility for north-south transfer capacity, as well as strengthening reliability across a three-state area, squarely meeting the objectives for transmission expansion enumerated in the Needs Study.

¹⁷ Transmission Needs Study at 41-42.

¹⁸ Dev Millstein, Ryan H. Wiser, Will Gorman, Seongeun Jeong, James Hyungkwan Kim, and Amos Ancell, *Empirical Estimates of Transmission Value using Locational Marginal Prices* (2022), at 28.

¹⁹ SPP, State of the Market 2022 (May 2023);

<https://www.spp.org/documents/69330/2022%20annual%20state%20of%20the%20market%20report.pdf>

²⁰ SPP, compiled from RTBM-LMP Monthlies by Settlement Location; <https://portal.spp.org/>

c) *The Costs of Curing the Transmission Capacity Deficiencies in the Plains Region Have Been a Substantial Barrier to New Renewable Energy Generation Projects*

The Transmission Needs Study recognizes that network upgrade costs are interfering with new energy generation projects, and notes that FERC shares this view:

Furthermore, over the past several years, installation of new generators has been delayed because of longer wait times for interconnection agreements (Rand et al. 2022) and increased costs to connect to the electricity grid (Casparly et al. 2021). As described in the FERC Notice of Proposed Rulemaking, Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection (FERC 2022), these wait time and cost challenges are related to an increasing portion of overall transmission investment occurring through these interconnection agreement processes, which could result in less cost-effective transmission deployment. FERC suggests that the “piecemeal” approach to transmission deployment that occurs with the interconnection agreement process will not benefit from the economies of scale that would accompany a full regional transmission planning process (FERC 2022).²¹

In fact, the adverse impact on new generation projects that FERC identified is even greater than the Transmission Needs Study portrays. The FERC Notice cited by the Needs Study states:

[T]he average cost of interconnection-related network upgrades is increasing over time as the transmission system is fully subscribed and demand for interconnection service outpaces transmission investment. * * * [I]nterconnection costs for new renewable resources were less than 10% of total generation project costs until a few years ago, but recently these costs have risen to as much as 50-100% of the total generation project costs.²²

The impact of this reality within the geographic area OSPA is proposing for NIETC designation has been dramatic. As of December 29, 2023, there were 87 active wind and solar generator interconnection requests to SPP, queued in Nebraska, North Dakota, South Dakota, and eastern Montana. Of the 17.4 GW of capacity represented by these planned renewable resources, only 14 projects totaling 2,874 MW are sited in the expanse from central Nebraska through the western half of South Dakota spanning west from the Missouri River. Not only has the lack of EHV capacity in this

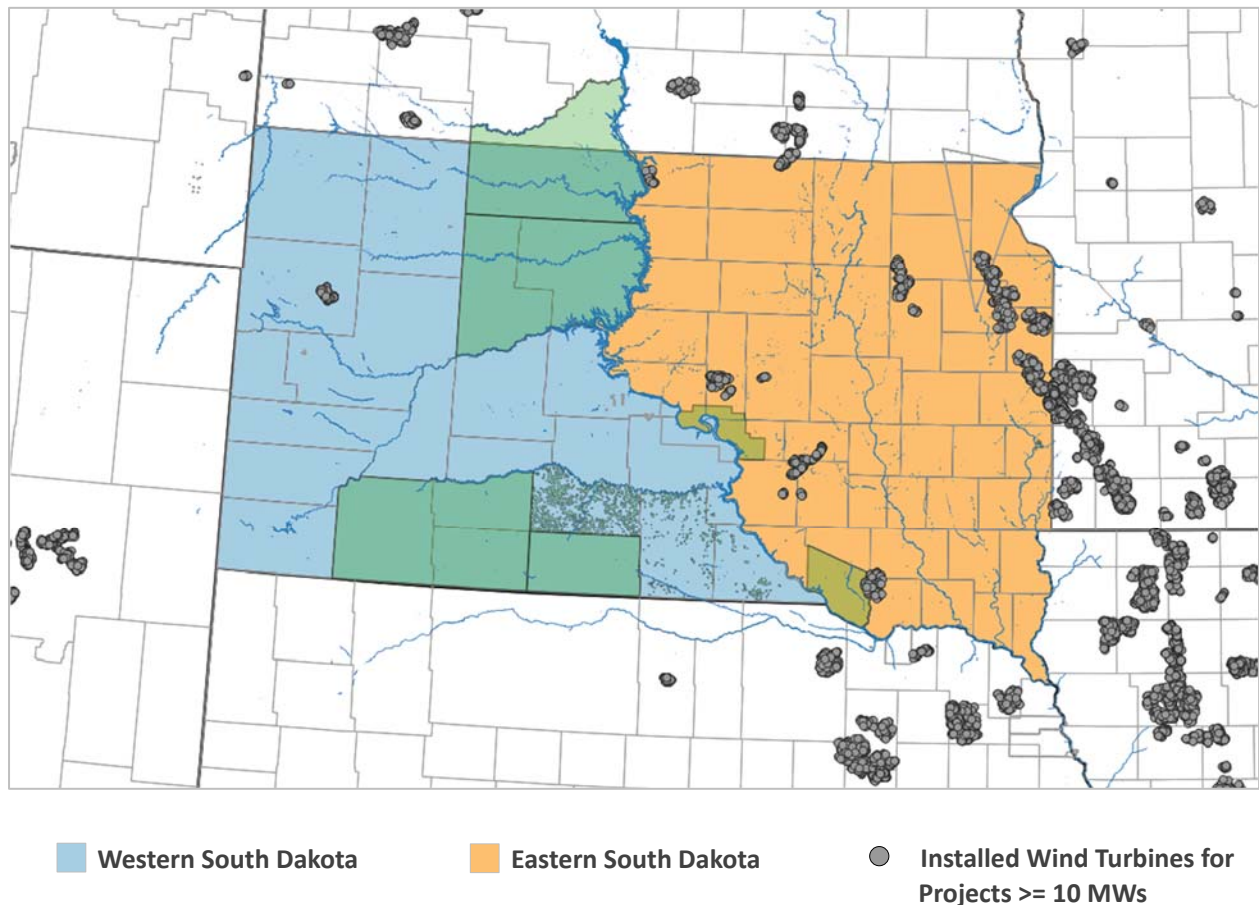
²¹ Transmission Needs Study at 20.

²² *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection, Advanced Notice of Proposed Rulemaking*, Docket No. RM21-17-000, 179 FERC ¶ 61,028, issued April 21, 2022 at ¶¶ 37 - 38. (Emphasis added.)

resource rich area resulted in significantly fewer renewable projects being pursued, the projects in this region are also withdrawn from the SPP queue at higher rates—about 45% higher in the period 2017-2023.²³

In western South Dakota, where most of the OSPA member Tribes are located, the transmission desert effectively equates to a wind farm desert, as illustrated in the map below. The absence of available transmission has proven to be an effective barrier to the development of utility-scale wind farms in this area—only one wind farm has been built in the western half of South Dakota to date, just 103 MW (or 4%) of the 2.9 GW installed in the entire state according to the South Dakota Public Utilities Commission.²⁴

Figure 5: The Impact of the Transmission Desert West of the Missouri River on Wind Farm Development in South Dakota



Data Source: The United States Wind Turbine Database, 5/31/2023 dataset²⁵

²³ <https://opsportal.spp.org/Studies/GISummary>

²⁴ <https://puc.sd.gov/energy/Wind/project.aspx>

²⁵ <https://eerscmap.usgs.gov/uswtodb/>

d) *The Costs of Curing the Capacity Deficiencies in the Proposed NIETC Geographic Area Have Been an Absolute Barrier to Energy Development by the OSPA Member Tribes*

As discussed in Section I(C) above, over the last seven years, OSPA has been developing two utility-scale wind farms on Tribal lands: the 120 MW Pass Creek wind farm on the Oglala Pine Ridge Reservation and the 450 MW Ta'teh Topah wind farm on the Cheyenne River Reservation. In addition, a separate Indian-owned group was developing a 110 MW solar farm on the Pine Ridge Reservation at about the same time. All three projects—680 MW of renewable energy, being developed by Indian groups on Indian land—were forced to withdraw from the SPP interconnection queue in 2022, after a five year wait, because SPP allocated hundreds of millions of dollars in network upgrade costs, and tens of millions in interconnection queue security deposits, to those projects.

The table below details the costs that SPP assigned to the OSPA wind farms at the conclusion of its DISIS-2017-002 Phase 2 study.²⁶ Consistent with the FERC findings, these interconnection costs largely reflect transmission upgrades, almost 85% of the costs for Ta'teh Topah and a full 98% for Pass Creek.

Figure 6: SPP Interconnection and Network Upgrade Cost Allocations to OSPA Wind Projects

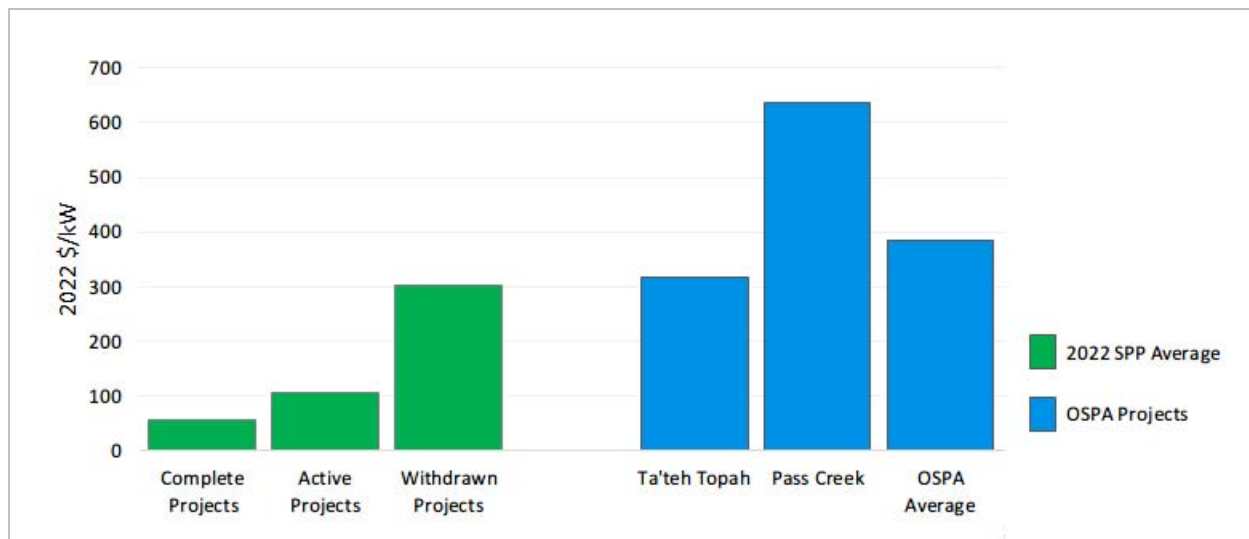
Transmission Owner	Total Costs	Interconnection	Thermal/Voltage Constraint	Stability Constraint
Pass Creek Wind Project (Pine Ridge) - GEN-2017-113				
WAPA	\$48,648,464	\$1,862,000	\$46,786,464	\$0
NPPD	\$32,176,005	\$0	\$32,176,005	\$0
Total	\$80,824,470	\$1,862,000	\$78,962,470	\$0
Ta'teh Topah Wind Project (Cheyenne River) - GEN-2017-114				
WAPA	\$73,743,700	\$0	\$62,361,832	\$11,381,868
BEPC	\$74,691,844	\$23,641,622	\$0	\$51,050,222
NPPD	\$146,788	\$0	\$146,877	\$0
Total	\$148,582,332	\$23,641,622	\$62,508,620	\$62,432,090

The SPP DISIS-2017-002 Phase 2 Study results yielded a \$635/kW network upgrade cost for Pass Creek and a \$318/kW upgrade cost for Ta'teh Topah. The result is an average of \$385/kW interconnection cost across OSPA's projects. This is well above the ceiling for a successful project in SPP. Lawrence Berkeley National Laboratory's "Generator Interconnection Cost Analysis in the Southwest

²⁶https://opsportal.spp.org/documents/studies/files/2017_Generation_Studies/DISIS_Results_Workbook_DIS1702P_2-PowerFlow_Stability_SC_FinalReport_08292022.xlsx

Power Pool (SPP) Territory” concluded that from 2020-2022, completed electricity generation projects in SPP had an average interconnection cost of \$57/kW. Withdrawn projects over the same period faced an average interconnection cost of \$304/kW—still below the interconnection cost for both OSPA projects.²⁷

Figure 7: Average SPP Interconnection Costs vs SPP Cost Allocations for OSPA Wind Projects



OSPA is recommending that the transmission desert of western South Dakota and surrounding areas be assigned NIETC designation because this would encourage critically needed EHV transmission investment that would bring the costs of interconnection to the national power grid to rational levels. The Tribes cannot bear the costs of upgrading the transmission network on and adjacent to their reservations, nor should they be required to.

- 2. A description, with supporting documentation, of the inclusion of any potential transmission project(s) that may be developed within a potential NIETC in local or regional transmission plans, including the extent of any discussions with relevant regulatory authorities, including siting authorities, and/or transmission planning entities, and the results thereof.**

As discussed above, the TRIBES Project will be submitted to the SPP 2024 annual ITP cycle in March 2024. WAPA and BEPC are the two largest SPP Transmission Owners in the region, owning and operating a combined 12,000 circuit miles of bulk electric system transmission. They are both experienced in sponsoring ITP projects and will shepherd the TRIBES Project through the current SPP ITP annual cycle, advancing it past each assessment and portfolio development stage of the SPP process.

²⁷ https://eta-publications.lbl.gov/sites/default/files/berkeley_lab_2023.04.20-spp_interconnection_costs.pdf

OSPA and WAPA have also discussed the TRIBES Project with the distribution co-ops on leveraging the new infrastructure to meet local community needs. The coordination among OSPA, WAPA and the co-ops will continue throughout the planning and construction of the project.

WAPA will be the lead federal permitting authority for the TRIBES Project. With respect to Tribal permitting, OSPA and its individual Board of Directors members are in regular contact with the member Tribes, and regularly make presentations to the Tribal Councils, Land Committees, Utility Offices and Economic Development Committees. The Tribal permitting authorities with whom OSPA interacts regularly are the THPOs and Tribal Employment Rights Offices (TEROs). OSPA has been advising its member Tribes on the TRIBES Project since the Project's inception last year.

3. A description, with supporting documentation, of the submission of formal proposals to include any potential transmission project(s) that may be developed within a potential NIETC in any local and/or regional transmission plans, and the results thereof.

As discussed above, the TRIBES Project will be submitted to the SPP 2024 annual ITP cycle in March 2024. WAPA, however, has been aware for some time of the need to upgrade transmission within the proposed NIETC geographic area. SPP considered a similar north-south transmission project in 2021 but it was denied as costs narrowly outweighed the benefits as measured by SPP. The SPP ITP evaluation criteria and its competitive nature are discussed in more detail below in the following subsection.

NIETC designation would be pivotal to ensuring that a critically needed 345 kV transmission backbone is built to relieve congestion in SPP-North and bring GWs of inexpensive clean energy to load centers while also strengthening transmission infrastructure serving the OSPA Tribes and other rural communities. History shows that transmission expansion begets transmission utilization. However, for bold expansion projects proposed to RTO ecosystems, immediate benefit-to-cost is paramount in decision making. Greater access to federal funding and financing programs could be the catalyst that makes the TRIBES Project possible, germinating new clean energy development where it has not grown before. Federal funding would shift the economics, lessening costs to the SPP RTO so expansion benefits will resoundingly outweigh costs—enabling SPP to plan and construct through its ITP process. Multiplying the effectiveness of federal funding, the SPP Order 1000 process may also identify the TRIBES Project for inclusion in its transmission Base Plan, allowing overall project costs to be shared across the SPP RTO, assuring its financial support.

4. A description, with supporting documentation, of the participation of potential transmission developers within a potential NIETC in competitive transmission planning processes, and the results thereof.

The SPP Integrated Transmission Planning process evaluates transmission needs for expected conditions over the future ten years affecting the SPP region. Ultimately, the SPP transmission system must deliver energy reliably and economically, facilitating public policy objectives while maximizing benefits to end-use customers. While the SPP transmission planning process is proactive, it does not evaluate speculative transmission expansion. In other words, all ITP projects must specifically address existing or expected reliability or economic constraints, and the expansion benefits of the TRIBES Project, such as facilitation of new generation, will be ignored.

On an annual basis, the SPP ITP process will evaluate 500+ proposed transmission solutions, including significant new or expanded EHV transmission projects. Each of the transmission projects evaluated is assessed for its 40-year net present value (NPV) benefit-to-cost (B/C) which aids the development of an economical portfolio proposed to the SPP stakeholders. Proposed projects failing to meet or exceed a 1:1 B/C are not considered for inclusion in the final ITP portfolio. Ultimately, the final SPP consolidated portfolio of all recommended transmission projects must be cost-beneficial within the first year of being placed in-service (typically assumed as five years into the future) and must be expected to reimburse the total investment within twenty years.

A NIETC designation with its increased access to federal funding could impact the economics of a transmission expansion such as the TRIBES Project, lessening costs to the SPP RTO so that expansion benefits outweigh costs—enabling SPP to plan and construct through its ITP process.

Identification of Relevant Discretionary Factors

- 1. 216(a)(4)(A) = A description, with supporting documentation, of whether, and if so how, the economic vitality and development of the potential NIETC geographic area, or the end markets served by that geographic area, may be constrained by lack of adequate or reasonably priced electricity.**

Extreme weather may disrupt short-term delivery of electrical power. For SPP, both the February 2021 winter storm Uri and the December 2022 winter storm Elliot showed that extreme winter conditions including high winds and record cold temperatures can rapidly push the transmission system to the brink of collapse. Increased consumer demand for electricity during extreme weather coupled with fuel supply disruptions and generation equipment failures can exacerbate transmission system constraints. SPP conducted a comprehensive review of its response to these events which yielded seven

key observations that caused load to be placed at risk, as well as service interruptions.²⁸ Unsurprisingly, transmission congestion and the unavailability of generation were prime root causes. A NIETC designation in the western edge of SPP-North would help facilitate transmission expansion projects such as the TRIBES Project which would help relieve transmission congestion and make available additional and diverse generation.

As discussed in the following subsection, the greatest harm of inadequate transmission infrastructure within the proposed NIETC geographic area, is that it leaves the Tribes and surrounding communities unable to develop their renewable energy resources, thereby denying those communities their most promising engine of economic growth. But as the Transmission Needs Study illustrates, the inability to develop renewable energy resources in the transmission desert of western South Dakota, and adjacent areas in North Dakota, Wyoming, and Nebraska also deprives consumers in end markets the ability to access inexpensive power.²⁹ The Transmission Needs Study places a particular emphasis on the need for increased interregional transmission to combat the negative effects of capacity shortages and congestion, but notes that “interregional transfer capability can be limited by insufficient transmission capacity internal to a region.”³⁰

2. 216(a)(4)(B) = A description, with supporting documentation, of whether, and if so how, economic growth in the potential NIETC geographic area, or the end markets served by that geographic area, may be jeopardized by reliance on limited sources of energy and a diversification of supply is warranted.

a) The OSPA Member Tribes Are Impoverished and Located in Remote Rural Areas Where Economic Development Opportunities Are Rare – But They Possess Some of the Best Renewable Energy Resources in the Country

The OSPA member Tribes are among the poorest Tribes, occupying some of the poorest counties, in the country. They are in remote rural areas that provide extremely limited opportunities for economic development. While all but one of the Tribes own casinos, these are not major generators of income for the Tribes. The remote locations of the Tribes prevent them from realizing substantial income from gaming—significant gaming revenue generators are limited to Tribes with land in proximity to large population centers, such as the Shakopee Mdewakanton Sioux in Minnesota, who own and operate their hotel/casino complex 36 miles from Minneapolis-Saint Paul.³¹ For the OSPA member Tribes, casinos are primarily jobs generators.

²⁸ SPP’s Review of Winter Storm Elliott;

<https://spp.org/documents/69219/spps%20response%20to%20dec%202022%20winter%20storm%20-%20presentation.pdf>

²⁹ Transmission Needs Study at 33-34.

³⁰ *Id.* at 58 (citation omitted).

³¹ MinnPost: “When it comes to American Indian gaming, some, but not all, tribes come up big winners” (August 29, 2023); <https://www.minnpost.com/economy/2023/08/when-there-comes-to-american-indian-gaming-some-but-not-all-tribes-come-up-big-winners/>

Unlike some other Tribes in the country, the OSPA member Tribes have eschewed businesses that could generate some profit, but at a cost of significant damage to the land. Several of the OSPA member Tribes suffer from the effects of radioactive pollution from uranium mining conducted near the reservations, even though the Tribes have not allowed such mining on-reservation. Similarly, some of the Tribes have significant deposits of sodium bentonite, but they will not conduct the strip mining necessary to exploit it. Respect for the earth is fundamental to Lakota culture and values, as reflected in the OSPA Charter:

As Original Peoples of Earth, we feel it is our duty to guide the world back into balance in a manner that provides for our life needs without destroying the source - Unci Maka (Our Grandmother Earth). Mitakuye Oyasin means, "Everything is my relative," we are all literally related to everything down to the atomic level and a delicate balance must be maintained at that level. Our story will end unless we figure out a way to live harmonistically with the natural elements of the Universe.

As the chart below shows, the lack of economic development opportunities in the geographic area occupied by the OSPA member Tribes has left them impoverished.

Figure 8: Economic Conditions of OSPA Tribes within Proposed NIETC Geographic Area

Tribe and Reservation	Tribal Members on Reservation ^a	Poverty Rate ^b	Unemployment Rate ^b	Median Household Income ^{b, c}
Cheyenne River Sioux Tribe Cheyenne River Reservation	11,195	38.2%	23.5%	\$43,321 Dewey County: 18 th poorest in SD Ziebach County: poorest in SD
Crow Creek Sioux Tribe Crow Creek Reservation	3,429	37.4%	18.7%	\$40,045 Buffalo County: 2 nd poorest in SD
Oglala Sioux Tribe Pine Ridge Reservation	19,911	48.2%	12.3%	\$34,526 Bennett County: 9 th poorest in SD Jackson County: 6 th poorest in SD Oglala Lakota County: 3 rd poorest in SD
Rosebud Sioux Tribe Rosebud Indian Reservation	28,228	60.8%	16.1%	\$24,737 Mellette County: 7 th poorest in SD Todd County: 4 th poorest in SD
Standing Rock Sioux Tribe Standing Rock Reservation	15,000	41.0%	21.9%	\$39,516 Corson County, SD: 5 th poorest in SD Sioux County, ND: poorest in ND
Yankton Sioux Tribe Yankton Indian Reservation	4,600	25.4%	11.2%	\$50,753 Charles Mix County: 13 th poorest in SD

- Tribal residency data from various Tribal and Bureau of Indian Affairs sources. Census data is known to undercount Native American populations.
- Poverty rates, unemployment rates, and median household income by reservation, US Census Bureau, 2021 American Community Survey 5-Year Estimates.
- Per capita income rankings by county, US Bureau of Economic Analysis based on 2021 Census Bureau data.

But these same Tribes possess the strongest and most reliable on-land wind resources in the country—four years of wind measurements on the Pine Ridge and Cheyenne Reservations have demonstrated net capacity factors in excess of 50%. And as shown in the U.S. Wind Resources Map in Figure 1, significant swaths of land across central and western Nebraska, North Dakota and South Dakota have windspeeds greater than 8 m/s—some of the best wind resources in the country. The Tribes also have solar resources that can support utility-scale generation, or supplement wind energy generation. In the following subsection, we discuss what the ability to develop these wind and solar resources will mean to the Tribes.

b) The Great Plains TRIBES Project, Supported by a NIETC Designation, Will Enable the Largest Economic Development Driver in the History of the Tribes

The two wind farms now under development, and future wind and solar farms that will be developed, by OSPA are all located within the reservation boundaries of the Tribes, and are majority owned by OSPA, which is 100% owned by its member Tribes. The Tribes are co-developers, not passive landowners, which allows the Tribes to realize the full economic value of the projects.

Utility-scale clean energy projects will generate tens of millions of dollars in tax and fee revenue to the Tribes and local governments, much of it being collected during construction. And for wind farms, landowners will receive a steady stream of rent over the life of the project, 25+ years, without disruption to ranching or farming operations. The entire community will benefit from road improvements and ancillary business opportunities that come with large infrastructure projects, and the creation of jobs, which are discussed in more detail in the following subsection.

For impoverished Tribes, revenues of this magnitude, from a non-federal source, are game-changing. Moreover, it is likely that the Tribes will be able to realize an additional revenue source, made possible by changes to the federal tax code in the Inflation Reduction Act of 2022. Under changes to the tax code, Tribes—which are exempt from federal taxes, can receive “direct pay” of renewable energy tax credits that formerly were available only to tax-paying entities. This means that, for the first time, Tribes can realize long-term ownership of their wind farms, and realize a significant portion of the power sales generated over the life of the project. OSPA does not have enough information to estimate the potential value of this tax law change—the U.S. Treasury has not yet issued guidance on how the law applies. But this is a potentially very significant additional source of revenues to the Tribes.

By curing the transmission constraints and congestion that are preventing the Tribes from developing their renewable energy resources, the NIETC designation sought by OSPA—and the EHV transmission projects it will encourage such as the Great Plains TRIBES Transmission Project—will issue in a transformative era of economic growth in the potential NIETC geographic area. Moreover, it will establish a virtuous new paradigm. In the past, Indian Tribes were lifted out of poverty by coal, oil, and gas extraction, or by gambling. Now, some of the poorest Tribes in the country can achieve sustainable, long-term economic development by saving the planet.

c) The Great Plains TRIBES Project, Supported by a NIETC Designation, Will Be a Major Source of Permanent and Construction Jobs

The construction of the Great Plains TRIBES Transmission Project will be a major source of quality jobs over multiple years. The NREL Jobs and Economic Development Impact (JEDI) model for transmission development was used to estimate the job creation potential of the TRIBES Project.³² Under the JEDI model, a full-time employment (FTE) job is defined as 2,040 hours of work. Inputting general project and terrain characteristics, the JEDI model estimates that 5,197 FTE jobs will be created during construction and 62 FTE long-term positions for operations and maintenance. Construction jobs for EHV transmission range from general construction laborers to heavy equipment/crane operators, lineworkers, substation technicians, engineers, field supervisors, Tribal monitors, and management. The permanent operations and maintenance positions include lineworkers and substation technicians.

OSPA will work with the TEROs and the International Brotherhood of Electrical Workers (IBEW) Local 1250 on identifying needed job skills and qualifications and supporting training and other solutions to address local workforce gaps or challenges (*e.g.*, providing tools, personal protective equipment, transport to jobs, etc.). Preliminary discussions include outreach in Tribal schools and communities for recruitment, creating a mentorship program for high school students to get hands-on experience and exposure to the trades and pre-apprenticeship opportunities, and coordinating with Tribal colleges' vocational programs. In addition, IBEW Local 1250 will facilitate access to the Missouri Valley Line Joint Apprentice Training Center in Indianola, Iowa—a training facility with an outdoor and indoor pole yard that trains thousands of apprentice linemen, traffic signal technicians and substation technicians each year.

The TRIBES Project will also enable significant clean energy projects in the region that will create substantial construction jobs and permanent operations and maintenance positions. The OSPA wind farms currently under development—120 MW Pass Creek on Oglala Pine Ridge Reservation and 450 MW Ta'teh Topah on Cheyenne River Reservation—can provide a window into the potential for clean energy jobs. Construction jobs for the wind farms range from general construction laborers to heavy equipment/crane operators, electricians, ironworkers, engineers, field supervisors, Tribal monitors, and management. The permanent operations and maintenance positions include wind turbine technicians, administration, and management.

Based on prior project experience and site characteristics, the Pass Creek wind farm is estimated to take about 6 months to build, generate over 150 construction jobs, and create about 10 permanent jobs to operate and maintain the wind power facilities; and the Ta'teh Topah wind farm will take about 9 months to build, generate over 300 construction jobs, and about 20 permanent jobs. That means the 570 MW of initial wind farm development by OSPA and Steelhead will create over 450 jobs combined during construction and dozens of permanent operations and maintenance positions, as well as ancillary business opportunities on both reservations. The JEDI model for onshore wind farm development was

³² <https://www.nrel.gov/analysis/jedi/>

used to validate these job estimates. Inputting project data and cost estimates, the JEDI model estimates that the Pass Creek wind farm will create 116 FTE jobs during construction and 9 FTE long-term jobs, and Ta'teh Topah wind farm will create 368 FTE jobs during construction and 15 FTE long-term jobs.

OSPA is particularly interested in ensuring Indian workers are qualified for the highly skilled permanent wind turbine technician and management positions. Steelhead has been working with its parent company, Vestas, to ensure that Tribal members will have the opportunity to be trained and employed as turbine service technicians on the OSPA projects. Vestas has reiterated its commitment to hiring locally for the projects it services. Vestas will also train new technicians at its world class Technical Training Facility in Portland, Oregon. Turbine technician jobs are well-paid and do not require a college degree.

The Great Plains TRIBES Transmission Project, and the wind and solar farm development it will enable, will be an unprecedented generator of jobs on Tribal lands and in the surrounding communities. Designating the area proposed by OSPA as a NIETC can help ensure that all these benefits will be realized.

3. 216(a)(4)(C) = A description, with supporting documentation, of whether, and if so how, the energy independence or energy security of the United States would be served by the potential NIETC designation.

The NIETC designation and the EHV transmission projects it would enable, will finally open up a huge resource rich area to clean energy development that will benefit energy independence and security. Wind power does not present fuel cost and availability concerns that can impact energy production, unlike oil, gas, or coal. Plus, wind power has the advantage of being entirely domestic. Expanding geographic diversity of wind resources will also improve the security of the national energy system overall, by making it more distributed and because wind becomes less covariant over larger distances—meaning that wind power would be able to supply more energy *all the time*.

As noted above, the proposed NIETC geographic area includes the four largest land-based Tribes sharing territory with South Dakota. They came together to form OSPA to develop over 2 GWs of utility- and community-scale clean energy projects on their reservations. The Transmission Needs Study discusses the clear link between development of energy resources on Tribal lands and national energy independence and security:

Indian Country contains vast untapped energy resources. While a wide variety of energy resources exist on Tribal lands, increasing vulnerabilities due to climate change have resulted in a rising demand for clean energy generation (Jones et al. 2022). Renewable energy technologies provide opportunities for diversification, energy independence, environmental sustainability, and new revenue streams for Native American Tribes, Alaska Native villages, and Alaska Native corporations

(Milbrandt, Heimiller, and Schwabe 2018). Many Tribal lands are located in areas that have abundant renewable energy, such as wind, solar, and biomass. Over 9% of the nationally available renewable energy resource is found within 10 miles of federally recognized Tribal lands (Brooks 2022). Transmission is key in accessing these potential generation resources.³³ * * * Access to the transmission system is required to bring the economically viable generation resources to market. Where some Tribal lands are well covered by the transmission system, some have limited or no access to high-voltage lines.³⁴

A NIETC designation would spur the critically needed investment in EHV transmission in an area with excellent wind resources, that would unleash gigawatts of low-cost renewable energy development across Tribal and non-Tribal lands that have historically been unable to export power. This will further the goal of national energy independence and will enhance the energy security of the country.

4. 216(a)(4)(D) = A description, with supporting documentation, of whether, and if so how, the potential NIETC designation would be in the interest of national energy policy.

a) OSPA's Proposed NIETC Designation Furthers the Transmission Needs Study Goal of Connecting Renewable Energy Resource-Rich Lands to Load Centers, and the Administration's Implementation of the BIL and IRA to Accomplish It

The Transmission Needs Study discusses the Administration's energy policy goal of connecting remote areas with plentiful and low-cost renewable energy resources to load centers:

New transmission advances clean energy goals by enabling greater access to the best available and lowest cost clean energy resources, which can be in remote areas far from load and the existing transmission system. Many new energy resources that would help reduce power prices and meet reliability and clean energy goals are currently within backlogged interconnection queues and a more efficient transmission study process can help hasten connection of those resources to the grid.³⁵

The Administration has begun an historic effort to realize these goals by implementing the grant and financing provisions of the Bipartisan Infrastructure Legislation (BIL) and the Inflation Reduction Act (IRA). In October of last year, DOE announced the awards of the first round of the Grid Resilience and Innovation Partnerships Program. GDO issued a Fact Sheet describing the second largest award from that program, entitled: "Upgrading Transmission Capacity by Bridging Renewables in Oregon:"

³³ Transmission Needs Study at 84.

³⁴ *Id.* at 86.

³⁵ *Id.* at 9.

The partnership between Confederated Tribes of Warm Springs (CTWS) and Portland General Electric (PGE) will establish a connection between PGE’s load centers, which represent roughly half of Oregon’s population and 2/3 of the state’s commercial and industrial activity, with the vast—but currently isolated—reservoir of renewable generation resources east of the Cascades, including those on the Warm Springs Reservation. * * * The project will create additional transmission capacity to move large amounts of renewable energy from Central Oregon and other regions, including from tribal lands into PGE’s load center in the Willamette Valley.³⁶

The TRIBES Project noted throughout OSPA’s NIETC Recommendation does exactly the same thing—the TRIBES Project will, among other benefits, eliminate the capacity constraints and congestion that have been the greatest obstacle to the development of renewable energy on remote Tribal lands, and connect them to an EHV regional and inter-regional network and the load centers it serves.

b) The NIETC Designation Achieves the Biden-Harris Administration’s Justice40 Goals by Directly Benefitting Disadvantaged Communities

President Biden established this Administration’s Justice40 commitment by Executive Order in January 2021, stating that the purpose is to ensure that “40% of the overall benefits from federal investments . . . flow to disadvantaged communities.”³⁷ That commitment will be implemented by driving funding from the Bipartisan Infrastructure Law, the Inflation Reduction Act and the American Rescue Plan to “covered programs” that are designed to “confront decades of underinvestment in disadvantaged communities”.³⁸ WAPA, the other Power Marketing Administrations, and the DOE offices that administer grant and loan programs are all “covered programs” included in the Justice40 commitment.³⁹ The Administration specifically finds that American Indian Reservations are classified as disadvantaged communities (DACs) for purposes of implementing the Justice40 initiative.⁴⁰

The OSPA Recommendation is unusual—perhaps unique—because it is designed to drive substantial investments in the national transmission system that directly benefit disadvantaged communities. The geographic area of the OSPA NEITC Recommendation is an area with a high concentration of disadvantaged communities—60 DACs spanning 39 counties and 7 Tribal reservations.⁴¹

³⁶ DOE, Grid Deployment Office, Fact Sheet (pub. October 2023); https://www.energy.gov/sites/default/files/2023-11/DOE_GRIP_3022_Confederated%20Tribes%20of%20Warm%20Springs%20OR_v5_RELEASE_508.pdf

³⁷ President Biden, Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad* (January 27, 2021).

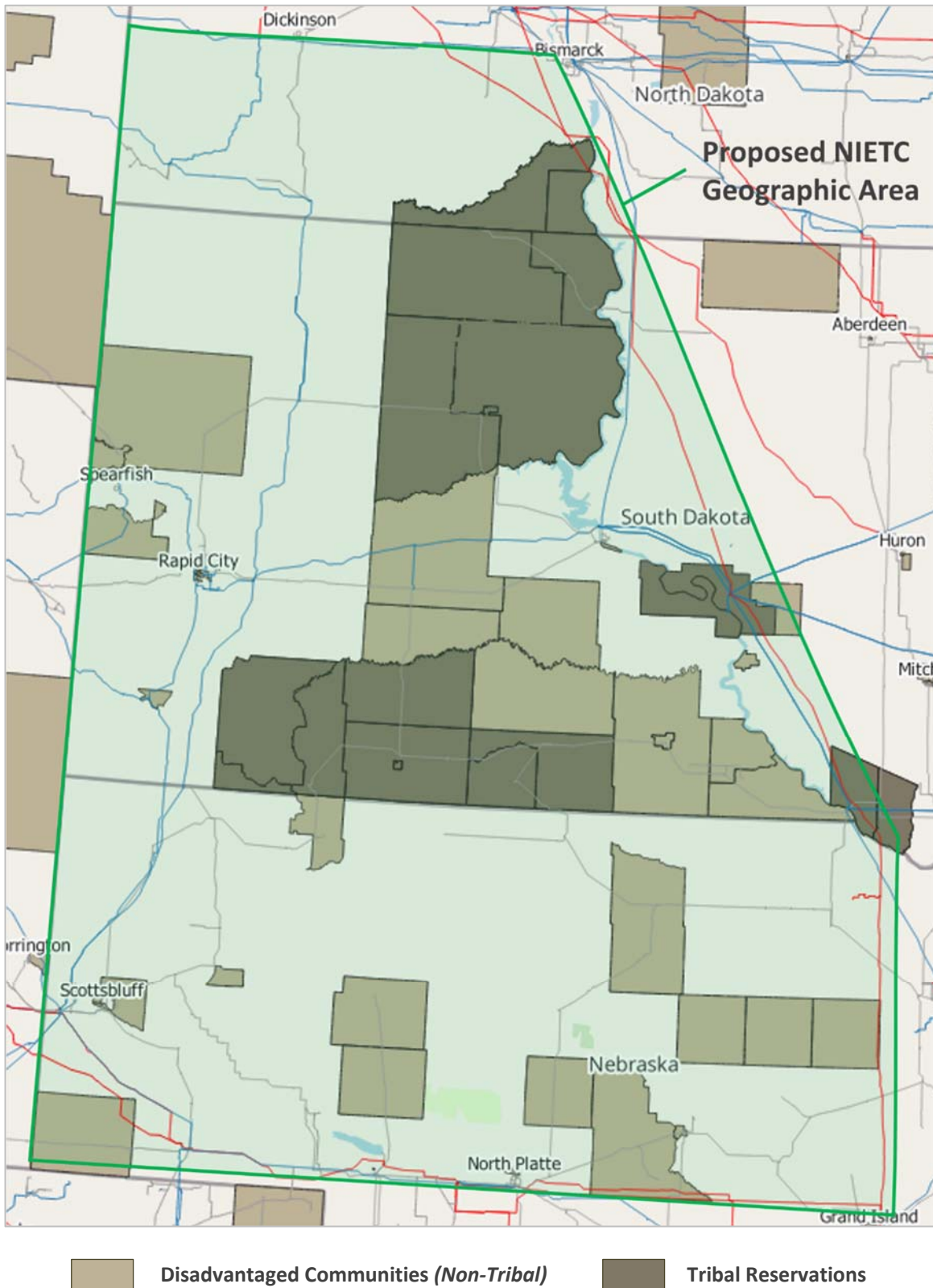
³⁸ <https://www.whitehouse.gov/environmentaljustice/justice40/>

³⁹ https://www.whitehouse.gov/wp-content/uploads/2023/04/Justice40-Covered-Programs-List_v1.4_04-20-2023.pdf

⁴⁰ White House Memorandum M-23-09, “*Addendum to the Interim Implementation Guidance for the Justice40 Initiative, M-21-28, on using the Climate and Economic Justice Screening Tool (CEJST)*” (January 27, 2023).

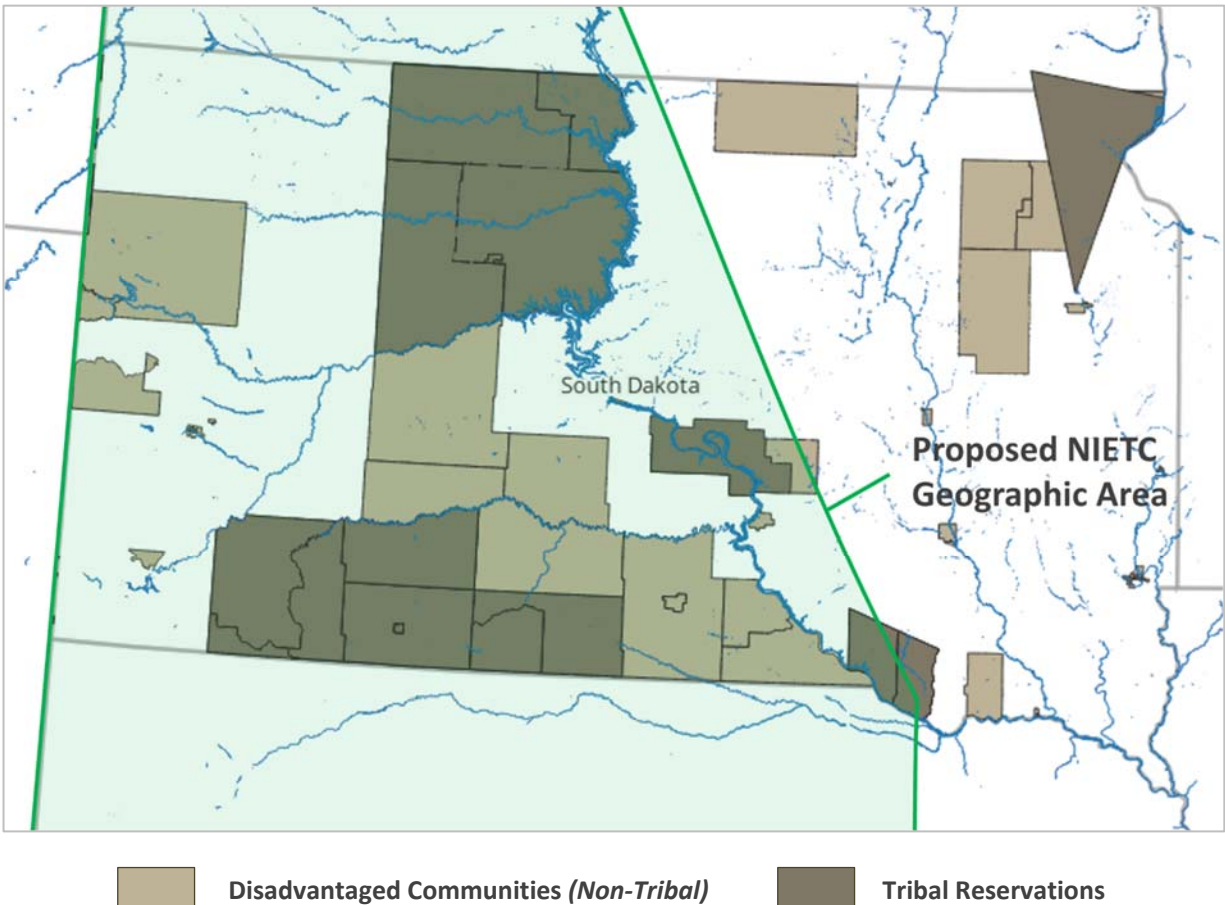
⁴¹ *White House Council on Economic Justice, Climate and Economic Justice Screening Tool, 11/22/2022 dataset*; <https://screeningtool.geoplatform.gov/en/downloads#3/33.17/-110.55>

Figure 9: Disadvantaged Communities within the NIETC Geographic Area



The OSPA proposed NIETC area and the TRIBES Project it encompasses will have an especially meaningful impact in South Dakota, providing benefits to a significant portion of DACs in the state. More than two-thirds of DACs within the NIETC area are in South Dakota, covering approximately 24,850 square miles (85% of the land base for all DACs in South Dakota) and 132,660 people (53% of total DAC population of South Dakota).⁴²

Figure 10: Disadvantaged Communities in South Dakota



As discussed in Section II(B)(1)(d) above, the absence of available transmission capacity, and its effect in inflating interconnection costs, has proven to be an insuperable barrier to renewable energy projects among the OSPA member Tribes. NIETC designation, and the EHV transmission projects it will support, such as the Great Plains TRIBES Project, will redress this problem.

When the TRIBES Project is implemented, over 40 DACs, including OSPA Tribes, will be located within less than 35 miles from the TRIBES transmission path, finally providing these communities with reasonable access to the grid for clean energy development. Specifically, the new EHV capacity will

⁴² Population figures are from the US Census Bureau, 2019 American Community Survey 5-Year Estimates; White House Council on Economic Justice, Climate and Economic Justice Screening Tool, 11/22/2022 dataset; <https://screeningtool.geoplatform.gov/en/downloads#3/33.17/-110.55>

allow OSPA and Steelhead to continue developing the Pass Creek and Ta'teh Topah wind farms, even increasing project capacity, and the economic value of the projects to the Tribes. Moreover, the proposed upgrade to transmission capacity serving the entire proposed NIETC area will allow new utility-scale renewable energy projects to be developed across multiple OSPA member Tribes, fulfilling the core mandate of the OSPA Charter.

These clean energy projects will generate tens—and potentially hundreds—of millions of dollars in taxes, fees, lease payments, and power sales revenues to the OSPA member Tribes, which rank among the poorest in the country. The economic conditions on the reservations of the OSPA member Tribes are shown in Figure 8 above. The transformative beneficial impact of renewable energy development on these communities is self-evident.

In addition to providing grid access to utility-scale renewable energy projects on Tribal lands, the TRIBES Project EHV infrastructure upgrade will provide transmission reinforcement and increased resiliency for the rural and Tribal electric load customers in north-central Nebraska and western South Dakota, as well as in southwest North Dakota into eastern Montana. In particular, existing wooden utility poles will be replaced by concrete or steel monopoles, and possibly steel lattice towers in some cases, substantially increasing regional resilience. OSPA is unaware of any other project that will generate such a level of economic benefit and improvements to grid capacity and resiliency that are so specifically targeted to disadvantaged communities.

The Transmission Needs Study refers repeatedly to the need of project sponsors to engage early and often with Indian Tribes, as well as other stakeholders in planning and executing network improvements.

Project sponsor and federal agency engagement is not only critical to ensure alignment among a broad range of interests, but it is also critical to ensure transmission development processes result in equitable siting decisions . . . * * * Many Tribal lands have an abundance of renewable energy resources, and renewable generation development may provide opportunities for diversification, energy independence, environmental sustainability, and new revenue streams for AI/AK communities. Access to the transmission system would be required to generate such value for Indian Tribes and to bring economically viable generation resources to market.⁴³

In the case of OSPA and the Great Plains TRIBES Project, the Tribes are the sponsors. This NIETC Recommendation and the TRIBES Project are initiatives that originated from the Tribes, to meet the needs of the Tribes, based on direct Tribal experience over more than a decade—a uniquely impactful application of the Administration's Justice40 initiative.

⁴³ Transmission Needs Study at 112. See also *id.* at 107-08.

c) *The NIETC Designation Is Fully Consistent with the Equity and Energy Justice Policy Positions reflected in DOE’s i2X and IREZ Initiatives*

Perhaps more than any other modern presidential administration, the Biden/Harris/Granholm Administration has displayed a commitment to pursuing Equity and Energy Justice (“EEJ”), and this commitment is reflected in two of DOE’s most important and progressive policy initiatives—the Interconnection Innovation e-Xchange (i2X) stakeholder engagement and data collection initiative, and the Interregional Renewable Energy Zone (IREZ) concept established by NREL.

Last October, DOE sought public comment on the i2X Draft “Roadmap”⁴⁴—a collection of findings and recommended strategies developed in the i2X initiative’s multi-year consultation and data collection process.⁴⁵ The Roadmap is a discussion draft—official DOE policy statements from the i2X process won’t be made until the final report is issued later this year. But the Draft Roadmap put out for comment several statements that specifically concern EEJ, including:

State, Federal, and transmission-level planning has not historically focused on the role of EEJ projects and communities, both in considering the impacts of planning efforts on EEJ communities and in allowing EEJ communities to play an active role in these processes. . . . For example, including projected tribal clean power projects in their corresponding Power Marketing Administrations’ (PMA) transmission plans would enable tribal projects to interconnect to these transmission networks with reduced queue delays and interconnection costs. Almost half of the federally recognized Tribes in the United States are located within the service territory of the Western Area Power Administration, Bonneville Power Administration (BPA), or Southwest Power Administration (SWPA).⁴⁶

OSPA submitted comments on the Draft Roadmap that strongly agree that the planning process discussed in this statement fully embraces the EEJ and Justice40 priorities espoused by this Administration.⁴⁷ To date, Tribes have largely been excluded from the Integrated Transmission Planning process for their region, not because of any intentional acts by ISO/RTOs or transmission owners, but because Tribes have not been active in developing their renewable energy resources at scale—until now. OSPA strongly agreed with the i2X draft proposition that WAPA and the other PMAs are the most effective way to engage Tribes in the planning process. PMAs are already actively engaged in transmission and interconnection planning, and as the Draft Roadmap notes, they already have

⁴⁴ i2X, *Transforming Interconnection :Paving the way to reliably achieve an energy transition on the U.S. transmission system by 2035 – Draft Report* (i2X Draft Roadmap), <https://www.energy.gov/sites/default/files/2023-10/Draft%20i2X%20Transmission%20Roadmap.pdf>

⁴⁵ DOE, DE-FOA-0003220: Request for Information: Transmission System Interconnection Roadmap Draft (October 25, 2023).

⁴⁶ i2X Draft Roadmap at 43-44.

⁴⁷ OSPA, *Responses to the Interconnection Innovation e-Xchange Request for Information: Transmission System Interconnection Roadmap Draft*, submitted November 22, 2023, at 7-8.

extensive relationships with over half of the Indian Tribes in the country. OSPA is making this NIETC Recommendation with the active assistance of WAPA and BEPC, and the TRIBES Project that is referenced in this NIETC Recommendation was designed by those expert transmission companies. A NIETC Designation would not only enable network upgrades that will directly benefit the Tribal and other disadvantaged communities in the area, but it will also fully engage the OSPA member Tribes in the SPP regional transmission planning process.

Similarly, the OSPA NIETC Recommendation would foster infrastructure investment to establish a new interconnection hub within or near the Tribal lands. The potential impact of IREZ siting is discussed in the i2X Draft Roadmap:

Siting one or more IREZ hubs on or near tribal lands with renewable energy development potential can help ensure that tribal communities are able to benefit from federal investment in building out the infrastructure needed to decarbonize the grid.⁴⁸

EHV transmission as envisioned in the WAPA/BEPC-designed TRIBES Project would allow utility-scale clean energy grid interconnection west of the Missouri River, eliminating the need for extended generation tie line greenfield construction and river crossings, saving Tribal clean energy projects hundreds of millions of dollars, and ensuring that Tribal communities can benefit from federal decarbonization investment.

d) The TRIBES Project Within the OSPA Proposed NIETC Fulfills the Administration's Commitment to Engage in Meaningful Consultation with Tribes

DOE's formal Tribal government policy states that "[t]he Department will recognize the right of each Indian nation to set its own priorities and goals in developing, protecting, and managing its natural and cultural resources. . . . The Department will provide information and outreach programs to tribal and individual member businesses on opportunities to participate, compete, and participate in renewable and conventional energy generation, transmission, distribution, marketing and energy services, grants and contracts."⁴⁹

Within days of assuming office, President Biden issued his Justice40 Executive Order, including the following consultation requirement: "All Justice40 covered programs are required to engage in stakeholder consultation and ensure that community stakeholders are meaningfully involved in determining program benefits."⁵⁰ Later that year, President Biden issued Executive Order 13175, which set forth responsibilities of the executive agencies in addressing issues impacting Tribes, including the

⁴⁸ i2X Draft Roadmap at 44.

⁴⁹ DOE Order 144.1 (January 16, 2009) at 3 & 5.

⁵⁰ <https://www.whitehouse.gov/environmentaljustice/justice40/>

following: “On issues relating to tribal self-government, tribal trust resources, or Indian tribal treaty and other rights, each agency should explore and, where appropriate, use consensual mechanisms for developing regulations, including negotiated rulemaking.”⁵¹

DOE took a major step in honoring these commitments in its NIETC Guidance, when DOE responded to comments filed by OSPA and other parties and opened the NIETC recommendation process to all interested parties.⁵² OSPA’s NIETC Recommendation, and the Great Plains TRIBES Project that sits within its footprint, reflects a coordinated effort between WAPA and OSPA—precisely the type of government-to-government coordination that the Administration has committed to pursuing.

5. 216(a)(4)(E) = A description, with supporting documentation, of whether, and if so how, the potential NIETC designation would enhance national defense and homeland security.

“A stable homeland is dependent on the reliable delivery of electricity—from public health to the economy and national security.” – U.S. Department of Homeland Security.⁵³

As discussed in Sections I(D) and II(B)(1), the proposed NIETC geographic area is currently an EHV transmission desert. The NIETC designation would encourage investment in projects such as the TRIBES Project—a 345 kV EHV backbone spanning three Upper Great Plains states. In addition to dramatically increasing available north-south transfer capacity across the region, the TRIBES Project will replace existing wooden utility poles with concrete or steel monopoles, and possibly steel lattice towers in some cases, substantially increasing resilience in the transmission network.

The TRIBES Project EHV infrastructure upgrade will provide transmission reinforcement and increased resiliency for the rural and Tribal electric load customers in north-central Nebraska and western South Dakota, as well as in southwest North Dakota into eastern Montana. This upgraded network will be fully integrated into the SPP intraregional corridor; will be included in the regionwide SPP Integrated Transmission Planning process; and will be incorporated into SPP’s interregional transmission planning activities with other planning regions. These dramatic improvements in capacity, resiliency and reliability will advance the national defense ability and homeland security.

⁵¹ The White House, Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* (November 9, 2000, at § 5(d)). See also White House Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships (January 26, 2021) and White House Memorandum on Uniform Standards for Tribal Consultation (November 30, 2022).

⁵² Guidance at 43 & n. 128.

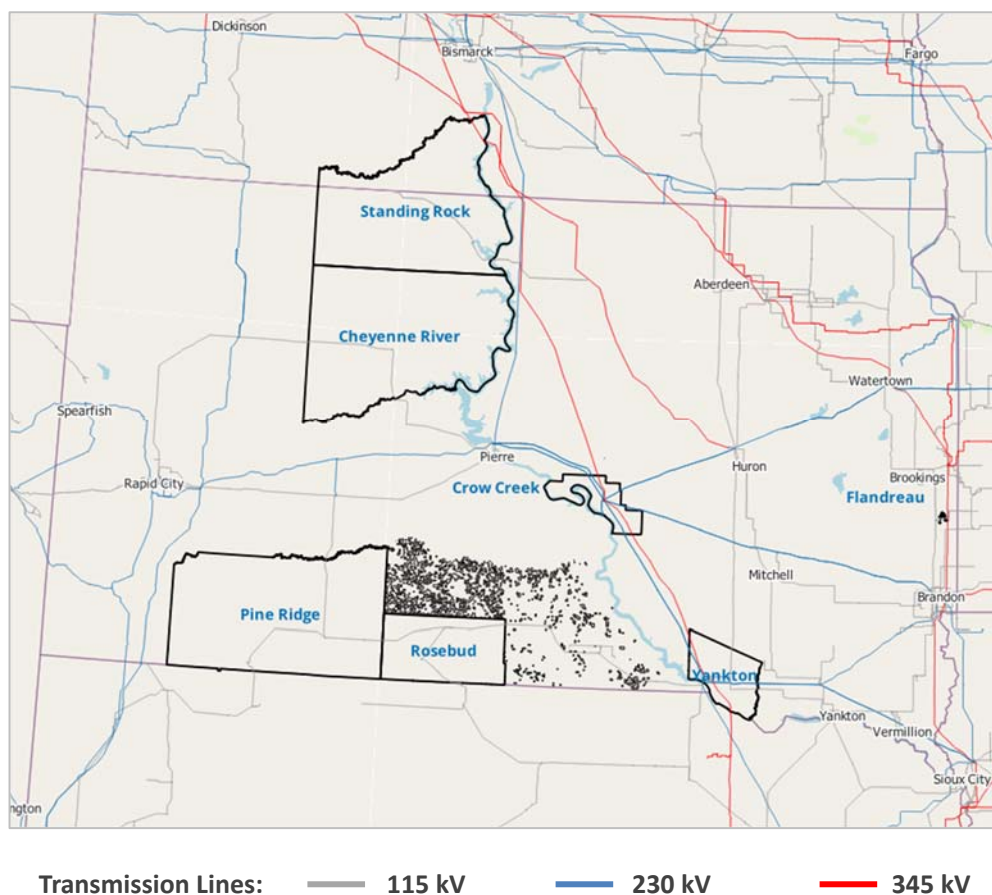
⁵³ U. S. Department of Homeland Security, Science and Technology Directorate, “Feature Article: Balance of Power—Building a Resilient Electric Grid,” <https://www.dhs.gov/science-and-technology/news/2021/12/02/feature-article-balance-power-building-resilient-electric-grid>

6. 216(a)(4)(F) = A description, with supporting documentation, of whether, and if so how, the potential NIETC designation would enhance the ability of facilities that generate or transmit firm or intermittent energy to connect to the electric grid.

a) The Geographic Area OSPA Recommends for NIETC Designation Is an EHV Transmission Desert

The U.S. Upper Great Plains contains a region larger than the states of New York and Pennsylvania combined that is devoid of extra high voltage (EHV) transmission. Within the Eastern Interconnection alone, this 40,000 square mile contiguous territory, rich with premier renewable energy potential, remains outside 50 miles from the nearest EHV infrastructure, averaging more than 120 miles from an EHV transmission line. This area is a transmission desert and much of it in western South Dakota is Tribal reservation land, which highlights the state and federal governments' struggle to deploy investment at scale in Indian Country. This lack of investment has resulted in some of the poorest communities in our country having few opportunities to utilize the resources they do have in abundance, such as land and wind.

Figure 11: Transmission Desert of Western South Dakota and Home to the Largest Land-Based OSPA Member Tribes



Compare this map with the installed wind turbine map at Figure 5, discussed in Section II(B)(1) above. Together, they illustrate that the transmission desert has turned into a wind farm development desert— compared to the eastern side of South Dakota where there are multiple 345 kV transmission lines, there is virtually no wind farm development west of the Missouri River where no 345 kV lines exist. The Great Plains TRIBES Project will for the first time bring EHV capacity to this transmission desert—the geographic area for which OSPA is recommending NIETC designation.

b) In OSPA’s Proposed NIETC Area, the Lack of Transmission Capacity Has Driven Interconnection Costs to Levels that Prevent Development

In Section II(B)(1) above, OSPA cites the Transmission Needs Study and other evidence to demonstrate that the geographic area that OSPA recommends for NIETC designation currently is experiencing severe transmission capacity constraints and congestion, and that this congestion is expected to grow geometrically between now and 2035. In Section II(B)(1)(c) above, OSPA quotes findings by the Federal Energy Regulatory Commission that, in recent years, the chronic congestion across the national power grid has had the effect of dramatically inflating the costs of interconnection to the grid: “interconnection costs for new renewable resources were less than 10% of total generation project costs until a few years ago, but recently these costs have risen to as much as 50-100% of the total generation project costs.”⁵⁴

In Section II(B)(1)(d) above, OSPA demonstrates that the FERC observation has been demonstrated in the interconnection costs SPP has assigned to utility-scale renewable energy development on the reservations of the OSPA member Tribes. The interconnection costs SPP allocated to the OSPA wind farm projects on the Oglala Pine Ridge and Cheyenne River Reservations are extraordinarily high when compared to the average interconnection costs of successful wind farms in the SPP service territory in 2020-2022:

Figure 12: SPP Interconnection Cost Differential

	SPP Interconnection Costs Allocated to OSPA Projects	Average SPP Interconnection Costs for Successful Projects	OSPA Project Differential
Pass Creek	\$635/kW	\$57/kW	11 times average
Ta'teh Topah	\$318/kW	\$57/kW	6 times average

The impact of the underinvestment in transmission, and related congestion, on interconnection costs has had a particularly deleterious effect on Indian Tribes that have been attempting to develop their renewable energy resources, including all the OSPA member Tribes. Indian energy is fundamentally different from other energy generation projects because it must be developed in a fixed location – the

⁵⁴ FERC, *Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection, Advanced Notice of Proposed Rulemaking*, Docket No. RM21-17-000, 179 FERC ¶ 61,028, issued April 21, 2022 at ¶¶ 37 - 38.

Tribal reservations. Unlike other developers, Indian energy developers do not have the ability to select locations where transmission costs are reasonable. The necessary infrastructure for access to the national power grid must be on or near the reservations. As a result of this dynamic, as detailed in Section II(B)(1)(d) above, three renewable energy projects, including the two OSPA wind farms, totaling 680 MW of solar and wind power, being developed on Sioux Reservations within the proposed NIETC area, were forced to withdraw from the SPP queue in 2022. The costs caused by the lack of EHV transmission within the area OSPA is recommending for NIETC designation is an absolute and insurmountable barrier to the development of renewable generation projects on the OSPA Tribal lands.

c) NIETC Destination Is the Key to Unlocking Enormous Renewable Energy Generation on Tribal Lands

But it does not have to be this way. Bringing EHV transmission to the transmission desert in western South Dakota will eliminate this barrier to development and allow the OSPA wind farms—and other clean energy projects—to interconnect to the national power grid. Once that barrier is eliminated, the Tribes will be able to employ the significant advantages they have as renewable energy developers: the best on-land wind resources in the country and excellent solar resources, vast contiguous land areas, the ability to reach extraordinary economies of scope and scale and lower average transaction costs, and willing populations that have been trying to develop their renewable resources for decades. The NIETC designation OSPA seeks can be the key to unlocking the enormous renewable energy generating capacity of the Tribes.

7. 216(a)(4)(G)(i) = A description, with supporting documentation, of whether, and if so how, the potential NIETC designation would maximize existing rights-of-way.

The Transmission Needs Study cites with approval two studies that note the advantages of upgrading existing transmission infrastructure, and employing existing rights-of-way, over greenfield construction:

While new transmission facilities can serve to improve system resilience, Pfeifenberger (2021) finds that recent efforts to replace aging transmission infrastructure create an opportunity to build a more robust, reliable grid, while efficiently using existing rights-of-way.⁵⁵ * * * Use of existing rights-of-way can limit the amount of greenfield development, keeping new development in areas that have already been disturbed (Blaug and Nichols 2023).⁵⁶

As illustrated in Figure 11 and discussed above, while the proposed NIETC geographic area does not contain EHV transmission lines, it does include a large network of transmission lines in the 115 to

⁵⁵ Transmission Needs Study at 53.

⁵⁶ *Id.* at 96.

230 kV range. These existing ROWs can be used to build out EHV transmission, and in fact, over 90% of the proposed TRIBES Project will do just that.

8. 216(a)(4)(G)(ii) = A description, with supporting documentation, of whether, and if so how, the potential NIETC designation would avoid and minimize, to the maximum extent practicable, and offset to the extent appropriate and practicable, sensitive environmental areas and cultural heritage sites.

Any significant transmission project within the proposed NIETC geographic area would likely involve WAPA. As a federal utility, WAPA has important responsibilities for preserving the environment and cultural resources. For proposed construction projects that involve or interconnect to the WAPA transmission system, WAPA may participate as the NEPA lead agency or cooperating agency. Consistent with its NEPA obligations and in compliance with Department of Energy regulations, WAPA must consider the potential environmental consequences of proposed projects, document a comprehensive analysis, and make this information publicly available. Similarly, under the National Historic Preservation Act, WAPA must consider the effects of proposed projects upon cultural resources with the assistance of other agencies, Tribes, historic preservation offices, and the Advisory Council on Historic Preservation. WAPA regularly consults and works with tribes to identify traditional cultural properties, traditional use areas and sacred sites to avoid, protect, provide access to, or mitigate effects from WAPA existing and proposed activities. This includes, whenever possible, protecting cultural resources on WAPA fee-owned lands, leased lands, and rights-of-way, working closely with land management agencies and tribes to develop strategies for avoiding or mitigating impacts to cultural resources.

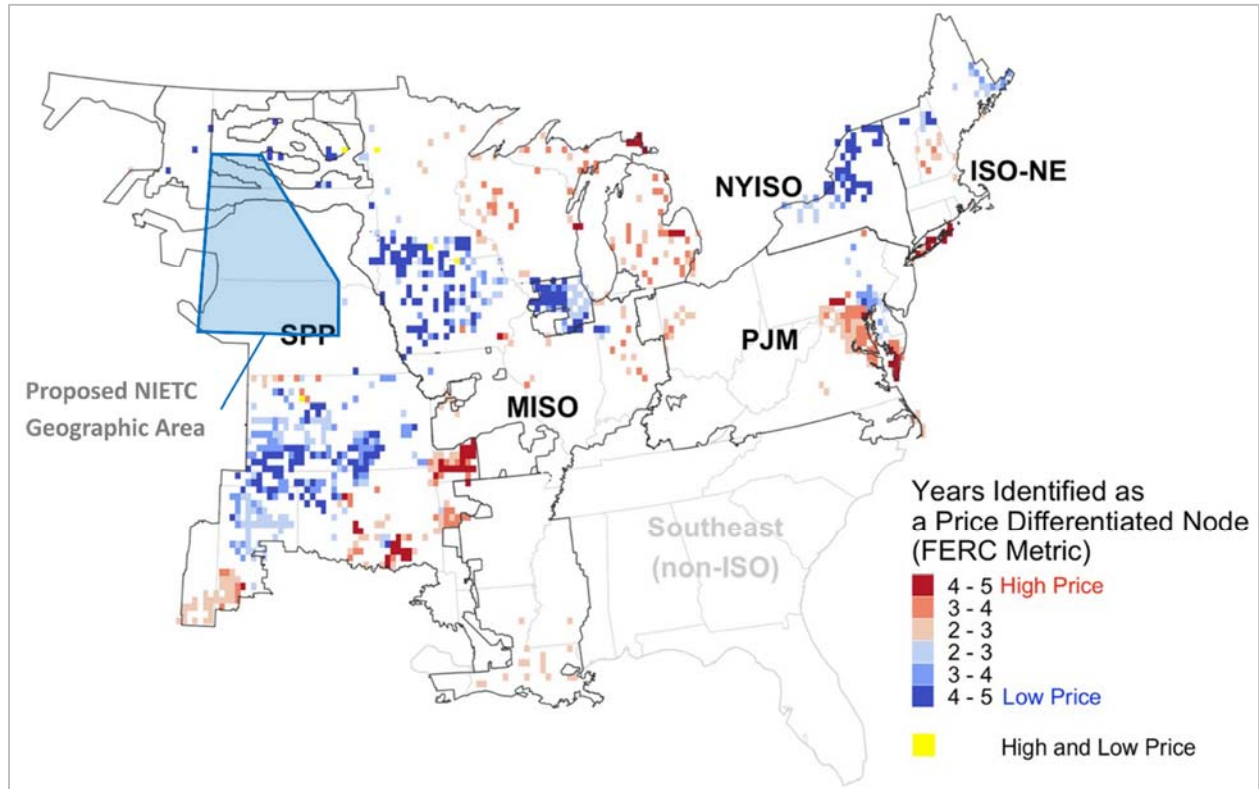
In addition, the extensive use of existing rights of way to upgrade existing transmission lines will minimize disruption to culturally and environmentally sensitive sites. As discussed above, more than 90% of the TRIBES Project will use existing rights of way. The TRIBES Project and THPOs will also develop a plan to hire Tribal monitors and manage inadvertent discoveries of cultural significance during construction.

9. 216(a)(4)(H) = A description, with supporting documentation, of whether, and if so how, the potential NIETC designation would result in a reduction in the cost to purchase electric energy for consumers.

The Transmission Needs Study determines that transmission capacity constraints and congestion are the drivers for high energy costs because it keeps energy consumers in high price areas from accessing low-cost energy from areas with the best resources.⁵⁷ In analyzing energy costs throughout the Plains region, the Transmission Needs Study refers to its map of energy price differentials within the Eastern Interconnection.

⁵⁷ Transmission Needs Study at v, 31, 36 and 51; figure ES-3 (page vi); figure IV-9 (page 35).

Figure 13: Low- and High-Priced Nodes Identified by the Market Price Differential Metric Between 2017 And 2021⁵⁸



The Needs Study concludes that:

Of particular note are the low-priced pockets centered on the Oklahoma and Kansas border in the Plains, collocated with substantial wind resources. . . . High-priced regions are identified in . . . the eastern Plains region. . . . Additional transmission to bring cost-effective generation to demand in any of these high-priced locations would help lower prices in those regions.⁵⁹

And as noted above, the congestion costs in the Plains region keep rising—average wholesale electricity prices escalated about 20% from 2020 to 2021, and another 75% from 2021 to 2022 to an average SPP hourly real-time electricity price of \$43/MWh.⁶⁰ Specifically in the northern SPP pricing zone, the 2023 average real-time price for the largest Market Participant exceeded \$54/MWh, as of December 1, 2023.⁶¹ Indeed, this continuing price escalation has been predicted by the Transmission

⁵⁸ Transmission Needs Study, Figure IV-9, at 35.

⁵⁹ *Id.* at 33-34.

⁶⁰ SPP, State of the Market 2022 (May 2023);

<https://www.spp.org/documents/69330/2022%20annual%20state%20of%20the%20market%20report.pdf>

⁶¹ SPP, compiled from RTBM-LMP Monthlies by Settlement Location; <https://portal.spp.org/>

Needs Study.⁶² A NIETC designation can be a catalyst for EHV transmission investment such as the Great Plains TRIBES Project, which will provide the north-south transmission capacity desperately needed in the central and northern SPP zones to stabilize electricity costs by mitigating congestion and facilitating expanded low-cost renewable generation.

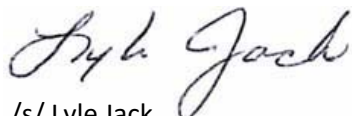
The TRIBES Project's backbone EHV buildout would enable gigawatts of renewable energy to be developed in the region. The development capacity for the region—based on wind speed, land, and environmental considerations—is well above the capacity of even the TRIBES Project—and Steelhead and WAPA anticipate that the capacity of the TRIBES lines combined with the north-south connection will allow 2-4 gigawatts of renewables to be constructed by providing a conduit to export energy to load centers across SPP and inter-regionally.

The TRIBES Project transmission will be fully incorporated into the SPP Integrated Marketplace. The integrated Day Ahead, Reliability Unit Commitment, Real-Time Balancing, and Transmission Congestion Rights markets assure optimal management of the transmission capacity of the SPP system towards delivering the lowest cost energy to electrical load customers. While other wholesale electricity marketplaces operate in the Eastern and Western Interconnections, the combination of the TRIBES Project transmission spanning three states, the clean energy-rich area to be unlocked, and the scale of the SPP RTO footprint will allow energy optimization across the US heartland. Through both Day Ahead and Real-Time Balancing markets, millions of customers far beyond the TRIBES Project footprint will benefit from lower transmission congestion and corresponding reduced energy costs, as well as benefitting interregional stakeholders outside SPP through exports of surplus renewable generation.

III. Conclusion

OSPA thanks GDO Staff for this opportunity to submit its NIETC Recommendation. We are at your disposal if we can provide any additional information or materials.

Respectfully submitted,



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⁶² Transmission Needs Study at viii-ix (references deleted, emphasis added). See also discussion at § II(B)(1), above.

Attachment A

Tribal Leader Letters of Support for OSPA Recommended NIETC



U.S. Department of Energy
Grid Deployment Office
NIETC@hq.doe.gov

Re: Designate the Geographic Area that Includes the Cheyenne River Reservation as a National Interest Electric Transmission Corridor

I write to you as Chairman of the Cheyenne River Sioux Tribe. I am asking that the Department of Energy take steps to provide my Tribe with access to the national power grid so that we can continue developing our wind and solar energy resources.

The Cheyenne River Sioux Tribe is a member of the Oceti Sakowin Power Authority, and over the last seven years, we have been developing the Tribe's first wind farm. It is currently designed to generate 450 MW of renewable energy, and may be larger, if we can secure access to the national power grid on reasonable terms.

In September 2022, the Southwest Power Pool completed its transmission system impact study, and found that our Tribe had to pay a \$29 million deposit, and ultimately would have to pay over \$148 million, just to get a connection to the national power grid. I understand that this is more than five times what the average wind farm developer in the SPP service territory has to pay for the same access. In addition, because of our Tribe's location, we would have to spend over \$30 million to build a 40-mile generation tie line, including crossing the Missouri River. Of course, this is unreasonable and grossly unfair – the Sioux Tribes in the Upper Great Plains are among the poorest Tribes, and poorest counties, in the country, and it is impossible for us to pay this kind of money. Without reasonable access to the national power grid, we will never be able to develop our wind and solar energy resources.

OSPA and our development partner, Steelhead Americas –the development of Vestas, the world's largest wind turbine manufacturer – have teamed up with the Western Area Power Administration (WAPA) and the Basin Electric Power Cooperative to propose to the Department of Energy that an area that encompasses the Cheyenne River Reservation be designated as a National Interest Energy Transmission Corridor (NIETC). I understand that this designation would help direct federal funds to build out the grid so that OSPA and my Tribe will have access to the transmission capacity we need to continue building our wind farm.

On behalf of the Cheyenne River Sioux Tribe, I strongly urge the Department of Energy to make the NIETC designation being proposed by the OSPA/Steelhead/WAPA/Basin Electric team, and to make such a designation as soon as possible.

Respectfully,

Ryman LeBeau
Wičáša Yámni
Chairman, Cheyenne River Sioux Tribe
chairmanlebeau@crstmail.com



Oglala Sioux Tribe

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Office of the President
Frank Star Comes Out

January 31, 2024

U.S. Department of Energy
Grid Deployment Office
NIETC@hg.doe.gov

RE: Designate the Geographic Area that includes the Pine Ridge Reservation as a National Interest Electric Transmission Corridor

I am writing this letter as President of the Oglala Sioux Tribe. I am asking that the Department of Energy take steps to provide my Tribe with access to the national power grid so that we can continue developing our wind and solar energy resources.

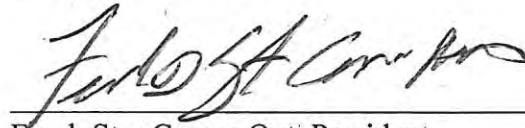
The Oglala Sioux Tribe is a member of the Oceti Sakowin Power Authority, and through out the last seven years, has been developing the Tribe's first wind farm. It is currently designed to generate 120 MW of renewable energy, however, we can make it larger by securing access to the national power grid on reasonable terms.

In September 2022, the Southwest Power Pool completed its transmission system impact study and found that the Oglala Sioux Tribe would have to pay an \$18 million deposit and ultimately pay over \$80 million in construction costs just to get a connection to the national power grid. I understand this is more than 11 times what the average wind farm developer in the SPP service territory pays for the same access. Of course, this is unreasonable and grossly unfair- The Sioux Tribes in the Upper Great Plains are among the poorest Tribes and poorest counties in the country, making it impossible for us to pay this kind of money. Without reasonable access to the national power grid, we will never be able to develop our wind and solar energy resources.

OSPA and our development partner, Steelhead Americas, have teamed up with the Western Area Power Administration (WAPA) and the Basin Election Power Cooperative to propose to the Department of Energy that an area that encompasses the Pine Ridge Reservation be designated as a National Interest Energy Transmission Corridor (NIETC). I understand that this designation would help direct federal funds to build out the grid so that OSPA and the Oglala Sioux Tribe will have access to the transmission capacity we need to continue building our wind farm.

On behalf of the Oglala Sioux Tribe, I strongly urge the Department of Energy to make the NIETC designation being proposed by the OSPA/Steelhead/WAPA/Basin Electric team and to make such a designation as soon as possible.

Wopila – Thank you

A handwritten signature in black ink, appearing to read "Frank Star Comes Out". The signature is written in a cursive style with a horizontal line underneath it.

Frank Star Comes Out, President