The Northeast Power Coordinating Council (“NPCC”) offers the following comments in response to the U.S. Department of Energy’s (“DOE”) Office of Electric Delivery and Energy Reliability’s notice of inquiry and opportunity to comment on issues relating to the subject transmission congestion study and designation of National Interest Electric Transmission Corridors (“NIETC”).

NPCC is the international electric regional reliability council which was formed shortly after the 1965 Northeast Blackout to promote the reliability and efficiency of the interconnected power systems within its geographic area. That geographic area includes New York state, the six New England states, and the Ontario, Québec, and Maritime Provinces in Canada. The total population served is approximately 56 million. The area covered is approximately 1 million square miles. NPCC is one of eight Regional Reliability Councils throughout the United States, Canada and portions of Mexico that together currently form the North American Electric Reliability Council (“NERC”).

NPCC establishes the processes that assure the reliable and efficient operation of the international, interconnected bulk power systems in Northeastern North America through development and enforcement of regionally-specific criteria that are not inconsistent with NERC broad-based continent-wide reliability standards. NPCC coordinates system planning, design and operations, assesses reliability, and monitors and enforces mandatory compliance with regional reliability criteria. NPCC, to the extent possible, facilitates attainment of fair, effective and efficient competitive electric markets.

COMMENTS
NPCC respectfully submits the following comments for DOE’s consideration in the determination of criteria to be used for evaluating the suitability of geographic areas for NIETC status.\(^1\)

Consider Wide-Area, trans-Regional & potentially international reliability impacts
NPCC recommends that the DOE take into account the wide-area, trans-regional and potential international reliability impacts of the resultant future transmission infrastructure when designating NIETC believed to be beneficial in advancing the stated

\(^1\) DOE NIETC NOI at page 9.
goal of designating “any geographic area experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers.”

NPCC supports the DOE’s approach “to identify corridors for potential projects, as opposed to specific routes for transmission facilities.” NPCC believes the DOE should take an Interconnection-wide system viewpoint in their NIETC designations, in order to avoid the encouragement of potentially conflicting transmission projects that may increase the likelihood of undesired, adverse reliability impacts that could jeopardize a significant portion of the bulk electric system. These considerations are not limited to the United States grid system only but can extend beyond international borders into Canada and Mexico as well.

**Designate NIETCs considering their potential combined reliability impacts**
The transmission network is a complex, interactive interconnected system that must be designed and operated to adhere to NERC standards and specific regional reliability criteria. NPCC recommends that the DOE evaluate the benefits of proposed NIETC not only singularly, but in combination with other adjacent proposed NIETC designations. The overall reliability of the interconnected system must be paramount in these deliberations.

**NIETC determination should consider both positive and negative reliability impacts**
The designation of a NIETC should not result in unintended adverse reliability consequences, for example, increasing the potential for high circulating power flows, or resulting in restrictions of available generation output. The DOE needs to be aware of, and should identify, any potential reliability impacts, both positive and negative, on the international interconnected system associated from their NIETC designations, and designate NIETC that have complementary reliability benefits.

**Consider the role of substation and lower voltage improvements in NIETC designation**
NPCC recommends the DOE also consider the important role that substation switching arrangements and reactive power plays in the reliable operation of the bulk power system in their NIETC designations. Also, lower voltage system improvements may be needed to support reliable, effective higher voltage improvements. The designation of NIETC should add reactive power supply considerations to the “existing or projected needs related to electricity transmission infrastructure.”

**DOE NIETC designation should be consistent with its Presidential Permit criteria**
As stated on the DOE website:

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2 DOE NIETC NOI at page 5.
3 DOE NIETC NOI at page 6.
5 DOE NIETC NOI at page 6.
“Executive Order 12038 states that, before a Presidential permit may be issued, the action must be found to be consistent with the public interest. The two criteria used by DOE to determine if a proposed project is consistent with the public interest are:

1. **Environmental Impact** - The National Environmental Policy Act of 1969 (NEPA) requires that Federal agencies give due consideration to the environmental consequences of their actions. Pursuant to NEPA, DOE must determine the environmental impacts associated with issuing or denying a Presidential permit. DOE published NEPA implementing procedures on April 24, 1992 (57 FR 15122). These rules, codified at 10 CFR 1021, specifically delineate the steps of the NEPA process.

2. **Impact on Electric Reliability** - DOE considers the effect that the proposed project would have on the operating reliability of the U.S. electric power supply system; i.e., the ability of the existing generation and transmission system to remain within acceptable voltage, loading and stability limits during normal and emergency conditions. The standards DOE applies include the standards of the North American Electric Reliability Council (NERC) and the standards of the member regional councils that are formulated by the utilities themselves.”

**Presidential Permits should be considered in the NIETC designation**

When considering a Presidential Permit application, DOE determines if that issuance serves the national interest, through extensive consultation with concerned federal and state agencies, applicable regional reliability councils, and through the public comment process. NPCC recommends that any existing Presidential Permits 7 and projects actively seeking Presidential Permits 8 be considered by DOE in the NIETC designation process.

**NIETC designation should facilitate reliable U.S. Trade in Electricity**

As stated on DOE’s website: 9

“U.S. trade in electric energy with Canada and Mexico is rising, bringing economic and reliability benefits to the United States and its trading partners. Within the DOE’s Office of Fossil Energy's Coal & Power organization, an electricity import/export team is responsible for authorizing the export of electric energy and the issuance of permits for the construction, connection, operation, and/or maintenance of electric transmission facilities at the international border.”

NIETC designations should result in transmission projects that eliminate or reduce the magnitude of constraints between the U.S. and Canada (as well as Mexico). There is considerable transfer capability available between the Canadian members of NPCC (Ontario, Québec, and the Maritimes Provinces) and the U.S. through the use of existing transmission facilities. NIETC designations should consider and promote reliable US – North American transfers.

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**NIETC designations should be geographic**

NPCC encourages the DOE to identify those geographic transmission corridors that are consistent with the interest of the national energy policy, whether or not those NIETC designations are based on existing transmission paths or current rights of way, subject to the considerations outlined above.

**NIETC designations should not be project specific**

NIETC designations should not be project specific, and should not be announced prior to the completion of the comprehensive DOE study outlined by the legislation that takes into consideration extensive stakeholder review and comment.

**NIETC designations should be periodically reviewed**

Congestion that is prevalent in today’s system, (as well as congestion that has been prevalent for several years), may not be as significant in the future, due to the siting of future resources, changes in demand patterns, and proposed future transmission enhancements. NPCC strongly supports DOE’s approach of basing their analyses on a periodic review of the existing transmission expansion plans and related studies by “the regional coordination councils, other regional and subregional transmission planning groups, regional transmission operators, independent system operators and utilities.”

NPCC also recommends that DOE periodically review their NIETC designations, and be able to renew, change, augment, or revoke as necessary, as conditions merit, in order to meet its national policy and reliability objectives.

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10 DOE NIETC NOI at page 7.
ADDITIONAL STUDIES TO CONSIDER

In response to the DOE’s request regarding “… what specific transmission studies and other plans should the Department review?"11 NPCC recommends, in addition to the studies and reports listed herein, consideration of the following:

Northeastern Coordinated System Plan
In December 2004, ISO New England, the New York ISO, and PJM executed the Northeastern ISO-RTO Planning Coordination Protocol which provides for enhanced coordination of planning throughout the Northeast. The protocol is intended to contribute to the ongoing reliability and the enhanced operational performance and efficiency of the Northeastern bulk power system. Under the protocol, the parties have agreed to pursue: a) the sharing of information; b) the coordination of timing of planning activities; c) the performance of joint assessments; and d) the establishment of an open stakeholder process to accompany interregional assessments and system plans. While not parties to the protocol, the Independent Electricity System Operator (Ontario), Hydro-Québec TransÉnergie and New Brunswick share in these goals and have agreed to participate on a limited basis to assist in these initiatives.

As the first key step in the implementation of the protocol, the issuance of the Northeastern Coordinated System Plan: 2005 (NCSP 2005) consolidated the system assessments and plans of each of the participating control areas, highlighted existing inter-regional planning activities, summarized perceived issues and risks and identified potential issues for future analysis.12

Northeast Seams Projects
When the Federal Energy Regulatory Commission (“FERC”) granted regional transmission organization (“RTO”) status to ISO New England and the New England transmission owners (the filing parties) on March 24, 2004,13 they directed the parties to resolve seams issues with its neighboring New York ISO. Since the New York ISO has significant trade with the Mid-Atlantic region’s PJM RTO, FERC also directed the parties to also explain the role of PJM in the resolution of seams issues.

NPCC recommends the DOE include consideration of the current reliability related Northeast Seams Projects currently under way14 when making their NIETC determination.

Hydro-Québec Phase II Interconnection Studies
The original reliability studies for the 2,000 MW Hydro-Québec to New England Phase II Interconnection15 concluded that the loss of the facility carrying 2,000 MW to New England could have more severe effects on PJM and New York than the worst internal

11 DOE NIETC NOI at page 8.
13 FERC Docket Nos. RT05-2-000, ER04-157-000, -001 and EL01-39-000.
contingency that these systems individually protect against. Accordingly, an operating philosophy in which the Hydro-Québec HVDC exports to New England over Phase II would be limited to the extent necessary to ensure that the MAAC - ECAR - NPCC (MEN) system’s thermal, voltage and stability operating criteria are not violated was agreed upon.

The original study\(^\text{16}\) indicated, under the conditions assumed,\(^\text{17}\) that the Hydro-Québec Phase II interconnection export to New England would be restricted to approximately 1,500 MW during periods of high transmission utilization in MAAC, in order to avoid unacceptable voltages in MAAC following the loss of the Phase II interconnection.

**LEER**
Specific reliability and commercial concerns are addressed through the NPCC Lake Erie Emergency Redispatch (“LEER”) Procedure.\(^\text{18}\)

**NPCC Reliability Assessment For Summer 2005**
This report\(^\text{19}\) focused on the assessment of reliability within NPCC for the summer of 2005.

**Report Summary**
The forecasted capacity outlook for NPCC during the peak week (week beginning July 10, 2005) indicated a forecasted available capacity margin of 13,006 MW. During this week, 6,850 MW of the spare capacity is in the Québec and Maritimes Areas. The transfer capability between the Québec and Maritimes Control Areas to the remainder of NPCC will not permit the usage of all this forecasted spare operable capacity. This limitation could reduce the overall capacity margin by approximately 3,375 MW. During high transfers from New Brunswick to New England, capacity located north of the Maine- New Hampshire interface may be bottled or locked in due to existing transmission constraints. This will reduce the overall spare capacity to NPCC by up to another 400 MW. As a result, the spare capacity available to the remainder of NPCC in the peak week is reduced to approximately 9,630 MW.

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\(^{17}\) New York Total East Transfer Limit of 5,600 MW; ECAR to MAAC Transfer Limit of 3,950 MW.

\(^{18}\) See: [https://www.npcc.org/PublicFiles/LakeErieRedispach/Archives/LEER_Re-filing_20021.pdf](https://www.npcc.org/PublicFiles/LakeErieRedispach/Archives/LEER_Re-filing_20021.pdf)

\(^{19}\) See: [https://www.npcc.org/publicFiles/documents/seasonal/lastYear/NPCC_Reliability_Assessment_for_Summer_2005.pdf](https://www.npcc.org/publicFiles/documents/seasonal/lastYear/NPCC_Reliability_Assessment_for_Summer_2005.pdf)