Comments of ISO New England Before the Maine Committee on Energy, Utilities and Technology

Re: LD 1710 An Act to Require Prompt and Effective Use of the Renewable Energy Resources of Northern Maine

May 26, 2021

Dear Chairman Lawrence, Chairman Berry, and Honorable Members of the Committee on Energy, Utilities, and Technology:

I am writing to offer the support of ISO New England as a technical resource to the Committee on Energy, Utilities and Technology as you consider potential energy infrastructure expansion in Maine to meet the objectives in LD 1710, *An Act to Require Prompt and Effective Use of Renewable Energy Resources in Northern Maine.*

ISO New England (ISO) is the independent, not-for-profit organization authorized by the Federal Energy Regulatory Commission to reliably plan and operate New England's bulk electric grid and administer the region's wholesale electricity markets. The ISO and its staff have no financial interest in any companies participating in the wholesale electricity markets and we do not own transmission or generation assets.

The ISO is not writing to testify for or against LD 1710, although there are three considerations that we believe the Committee may find helpful to keep in mind during its deliberations. These pertain to the specificity of a particular transmission solution, the termination point for that transmission, and the scope of expansion to Northern Maine.

First, with regard to the request for proposals for transmission, the ISO notes the reference in Section 2 to "a 345-kilovolt double circuit generation connection line," which may be a reference to an earlier ISO study of a cluster of proposed generator interconnections in Maine. The ISO supports the consideration of previous study efforts to interconnect generation in the area. However, in order to allow for consideration of other possible solutions that would be sufficient to address the reliability requirements of such a new interconnection, the ISO would like to suggest that the Committee may rather want to specify the objective of such a transmission project (e.g., developing the capability to reliably interconnect a certain amount of generating capacity to the power system) while leaving flexibility around the specific type of transmission solution to meet that objective.

Typically, in the planning processes, the solution emerges after a full and clear assessment of the need or objective. We would offer to meet with the Committee to gain a fuller understanding of your objective and provide some context for how a potential solution could be developed based on our knowledge of how the transmission system is planned and operated in Maine.

The magnitude of the transmission investment contemplated in the legislation is significant, as will be the study work required to complete the interconnection process. We believe that early consultation on the concepts outlined in this legislation is important to avoid potential pitfalls that could arise later in the process when an applicant ultimately brings forward a request to interconnect the new transmission and generation resources contemplated by the Committee.

Second, the termination point for a new transmission line will have a material impact on the amount of generation that can realistically be connected to the line. As you may be aware, there are physical limitations on the amount of power that can flow through Maine. These are often reflected as "interfaces" between areas or along a transmission path. In Maine, there are several interfaces that limit power flows from north to south (e.g., Orrington-South, and Surowiec-South).

If a new transmission line is built to connect new resources in Northern Maine, but the transmission line does not extend beyond certain interfaces, it's likely that the new supplies could face a bottleneck, resulting in curtailment, in Maine. It also would be helpful to know if the proposed legislation envisions exporting power through Maine to the rest of New England; that information would help inform the scope of the transmission contemplated in Section 2 so it could be planned appropriately to meet that objective.

Furthermore, the addition of new generating resources in Northern Maine, combined with other resources being developed or delivered elsewhere in Maine, such as distribution-connected solar, could create further congestion on the transmission system as power moves from north to south, especially in an environment in which the forecasted demand for electricity is essentially flat.

Third, the proposed legislation does not appear to contemplate interconnecting the transmission system operated by the Northern Maine Independent System Administrator (NMISA) to the transmission system operated by ISO New England. We want to caution that if the scope of the legislation were to be expanded to achieve that objective, such an effort would be significantly more technically and procedurally complicated and time-consuming than the process to interconnect resources in Northern Maine to the ISO New England system without a connection to the NMISA system.

Again, the ISO would welcome the opportunity to discuss these issues at a time that is convenient for the Committee to ensure that you are well-informed about how the concepts in LD 1710 would fit within the planning process for the broader, regional transmission system.

Thank you for the opportunity to comment. The ISO looks forward to continuing this discussion and continuing to serve as a partner to the state in achieving its policy goals.

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