From: RHS <rhs@schulteassociates.com>
Sent: Thursday, February 13, 2025 8:12 AM
To: NIETC
Subject: [EXTERNAL] National Interest Electric Transmission Corridors (NIETC) Phase 3 Comments, Docket #DOE–HQ–2024–0088
Attachments: PftP Phase 3 comments_DOE NIETC_FINAL_250212.pdf

Dear DOE Grid Deployment Office (GDO):

The Phase 3 comments of Power from the Prairie (PftP) LLC in DOE Docket #DOE–HQ–2024–0088-Potential Designation of the Tribal Energy Access National Interest Electric Transmission Corridor are attached for your consideration. They are self-explanatory.

We previously submitted comments on Phase 1 and Phase 2.

Importance of the Route
As GDO knows from being an observer in our studies, PftP is a proposed 4000 MW interregional HVDC transmission project spanning from the wind fields of Wyoming to the wind fields of Iowa. It would cross South Dakota, which is home of much of the Northern Plains (now Tribal Energy Access) NIETC route. Accordingly, our comments come from the unique perspective of a proposed large interregional transmission line that would like to use the NIETC, along with potentially underlying transmission owned by others on the same route.

The route description (and title) envisions involvement of Native American tribes along the way. PftP transmission could enable their development of large-scale generation of all kinds (renewable, nuclear, and fossil) on their lands and economically deliver it to large metropolitan markets to the West and East. In our upcoming PftP studies we plan to accomplish stakeholder meetings of tribes, states, landowners, and others to secure their input. We would welcome GDO participation in such discussions.

Summary
We congratulate GDO for including the Tribal Energy Access NIETC in the Phase 3 list. We strongly encourage you to continue to include the Tribal Energy Access NIETC route in your plans going forward.

Please let me know if you have any questions.

for Power from the Prairie LLC,

Bob

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INTERREGIONAL TRANSMISSION FOR THE FUTURE

February 12, 2025

TO: U.S. DOE Grid Deployment Office (GDO) (by e-mail: NIETC@hq.doe.gov).

RE: Comments on Docket #DOE–HQ–2024–0088-Potential Designation of the Tribal Energy Access National Interest Electric Transmission Corridor

This summary provides Power from the Prairie LLC's (PftP LLC) public comments to the DOE Phase 3 process for reviewing preliminary National Interest Electric Transmission Corridors (NIETC) routes for advancement to Phase 4. We previously provided comments on the original NIETC Request for Information (RFI) on June 15, 2023, as well as additional comments on Phase 2 preliminary NIETC designations on June 24, 2024.

We congratulate DOE GDO for its wisdom in including the "Tribal Energy Access" route in the Phase 3 candidates list for NIETC. It represents a potentially significant portion of the eventual route for our 4,000 MW ($8 Billion), 800-mile PftP interregional HVDC transmission project enabling 3,000 MW ($5 Billion) of new renewables and other resources — much of which could be located in the Tribal Energy Access area. We strongly encourage DOE to include Tribal Energy Access in Phase 4 of the NIETC designation process.

About PftP LLC

We are a limited liability company incorporated in Iowa (www.powerfromtheprairie.com). We are an incubator for interregional high voltage direct current (HVDC) projects. The scale of the PftP project provides a unique opportunity to include traditionally diverse entities, i.e., private and public power and developers as well as states and tribes, not just as commenters and reviewers but as participants in the project in an innovative Public Private Partnership.

The PftP CDS

For context, we completed a one-year, $800,000 Stage 1 Concept Development Study (CDS) for the PftP electric transmission project. The project is described at Attachment 1. The CDS had nine CDS Participants representing 13 utilities and transmission/renewables developers. DOE Staff from the GDO were observers of our CDS and are already familiar with our activities.

Following on the results of the CDS ("Stage 1"), we are developing Stage 2 of the project: the Proof of Concept Study. Among other things, this will involve initial routing and siting discussions with multiple states and tribes along the route of the line – including the Tribal Energy Access preliminary NIETC. Our comments on the Phase 3 NIETC listing are provided at Attachment 2.

Robert Schulte, Managing Member

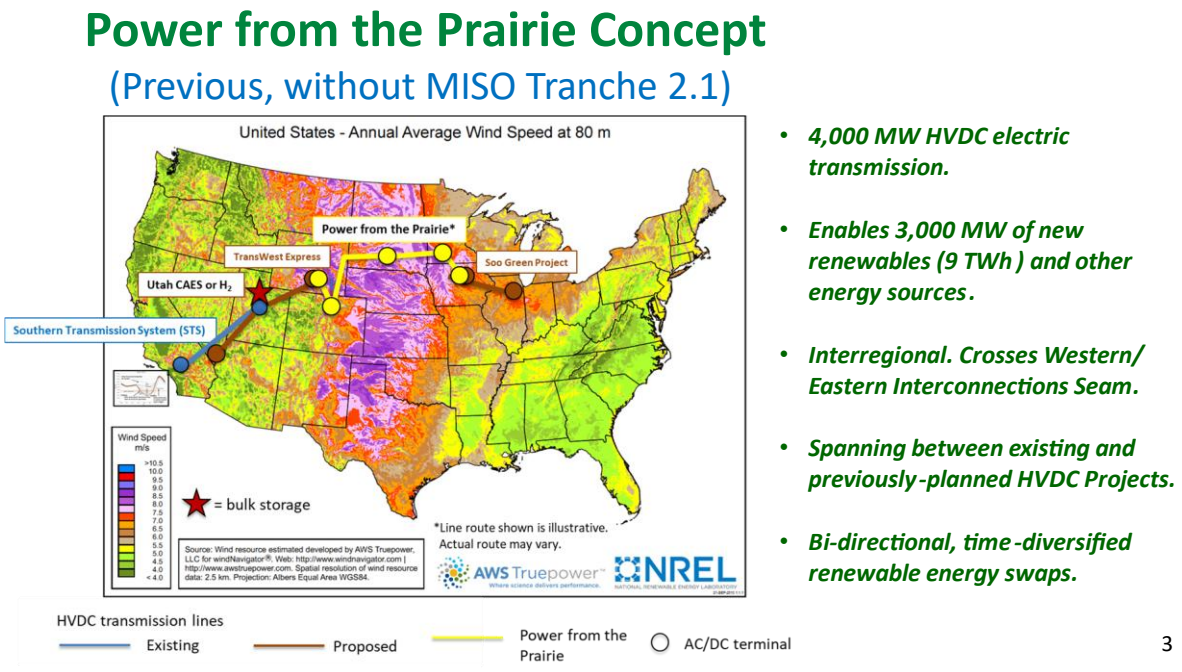
Attachment 1
The Power from the Prairie Project Concept

Power from the Prairie (PftP, www.powerfromtheprairie.com) is a proposed 4,000 Megawatt (MW) interregional HVDC transmission project (Figure 1A). It would span from the wind fields of Wyoming, accessing generation and loads in Colorado, crossing South Dakota and potentially including tribal lands identified as the "Tribal Energy Access" NIETC route (See Attachment 2, Figures 2D, 2E, and 2F).

The original PftP project concept as shown in our previous NIETC comments is shown at Figure 1A. PftP would enable interconnection of thousands of MW of additional new renewables in some of the richest wind energy resources in the nation. These wind resources are remote from large electric loads, and currently landlocked due to lack of transmission and access to markets.

Not limited to only wind energy, PftP would also provide transmission infrastructure to enable new solar, nuclear, and fossil generation resources to reliably serve new large-scale data and artificial intelligence (AI) centers and other new loads.

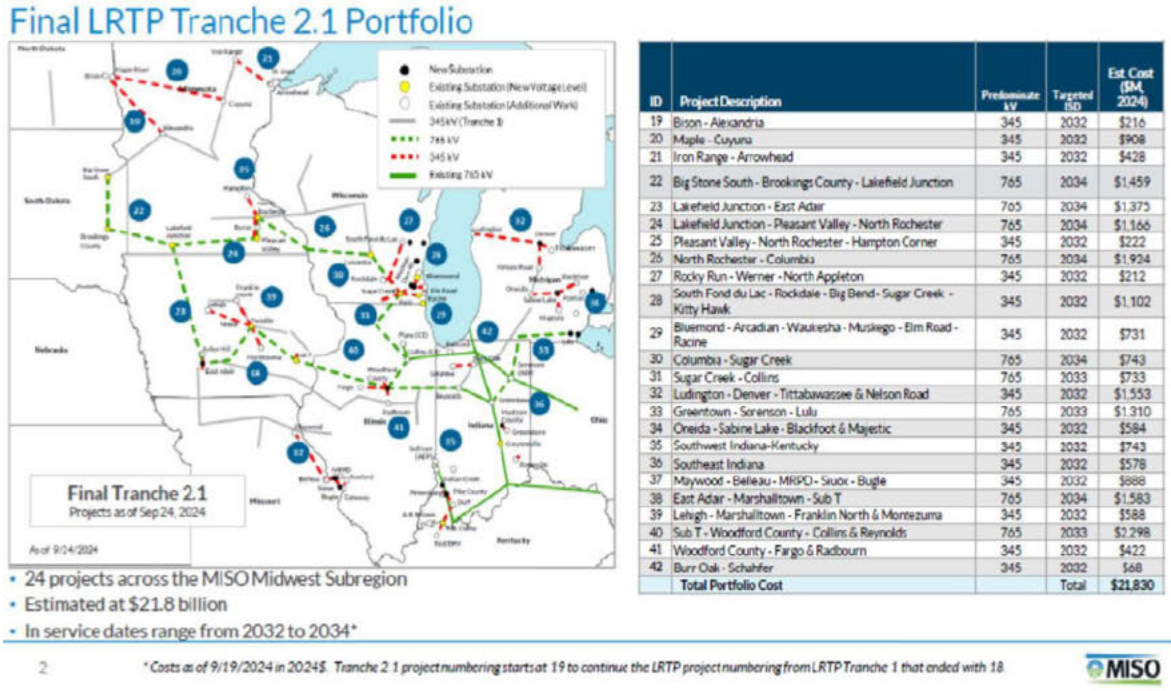
FIGURE 1A. The Original PftP Concept



Since our previous NIETC comments were filed, the Midcontinent Independent System Operator (MISO) approved their "Tranche 2.1" of future transmission developments. Tranche 2.1 includes a large quantity of 765 kVAC transmission additions in Minnesota, Iowa and other states (Figure 1B). This is a benefit to PftP for its interregional reach.

The $21.8 Billion MISO Tranche 2.1 of was recently approved in December 2024. It is beneficial to PftP in that it would provide a 765 KVAC transmission backbone across Minnesota to Chicago and around to Des Moines, IA (Figure 1B). So PftP would no longer have to extend all the way East to Northeastern Iowa or depend on the development of the Soo Green HVDC line to get to Chicago as originally planned. With Tranche 2.1, PftP can achieve most of its benefits with lower PftP capital costs.

FIGURE 1B[1]



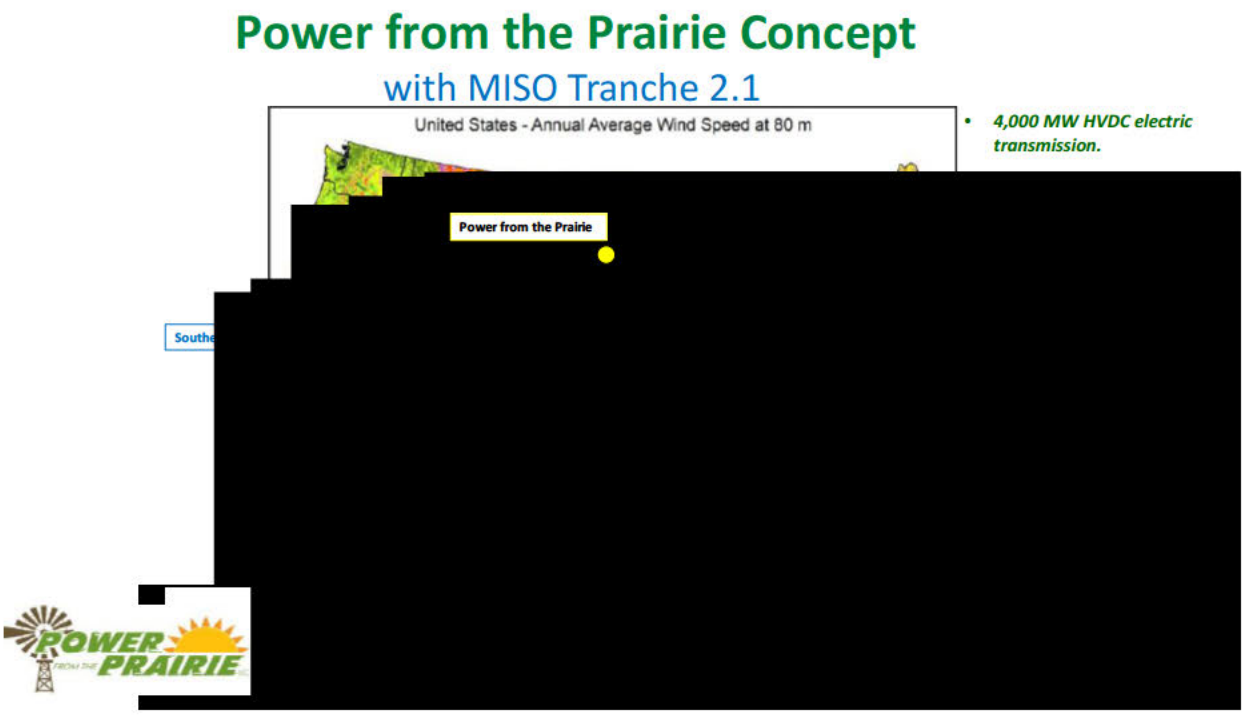
ID	Project Description	Predominate kV	Targeted ISD	Est. Cost ($M, 2024)
19	Bison - Alexandria	345	2032	$216
20	Maple - Cuyuna	345	2032	$908
21	Iron Range - Arrowhead	345	2032	$428
22	Big Stone South - Brookings County - Lakefield Junction	765	2034	$1,459
23	Lakefield Junction - East Adair	765	2034	$1,375
24	Lakefield Junction - Pleasant Valley - North Rochester	765	2034	$1,166
25	Pleasant Valley - North Rochester - Hampton Corner	345	2032	$222
26	North Rochester - Columbia	765	2034	$1,924
27	Rocky Run - Werner - North Appleton	345	2032	$212
28	South Fond du Lac - Rockdale - Big Bend - Sugar Creek - Kitty Hawk	345	2032	$1,102
29	Bluemond - Arcadian - Waukesha - Muskego - Elm Road - Racine	345	2032	$731
30	Columbia - Sugar Creek	765	2034	$743
31	Sugar Creek - Collins	765	2033	$733
32	Ludington - Denver - Tittabawassee & Nelson Road	345	2032	$1,553
33	Greentown - Sorenson - Lulu	765	2033	$1,310
34	Oneida - Sabine Lake - Blackfoot & Majestic	345	2032	$584
35	Southwest Indiana-Kentucky	345	2032	$743
36	Southeast Indiana	345	2032	$578
37	Maywood - Belleau - MRPO - Sioux - Bugle	345	2032	$888
38	East Adair - Marshalltown - Sub T	765	2034	$1,583
39	Lehigh - Marshalltown - Franklin North & Montezuma	345	2032	$588
40	Sub T - Woodford County - Collins & Reynolds	765	2033	$2,298
41	Woodford County - Fargo & Radbourn	345	2032	$422
42	Burr Oak - Schahfer	345	2032	$68
	Total Portfolio Cost		Total	**$21,830**

For example, while a specific route for the PftP line has not yet been defined, It would conceptually start in the wind fields of Wyoming, access resources and loads in Colorado, cross South Dakota, and terminate at the Western edge of the MISO Tranche 2.1 developments near Brookings, South Dakota (Figure 1C).

[1] MISO website, Long Range Transmission Planning: https://www.misoenergy.org/planning/long-range-transmission-planning/.

Figure 1C depicts the revised PftP concept, taking advantage of Tranche 2.1. Originally planned for January 2025, the PftP Stage 2 Study has been delayed to incorporate the additional opportunities provided by Tranche 2.1.

FIGURE 1C. Revised PftP Concept with MISO Tranche 2.1 Developments



In contrast to most previous HVDC projects that are unidirectional (i.e., from renewables to load), combined with other existing and proposed HVDC transmission projects to its West and MISO Tranche 2.1 HVAC to the East, PftP would enable *bi-directional* swaps of time-diversified (and thus more reliable) renewable energy and other energy sources from the West Coast to Chicago and Eastward to the PJM Interconnection. It may also integrate grid-level bulk energy storage as well, if found to be incrementally beneficial.

Also, unlike previous HVDC projects that use only two DC/AC converters at their ends, PftP would employ multiple converters to provide on-ramps to renewables and off-ramps to consumers in multiple states. In addition to maximizing access to renewables, this reduces the chance that states and tribal communities along the way would see themselves as "flyover land" for the transmission development; thereby adversely affecting siting and routing approvals.

By its design, PftP will by necessity span multiple states, and potentially multiple tribal reservations and communities too, including the Tribal Energy Access NIETC route.

The NIETC process recognizes the importance of interregional transmission development:

> ***"Specifically, based on the 2023 Needs Study, DOE preliminarily finds that NIETC designation may be particularly valuable in geographic areas where the need for increased interregional transfer capacity has been identified. The 2023 Needs Study finds that the need for additional interregional transfer capacity across the United States is vast and deep, both presently and in the future under a wide variety of potential future scenarios of load growth and generation development."***[2]

The span of states potentially involved in Power from the Prairie includes Wyoming, Colorado, and South Dakota, with the same concept and approach being applicable to many other states as well. The practical foundation of this concept is comparable to the Interstate Highway system, but with the potential for significant revenue streams from the electricity revenues to dramatically reduce the need for federal dollars while directly supporting the needed infrastructure, the clean energy transition, and positive involvement of disadvantaged communities.

Federal support for this electric "Interstate highway" may well represent up to 30% of the capital costs, provided that utility funding may employ the same investment tax credit (ITC) for transmission as that proposed for renewable energy and energy storage systems in the recent Inflation Reduction Act (IRA). Multiple bills now proposed in Congress would provide such an ITC.[3]

##########################

[2] DOE NIETC Final Guidance Document, December 19, 2023, at page 23.
[3] "Grid Resiliency Tax Act" (Sen. Heinrich), filed in June 2023, and "The Clean Electricity and Transmission Acceleration Act of 2023", Reps. Casten and Levin).

Attachment 2
Power from the Prairie LLC Comments on DOE Preliminary Phase 3
Listing of National Interest Electric Transmission Corridors
June 24, 2024

I. Introduction

The Power from the Prairie (PftP, www.powerfromtheprairie.com) interregional HVDC transmission project is making great progress. It has completed its one-year, $800k, Stage 1 Concept Development Study (CDS) with participation by 14 utility and developer entities. The DOE Grid Deployment Office (GDO) was an observer of the CDS, as was the Midcontinent Independent System Operator (MISO), the Southwest Power Pool (SPP), and the Western Electricity Coordinating Council (WECC).

PftP LLC is now planning a Stage 2, "Proof of Concept" Study, again with sponsorship of multiple public and private utilities. We envision that the same observers including GDO will be involved.

PftP is unique among interregional transmission projects. It is not just conceptual. It involves a particular project concept and industry players. It is not based on a traditional merchant approach of "build it and they (off-takers) will (hopefully) come". Its efforts are being done largely out in the public domain.[4] So, its lessons are useful to multiple other interregional projects too. As such, it is a pathfinder example for DOE on the issues involving interregional transmission and how to address them.

II. Summary

The DOE NIETC RFI wisely acknowledged DOE interest in not just projects in their final stages of development for NIETC consideration, but projects in earlier stages of development too:

> *"i. Eligible Applicants.*
>
> *DOE expects Applicants for a potential NIETC designation to be transmission developers with a project under development in the proposed route. However, no particular stage of development is required for an Applicant to seek potential designation."*[5]

[4] The Final Report for the Stage 1 Concept Development Study is available for free download at: www.powerfromtheprairie.com/the-cds.
[5] DOE Grid Deployment Office (GDO) NIETC Request for Information (RFI) #6450-01-P, May 15, 2023 at Page 14.

PftP is such an early development project. We suggest that DOE consider establishing a separate, "promising NIETC candidate project in-waiting" designation for such projects. Or in the alternative, more importantly define NIETC corridors broadly—and not specific to the particulars of a single established line route. The Tribal Energy Access corridor is a good example of this opportunity and approach.

In our previous comments, we observed that the original NIETC RFI requirements risk losing sight of the forest for the trees. By focusing primarily on the intricate details of the siting and environmental permitting of a particular project already in advanced development, it could miss the more global opportunity to forge a path for multiple interregional projects to happen.

The professional hockey great, Wayne Gretzky, once famously said of his strategy:

"I do not skate to the puck. I skate to where the puck is going to be."

So it is with establishing NIETCs. The point is not to confirm that a specific, already well-defined project is worthy of a NIETC. Instead, the point is to broadly define NIETCs to encourage multiple projects currently in early development to locate there.

III. The PftP Line Route as a NIETC Candidate

There is currently insufficient specificity to nominate PftP for NIETC status if it is required to provide route-specific details supporting detailed NEPA environmental and other analyses. We intend to further define such details in the coming months using a public private partnership between the line owners, states, sovereign tribes, and others. Meanwhile, we strongly encourage DOE to keep Tribal Energy Access route as a NIETC route going forward from Phase 3.

However, from a 30,000-foot perspective, the case for a generic NIETC encompassing the likely PftP route is already apparent (Figure 2B)[6]. And that route could include portions of the Tribal Energy Access route. DOE was wise to include Tribal Energy Access on the list of Phase 3 NIETCs.

[6] Conceptual Upper Midwest NIETC route, PftP LLC response to DOE NIETC RFI, June 15, 2023, at Page 6, revised for MISO Tranche 2.1.

FIGURE 2B[7]

An Apparent Upper Midwest NIETC Corridor

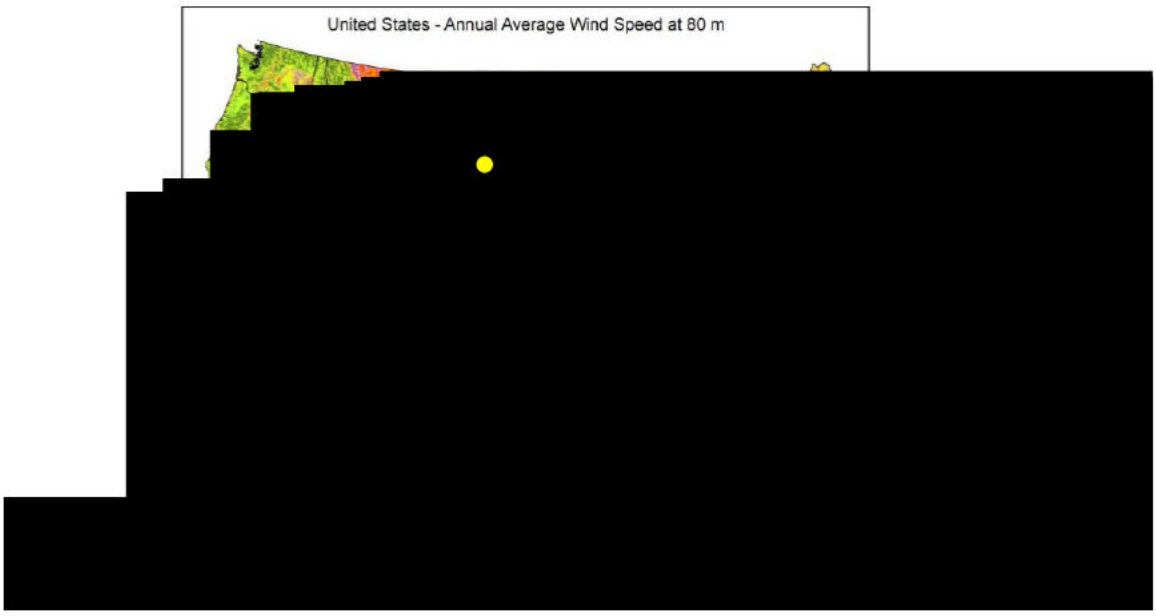


Figure 2B illustrates a conceptual NIETC corridor in the vicinity of PftP. We believe it's potential is fairly apparent (we would impertinently say: "obvious") for the following reasons:

A. It can accommodate a wide variety of generation sources including wind, solar, nuclear, and fossil generation to serve co-located large data and AI center loads, providing infrastructure, economic development, reliability, resiliency, and jobs.

B. It includes some of the best wind energy resources in the nation. Most of it currently landlocked due to lack of transmission and access to markets.

C. It spans a West-to-East width of three states (i.e., the widest cross section of the national wind speed map) making it interregional.

D. It also crosses the seam between the Western and Eastern Interconnections, again making it interregional in scope.

[7] PftP LLC comments in response to DOE NIETC RFI, June 15, 2023, at Page 6, with PftP route revised to take advantage of use of MISO Tranche 2.1.

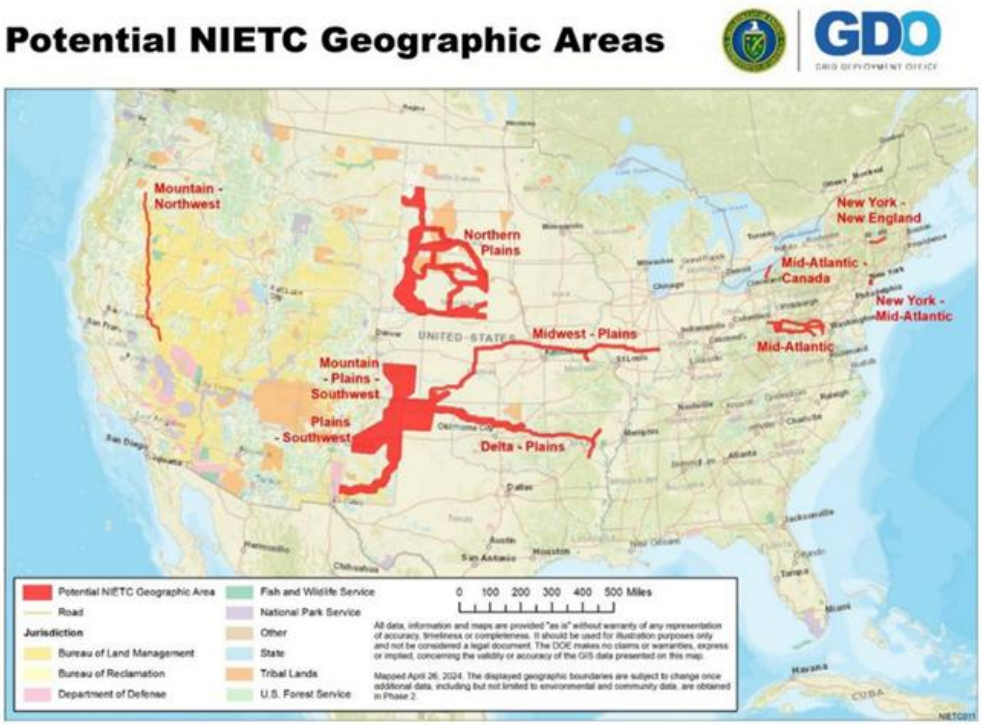
E. As described in Section VI of these comments, it supports the North American Electric Reliability Corporation (NERC) goals of increasing interregional transfer capacity for the sake of electric service reliability and resiliency.

The conceptual line route for PftP was chosen, in part, for these same reasons. And the Tribal Energy Access NIETC also reflects this.

IV. The Original Ten Preliminary NIETC Routes

The original ten DOE Phase 2 preliminary NIETC routes were announced on May 8, 2024 (Figure 2C). The list included nine routes that apparently were based on transmission projects already in advanced development. The tenth route, then called Northern Plains, consisted of Native American tribal lands, other non-tribal areas, and existing transmission corridors between them.

Figure 2C. The Original Ten Preliminary Phase 2 NIETC Routes[8]



[8] "National Interest Electric Transmission Corridors (NIETC), Preliminary List of Potential NIETCs", DOE Grid Deployment Office (GDO), May 2024

V. The Three Phase 3 NIETC Routes

On December 16, 2024, DOE reduced the ten Phase 2 preliminary routes to three for Phase 3 (Figure 2D).[9] The Phase 2 Northern Plains route was modified and re-named as the "Tribal Energy Access" corridor (Figure 2D).

FIGURE 2D. The Three NIETCs for Phase 3.

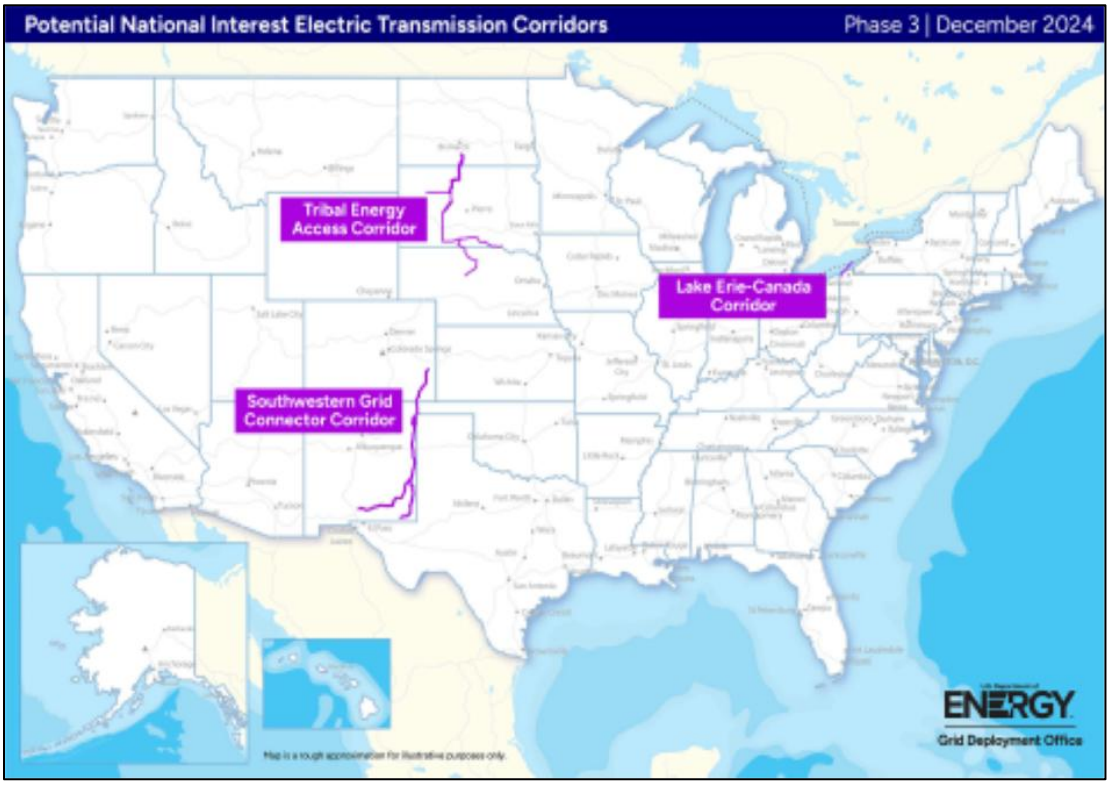
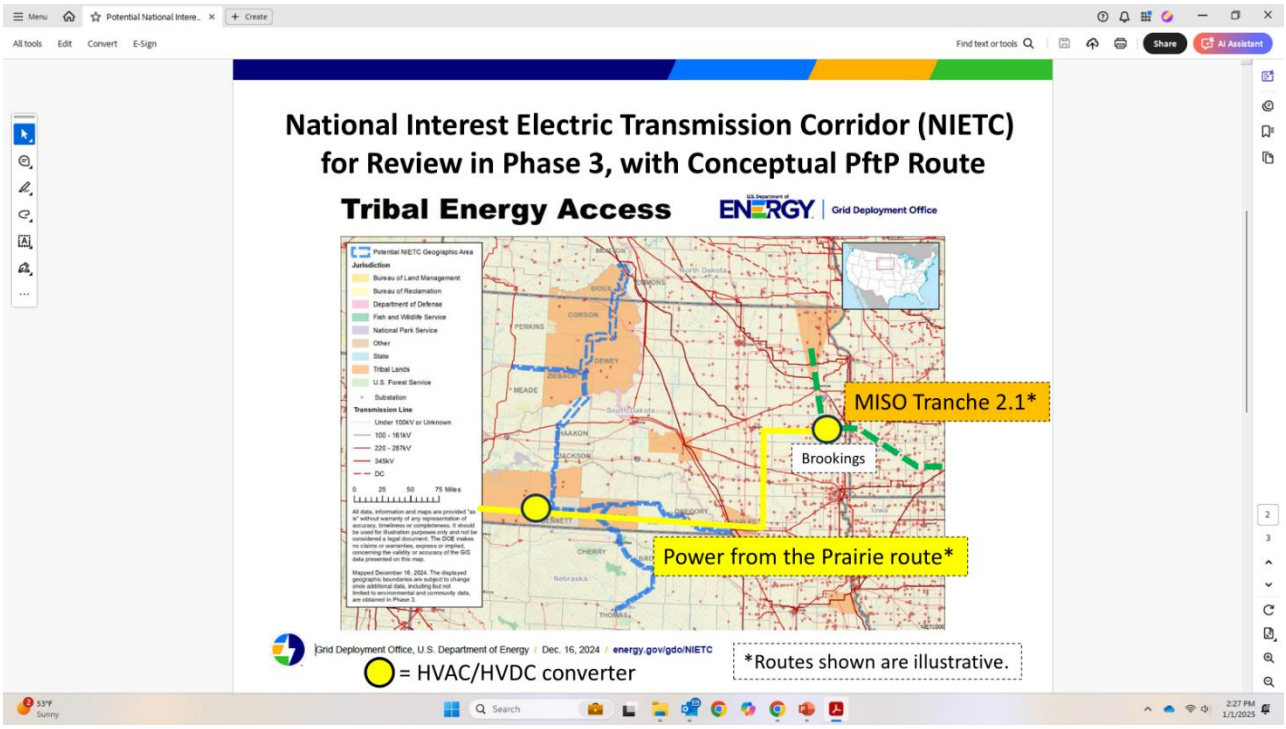


Figure 2E provides a graphic of the Tribal Energy Access corridor specifically, and includes the conceptual route of PftP on tribal lands along the corridor. The PftP line could span along the West-to-East route segment in South Dakota, just North of the South Dakota/Nebraska border.[10] As we understand it, a NIETC is not designated or earmarked for the use of specific projects. Instead, such a designation is intended to indicate where transmission (and potentially multiple projects) should be encouraged to locate based on regional and interregional needs.

[9] DOE NIETC Press release, December 16, 2024.

[10] Our PftP Stage 1 Concept Development Study, with participation of Nebraska utilities, determined that the PftP line could not be located in Nebraska due to that state's laws limiting transmission ownership by for-profit entities.

Figure 2E. The DOE NEITC Phase 3 Preliminary Tribal Energy Access Corridor with Conceptual PftP Route on Tribal Lands[11]



As shown on Figure 2E, the PftP project envisions installation of very large (2,000 to 4,000 MW)[12] HVDC/HVAC converter stations at Brookings County (the Western edge of MISO Tranche 2.1) and in Central South Dakota.

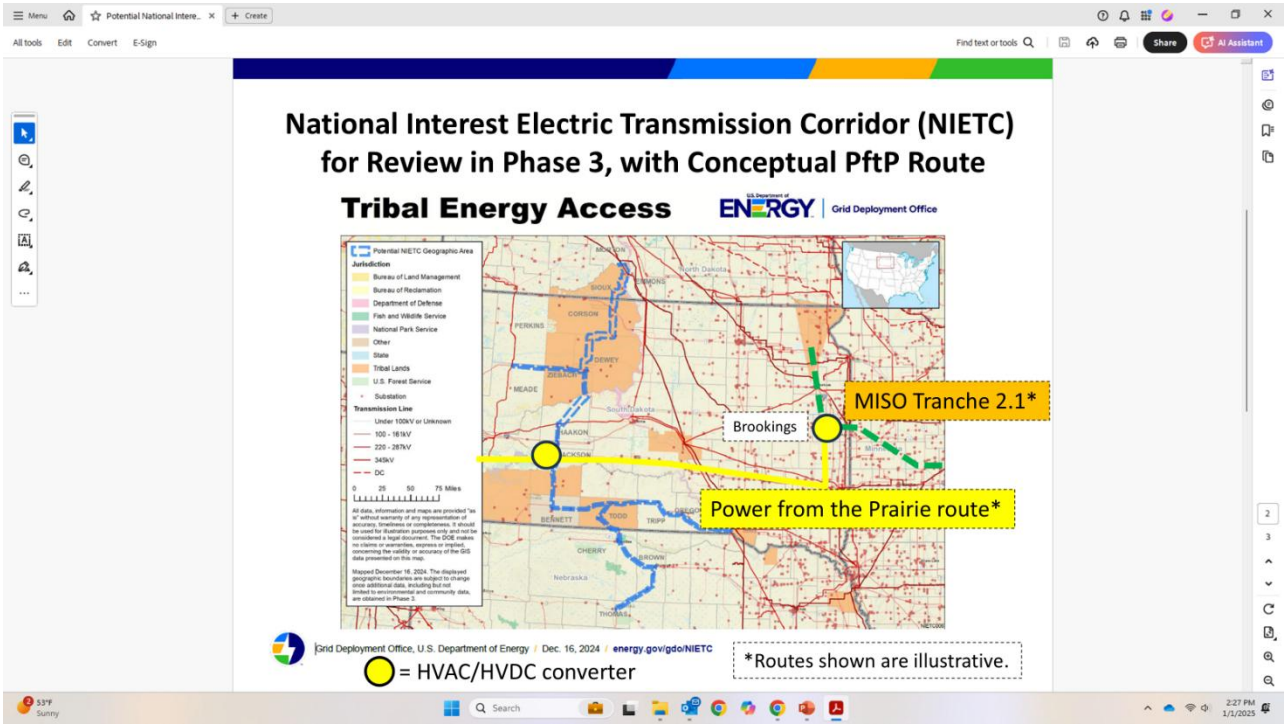
This latter convertor station would serve as an "on-ramp" for tribal energy generation developments along the NIETC route. For example, placing the converter at the Southwest corner of the NIETC route as shown on Figure 2E would enable underlying transmission connections from multiple reservations along the same NIETC corridor to the East and North. The Rosebud and Yankton reservations are located to the East. The Cheyenne River and Standing Rock reservation are to the North. The Standing Rock Sioux reservation is located at the South

[11] Base graphic from DOE NIETC Press release, December 16, 2024, "NIETC Phase 3 Tribal Energy Access Corridor Document": https://www.energy.gov/sites/default/files/2024-12/NIETCTribalEnergyAccessMaps-Phase3.pdf.
[12] Each 2,000 MW to 4,000 MW HVDC converter station would cost $500 million to $700 million, not including the new generation sources it would support.

Dakota/North Dakota border. They plan major wind energy developments there and have provided a letter of support to PftP.[13]

An alternate PftP route that would not require location of the PftP transmission line on tribal lands is shown on Figure 2F. The PftP Central South Dakota HVDC convertor could still connect with the specific Tribal Energy Access Corridor where PftP and the Corridor cross as shown. Again, underlying lower-voltage AC transmission could connect tribal and non-tribal energy sources along the Tribal Energy Access route to either or both of the PftP HVDC converters.

Figure 2F. The DOE NEITC Phase 3 Preliminary Tribal Energy Access Corridor with Conceptual PftP Route along Interstates 29 and 90 Rights of Way[11]



The Tribal Energy Access route is of high interest to the PftP transmission project. Not only is it a potential PftP transmission route, but areas near the line route would likely also host a large portion of the 3,000 MW of new renewables that would be enabled by the PftP line. Much of this resource could be developed on tribal lands, although PftP would support energy from both tribal and non-tribal sources.

[13] Standing Rock Sioux Tribe letter of support was Attachment 3 to our Phase 2 NIETC comments on June 24, 2024.

The tribes for years have had a vision of doing thousands of MW of renewable energy development on their lands that are located in some of the best wind resource in the country. The NIETC corridor name of "Tribal Energy Access" reflect this. And beneficial tribal involvement is clearly envisioned by DOE's title and description of this NIETC.

But there is limited electric load in Western South Dakota to consume such a large new energy development. Western South Dakota is a "transmission desert" (the tribes' term)[14] that severely limits their markets. Connecting these resources to large metropolitan markets to the West and East using the unique PftP interregional transmission line could make the tribes' vision happen. And support NERC goals for interregional capacity transfer for reliability and resiliency.

VI. Power from the Prairie is In the Right Place

Multiple recent federal studies show the PftP project is in the right place for NIETC consideration:

- *DOE National Transmission Needs Study*. This Study, released in October 2023, is a summary of previous studies regarding national transmission needs. It found that the region between the Rocky Mountains and Upper Great Plains is a likely place for additional transmission capacity. This Needs Study is a basis for why the Tribal Energy Access corridor makes sense.[15]

- *DOE National Transmission Planning Study*. This multi-year study released in October 2024 included modeling of the national transmission grid. Similar to the Needs Study, it concluded that the general region near the PftP route is a high opportunity transmission ("HOT") area for interregional transmission development.

- *North American Electric Reliability Corporation (NERC) Study*. NERC submitted its report on the results of its Interregional Transfer Capacity Study (ITCS)[16] to FERC in December 2024. It concluded that, for the sake of service reliability, the FERC planning regions should be planning for interregional transmission to enable capacity transfers between regions of 30% of the regions' coincident peak demand. The PftP project would be an excellent component to help accomplish this.

[14] Oceti Sakowin Power Authority (OSPA) response to DOE Request for Information on NIETC, July 31,2023 at Page 20.
[15] "What are NIETC Designations Based On?", DOE NIETC designation process Frequently Asked Questions (FAQ), https://www.energy.gov/gdo/national-interest-electric-transmission-corridor-designation-process..
[16] See: https://www.nerc.com/pa/RAPA/Pages/ITCS.aspx.

VII. Phase 2 Resource Reports

The NIETC Final Guidance Document listed thirteen detailed Resource Report areas to be considered (e.g., General description of geographic boundaries, water use and quality, soils, tribal resources, communities of Interest, etc.).[17] While these are all reasonable and appropriate considerations, per our comments above their specificity is beyond the current development status of projects like Power from the Prairie.

Such development should not be discouraged today by demanding NIETC permitting status beyond the vision such advanced projects hold for the future. Instead, NIETC designation today should be used to encourage transmission development where it clearly will be needed in the future.

The PftP Stage 2 Study is designed to address many of the topics of these Resource Reports. For example, Stage 2 will include stakeholder meetings with states, tribes, and landowners to secure their policy input on what such a transmission project should and should not do from their perspective.

Similarly, the NIETC process itself includes engagement with tribes and others. Because the DOE GDO will already be an observer of the Stage 2 Study, we offer to coordinate our stakeholder engagements, or at a minimum share information and results, to serve both PftP and the DOE NIETC process's needs at the same time.

VIII. Next Steps

Later, following our 18-month, PftP Stage 2 Study including input from the states and tribes, PftP LLC envisions filing an application with DOE for NIETC designation for the entire PftP route from South Dakota to Wyoming.

So, like the other two Phase 3 preliminary NIETC routes, the Tribal Energy Access route also has a specific large future transmission project in mind. This route should be kept in the list of designated NIETCs because, while the specifics of transmission to be located there remain to be defined, the boundaries of the corridor as already defined are definitely (we would respectfully say "obviously") in the right place for the future (Figure 2B).

We strongly encourage DOE to advance this Tribal Energy Access route to Phase 4 of the NIETC designation process and beyond. And consider further expanding its definition to also include the Interstates 29 and 90 corridors in South Dakota per Figures 2B and 2F.

[17] "Guidance on Implementing Section 216(a) of the Federal Power Act to Designate National Interest Electric Transmission Corridors", U.S. DOE Grid Deployment Office, December 19, 2023, at Pages 48 to 56.