



September 10, 2025

NOVA SCOTIA ENERGY BOARD

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

Dear Ms. Henwood,

**RE:**

**Submissions by Intervenors, 2025 Load Forecast Report (M12349)**

**Joint Submission by ENERGY STORAGE CANADA (ESC), & SOLAR NOVA SCOTIA (SNS)**

Energy Storage Canada (ESC) is the national trade association dedicated to accelerating the deployment of energy storage projects and technologies. Solar Nova Scotia (SNS) is a not-for-profit society whose mission is to promote and facilitate the adoption of solar energy in Nova Scotia. As the interests of ESC and SNS are largely common as they relate to Distributed Energy Resources (DERs) and proceeding M12349, we have prepared a joint submission that represents the combined interests and perspectives of both organizations as follows.

1. Our two recommendations are summarized as follows:
  - 1.1. **We recommend that a DER Potential Assessment is undertaken to identify the growth potential of DERs, and where the grid can (or cannot) accommodate them, to inform the 2026 Load Forecast Report.**
  - 1.2. **We recommend that the trajectory for load growth from electrification not be revised downward in one year from the previous (in misalignment with government policy), unless a justification or evidence supports that additional electrification is not cost-effective and reasonably available.**
2. We acknowledge that forecasting the deployment of DERs including behind-the-meter (BTM) solar and battery storage (e.g., stationery, and vehicle-to-grid) is rife with uncertainty due to various factors that are outside of

NS Power's control. Continued progress and additional work are required to more accurately forecast the deployment and effects of DERs and BTM solar and battery storage in the load forecasting process.

3. The interaction between three factors: installed capacity of BTM solar; management of BTM solar output with battery storage and/or curtailment (e.g., inverter-clipping, and/or response to utility signals); and installed capacity of standalone BTM battery storage, will have significant effects on the province's net-load profile in the planning horizon. We feel that these effects are not accurately captured in the 2025 Load Forecast Report.
4. It is our perspective that the assumed scale and pace of BTM solar deployment (i.e., 930 MW of installed capacity in 2035, pg. 42 of 94) - in the absence of behind-the-meter battery storage (pg. 45 of 94) (and when not subject to curtailment, per NSPI to SNS IR-3d) - is higher than what would be currently expected by industry.
  - 4.1. We do not expect that two of the current key economic drivers (e.g. Canada Greener Homes Loan<sup>1</sup>, and Efficiency Nova Scotia SolarHomes<sup>2</sup>) will remain in place unchanged throughout the entire duration of the planning horizon.
  - 4.2. We are not aware of system analyses that demonstrates that the reliable integration of 930 MW in 2035 - in the absence of BTM battery storage and/or curtailment and/or new approaches to the grid integration of DERs - is optimal. Or, that this approach to integration would be in the best interests of ratepayers. We believe that BTM battery storage and/or curtailment and/or new approaches to the grid integration of DERs would optimize the integration of this level of solar in 2035. (And this has effects on load forecasting).
5. It is our perspective that the assumed scale and pace of residential and non-residential BTM battery storage deployment (i.e., 0 MW/MWh in 2035, pg. 45 of 94) is lower than what would be currently expected by industry.
  - 5.1. The 2025 Load Forecast assumes that the 930 MW of BTM solar installed capacity contributes 277 MW to the summer peak in 2035 (per NSPI to SNS IR-1). Amongst other things, BTM battery storage can provide demand-side flexibility to align solar output with peak demand and low supply cushion hours.

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<sup>1</sup> <https://natural-resources.canada.ca/energy-efficiency/home-energy-efficiency/canada-greener-homes-initiative/canada-greener-homes-loan>

<sup>2</sup> "The SolarHomes program is now closed to homeowners. Efficiency Nova Scotia stopped accepting new applications on April 17, 2025. Efficiency Nova Scotia approved projects must be completed by March 31, 2026 to be eligible for financial incentives. Efficiency Nova Scotia continues to accept new applications from registered non-profit organizations and charities." <https://www.efficiencyns.ca/programs-rebates/solarhomes>

- 5.2. We expect that the use- and business cases for residential and (especially) non-residential BTM batteries in the province will improve in the near-term. For example, there was direction from the NSUARB to NS Power in M11621 as follows: *“ESC recommended that new or revised tariffs or programs include provisions which provide customers with the option to charge from, and discharge to, the grid with BTM energy storage which is not integrated with generation. NS Power did not oppose that recommendation. The Board directs NS Power to advise, by December 31, 2024, how and when it will address that recommendation”*.
- 5.3. The assumed capital costs in the 2025 Load Forecast Report are higher than they should be (i.e., \$15,000-\$20,000 for 5 – 7 kW residential, pg. 45 of 94), and economies-of-scale mean that non-residential battery storage have lower unit costs. During the planning horizon, manufacturing scale, and innovation will further drive down equipment costs (as will federal investment tax credits where applicable). And, scale, workforce experience, and competition within the Nova Scotia market will further drive down installation costs.
6. It is an object of the NSIESO to “[p]rior to, or as part of, conducting an integrated resource planning exercise and subsequent competitive procurements of energy resources, the IESO shall work with the holder of the franchise to supply NSPI with reasonably available, cost-effective demand-side management under the Public Utilities Act...” (*More Access to Energy Act*, s. 11.2). **In support of this initiative, and to inform the 2026 Load Forecast Report, we recommend that a DER Potential Assessment is undertaken to identify the growth potential of DERs, and where the grid can (or cannot) accommodate them.** In order to inform the 2026 Load Forecast Report and NSIESO planning and procurement activities, we expect that work on the DER Potential Assessment would need to commence soon. The Study would have refreshed assumptions for DERs capital costs and business models, and would produce a more precise forecast of the impact of DER deployment on the load profile at the provincial and sub-provincial level. The Study should prioritize identifying where the deployment of DERs could bring most value (e.g., targeting the alleviation of grid constraints as non-wires solutions).
7. Fuel-switching from imported fossil fuels to in-province electricity production contributes to both the province’s energy security and sustainable prosperity, and it is the province’s energy policy<sup>3</sup>. However, the 2026

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<sup>3</sup> The Clean Power Plan states that “[a] key driver for building a clean electricity system in Nova Scotia is to produce energy savings by electrifying heating and transportation for households” (pg. 15 of 25).



Load Forecast revises electrification downward<sup>4</sup>. Demand-side management is defined as including “*strategic electrification of energy end uses currently powered by fossil fuels in a manner that reduces overall greenhouse gas emissions and electricity costs*”<sup>5</sup>, and NS Power has obligations to undertake “*cost-effective demand-side management that is reasonably available in an effort to reduce costs for its customers*”<sup>6</sup> “*by entering into a demand-side management purchase agreement with a franchise holder*”<sup>7</sup>. **We recommend that the trajectory for load growth from electrification not be revised downward in one year from the previous (in misalignment with government policy), unless a justification or evidence supports that additional electrification is not cost-effective and reasonably available..** If the scale and pace of reasonably available and cost-effective electrification is slowing for any reason, this can be addressed by means including through the procurement of additional DSM from the franchise holder.

Thank you for the opportunity to participate in this important proceeding.

Very best regards,

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

Roby Douglas,  
Chair of the SNS Industry Committee  
On behalf of the SNS Board of Directors

A handwritten signature in black ink, appearing to read "KL Benson King".

Leone Benson-King,  
Vice President Corporate Services  
Energy Storage Canada (ESC)

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<sup>4</sup> For example, reduced electric share of commercial heating (Figure 22 on pg 35 of 94), and reduced estimates for electric vehicle sales (Figure 26 on pg. 38 of 94)

<sup>5</sup> *Public Utilities Act*

<sup>6</sup> *Ibid.*

<sup>7</sup> *Ibid.*