September 10, 2024

Supplemental Comments by Invenergy Transmission LLC on Preliminary Proposed Midwest-Plains National Interest Electric Transmission Corridor

Invenergy Transmission LLC (Invenergy) submits these supplemental comments on behalf of itself and the Grain Belt Express LLC transmission project, to propose a modification to the Midwest-Plains National Interest Transmission Corridor (NIETC). As discussed herein, while the need for the Midwest-Plains corridor continues to be great, Invenergy Transmission acknowledges concerns by landowners and public officials about the initially proposed 5-mile width of the corridor and proposes here to narrow the corridor to 0.5 miles.

Final designation of a half-mile wide Midwest-Plains NIETC, where Invenergy's Grain Belt Express transmission project is located, would result in no new landowners and communities within the corridor being impacted by transmission development. The half-mile width would make development of additional interregional transmission infrastructure in the corridor infeasible. It would also have no effect on signed easement agreements, existing compensation offers, or the planned project footprint of Grain Belt Express and associated interconnection facilities.

To help further address stakeholder concerns, Invenergy encourages DOE to consider additional opportunities for stakeholder involvement and engagement.

I. Background

One of the ten preliminary NIETC corridors announced by the U.S. Department of Energy (DOE) Grid Deployment Office in May 2024 was the Midwest-Plains corridor. This proposed corridor is approximately 780 miles long and 5 miles wide, crossing Kansas, Missouri, and Illinois and terminating just inside Indiana.

In June 2024, Invenergy submitted initial comments to DOE regarding the Midwest-Plains Corridor stating, "The Midwest-Plains Corridor is a critical region identified for its significant need for increased interregional transfer capacity. Designating this corridor as a National Interest Electric Transmission Corridor (NIETC) is essential to address existing and future transmission capacity constraints and congestion that adversely affect consumers." Invenergy also highlighted the many benefits of a NIETC designation for this area including:

- Increased National Security
- Positive Economic Impacts
- Improved Environmental Quality
- Resilience to Extreme Weather
- Regional Electric Reliability
- Clean Energy Resource Integration

Many of these benefits were also identified by DOE in the National Transmission Needs Study, done in 2023. Most notably, Invenergy's Grain Belt Express project, initiated in 2010, would pass through this corridor. Because of this overlap between the NIETC corridor and the Grain Belt Express project, Invenergy is actively engaged with stakeholders at all levels and is intently listening to the opinions and concerns of those involved, most importantly the residents impacted by this project.

Invenergy greatly appreciates DOE's hard work to facilitate more efficient and expedited interregional transmission projects. Since DOE's release of the preliminary list of NIETC corridors, local community members, public officials and Invenergy identified issues to be addressed prior to a final NIETC designation. Such issues can be addressed by clarifications and alterations in a final NIETC designation to maximize the positive impact that critically needed interregional transmission serving the region can have while also ensuring that citizens, families, and businesses across the region are best served and protected.

Invenergy submits these supplemental comments to support changes to the preliminary proposed Midwest-Plains NIETC to address the issues noted above. Specifically, we propose a significant narrowing of the corridor to one tenth of its proposed width, from 5 miles to 0.5 miles. This modification addresses the concerns raised by landowners and public officials, while continuing to promote the development of critically needed interregional transmission projects.

Supplemental Comments

A. Support for Narrowing the Midwest-Plains Transmission Corridor

In the preliminary list of potential NIETCs, the Midwest-Plains line was drafted as a five-mile-wide corridor traversing portions of Kansas, Missouri, Illinois, and Indiana. Response from the public, various state and local government officials, consumer advocates, and others following the preliminary NIETC designations was clear and swift: a five-mile-wide corridor in this area is too large. Invenergy understands their concerns and asks DOE to address this issue with the solution we propose herein.

Reducing the approved width of the corridor will balance the needs of states to access additional power while also protecting landowners and communities from undue land usage concerns and uncertainty. These Supplemental Comments support a 0.5 mile corridor designation – or, one-tenth the width of the preliminary proposed 5-mile wide outlay. As detailed further below, we believe a half-mile wide Midwest-Plains NIETC corridor still enables the corridor to meet the transmission need for the regions it would serve.

B. The Need for the Midwest-Plains NIETC

The Midwest-Plains preliminary proposed corridor would facilitate interregional transmission between three major U.S. grid regions that operate wholesale power markets: PJM Interconnection, LLC (PJM), the Midcontinent Independent System Operator, Inc. (MISO), and the Southwest Power Pool (SPP). The corridor would also enable connectivity to the Associated Electric Cooperative Inc (AECI) system, enabling service to six G&T cooperatives across

Missouri and northeast Oklahoma. Together, these grid regions serve approximately 40% of U.S. households and over 25% of U.S. Department of Defense installations.[1]

In issuing the list of preliminary proposed NIETCs,[2] DOE noted the multiple transmission needs served by the preliminary proposed Midwest-Plains corridor:

> *"The Midwest-Plains potential NIETC encompasses a geographic area where there is a significant need for increased interregional transfer capacity to maintain and improve reliability and resilience, lower congestion and consumer costs, meet future generation and demand growth, and increase clean energy integration."*

DOE specifically identified near-term and acute reliability and resilience concerns that expanded interregional transmission Midwest-Plains corridor would help address:

> *"The North American Electric Reliability Corporation (NERC) anticipates MISO will experience an estimated 4.7 GW capacity shortfall. As a result, NERC has categorized the MISO region as a "high risk area" vulnerable to extreme temperatures and prolonged severe weather events. Similarly, Need Study findings demonstrate reliability risks in the PJM footprint for the near term through 2030 largely due to electricity demand growth, resource retirements, and increases in intermittent and limited-duration resource interconnection requests."*[3]

> *"Further, recent experience with extreme weather events, such as Winter Storms Uri and Elliott, demonstrate the value additional interregional transfer capacity would have for consumers in ensuring reliability and resilience and lowering costs by ensuring that energy can be delivered from where it is available to where it is needed during these extreme events. During Winter Storm Uri in February 2021, Needs Study findings show the Plains region was unable to import additional available generation capacity during the cold weather event, which negatively impacted resource adequacy and introduced high price spikes. Needs Study findings also demonstrate significant value of interregional transmission between the Plains and Midwest regions, as well as between the Mid-Atlantic and its neighbors, during Winter Storm Elliott in 2022. Increased transfer capacities between the Plains, Midwest, and Mid-Atlantic regions would improve system reliability during extreme weather events."*[4]

Referencing the 2023 Transmission Needs Study and other resources, DOE also detailed high congestion values between the Plains and Midwest regions that have been increasing annually

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[1] "Invenergy's Grain Belt Express Transmission Lines Secures Last of It's State Approvals," Grain Belt Express Press Release, October 2023

[2] "U.S. Department of Energy Grid Deployment Office Initiation of Phase 2 of National Interest Electric Transmission Corridor (NIETC) Designation Process: Preliminary List of Potential NIETCs Issued Pursuant to Section 216(a) of the Federal Power Act," May 8, 2024 (Preliminary List of Potential NIETCs).

[3] Preliminary List of Potential NIETCs at 21.

[4] Preliminary List of Potential NIETCs at 21.

since 2015.[5] These costs result in higher costs for energy end users. Such costs can be alleviated with additional transmission between regions, and greater access to low-cost wind and solar energy resources available in the southern Plains region.

Since the conclusion of the public comment period on June 24, 2024, additional indicators have validated the transmission need that can be addressed by the Midwest-Plains corridor. These include recent capacity auction results in PJM, and a recent seasonal forecast by NERC.

On July 30, 2024, PJM announced results of the 2025/2026 Delivery Year capacity auction.[6] Capacity prices spiked 833% from the prior-year auction, increasing from $28.92 per megawatt-day in the 2024/2025 auction to $269.92 per megawatt-day for the 2025/2026 auction.[7] This staggering increase provides a clear market signal of the need for additional capacity in the PJM region, which interregional transmission can deliver. Additionally, the shift of the riskiest periods on the PJM system from short-duration events during hot summer days to long-duration events during cold winter nights, and the need for greater diversity on PJM's system all indicate evolving needs that additional interregional transmission can meet.

On August 27, 2024, NERC issued preliminary results of an analysis of seasonal energy margin forecasts for regions of the U.S. grid.[8] This analysis applied the impacts of Winter Storm Uri to projected future states of the grid. SPP South, which includes Kansas, was one of eleven regions with projected deficiencies; its deficiency totals 4,137 megawatts.[9] By comparison, during the actual Winter Storm Uri in 2021, SPP declared Energy Emergency Alerts on February 15 and 16 and initiated load sheds for 610 megawatts and 2,718 megawatts, respectively. This resulted in rolling blackouts affecting communities across SPP territory.[10]

C. The Midwest-Plains NIETC and Grain Belt Express

1. Grain Belt Express Serves the National Interest

The preliminary proposed Midwest-Plains corridor encompasses the existing route of the Grain Belt Express transmission project. After over a decade of combined state and federal reviews, this project has been extensively studied—perhaps more so than any transmission project in the Midwest.

Multiple state public utility commission approvals have found Grain Belt Express will deliver extensive public benefits, including energy ratepayer savings, grid reliability and resilience, local economic development, access to diversified and cleaner energy sources, and strengthened national security. In fact, a recent report by the Association of Defense Communities noted: "The

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[5] Preliminary List of at 21, citing 2023 Needs Study at 37-88, LBNL Empirical Estimates at 22.
[6] "2025/2026 Base Residual Auction Report", July 30, 2024
[7] PJM BRA Report at 3-4.
[8] "Interregional Transfer Capability Study," Advisory Group Meeting (Updated Slide Deck 8/29)
[9] Interregional Transfer Capability Study Slide Deck at 27.
[10] "A Comprehensive Review of Southwest Power Pool's Response to the February 2021 Winter Storm", July 19, 2021

Missouri Public Service Commission, for example, cited the national security benefit of the Grain Belt Express Transmission line as a factor in approving the line's construction in 2023."[11] Grain Belt Express Phase 1, extending between the line's Kansas and Missouri interconnection points, is currently an enrolled project on the Federal Infrastructure Permitting Dashboard, FAST 41 (Grain Belt Express Phase 2 extends between the Missouri converter station and a delivery point near the Illinois-Indiana border). Together, these indicators substantiate the notion that a transmission infrastructure project like Grain Belt Express will serve the national interest. A final designation of the Midwest-Plains corridor, which would support advancement of Grain Belt Express, would therefore facilitate the expansion of transmission in the national interest.

Project Financing Pathways for Grain Belt Express are the Driver for NIETC Interest

Invenergy and its affiliates have developed over 200 large-scale power projects around the world totaling 32 gigawatts and representing $63 billion in completed transactions. Through these relationships, Invenergy has access to industry leading financing expertise and capital and evaluates the unique needs and options to support competitive financing for each of its projects.

Invenergy's primary interest in securing NIETC designation for the Midwest-Plains corridor is for Grain Belt Express to be able to access additional federal financing options that support competitive rates for energy end users. Efficient and attractive financing sources are important as Grain Belt Express is a merchant transmission project principally funded via bilateral negotiated contracts with willing offtakers and not automatically via RTO, ISO or transmission owner cost allocation to ratepayers. As such, access to competitive financing supports the provision of lower-cost, competitive rates to prospective customers.

The DOE's Loan Programs Office is currently conducting federal loan guarantee and environmental reviews for Grain Belt Express Phase 1. Invenergy's interest in accessing the Transmission Facility Financing program, enabled by NIETC, is to support Grain Belt Express Phase 2. However, given the inherent uncertainty in any regulatory permitting process, Invenergy supports designation of the full Midwest-Plains corridor to secure additional financing pathways for both Grain Belt Express Phase 1 and Phase 2.

2. *A Single Project Can Meet the Transmission Need of the Midwest-Plains Corridor*

The NIETC program and the preliminary proposed corridors address the needs of transmission constrained areas and are not designed to support any single transmission facility; however, it is feasible that single transmission facilities can satisfy the full transmission need any given NIETC

[11] "Transmission Expansion for National Defense", Association of Defense Communities and Converge Strategies, April 2024

corridor is designated to address. The NIETC Program Guidance document[12] issued by DOE states:

> *"In general, a NIETC is a geographic area where, based on its triennial National Transmission Needs Study (Needs Study) or other relevant information, DOE has identified present or expected transmission capacity constraints or congestion that adversely affects consumers, and which has been designated by the Secretary of Energy (Secretary) as a NIETC.* ***One*** *or more transmission projects could be located within that geographic area to alleviate such constraints or congestion."* (emphasis added)

The substantial transmission capacity of Grain Belt Express provides appropriate justification for a significant narrowing of the preliminary proposed Midwest-Plains corridor to a half-mile width because in this case a single project is capable of meeting the interregional transmission need for the corridor.

Grain Belt Express has a transmission capacity of 5,000 megawatts, equivalent to four typical nuclear power plants. This capacity is higher than any other power line in the United States, and it exceeds the actual deficiency experienced by SPP during Winter Storm Uri in 2021 as well as the projected deficiency of the SPP-South system in the preliminary results of the NERC Interregional Transfer Capability Study, described above.

In Invenergy's experience developing the Grain Belt Express, the maximum deviation from the center line that has occurred in the siting process is approximately 1,300 feet. This implies a corridor width requirement for a single transmission project of approximately 2,600 feet (1,300 feet on both sides of the center line, and just within the total width of one half mile, or 2,640 feet). Invenergy's recommendation for a 0.5 mile corridor width is based on this experience.

Invenergy has no intention of developing future interregional transmission projects parallelling Grain Belt Express within the Midwest-Plains corridor and does not believe this would be feasible for other developers to attempt.

3. Corridor Impacts and Land Rights Considerations

Grain Belt Express has been in development since 2010 and has a firmly established route. Final designation of a half-mile wide Midwest-Plains NIETC would result in no new landowners and communities within the corridor, where Grain Belt Express is located, being impacted by transmission development, nor would it affect signed easement agreements, existing compensation offers, or the planned project footprint of Grain Belt Express and associated interconnection facilities. A half-mile corridor width with an existing project would make

[12] "U.S. Department of Energy Grid Deployment Office Guidance on Implementing Section 216(a) of the Federal Power Act to Designate National Interest Electric Transmission Corridors", December 19, 2023

advancing other interregional transmission infrastructure projects in the corridor infeasible, and as detailed previously, Grain Belt Express can meet the transmission need of the corridor.

Narrowing the Midwest-Plains corridor to a half-mile width would also provide further clarity for southeast Kansas residents and communities that the Kansas AC Collector System associated with Grain Belt Express would not be included in the Midwest-Plains NIETC designation.

Grain Belt Express has been recognized as serving the public need by the public utility commissions in all four route states where the project is sited (Kansas, Missouri, Illinois, and Indiana). Invenergy has also demonstrated the ability to successfully work with landowners to acquire easements. For example, for Phase 1 of the project in Kansas and Missouri, which is more advanced in development than the project's Phase 2, Grain Belt Express has already secured over 97% of land for the project's HVDC main line. The vast majority of these easements have been acquired through voluntarily signed agreements.

Questions have arisen regarding the potential for projects within NIETC corridors to use federal backstop authority to acquire needed property for projects if private agreements between developers and landowners cannot be made. Final designation of a corridor by DOE does not in itself grant the ability to secure easements using federal authority, which would require separate project-specific approval through the Federal Energy Regulatory Commission (FERC). Grain Belt Express has secured all required state approvals and, so long as those approvals remain in place, will not seek federal siting authority. In the event the integrity of any existing state approvals are threatened, Grain Belt Express intends to pursue every available avenue at the state level to reinstate or secure approval prior to seeking federal siting authority.

4. Facilitating Coordinated Environmental Reviews

The ongoing environmental review by DOE of Grain Belt Express Phase 1 as well as past state siting processes would support DOE's efficient use resources in the environmental review of the Midwest-Plains corridor. Significant data collection has already occurred and documentation has been provided to DOE through the ongoing Grain Belt Express Phase 1 environmental impact statement (EIS) process. This extensive history of agency evaluation is squarely in line with the intent of the NIETC program to facilitate coordinated environmental reviews.

D. Additional Stakeholder Engagement

Since acquiring the Grain Belt Express project in 2020, Invenergy has spent years working with all stakeholders and impacted parties to engage early and often in gathering critical input on the project. Stakeholders along the path of the project are expressing concern and uncertainty in how the NIETC process will impact them, and they are calling for additional opportunities to voice their concerns and hear from Federal officials. Invenergy is excited and motivated to see Grain Belt Express come online and serve the American people in delivering reliable, affordable energy across the country, and we gladly support any efforts to provide additional stakeholder

input, talk through issues, and build confidence and support for both Grain Belt Express and the NIETC program more broadly.

III. Conclusion

Invenergy and Grain Belt Express therefore encourage DOE to accept a modified Midwest-Plains NIETC, with the corridor's width reduced to one half mile to address concerns expressed by landowners and public officials. We also encourage DOE to identify additional stakeholder engagement opportunities, to allow all stakeholders to express their support and concerns regarding the NIETC designation process.