June 25, 2010

Mr. David Meyer
U.S. Department of Energy
Office of Electricity Delivery and Energy Reliability
1000 Independence Avenue, SW
Washington, DC 20585

Dear Mr. Meyer:

The New England States Committee on Electricity (NESCOE), New England's Regional State Committee, offers these comments in response to the United States Department of Energy's (DOE or the Department) *2009 National Electric Transmission Congestion Study* (Congestion Study). NESCOE concurs with the Congestion Study's overall conclusions relative to New England and offers comments and requests for clarification relating to: 1) New England's reserve margin; and, 2) renewable energy development and access to transmission.

***New England's Sustained Progress and Successes***

NESCOE concurs with the Congestion Study's overall findings that "[t]he region has shown that it can permit, site, finance, cost-allocate and build new generation and transmission, while encouraging new demand-side resources as well" and that New England no longer needs to be identified as a Congestion Areas of Concern. (Congestion Study at 58). Transmission congestion within New England has decreased significantly. NESCOE appreciates the Department's recognition of New England's sustained effort and success on several fronts, including aggressive demand response and energy efficiency programs, diverse transmission projects, and new generation projects that have together eased the reliability and economic differentials that factored into the Department's identification of New England as a Congestion Area of Concern in 2006. (Congestion Study at 54-57). The Department's findings illustrate that New England's transmission planning and siting processes deliver results.

***New England's Reserve Margin Does Not Present An Issue & Its Operating Procedures Resolve Shortfalls Even In The Context Of A Worst-Case Operating Margin Situation***

One passage in the Study in relation to New England's operating reserve margin could create a

mistaken impression that New England may have a reliability issue. Specifically, the Congestion Study states:

> Nevertheless, New England's most recent system plan indicates that the region could experience a negative operating reserve margin of as much as 750 MW as early as 2009 under an extreme (high load, 10% probability) load forecast or 2010 under a base (50%-50% probability) load forecast. If this occurs, the region would need to use various load relief measures, including calling all demand response measures, calling for customer conservation, and possibly rotating load cuts.
>
> Does the threat of a reliability problem indicate transmission congestion? On the one hand, the potential inability to meet loads indicates that the lack of more transmission is limiting imports that might solve the problem; on the other hand, the reliability problem could also be solved by acquiring more generation or demand-side resources. It appears that New England is taking a broad, balanced approach to this reliability challenge by making a reasoned assessment of the risks and costs of new generation and transmission construction relative to load shedding, and has concluded that concerns about the costs and feasibility of new generation and transmission over the short-term outweigh their benefits. Many of the individuals offering their views to the Department recommended this type of economic evaluation, in preference to an automatic assumption that congestion should be eliminated exclusively or primarily through construction of new transmission. (Congestion Study at 57-58).

The passage above could lead a reader to conclude incorrectly that New England's operating margins are at issue and present reliability concerns. New England's operating reserve is a deterministic value based on the region's likely worst-case outage scenario. The value is derived from experience and engineering judgment. In New England, the assumed loss under a worst-case scenario is 2100 MW. This is based on loss of imports of 1400 MW plus the loss of one half of the region's largest generator (one half of 1200 MW) plus 100 MW.[1] The operating margins under this worst-case deterministic scenario are negative, which indicates that the likely installed capacity alone is not sufficient to meet the load over the next few years. The megawatts needed to cure this negative operating margin range from 100 MW to 1,100 MW assuming a 50/50 summer peak load and from 2,000 to 3,100 MW assuming a 90/10 summer peak load.[2]

The passage fails to consider two crucial points. First, combining the highly unlikely, worst-case outage scenario with the ultra-conservative 90/10 peak load portrays an extreme scenario. Second, ISO New England Inc.'s (ISO-NE) Operating Procedure No. 4 (OP-4) is in effect during emergency resource conditions. OP-4 includes a stepped implementation of various measures to maintain the system, including demand response, voltage reduction, public announcements regarding the need to

[1] Further detail is available in ISO-NE's Regional System Plan 2009, at paragraph 4.3, available at http://www.iso-ne.com/trans/rsp/2009/rsp09_final.pdf.
[2] See, ISO-NE's Regional System Plan 2009, Table 4-11 and 4-12.

curtail demand and, as a last resort, load shedding. The megawatts achievable through OP-4 are sufficient to meet these negative operating margins.

While NESCOE agrees with the Congestion Study's observation that there should not be an automatic assumption that congestion should be addressed by new transmission, this section should also make clear that New England's operating procedures are able to resolve any resulting shortfalls, even in the context of a worst-case operating margin situation.

***Renewable Energy Development and Transmission Availability***

The American Recovery and Reinvestment Act (ARRA) directed the Department to include in the 2009 Congestion Study information about renewable energy development and associated transmission availability. NESCOE appreciates the Congestion Study's discussion of these issues and offers observations on several of its elements.

First, the Congestion Study lists various efforts around the country where regions and/or states have conducted analysis to identify areas with renewable development opportunity as well as wind development scenarios. (Congestion Study at pages 14-15). In 2009, at the request of the six New England Governors, ISO-NE conducted a Renewable Development Scenario Analysis (RDSA). The RDSA provided economic and environmental data in connection with incremental wind development scenarios in and around the New England region, ranging from 2,000 MW up to 12,000 MW of on- and off-shore wind, and associated conceptual layouts of transmission system interconnections. The RDSA provided the technical foundation for the *New England Governors' Renewable Energy Blueprint* (Blueprint). The Congestion Study should include reference to New England's RDSA and the associated Blueprint.

Second, in the context of discussing off-shore wind development, the Congestion Study states:

> "Officials in many eastern states are interested in developing off-shore wind close to metropolitan load centers, as an alternative or supplement to long-distance transmission from Midwestern and Canadian wind resource areas." (Congestion Study at 19).

The statement is not entirely accurate with respect to the New England states and should be corrected in the final Study. New England is interested in developing renewable resources able to serve customers most cost-effectively. New England's neighbors to the north in Quebec and the Maritimes have vast renewable resources and they are developing more, although not all will be available for export to New England. To address the climate challenge in the coming decade, it will make sense to expand the strong level of cooperation between New England and the Eastern Canadian Provinces on energy development and trade, particularly with respect to accelerated commercialization of the vast

amounts of on- and off-shore renewable resources in the Northeast and in nearby Eastern Canada. The RDSA, discussed above, showed that in-region (i.e., New England) development of renewables and access to renewable energy *from neighboring systems* appears possible with significantly less capital investment for transmission infrastructure than would be required to import an equivalent quantity of power from more remote, out-of-region sources on new, high-voltage transmission lines. Accordingly, New England does not view renewable resources located in Eastern Canada as an alternative to in-region resource development, but rather as an incremental nearby renewable resource portfolio that may well be able to serve New England consumers cost-effectively when compared to other options in competitive markets or processes.

There are operational and environmental benefits associated with accessing Eastern Canadian renewable resources as well. Transmission to connect resources in nearby Canada does not present the complex and potentially costly operational and reliability issues that a massive cross-country transmission system would, as contemplated in studies such as the National Renewable Energy Laboratory's Eastern Wind Integration and Transmission Study and the Joint Coordinated System Plan.

Additionally, because transmission systems do not distinguish between generation fueled by renewable resources and coal, a cross-country transmission system could serve as a pathway to deliver increased coal-fired generation to East coast consumers, which could undermine the objectives associated with developing wind resources within the Eastern Interconnection. The Congestion Study acknowledges this possibility. In discussing constraints relative to renewable energy development, the Study notes: "[a] transmission project developed to open up new renewable resource areas could also be used to transmit non-renewable generation. A transmission line developed primarily to serve power from one source or area will probably carry electricity generated by various sources." (Congestion Study at 24). The potential for substantial amounts of coal-fired generation to be carried over transmission lines spanning multiple states to the west of New England is a serious concern. This outcome could seriously undermine New England's success in achieving its energy and environmental objectives. Transmission infrastructure between Eastern Canada and New England would generally facilitate movement of low- or no-carbon power rather than a blend of electricity from renewable and carbon-heavy resources.

For these reasons, New England strongly supports the Congestion Study's statement "that regional and interconnection level transmission analysis and planning" needs to include "the merits of developing high-potential renewables in remote areas vs. the merits of developing other renewable resources closer to load centers." (Congestion Study at 101-102). Any analysis intended to help

policymakers sort through the most cost-effective, technically feasible way to reduce carbon and meet our clean energy goals must provide a comparative assessment of reaching our carbon and renewable goals through regionally-focused renewable, efficiency, and distributed generation development. Additionally, as noted, any credible assessment of New England's renewable power options and ways to serve consumers cost-effectively must include an analysis of Canadian resources. This comparative assessment should include the costs, operational feasibility, environmental impacts, and an assessment of the magnitude of renewable development and carbon emission reductions achievable under regional development scenarios.

NESCOE appreciates the opportunity to comment and the Department's consideration of its views and requests for clarification.

Respectfully Submitted,

New England States Committee on Electricity

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