

7 NOVEMBER, 2023

NOVA SCOTIA UTILITY AND REVIEW BOARD

C/O CRYSTAL HENWOOD (CRYSTAL.HENWOOD@NOVASCOTIA.CA)

Dear Ms. Henwood,

RE: Information Requests (IRs) to NS Power (M10905)

Energy Storage Canada (ESC) is the national trade association dedicated to accelerating the deployment of energy storage projects and technologies¹. Please find enclosed (see Appendix) ESC's Information Requests (IRs) to NS Power in the Board Review of NS Power's Interconnection Processes (M10905).

ESC's first targeted outcome from M10905 has been interconnection processes, costs and timelines that expedite energy storage project development and deployment (whether connected at the transmission- or distribution-level, and whether stand-alone or integrated with generation or load). Our second targeted outcome has been system impact studies and capacity allocation methodologies that reflect the valuable function of energy storage.

ESC appreciates the opportunity to participate in this important process, and also the various ways that recommendations that align with ESC's stated targeted outcomes have been adopted by NS Power and Synapse.

Very best regards,



Robert Tremblay

Policy Manager, Energy Storage Canada

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¹ For further information, please visit: www.energystoragecanada.org

APPENDIX - Information Requests (IRs) to NS Power (M10905)

1. Curtailment of renewable generators has broad implications for Interconnection Customers related to multiple issues under consideration in M10905, including: system upgrade costs, and cost allocation; operational intention of Battery Energy Storage Systems (BESS); system impact studies, and hosting capacity; and terms and conditions of generator interconnection and operating agreements. In M11307, Synapse made the recommendation to NS Power to “...continue to review curtailment issues and identify opportunities to reduce curtailment” and that “specific scenarios with considerably higher levels of nameplate battery capacity be included as part of the exploration of means to mitigate curtailment levels...” ESC endorsed and adopted these recommendations and further requested “that it be ensured, that energy storage – both standalone, and integrated with existing and new renewable generation - is central to future renewable curtailment mitigation strategies” (91365, recommendation 5.3). In this context, ESC makes the following Information Requests to NS Power in M10905 related to interconnection processes for energy storage and curtailment.

- 1.1. Please provide a high-level description of the circumstances that would lead to the curtailment of an individual wind or solar generation facility, and the procedures that define when and how individual wind or solar generation facilities are curtailed.
- 1.2. Please provide: the total number of non-NS Power owned renewable facilities (differentiated by distribution-level and at the transmission-level connection) at year-end 2022, and the total nameplate capacity that they represent; the total number of these facilities that were curtailed in the year 2022, the total nameplate capacity that they represent, and the amount of their electricity generation that was curtailed; and the amount of their electricity generation that was curtailed for which a cost was allocated to the rate-base in 2022, and that total cost that was allocated to the rate-base.
- 1.3. Please provide a high-level description of how the unrealized revenues from curtailment of wind or solar electricity generation facilities are allocated between Interconnection Customers and the rate-base.
- 1.4. Please comment whether there could be instances in which renewable electricity that is curtailed and not generated could be counted toward the province's renewable electricity standard. If yes, please describe.

2. Are there non-technical barriers (i.e., legislative, regulatory or otherwise) to NS Power deploying energy storage as a “Non-Wires Alternative” in the instances that a cluster study process identifies the need for system upgrades or material network congestion for the interconnection of one or more Interconnection Customers. Please describe the process that NS Power would follow to deploy energy storage in these instances.
3. The DGIP states that "*[i]f NS Power determines that Transmission System impacts are anticipated to occur as a result of the Distribution System Interconnection, NS Power shall notify the Interconnection Customer and the Interconnection Customer shall do one of the following: a) Reduce the capacity of the request to a level which alleviates the anticipated Transmission System Impacts (subject to capacity confirmation in the DSIS)*" (Section 2.1.1). Please define and describe transmission system impacts. Has NS Power ever provided the addition of energy storage as an option to alleviate Transmission System impacts under this provision in the DGIP to an Interconnection Customer. If no, is the DGIP a barrier to doing so?
4. Please compare and contrast Energy Resource Interconnection Service (ER Interconnection Service), and Network Resource Interconnection Service (NR Interconnection Service). Please comment on specific considerations related to these Services for energy storage Interconnection Customers, with focus on operational intention or operational profile requirements. And, please comment on any specific considerations related to these Services, for: an Interconnection Customer seeking to expand an existing renewable generation facility with energy storage at the same point of interconnection; or an Interconnection Customer seeking to develop a new renewable generation facility with energy storage at the same point of interconnection.
5. Please define “Non-material Additions or Modifications”. Please describe the principles that afford distinct treatment to Non-material Additions or Modifications from other Interconnection Customers. And please comment on the circumstances that would qualify the addition of BESS to an existing wind farm as a Non-material Addition or Modification (with reference to operational intention, or operational profile requirements, that would align the BESS with the principles that would afford distinct treatment to Non-material Additions or Modifications from other Interconnection Customers).
6. Please describe the process and procedures for an Interconnection Customer to amend a Generator Interconnection and Operating Agreement for a modification that is: non-material; or material.