

**Comments of the
North American Electric Reliability Council
on the
U.S. Department of Energy's
Office of Electric Transmission and Distribution's
Notice of Inquiry and Opportunity to Comment
on
Designation of National Interest Electric Transmission Bottlenecks (NIETBs)
(Federal Register, Volume 69, No. 140, Thursday, July 22, 2004/Notices)**

The North American Electric Reliability Council (NERC) offers the following comments in response to the U.S. Department of Energy's (DOE) Office of Electric Transmission and Distribution's notice of inquiry and opportunity to comment on issues relating to the identification, designation, and possible mitigation of National Interest Electric Transmission Bottlenecks (NIETBs).

NERC commends DOE on its efforts to identify, designate, and possibly mitigate NIETBs and for raising the profile of this issue. NERC is particularly interested in the identification, designation, and mitigation of NIETBs that jeopardize national security or create a risk of widespread grid reliability problems or the likelihood that major customer load centers will be without adequate electricity supplies.¹ NERC offers its assistance to DOE on its NIETB efforts.

Scope the NIETB Process — NERC recommends that DOE scope a proposed overall NIETB process that describes how NIETBs can be identified and designated and what could be expected from DOE in terms of helping the electric industry alleviate or mitigate them. DOE should seek assistance from NERC, the electric industry, and the regulatory community in establishing this NIETB process.

Rely on Industry Analyses — DOE should rely as much as possible on analyses already conducted by the industry for identifying NIETBs. The electric industry is well equipped to identify NIETBs and to meet appropriate guidelines or criteria that may be established.

¹ These areas are embodied in two of the three primary criteria for determining NIETBs, as suggested in the Secretary of Energy's Electricity Advisory Board "Transmission Grid Solutions Report," September 2002.

Establish an NIETB Nomination Process — DOE should consider NIETB designation based on requests or nominations by the industry and regulatory community. NERC, regional reliability councils, independent system operators (ISOs), regional transmission organizations (RTOs), individual systems, state commissions, and other groups with significant responsibilities for conducting transmission planning or for approving transmission projects could submit nominations to DOE for its consideration.

Work with Industry and Regulators to Address NIETB Obstacles — DOE and the regulatory community could prove to be particularly helpful in addressing and resolving obstacles to needed transmission expansion and reinforcement that fall in their areas of responsibility. Two such areas include the timely recovery of transmission investments and the siting and routing of proposed transmission projects. The stakeholders must develop solutions to NIETBs with their respective state commissions in the relevant region. These solutions can take various forms, not only additional transmission. They can also include the installation of appropriate generation and the implementation of appropriate demand-side management programs. Because of the international aspects of transmission, identifying and resolving transmission bottlenecks will also require close cooperation and coordination with transmission entities and government agencies in Canada.

Pursue Recommendations in NERC’s “Transmission Expansion: Issues and Recommendations”

Report — NERC published a [“Transmission Expansion: Issues and Recommendations”](#) report in February 2002 that analyzed the issues and obstacles that are impacting the planning and expansion of the transmission systems, and presented recommendations to reduce or eliminate those obstacles. DOE is encouraged to review this report to determine those recommendations that DOE can pursue that are beyond NERC’s scope of responsibility.

NERC’s specific comments on the proposed NIETB criteria and its specific responses to DOE’s four proposed questions are detailed below.

A. Criteria for Designating NIETBs

The U.S. DOE Secretary's Electricity Advisory Board recommended that to be designated a NIETB, the bottleneck must meet one of three criteria:

1. The bottleneck jeopardizes national security;
2. The bottleneck creates a risk of widespread grid reliability problems or the likelihood that major customer load centers will be without adequate electricity supplies; or
3. The bottleneck creates the risk of significant consumer cost increases in electricity markets that could have serious consequences on the national or a broad regional economy or risks significant consumer cost increases over an area or region.

Response:

NERC encourages DOE to provide a clarifying general definition for the term National Interest Electric Transmission Bottleneck and more detail on the several criteria listed above.

NERC is particularly interested in the identification, designation, and mitigation of NIETBs that jeopardize national security or create a risk of widespread grid reliability problems or the likelihood that major customer load centers will be without adequate electricity supplies.

The EAB report also listed three other factors that could appropriately be used to provide additional support for particular facilities being identified as a NIETB:

1. Does the level of congestion result in an unacceptable number of transmission loading relief (“TLR”) events?
2. Does the level of congestion result in unacceptably high price differentials across an interface?
3. Does the transmission deficiency increase the likelihood that market power will be exercised in a manner contrary to the public interest?

DOE should consider these factors in developing its more detailed criteria.

NERC published a [“Transmission Expansion: Issues and Recommendations”](#) report in February 2002 that analyzed the issues and obstacles which are impacting the planning and expansion of the transmission systems, and presented recommendations to reduce or eliminate those obstacles. The report focused on actions or activities that NERC can pursue. For areas beyond NERC’s responsibility, the report also encouraged the electric industry, the regulatory community, and others to consider a number of actions.

The issues and recommendations in this report are grouped into four areas: planning, cost recovery, siting, and education. Coordination is an underlying theme in each of these four areas. Coordination is required among various stakeholder groups and regulatory bodies. It is also necessary among those entities that deal with the technical elements of planning, siting, and constructing transmission facilities, including regional reliability groups and transmission entities responsible for the reliability of the bulk electric systems. DOE is encouraged to review NERC’s Transmission Expansion: Issues and Recommendations report to determine those recommendations that DOE can pursue to address the obstacles and issues

impacting the expansion and reinforcement of the transmission systems that are beyond NERC's scope of responsibility.

B. DOE's Proposed Questions for Comment

To assist DOE in its NIETB effort, NERC is also offering the following comments to DOE's additional four questions.

- 1. Are the Electricity Advisory Board's recommended criteria for designation of National Interest Electric Transmission Bottlenecks appropriate and sufficient? If not, what should they be? For example, should DOE also consider disaster recovery, economic development, and the enhancement of the ability to deal with market and system contingencies in designating NIETBs?**

Response:

In general, the three broad categories (criteria) for designating NIETBs may be appropriate; however, more detail should be provided for each criterion in terms of how to quantify transmission constraints within these categories. For example, exactly what type of transmission constraint would jeopardize national security? Would criterion 2 bottlenecks be those that are identified through the application of NERC reliability standards and regional council planning and operating criteria? In the case of criterion 3, what amount over what period of time constitutes 'significant' consumer cost increases over an area or region — 10%, 50%?

In today's world, the reasons for transmission development, expansion, and reinforcement must be reexamined not only from a reliability perspective but also from the context of competitive electricity markets. These markets require transmission expansion not only to interconnect new generation capacity but also to provide flexibility for the delivery of that generation capacity to customers.

Open access to the transmission systems has raised concern about the definition or justification of need for new transmission projects. In the future, the need for new transmission will likely be based on or driven by access to competitive power supplies in addition to the traditional reliability needs. However, the potential for economic gains or increased electric system flexibility should not be allowed to degrade or encroach upon the reliability of the bulk electric systems. While increased flexibility and economic choices in electric power supplies may be desirable, they should not be achieved at the expense of reliability.

- 2. What should be the role of transmission grid operators, utilities, other market participants, regional entities, States, Federal agencies, Native American tribes and others in the process of identifying, designating, and addressing NIETBs? For example, should a NIETB be designated only if some entity applies to DOE for designation? Should DOE accept applications only from entities from regions that have an extant regional transmission (or resource) plan? Should DOE be able to designate a NIETB even if no entity asks DOE to do so?**

Response:

DOE should not conduct independent assessments or make independent decisions concerning NIETB designations. Such independent assessments would unnecessarily duplicate the studies conducted by the regional reliability councils and their member systems, ISOs, RTOs, and individual transmission owners. These entities have the necessary tools, expertise, and experience to study and analyze the transmission systems in their respective areas or regions and already know where transmission constraints exist and where future transmission constraints may materialize.

NERC suggests that DOE consider NIETB designation based on requests or nominations by NERC, regional reliability councils, ISOs, RTOs, individual systems, state commissions, and other groups with significant responsibilities for conducting transmission planning. Entities that are familiar with the aspects of transmission grid operation, expansion, and utilization can identify transmission bottlenecks for investigation and perform the engineering analysis to qualify transmission for bottleneck designation. DOE should develop more specific criteria for this identification or designation to prevent unnecessary review of unqualified projects. It should also include in its process how conflicts will be resolved when one party applies for NIETB status for one of its projects and another party objects to the recommendation.

As noted in the National Transmission Grid Study (p. 20), “Successfully addressing transmission bottlenecks requires careful analysis and consideration of their impacts on both market operations and system reliability, as well as analysis of the costs of transmission and non-transmission alternatives. In other words, removing bottlenecks is not simply a matter of

finding “congested” transmission paths and then reinforcing existing transmission facilities along those paths or constructing new facilities.” The stakeholders must develop solutions with their respective state commissions in the relevant region, including the appropriate allocation of costs to ensure that no transmission entities or groups of end-use customers are unduly harmed. These solutions can take various forms, not only additional transmission. They can also include the installation of appropriate generation and the implementation of appropriate demand-side management programs. Identifying and resolving transmission bottlenecks will also require cooperation and coordination with Canada and its appropriate transmission entities and regulators.

Initially, DOE should focus its efforts on developing and implementing a process to identify: 1) national transmission bottlenecks as suggested by NERC, the regional reliability councils and their member systems, the ISOs, RTOs, and individual system owners, and 2) the regional/national benefits in relieving these bottlenecks. The transmission systems should include transmission generally above 100 kV, including transmission owned by investor owners, municipals, federal (WAPA, TVA, BPA, etc), cooperatives, etc.

Another role for DOE, in conjunction with state commissions and regional state committees, in the designation of NIETBs would be, upon request by the transmission entities and other parties involved, to facilitate and support the completion of proposed transmission projects that face significantly complex siting and permitting issues that could unreasonably delay such projects. Consideration must also be given to in-progress or planned mitigation measures before qualifying particular transmission assets as an NIETB.

3. How might DOE identify bottlenecks in regions where much pertinent data are not available, in contrast to regions where transmission expansion plans have been developed and made public?

Response:

NERC, the regional reliability councils and their member systems, the ISOs, RTOs, and individual system owners essentially cover all portions of the United States, Canada, and the northern portion of Baja California Norte, Mexico. Transmission data and proposed transmission expansions recommended by these transmission entities and their transmission customers eventually become available as the plans progress, especially through the NERC and regional council reports and publications. Any DOE NIETB program should be complementary to these existing efforts.

DOE should also recognize that the process of identifying and dealing with significant assets and NIETBs would likely need to be handled to some extent in a confidential manner. The information, including the selection process itself, could be a blueprint for potential terrorist activities. Procedures, such as the Critical Energy Infrastructure Information procedures, would likely need to come into play. Without some type of associated confidential process, involved parties will likely be unwilling to share or even produce sensitive system information. Conversely, this confidentiality issue must also recognize that major transmission projects generally involve a public process. The details and information that would be made public need further review and development.

4. What actions should DOE undertake to facilitate and monitor progress towards mitigation of designated NIETBs?

Response:

Consistent with FERC Order 2000, DOE should work with the appropriate regulators to develop and authorize cost-recovery mechanisms that encourage investment in needed transmission facilities. Further, where regional transmission projects are involved, regional cost-recovery mechanisms should be developed.

DOE should work with NERC, the regional reliability councils, ISOs, RTOs, state commissions, regional state committees, and other stakeholders to establish procedures for initiating DOE involvement in the siting and permitting of critical transmission projects that face unreasonable delays. In some cases, siting and routing issues represent significant obstacles to the expansion of the transmission systems. These issues revolve around the difficulties of acquiring regulatory approval and rights-of-way for transmission lines. Such obstacles can occur at the local, state, provincial, and even federal levels.

Further, as stated above under item 2, DOE's NIETB process should include regular reviews of the status of efforts to mitigate identified transmission bottlenecks. NERC, regional councils, ISOs, RTOs, individual systems, transmission owners, market participants and local regulatory agencies should be involved, as appropriate, depending on the category of the transmission bottleneck, in both the identification process and in the development and authorization of the mitigation work.

NORTH AMERICAN ELECTRIC
RELIABILITY COUNCIL

By:

A handwritten signature in black ink, appearing to read "D.R. Nevius".

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