

NOVA SCOTIA ENERGY BOARD

IN THE MATTER OF: THE PUBLIC UTILITIES ACT

- and -

IN THE MATTER OF: AN APPLICATION by NOVA SCOTIA POWER INCORPORATED
(NS Power) 2025 Evergreen IRP Action Plan and Roadmap Update

NON-CONFIDENTIAL INFORMATION REQUESTS

To: **Nova Scotia Power Inc.**
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From: **Nova Scotia Energy Board**
Board Staff

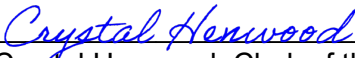
Responses Due: **Tuesday, July 15, 2025**

Copies: 1 electronic copy (PDF searchable)

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Crystal Henwood, Clerk of the Board

Request IR-1:

On page 13 regarding pooling allowable emissions, NS Power stated:

The ability to share emissions “room” amongst units allows for:

- *The shift of dispatch to our lower cost and lower emitting units (e.g. Tufts Cove) by transferring emissions “room” from our higher cost and higher emitting units (e.g. diesel CTs)*
- *Reduction in capital expenditures for new CTs to meet needs during peak periods by more efficiently using the existing fleet*

a) With reference to the “emissions room”, please provide a table showing the cost and emissions of the generating units.

b) Please explain whether the reduction in capital expenditures for new CTs noted in the second bullet refers to delayed acquisition of new CTs. If not, please explain the expenditure reduction.

c) How does the ability to share emissions room affect the most recent preferred resource plan?

Request IR-2:

Regarding Planned Units, on page 14 NS Power stated:

- *Planned thermal units (examples: fast acting combustion turbines) are new thermal units in which investments have been made and planning has been advanced in good faith prior to the development of the CER and are critical to enabling the integration of variable renewable generation (wind/solar).*
- *These units are not subject to the AEL if they meet the following criteria:*
 - *Meet certain progression milestones by the end of 2025*
 - *Have started construction by the end of 2027*
 - *Are commissioned by 2035*

a) Please explain whether the new fast acting generation and coal plant conversions assessed in the Evergreen IRP and listed in The Path to 2030 meet these criteria.

b) What are the “progression milestones” that need to be met by the end of 2025?

Request IR-3:

On page 15, NS Power stated:

1 *In section 25 of the regulation, the emitting fleet is exempt from the CER if an “irresistible*
2 *emergency event” is experienced by the system operator...*

3
4 Please elaborate on the “exemption”. Does this refer to excluding the emissions resulting from
5 any fossil-fueled generation associated only with that specific irresistible emergency event?

6
7 **Request IR-4:**

8 On page 20, NS Power stated that the Reliability Tie (Stage 1 - Onslow to Salisbury) has a future
9 potential firm import capacity of 100 MW. However, NS Power has also stated that the Reliability
10 Tie is essentially a backup to the existing 345 kV tie line and is not intended to increase import
11 capability.

12 a) Please reconcile and elaborate on the “future potential” 100 MW.

13 b) What is the potential firm capacity associated with Stage 2 (Salisbury to Point Lepreau)?
14

15 **Request IR-5:**

16 On page 23, NS Power stated that *“The 2024 Feeder Assessment and 2024 System Load*
17 *Snapshot reports have identified feeders and substation transformers that are overloaded or*
18 *expected to become overloaded within the next 5-10 years.”*

19 a) Please provide a copy of the 2024 Feeder Assessment report and the 2024 System Load
20 Snapshot report.
21

22 **Request IR-6:**

23 On page 27, NS Power stated that *“The sustaining capital values for the diesel CTs has decreased*
24 *as compared to the 2020 IRP assumptions for 2023...”*

25 a) Please explain the factors contributing to the decreased sustaining capital values.

26 b) The chart on page 28 shows the values for 2024 to be nearly double those in 2023. Please
27 explain that increase.

28 c) What is the projected trend for 2025 and beyond? Please explain the contributing factors.
29

30 **Request IR-7:**

31 On page 39, NS Power provided the following statements:

- 32 • *Today manufactures can support between 5% and 35% hydrogen blending.*
33 • *Current models would need to be retrofitted to operate using 100% hydrogen as a fuel source.*

- *The capital cost adder for Aeroderivative CT's capable of operating with 100% hydrogen fuel was reviewed and the Evergreen IRP assumption of 10% was confirmed to still reflect market conditions.*

- a) Would NS Power's current models need to be retrofitted to operate using 35% hydrogen blending, or is the retrofit only needed for operation with 100% hydrogen fuel?
- b) Please explain the capital cost adder assumption of 10%. Is this referring to an additional cost for a new hydrogen CT as compared to a new diesel CT?

Request IR-8:

On page 41, NS Power stated that Net Zero Atlantic is assessing the cost and benefits of the hybrid peak mitigation scenario and NS Power will be providing information to conduct a more refined assessment of the program from an electricity system cost perspective.

- a) What is the current status of the assessment work?
- b) When are results anticipated to be available?

Request IR-9:

The Board's letter of May 23, 2024 in Matter M11307 (the 2023 Evergreen IRP Update) provided the following direction:

As noted by Synapse in its August 2023 comments, the battery energy storage ELCC profile is a critical input value to the modeling. This needs to be carefully re-examined in conjunction with an updated portfolio ELCC analysis, which considers the interactive effect of all four clean resources (i.e., wind, solar PV, battery energy storage, and demand response or peak load mitigation during winter peak periods). The Board sees value in further study to evaluate the incremental diversity benefit available from increased interaction among renewable resources.

Subsequently, in its September 19, 2024 response to NSUARB IR-02 (M11764) requesting an update on NS Power's progress, NS Power stated that it has not started a new capacity value study but will develop a draft scope of work and project schedule to be circulated to IRP stakeholders for comment by the end of the year. On February 6, 2025, NS Power provided stakeholders with its proposed topics as the focus of the next ELCC study, but did not provide a project schedule.

On page 42 of the 2025 Action Plan Update, NS Power stated that it is progressing items to support the next IRP and that one of the items is an updated Effective Load Carrying Capability Study.

- a) Please explain what work has been completed on the ELCC study, what work remains outstanding, and when does NS Power anticipate issuing its report.