

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) for Subsequent Approval of a Partially Confidential 2026
ACE Plan Capital Item

CI C0080102 – 92H-331 Double Circuit Peggy's Cove Rd.

NON-CONFIDENTIAL INFORMATION REQUESTS

To: **Lana Myatt**
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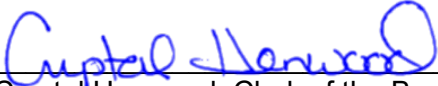
From: **Nova Scotia Energy Board**
Board Staff

Responses Due: **Monday, April 20, 2026**

Copies: 1 electronic copy (PDF searchable)

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Issued at Halifax, Nova Scotia, this 27th day of March, 2026.



Crystal Henwood, Clerk of the Board

Request IR-1:

When does NS Power expect to submit C0071888 92H-T61 Transformer Replacement for Board approval?

a. Is approval of this CI contingent on Board approval of the current C0080102 92H-331 Double Circuit Peggy's Cove Rd capital application?

i. If so, please explain.

b. Is the C0080102 92H-331 Double Circuit Peggy's Cove Rd project required if the C0071888 – 92H-T61 Transformer Replacement does not proceed? Please explain.

Request IR-2:

Please describe the expected improvement in system reliability and resiliency by completing this project.

Request IR-3:

Please describe the load pickup issues experienced by Feeder 92H-331 during the February 4, 2025, extreme cold event.

Request IR-4:

Please explain why the work for this project needs to be completed under live load operating conditions.

a. Please explain why this was not envisioned in the 2026 ACE Plan estimate.

Request IR-5:

Please provide a table outlining NS Power's cost per meter to construct three-phase feeders over each of the past five years.

a. Please identify the estimated cost per meter to construct the proposed C0080102 92H-331 Double Circuit Peggy's Cove Rd feeder.

i. Please describe the reasons for any significant difference in this cost compared to historical per meter costs over the past five years.

Request IR-6:

a. Please provide a list to explain the scopes of the project, project timeline and critical milestones for CI C0080102 92H-331 Double Circuit Peggy's Cove Rd.

- b. Please explain the current status of the project, including whether the project is underway or has not yet commenced.

Request IR-7:

Assuming the Board approves C0071888 92H-T61 Transformer Replacement:

- a. Please explain the necessity of the Stillwater Lake Substation for the proposed CI C0080102 92H-331 Double Circuit Peggy's Cove Rd. project load transfer.
- b. Please explain the possibility to transfer load from 137H or 103H feeder(s) to 92H substation.

Request IR-8:

Please provide the historical number of customers and forecasted number of customers on each feeder under the proposed Alternatives A and B of Attachment 1 (M-AREA-2025-002) for the 2022 to 2035 period, for the following feeders:

- a. 92H-331
- b. 92H-332
- c. 92H-334
- d. 92H-335

Request IR-9:

Please confirm whether the proposed double circuit/circuit extension is 92H-335.

Request IR-10:

In Attachment 1 (M-AREA-2025-002), Section 3.1, NS Power noted that limited SCADA/PI data is available, and data prior to 2022 could not be validated. In addition, Table 7 and Figure 4 indicate that the winter peak load on feeder 92H-331 has exceeded its design limit since at least 2022. Considering the proposed annual growth is 4.3% for 92H-331, please address the following:

- a. Why did NS Power not propose the project at an earlier date?
- b. How did NS Power manage or mitigate the overload conditions on feeder 92H-331?
- c. Please provide technical documentation describing NS Power's operating procedures for managing the distribution system overload conditions, including but not limited to:
- i. The maximum allowable overload capacity.
 - ii. The permissible duration of overload conditions.
 - iii. The process to identify the overload condition as temporary or persistent.

- iv. The escalated process to result in the persistent overload.
- d. The figures and tables provided present only annual winter peak load conditions.
 - i. Please provide additional records for regular feeder load conditions.
 - ii. Please explain the frequency and duration of the feeder overload conditions on this feeder.
- e. Please provide records of any customer complaints related to power quality on feeder 92H-331, if any such complaints exist.

Request IR-11:

In Attachment 1, p. 16, NS Power noted the following about the load forecast:

There was limited historical data available, and data prior to 2021 (for 137H) and prior to 2022 (for 92H) could not be validated. The load forecast is developed using a linear regression trend of historical peaks calculated with the Excel FORECAST function. Year-to-year variability is captured by determining the historical percentage deviation from the trend line and applying the 90th-percentile deviation as an adjustment factor.

- a. Please explain the “Excel FORECAST function” referenced above and describe how this function is used to predict load growth.
- b. Please confirm whether the same forecasting function and methodology is used by NS Power to predict load growth for other projects.

Request IR-12:

- a. Most 92H feeders are adjacent to 25 kV feeders supplied from the 137H and 103H substations. Please explain why under Alternative A, NS Power proposes to convert only a portion of 92H-332 to 25 kV instead of the entire circuit.
- b. Please explain the technical feasibility and associated costs (including unit costs and total costs) to convert the entire 92H substation to 25 kV, or alternatively to convert selected feeders such as 92H-331 and 92H-332 to 25 kV?
- c. Please describe the technical specification and cost details for CI C0071888, T61 transformer.
- d. Please assess the feasibility and associated costs of replacing the proposed T61 transformer with a transformer capable of supplying dual secondary distribution voltages for both 25 kV and 12 kV.
- e. Please describe the feasibility and associated costs of converting a portion of 92H-331 circuit to the 25 kV system and temporarily transferring load to feeder 103H-434 as a mitigation measure to address existing overload conditions.

- 1 f. Please describe the feasibility and associated costs of installing transformers to convert
2 the output voltage of connected generation plants to 25 kV.

3
4 **Request IR-13:**

5 In Attachment 1, Section 5.1.1, NS Power noted the following:

6 ... recent operating experience has shown that hydro availability cannot be relied upon during
7 winter peak seasons. For these reasons, the hydro capacity are not included in 92H
8 contingency capacity calculations.

- 9
10 a. Please describe NS Power's new strategy to utilize the mentioned hydro generations.
11 b. How does this affect NS Power's system planning when upgrading related feeders and
12 facilities?

13
14 **Request IR-14:**

15 NS Power noted that the 92H substation is constructed of wood and is expected to require
16 replacement within the next 10 years due to material deterioration. Further, in Attachment 1,
17 section 6.3.1, NS Power stated the following:

18 To address the deteriorated structures in the 92H substation, it is recommended that it is rebuilt
19 in place in 2033. The feasibility and scope of this will need to be verified. A very conservative
20 estimate equivalent to building a new substation (less the cost of a transformer) on nearby NS
21 Power land will be used to account for the uncertainty with this work.
22 The scope of this alternative is as follows:

23 ...

24
25
26 - Rebuild the Tidewater substation in its current location, using a mobile transformer to
27 temporarily supply feeders during demolition and construction.

- 28
29 a. Please describe NS Power's plan to redistribute the load currently supplied by the 92H
30 substation during the substation rebuild period.
31 b. Please clarify the proposed rebuild plan for the 92H substation under this alternative and
32 confirm the budget of \$7,000,000 in Table 17, including whether the rebuild is proposed to
33 be:
34
 - At the existing 92H substation location, or
 - At the nearby NS Power land.
35
36 c. If the plan is to rebuild the 92H substation at its existing location, please explain whether
37 the site can accommodate, first, the proposed new T61 transformer, which has double the
38 capacity of the existing transformer, and second, the addition of feeder 92H-335.
39 d. Please describe the proposed structure type and construction materials for the 92H
40 substation rebuild under Alternative A.

- 1 e. If the existing 92H site cannot accommodate the proposed facilities under Alternative A
2 and a rebuild at a new location is required, please update the scope and cost estimate of
3 Alternative A accordingly. In addition, provide a revised comparison of all alternatives.
4

5 **Request IR-15:**

- 6 a. Did NS Power explore the following alternatives for the project:
- 7 i. Conversion of feeders 92H-331 and 92H-332 to 25 kV system, and if technically
8 possible, convert 92H-334 to 25 kV system.
 - 9 ii. Installation of a new T61 transformer (138kV to 25 kV) rated at 25 MVA or higher
10 if required, or if 92H-334 must remain as 12 kV and technically feasible, installation
11 of a T61 transformer capable of supplying dual secondary distribution voltage
12 levels (138 kV to 25 kV and 12 kV).
 - 13 iii. Depending on the availability of T61 voltage configurations:
 - 14 ▪ option 1 to retain feeder 92H-334 as a 12 kV feeder to maintain the
15 connection between the hydro system to 87W.
 - 16 ▪ option 2 to connect feeder 92H-334 and associated hydro generators using
17 step-down transformers or a dual-secondary T61 transformer.
 - 18 iv. Interconnection of the new 25 kV feeders from 92H with adjacent 25 kV feeders
19 from 103H and 137H to transition the system from a single-source circuit to a multi-
20 source circuit, which would enable load sharing and improve reliability.
 - 21 v. As a temporary measure to address overload conditions, convert portions of the
22 92H-331 circuit to a 25 kV system and transfer load to feeder 103H-434, and if
23 needed, convert portions of feeder 92H-332 to 25 kV and transfer load to feeder
24 103H-432.
 - 25 vi. Rebuilding the 92H substation either at the existing location or on the nearby NS
26 Power land, as required based on technical considerations.
- 27 b. If not, why not?
- 28 c. If so, please explain why this option was not preferred.
29
30