

NOVA SCOTIA ENERGY BOARD

IN THE MATTER OF: THE PUBLIC UTILITIES ACT

- and -

IN THE MATTER OF: AN APPLICATION by NOVA SCOTIA POWER INCORPORATED
to approve CI C0083451– Seton Ridge Underground Network -
\$3,656,609 (U&U)

INFORMATION REQUESTS

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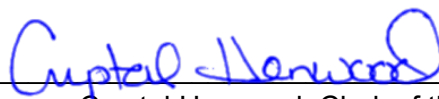
From: **Board Staff**
Nova Scotia Energy Board

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

Copies: 1 electronic copy (PDF searchable)

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Crystal Henwood, Clerk of the Board

Request IR-1:

Pdf pg. 3 of the application states: "The system is designed to meet both the immediate service requirements of this development and the anticipated long-term load growth, with provisions for future expansion as appropriate to support adjacent developing areas including Suzie Lake and Bedford."

a) Please describe the future provisions that will be incorporated into the project to support adjacent developing areas.

b) Please provide a breakdown of the incremental project costs associated with these future provisions. Please provide the breakdown in the same format, and using the same line items, as the "Capital Project Detailed Estimate" on pdf pg. 6 of the application.

Request IR-2:

Pdf pg. 3 of the application states: "The developer will complete all required civil work, including trenching, duct bank installation, concrete encasement, and surface restoration."

a) Please provide a detailed cost estimate for this portion of the work.

b) Please confirm that the cost for this work will not be included in NS Power's rate base.

i. If not confirmed, please explain.

Request IR-3:

When does NS Power expect that the future conversion to 25 kV will be required?

Request IR-4:

a) Please explain what is included in the proposed underground project cost of \$3,656,609.

b) Please also provide the estimated cost per kilometer for the proposed underground section and the cost per kilometre for an overhead alternative.

c) Please identify whether this amount represents the full estimated cost of the underground system for the 1,750-metre development, or only the estimated equivalent cost of an overhead alternative.

d) If it represents only the estimated equivalent cost of an overhead alternative, please describe how the costs would be allocated between NS Power and the developer, including detailed cost and task allocation between NS Power and the developer.

Request IR-5:

- a) Please compare the expected asset life and provide a complete cost and economic comparison between the underground and overhead options for the proposed 1,750-metre development section, including:
 - i. Life cycle costs such as, capital costs, operating and maintenance costs, repair costs, replacement costs, vegetation management costs, outage-restoration costs, and future conversion or upgrade costs. Please identify which alternative has the lowest lifecycle cost.
 - ii. A comprehensive cost estimate for the overhead structure option, including all primary and secondary circuits and related equipment, in a format similar to the capital project detailed estimate table on page 4 of the application.
 - iii. A NS Power's Economic Analysis Model (EAM) or equivalent analysis comparing the underground and overhead options on a consistent scope and cost basis, including all primary and secondary circuits and related equipment.

Request IR-6:

- a) Please explain and quantify the expected benefits of the proposed underground system compared with the overhead alternative, including but not limited to:
 - i. Reliability;
 - ii. Safety;
 - iii. Operation costs.

Request IR-7:

Please explain the expected ratepayer impact of the proposed underground project.

Request IR-8:

Please provide a circuit GIS map to indicate the proposed underground system primary and secondary circuits.

Request IR-9:

- a) Please explain the voltage and capacity of proposed underground section whether it will be built only to meet the voltage and capacity requirements of the 12.5 kV system, or whether it will be built to accommodate future 25 kV voltage and capacity requirement.

- b) If the proposed underground section will be built only for 12.5 kV voltage and capacity, please explain why a 25 kV compatible system is not being constructed now.
- c) Please provide a table describing the scope of work and associated costs for converting the relevant underground distribution system from 12.5 kV to 25 kV, including total and per-kilometre cost estimates for converting the underground system.
- d) For comparison, please also provide an explanation of the scope of work and costs for converting an overhead line system from 12.5 kV to 25 kV.

Request IR-10:

Board staff notes that Section 2.11 of NS Power's Regulations state the following:

2.11 UNDERGROUND ELECTRIC SERVICES

Distribution Systems - The Company may supply, install, maintain and own underground distribution systems. **A party requesting the installation of an underground distribution system will be required to make a capital contribution to the Company, equivalent to the difference in cost between the underground system installed and overhead distribution facilities it would otherwise provide.**

Conversion of Existing Overhead Distribution Systems To Underground - A party requesting the conversion of an existing overhead system to underground shall be required to make a capital contribution to the cost of the conversion.

Secondary Services - The Company is not required to install underground secondary voltage services; however, in the event the Company installs an underground distribution system, consideration will be given towards the supply and installation of such electric services by the Company, at the customer's expense. The customer will be responsible for ownership, maintenance and replacement when necessary, except that in special circumstances such as may be encountered in a total underground urban system, it may be practical for the Company to own and maintain the total system including the secondary services. In the case of an individual underground residential service from a normal overhead system; the Company will allow the customer credit for the equivalent cost of an overhead service it would otherwise provide.

Primary Services - The Company will normally own the primary voltage cable in a customer-owned duct system. In the event that a primary service must be replaced, extended or repaired, the customer is responsible for any and all costs associated with the duct system. In this event, the Company will maintain service by temporary means but if it is deemed that service interruption results from failure of the duct system, such as might be caused by excavation in the area of the duct system, the customer will be responsible for temporary service costs as well as all costs associated with repairs to the service.

Replacement of Existing Systems - The Company will be responsible for costs associated with the best (generally lowest cost) supply option should an underground system (or any part thereof) have to be replaced. Where this option is another underground system the existing system would be replaced in kind. However, should the best option be overhead supply, and the customer wishes to continue to be served with underground service, the customer(s) will be required to make a new capital contribution, equivalent in cost to the difference between the overhead supply and the underground system.

1 a) Please provide a breakdown of the estimated cost to complete the proposed project
2 assuming it is constructed using overhead distribution facilities. Please provide the
3 breakdown in the same format, and using the same line items, as the "Capital Project
4 Detailed Estimate" on pdf pg. 6 of the application.

5 b) Please confirm that the proposed underground system will include secondary services.

6 i. If confirmed:

7 A. Please confirm that the developer/customer will be responsible for the
8 capital costs associated with this system.

9 I. If confirmed:

10 1. Please provide a breakdown of the estimated cost to
11 complete this work.

12 2. Please confirm that no related costs are included in the
13 project cost for which NS Power currently seeks Board
14 approval.

15 II. If not confirmed, please explain.

16 1. Will the developer/customer or NS Power be the owner
17 responsible for maintenance and replacement when
18 necessary? Please explain.

19 c) Please confirm that if a primary underground service associated with this project must be
20 replaced, extended or repaired at some point in the future, the developer/customer will be
21 responsible for all costs associated with the duct system.

22 i. If not confirmed, please explain.

23
24 **Request IR-11:**

25 Pdf pg. 4 of the application states: "To support this level of growth and ensure reliable long-term
26 service, the proposed underground installation provides a scalable and resilient solution. It
27 enables future feeder expansion for additional load growth expected in nearby areas including
28 Suzie Lake, Bedford, and Lacewood,"

29 a) Please explain why an overhead system cannot provide a similar scalable and resilient
30 solution while providing expansion for additional load growth.

31
32 **Request IR-12:**

33 Pdf pg. 4 of the application states: "The Seton Ridge development is a unique urban in-fill project
34 with an HRM-approved layout that establishes a highly constrained build form that includes new

1 roads, sidewalks, multi-use paths, and tight building sitings and setbacks. These urban design
2 requirements significantly restrict where a permanent overhead line could be placed. As a result
3 of these constraints, a scalable overhead construction model is not feasible based on the
4 approved layout and future projected loads. Accordingly, an underground infrastructure is
5 required to support long-term load growth and the planned transition to 25 kV operation.”

6 a) Please provide a copy of NS Power’s detailed analysis to show that a scalable overhead
7 construction model is not feasible for the development based on the approved layout and
8 future projected loads.

9 b) Please explain whether Halifax Regional Municipality (HRM) consulted NS Power
10 regarding utility servicing requirements before approving the development plan and layout
11 for Seton Ridge.

12 c) Please describe the general process for coordinating electrical service requirements for
13 HRM development projects, including NS Power’s role in reviewing, advising on, or
14 approving utility servicing arrangements.

15 d) Please explain whether HRM planners and the developer were aware that NS Power’s
16 projects may require Board approval, and that the Board could approve, reject, or direct
17 changes to the proposed project.

18 e) If the Board does not approve the underground system, please explain how NS Power
19 would provide electrical service to the Seton Ridge development.

20 f) Please describe the feasible alternative service options.

21 g) Please explain whether HRM requires, encourages or has agreements with NS Power to
22 provide underground service for Seton Ridge or any new subdivisions.

23 i. If so, please provide the agreements between NS Power and HRM, and any
24 associated information, such as HRM bylaws, policies, planning approvals,
25 development agreements, or council decisions for review.

26 h) Please explain whether the underground infrastructure poses higher capital investment,
27 higher upgrade and replacement costs, and difficult of repair compared with overhead
28 infrastructure.

29 i. If yes, please explain whether HRM planners, the developer, and any
30 relevant municipal decision-makers were informed of the issues, and
31 possible rate impacts.

32 ii. If no, please explain why not.

33 i) Please list and compare all related upgrades, equipment, civil works, and associated costs
34 required for the 12.5 kV to 25 kV conversion under both overhead and underground

options, including primary equipment, secondary equipment, protection equipment, transformer, civil works, poles, duct banks, vaults, switching equipment, any other labour and material costs.

Request IR-13:

Pdf pg. 3 of the application states: "The developer will complete all required civil work, including trenching, duct bank installation, concrete encasement, and surface restoration."

Pdf pg. 5 of the application states: "Risks intended to be covered by the contingency include uncertainties in subsurface conditions, potential adjustments to duct bank configuration based on field findings, material and labour quantity variations, minor refinements during construction, and schedule coordination risks associated with developer-led civil work."

As such, the risks noted on pdf pg. 5 appear to be risks that are attributable to and the responsibility of the developer. Therefore, please explain specifically why NS Power requires a 10% contingency related to these risks.

Request IR-14:

Board staff notes that the system impact study, 420-1021-IS146, attached to the application is dated November 30, 2021.

a) Please confirm that NS Power has recently reviewed the findings of the study to ensure that study assumptions, data inputs, etc. remain relevant and up-to-date.

i. If not confirmed, please explain.

ii. If confirmed:

A. Please identify the date when the study was reviewed.

B. Please confirm that the design of the proposed system associated with the project incorporates all of NS Power's most recent load and growth projections.

1. If confirmed, please identify the date that these most recent load and growth projections were prepared.

b) Please explain whether the feeder conversion and upgrades identified in the study are based on overhead structures or underground structures.

i. Please identify the underground structures or underground feeder sections listed in Section 6.0, Proposed Solutions.

- 1 c) Please explain whether NS Power was aware of the proposed underground development
2 at the time the study was completed.
- 3 d) If the underground requirement was not known at that time, please explain how the project
4 plan changed after the study.
- 5 e) If NS Power was aware of the underground requirement at that time, please explain why
6 the study did not identify an underground section or underground construction
7 requirement.
- 8 f) Please identify any findings or recommendations in the report that support the need for
9 underground construction to accommodate the 12.5 kV to 25 kV conversion and future
10 load growth.

11

12 **Request IR-15:**

- 13 a) Please provide SAIFI and SAIDI information from 2020 to 2026 for the related feeders and
14 the proposed work area.
- 15 b) Please evaluate the reliability performance against NS Power's applicable performance
16 requirements or standards.

17

18 **Request IR-16:**

19 Pdf pg. 15, Attachment 1, stated that the Suzie Lake (SL) substation was scheduled to be
20 completed in 2023 and would provide offload for several stations, including conversion of the 23H-
21 Rockingham 12.5 kV load.

- 22 a) Please explain the status of substation constructure and the load transfer.
- 23 b) Please explain whether the conversion of 12.5 kV to 25 kV is preplanned regardless of
24 the construction of Seton Ridge Development
- 25 c) Please provide a table to describe the timeline of the conversion of 12.5 kV to 25 kV and
26 explain whether it involves the whole 23H substation or only selected feeders of the
27 substation.
- 28 d) As the conversion performed through several phases, please provide a table to summarize
29 and indicate the timeline of the conversion and associated feeder and length of the feeder.

30

31 **Request IR-17:**

32 Pdf pg. 38, Attachment 1, 7.0 Cost & Right of Way Responsibility indicated by NS Power
33 Regulation 2.6 and 2.12 for customer cost responsibilities.

- 34 a) Please confirm whether these regulations apply only to overhead distribution systems.

- i. If they apply only to overhead systems, please identify and update the section to include the applicable regulations and NS Power standards governing underground systems.
- ii. For Seton Ridge Development, if an overhead system were to be constructed instead of an underground system, please explain the respective scope of work and cost responsibilities of NS Power and the developer.

Request IR-18:

Pdf pg. 39, Attachment 1, 8.0 Analysis, NS Power stated:

The upgrades and modifications to NSPI's Distribution System as recommended in this report are considered Network Upgrades. As outlined in Section 7, NSPI is responsible for the cost of the Network Upgrades.

- a) Please explain whether NS Power considers the current proposed underground conversion project to be part of the network upgrades.

- i. If so, please explain whether NS Power is responsible for all associated network upgrade costs, or whether any portion should be recovered from the developer, or HRM.