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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 pf the application.

Response IR-1:

(a) The primary future provision incorporated into this project is the construction of a standard NS Power 3x3 underground ductbank system. As is typical for NS Power owned primary underground distribution infrastructure, the ductbank includes spare duct capacity to support operational flexibility, maintenance requirements, system modifications, and future load growth.

Following construction by the developer, the ductbank infrastructure will become part of NS Power's distribution system. The proposed 3x3 configuration is consistent with NS Power's standard design practice for primary underground feeder installations and is not unique to the Seton Ridge development.

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1 While the spare duct capacity will be utilized in the future to support system expansion
2 associated with growth in the surrounding Bedford, Seton Ridge, Suzie Lake, and
3 Lacewood areas, this project does not include the installation of future electrical assets
4 intended specifically to serve those developments. Any future electrical infrastructure
5 required to serve adjacent developments would be evaluated and advanced through future
6 projects as appropriate.

7
8 (b) There are no material incremental project costs solely for future provisions. The 3x3
9 ductbank configuration installed as part of this project represents NS Power's standard
10 design requirement for primary underground distribution systems and would have been
11 installed regardless of future development plans in adjacent areas.

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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.

Response IR-2:

(a) The civil works associated with the underground distribution infrastructure are being performed and funded by the developer and are not included in NS Power's project scope. Consequently, NS Power does not have a detailed estimate for these developer-performed civil works.

(b) Confirmed.

(i) N/A.

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Request IR-3:

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

Response IR-3:

The System Impact Study does not identify a specific date by which conversion to 25 kV will be required. The study assumes that the Seton Ridge development will be built out over a period of 10 years, with approximately 6 MVA of load added within the first five years. Under the study assumptions, the initial 6 MVA of development load can be supplied by the existing 12.5 kV system, while any additional load growth would be supplied through future 25 kV facilities associated with the planned Suzie Lake Substation.

Accordingly, the timing of the 25 kV transition will depend on actual development uptake, load growth, and the implementation of the broader Rockingham area conversion strategy. The need for 25 kV infrastructure is therefore expected to increase as development progresses beyond the initial loading that can be accommodated by the existing 12.5 kV system.

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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.**

Response IR-4:

- (a) The proposed project cost of \$3,656,609 represents the estimated cost of NS Power-owned electrical infrastructure required to serve the Seton Ridge development and includes materials, labour, contracts, engineering, overheads, and contingency. The estimate includes:**
- Primary underground conductors and associated underground electrical accessories;
 - Secondary underground conductors and associated accessories;
 - Switching equipment, including three-way and four-way switches;
 - Padmounted transformer installations;
 - Contractor services (i.e. traffic control provider);
 - Electrical construction labour;

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- Engineering and project support costs;
- Travel, overheads, and administrative costs; and
- A contingency allowance of 10%.

The estimate does not include developer-funded civil works, including trenching, ductbank installation, concrete encasement, manhole construction, and surface restoration. These activities are being completed and funded by the developer as part of the development project. The estimate also excludes any developer-specific enhancements or special design requirements beyond the standard NS Power distribution infrastructure required to serve the development.

- (b) The proposed underground distribution system includes approximately 1,750 m of three-phase underground distribution infrastructure and 1,350 m of single-phase underground distribution infrastructure, for a total installed distribution length of approximately 3.1 km.

Based on the project estimate of \$3,656,609, the estimated underground cost is approximately \$1.18 million per kilometre.

A comparable detailed overhead design and estimate were not developed during project planning because, as described in the application, the approved development layout and long-term servicing requirements did not support a scalable overhead servicing approach. Accordingly, a detailed overhead design was not prepared.

However, to provide a planning-level comparison for the purposes of these Information Requests, NS Power prepared a Class 4 estimate for a conceptual overhead alternative based on standard overhead construction practices and equivalent distribution system lengths. Please refer to IR-10(a) for additional details regarding the planning-level overhead estimate and associated assumptions.

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- 1 (c) The estimated project cost of \$3,656,609 represents the full estimated cost of the
2 underground electrical infrastructure included within the scope of this application.
3
4 (d) N/A.

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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.

Response IR-5:

(a)

(i) NS Power has not conducted a detailed lifecycle cost or economic comparison between the proposed underground distribution system and an equivalent overhead alternative for the Seton Ridge development.

During project development, the underground solution was advanced as the servicing approach based on the approved development layout, anticipated future feeder expansion requirements, reliability considerations, and long-term

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1 distribution system planning objectives. As a result, a detailed overhead design was
2 not developed, and a corresponding lifecycle cost assessment was not prepared.

3
4 In general, as discussed in IR-6, underground distribution systems typically involve
5 higher initial capital costs than comparable overhead systems and can result in
6 higher repair and replacement costs due to excavation and restoration requirements.
7 Conversely, underground systems generally reduce exposure to vegetation-related
8 outages, weather-related events, and associated vegetation management and storm
9 response activities. The relative lifecycle costs of underground and overhead
10 systems depend on the specific project configuration, site conditions, operating
11 environment, and long-term system requirements.

12
13 (ii) A detailed overhead design and estimate were not developed for the Seton Ridge
14 project. As discussed in response to IR-10(a), a planning-level Class 4 estimate was
15 prepared for a conceptual overhead alternative using equivalent routing
16 assumptions and standard overhead construction practices. Please refer to IR-10(a)
17 for the overhead estimate and associated assumptions.

18
19 (iii) An Economic Analysis Model (EAM) or equivalent economic analysis has not been
20 prepared. Please refer to parts (i) and (ii) above, IR-4 and IR-10(a).

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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.**

Response IR-6:

(a) (i) While it is not possible to fully quantify the specific reliability impacts between both options, underground infrastructure is less susceptible to outages caused by vegetation contact, high winds, and vehicle impacts. All else being equal, underground systems such as that planned for Seton Ridge generally experience fewer interruption events and are less vulnerable to external environmental conditions.

However, when outages do occur on underground systems, fault location, access, and repairs can be more complex and time-consuming than for comparable overhead facilities. As a result, underground systems may experience longer restoration times for certain failure types, even though the frequency of outage events is generally lower than for overhead systems.

Accordingly, the reliability benefits of underground infrastructure are typically associated with reduced outage frequency and reduced exposure to weather- and vegetation-related interruptions, while repair and restoration activities can be more complex than those associated with overhead systems.

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1 (ii) Both underground and overhead distribution systems are designed, constructed,
2 operated, and maintained in accordance with applicable safety standards and are
3 considered safe means of providing electrical service.

4
5 The proposed underground configuration provides several safety benefits relative
6 to an overhead alternative. Underground infrastructure eliminates the presence of
7 exposed conductors within the development and reduces the risk of accidental
8 contact by the public, vehicles, and construction equipment. It also eliminates the
9 potential for downed conductors within the development area resulting from severe
10 weather events or vehicle impacts.

11
12 (iii) Relative to an overhead alternative, the underground system is expected to reduce
13 certain operating costs associated with vegetation management, and storm response
14 activities. The elimination of poles, overhead conductors, and associated rights-of-
15 way reduces the need for ongoing vegetation maintenance and decreases exposure
16 to weather-related damage.

17
18 While underground systems can require more specialized repairs when faults occur,
19 the expected reduction in vegetation management and weather-related maintenance
20 activities provides operational benefits over the life of the asset.

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Request IR-7:

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

Response IR-7:

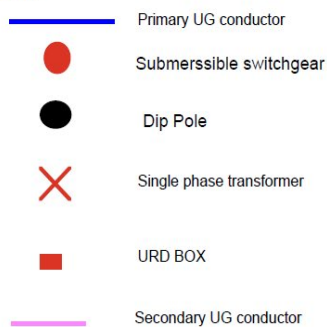
Project-specific rate impacts are not calculated for individual projects; instead, aggregate revenue requirements are addressed through General Rate Applications (GRA).

NS Power has previously provided estimated revenue requirement impacts (not class-specific rates or bill impacts) associated with planned capital expenditures in ACE Plan proceedings. However, the Board has previously questioned the usefulness of such estimates, noting in its 2022 ACE Plan Decision that, given the uncertainties and lack of consensus on inputs, “the information does not appear to be useful.”

NS Power agrees with the Board’s assessment. Due to the significant volume of inputs and the uncertainties of the various inputs that may impact the determination of revenue requirement and subsequently the potential rate impacts, NS Power believes GRAs are the more appropriate venue to consider rate impacts.

Please refer to the figure below for a map of the proposed Seton Ridge distribution system.

LEGEND



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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.**

Response IR-9:

- (a) The proposed underground distribution system will initially operate at 12.5 kV to meet the immediate service requirements of the Seton Ridge development. However, the system is being designed and constructed to accommodate an anticipated future transition to 25 kV operation and the associated long-term capacity requirements identified through system planning studies.**

Consistent with NS Power's long-term distribution planning for the Rockingham area and underground construction standards, the infrastructure includes a standard 3x3 ductbank configuration with spare duct capacity to support future feeder installations and system expansion.

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1 As identified in the Seton Ridge Load Impact Study, the development is expected to reach
2 an ultimate load of approximately 12 MVA, with the initial portion of the load supplied
3 from the existing 12.5 kV system and future load growth supplied through 25 kV
4 infrastructure associated with the broader area conversion strategy. The proposed
5 underground infrastructure is therefore intended to support both the immediate 12.5 kV
6 service requirements and the future 25 kV voltage and capacity requirements of the area.

7
8 As noted in response to IR-1(b), no material incremental project costs have been identified
9 solely to accommodate future development or future conversion requirements. The 3x3
10 ductbank configuration represents NS Power's standard design requirement for primary
11 underground distribution systems and would have been installed regardless of future
12 development plans in adjacent areas. While the system will initially be energized and
13 operated at 12.5 kV, the infrastructure is being installed in a manner that minimizes future
14 reconstruction requirements when the area transitions to 25 kV operation.

15
16 (b) The proposed underground system is currently being constructed to accommodate future
17 25 kV voltage and capacity requirements while initially operating at 12.5 kV. As described
18 in response to part (a), the underground infrastructure is being designed and installed in a
19 manner that supports the planned long-term transition of the Rockingham area from 12.5
20 kV to 25 kV operation.

21
22 (c) For the Seton Ridge development, the proposed underground distribution infrastructure is
23 designed to accommodate the future transition from 12.5 kV to 25 kV operation without
24 the need to replace or upgrade equipment in the future. As a result, the future conversion
25 is not expected to require replacement of the underground civil infrastructure, including
26 the ductbank system and associated underground pathways, or replacement of any
27 electrical infrastructure such as conductors, switchgears, etc.

28
29 (d) For an overhead distribution system, NS Power's standard practice is to design and
30 construct new distribution facilities using equipment that is generally compatible with

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1 future 25 kV operation, even when initially energized at lower voltages. As a result, a new
2 overhead system serving the development would not be expected to require significant
3 infrastructure replacement as part of a future 12.5 kV to 25 kV conversion.

4
5 However, whether a system is operated at 12.5 kV or 25 kV depends on the characteristics
6 and operating configuration of the broader distribution system to which it is connected.
7 The Seton Ridge development will initially be supplied from the existing 12.5 kV
8 distribution system serving the area. Accordingly, both the proposed underground system
9 and a hypothetical overhead alternative would initially operate at 12.5 kV until the broader
10 area conversion to 25 kV is implemented. Consequently, NS Power has not identified any
11 material conversion-related infrastructure costs associated with either option.

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1 **Request IR-10:**

2
3 **Board staff notes that Section 2.11 of NS Power’s Regulations state the following:**

4
5 **2.11 UNDERGROUND ELECTRIC SERVICES**

6
7 **Distribution Systems - The Company may supply, install, maintain and own**
8 **underground distribution systems. A party requesting the installation of an**
9 **underground distribution system will be required to make a capital**
10 **contribution to the Company, equivalent to the difference in cost between the**
11 **underground system installed and overhead distribution facilities it would**
12 **otherwise provide.**

13
14 **Conversion of Existing Overhead Distribution Systems To Underground - A**
15 **party requesting the conversion of an existing overhead system to**
16 **underground shall be required to make a capital contribution to the cost of the**
17 **conversion.**

18
19 **Secondary Services - The Company is not required to install underground**
20 **secondary voltage services; however, in the event the Company installs an**
21 **underground distribution system, consideration will be given towards the**
22 **supply and installation of such electric services by the Company, at the**
23 **customer's expense. The customer will be responsible for ownership,**
24 **maintenance and replacement when necessary, except that in special**
25 **circumstances such as may be encountered in a total underground urban**
26 **system, it may be practical for the Company to own and maintain the total**
27 **system including the secondary services. In the case of an individual**
28 **underground residential service from a normal overhead system; the**
29 **Company will allow the customer credit for the equivalent cost of an overhead**
30 **service it would otherwise provide.**

31
32 **Primary Services - The Company will normally own the primary voltage cable**
33 **in a customer-owned duct system. In the event that a primary service must be**
34 **replaced, extended or repaired, the customer is responsible for any and all**
35 **costs associated with the duct system. In this event, the Company will maintain**
36 **service by temporary means but if it is deemed that service interruption results**
37 **from failure of the duct system, such as might be caused by excavation in the**
38 **area of the duct system, the customer will be responsible for temporary service**
39 **costs as well as all costs associated with repairs to the service.**

40
41 **Replacement of Existing Systems - The Company will be responsible for costs**
42 **associated with the best (generally lowest cost) supply option should an**

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1 underground system (or any part thereof) have to be replaced. Where this
2 option is another underground system the existing system would be replaced
3 in kind. However, should the best option be overhead supply, and the customer
4 wishes to continue to be served with underground service, the customer(s) will
5 be required to make a new capital contribution, equivalent in cost to the
6 difference between the overhead supply and the underground system.
7

8 (a) Please provide a breakdown of the estimated cost to complete the proposed project
9 assuming it is constructed using overhead distribution facilities. Please provide the
10 breakdown in the same format, and using the same line items, as the “Capital Project
11 Detailed Estimate” on pdf pg. 6 of the application.
12

13 (b) Please confirm that the proposed underground system will include secondary
14 services.
15

16 (i) If confirmed:
17

18 (A) Please confirm that the developer/customer will be responsible for the
19 capital costs associated with this system.
20

21 (I) If confirmed:
22

23 (1) Please provide a breakdown of the estimated cost to
24 complete this work.
25

26 (2) Please confirm that no related costs are included in the
27 project cost for which NS Power currently seeks Board
28 approval.
29

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1 **(II) If not confirmed, please explain.**

2
3 **(1) Will the developer/customer or NS Power be the owner**
4 **responsible for maintenance and replacement when**
5 **necessary? Please explain.**

6
7 **(c) Please confirm that if a primary underground service associated with this project**
8 **must be replaced, extended or repaired at some point in the future, the**
9 **developer/customer will be responsible for all costs associated with the duct system.**

10
11 **(i) If not confirmed, please explain.**

12
13 Response IR-10:

14
15 **(a)** As stated in the application, and outlined in responses to IR-4(b), and IR-5(ii), a detailed
16 overhead design was not developed for the Seton Ridge project because the approved
17 development layout and long-term servicing requirements did not support a scalable
18 overhead servicing approach. Accordingly, a detailed overhead estimate was not prepared
19 during project planning. To be responsive to the Board's Information Requests, a planning-
20 level Class 4 estimate was subsequently prepared for a conceptual overhead alternative
21 using equivalent routing assumptions and standard overhead construction practices.

22
23 The planning-level overhead estimate assumes approximately:

- 24 • 1,750 m of three-phase overhead distribution infrastructure; and
- 25 • 1,350 m of single-phase overhead distribution infrastructure.

26
27 Based on these assumptions, the estimated cost of the overhead alternative is approximately
28 \$622,000, excluding contingency.

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1 Given the conceptual nature of the overhead alternative, a detailed estimate using the same
2 level of project definition and estimate maturity as the “Capital Project Detailed Estimate”
3 included in the application is not available. The overhead estimate should therefore be
4 considered a Class 4 planning-level estimate intended for comparative purposes only.
5 Consistent with the expected accuracy range of a Class 4 estimate, the overhead alternative
6 is estimated to range between approximately \$0.4 million and \$0.9 million.

7
8 A detailed overhead estimate would require development of a complete overhead
9 distribution design, including pole locations, guying and anchoring requirements,
10 conductor routing, transformer locations, switching arrangements, easements, and detailed
11 construction quantities.

12
13 (b) Yes, the proposed underground distribution system will include secondary services. These
14 secondary facilities will extend from the pad-mounted transformers to the Underground
15 Residential Distribution (URD) connection points serving the development.

16
17 (i) (A) Not confirmed.

18
19 (I) N/A.

20
21 (II) The secondary service infrastructure extending from the
22 pad-mounted transformers to the URD connection points
23 forms part of the NS Power-owned distribution system.
24 Accordingly, the capital costs associated with these facilities
25 are included in the NS Power project estimate. The
26 developer/customer remains responsible for customer-
27 owned infrastructure beyond the point of change of
28 ownership.

29 (1) NS Power will be the owner responsible for the
30 maintenance, repair, replacement, and renewal of the

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1 secondary service infrastructure extending from the
2 pad-mounted transformers to the URD connection
3 points. These facilities form part of the NS Power-
4 owned distribution system and will be maintained in
5 accordance with NS Power's standard operating and
6 asset management practice.

7
8 (c) Not confirmed.

9
10 (i) Responsibility for future maintenance, repairs, extensions, and replacements
11 depends on the location of the infrastructure relative to the point of change of
12 ownership. NS Power is responsible for the operation, maintenance, repair,
13 replacement, and extension of NS Power-owned primary underground distribution
14 infrastructure located within the public right-of-way and forming part of the utility's
15 distribution system. The customer is responsible for the operation, maintenance,
16 repair, replacement, and extension of customer-owned infrastructure located
17 beyond the point of change of ownership, including facilities extending from the
18 point of change of ownership to the customer's property line and beyond, as
19 applicable.

20
21 Accordingly, if a primary service must be replaced, extended or repaired,
22 responsibility for costs would depend on ownership of the infrastructure and its
23 location relative to the point of change of ownership.

24
25 For example, in the Seton Ridge concept, the Underground Residential Distribution
26 (URD) units represent the point of change of ownership. Under this arrangement,
27 responsibility for maintenance, repair, replacement, or extension of infrastructure
28 would be determined based on which side of the URD the work occurs.
29 Infrastructure on the NS Power-owned side of the URD would be the responsibility
30 of NS Power, while infrastructure beyond the URD on the customer-owned side

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1 would be the responsibility of the customer, as set out in section 13.4(7) of NS
2 Power's Utility Service Requirements.

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Request IR-11:

Pdf pg. 4 of the application states:

To support this level of growth and ensure reliable long-term service, the proposed underground installation provides a scalable and resilient solution. It enables future feeder expansion for additional load growth expected in nearby areas including Suzie Lake, Bedford, and Lacewood,

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

Response IR-11:

- (a) The proposed underground system was selected because it provides a practical, scalable, and resilient long-term solution that is compatible with both the approved development layout and the anticipated future growth requirements of the area. While an overhead system can provide some distribution capacity in the near term, the physical constraints of the site do not support long-term overhead scalability within the approved Seton Ridge development.

Seton Ridge is a high-density urban infill development with an HRM-approved layout that includes new roads, sidewalks, multi-use pathways, and closely spaced buildings. These design constraints significantly limit the available space for overhead distribution infrastructure and restrict the ability to accommodate future feeder additions and system expansion within the development as load grows. For example, the planned evolution from a single-feeder configuration to a dual-feeder configuration would require additional overhead infrastructure, but the approved development layout leaves insufficient space within the road and utility corridors to accommodate it.

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1 The proposed underground design includes a 3x3 ductbank configuration with spare
2 capacity that is not restricted by the same physical constraints and can accommodate future
3 feeder installations as load growth occurs in Seton Ridge and surrounding areas without
4 significant disruption to residents and other infrastructure.

5
6 In contrast, accommodating future feeder additions using an overhead configuration would
7 require the availability of suitable overhead corridors, additional structures, additional
8 anchoring and associated clearances within a fully developed urban environment. Given
9 the approved development layout and anticipated future growth requirements, an overhead
10 solution is not considered viable in the long term.

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Request IR-12:

Pdf pg. 4 of the application states:

The Seton Ridge development is a unique urban in-fill project with an HRM approved layout that establishes a highly constrained build form that includes new roads, sidewalks, multi use paths, and tight building sitings and setbacks. These urban design requirements significantly restrict where a permanent overhead line could be placed. As a result of these constraints, a scalable overhead construction model is not feasible based on the approved layout and future projected loads. Accordingly, an underground infrastructure is required to support long term load growth and the planned transition to 25 kV operation.

- (a) Please provide a copy of NS Power’s detailed analysis to show that a scalable overhead construction model is not feasible for the development based on the approved layout and future projected loads.**
- (b) Please explain whether Halifax Regional Municipality (HRM) consulted NS Power regarding utility servicing requirements before approving the development plan and layout for Seton Ridge.**
- (c) Please describe the general process for coordinating electrical service requirements for HRM development projects, including NS Power’s role in reviewing, advising on, or approving utility servicing arrangements.**
- (d) Please explain whether HRM planners and the developer were aware that NS Power’s projects may require Board approval, and that the Board could approve, reject, or direct changes to the proposed project.**
- (e) If the Board does not approve the underground system, please explain how NS Power would provide electrical service to the Seton Ridge development.**

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- 1 **(f) Please describe the feasible alternative service options.**
2
- 3 **(g) Please explain whether HRM requires, encourages or has agreements with NS Power**
4 **to provide underground service for Seton Ridge or any new subdivisions.**
5
- 6 **(i) If so, please provide the agreements between NS Power and HRM, and any**
7 **associated information, such as HRM bylaws, policies, planning approvals,**
8 **development agreements, or council decisions for review.**
9
- 10 **(h) Please explain whether the underground infrastructure poses higher capital**
11 **investment, higher upgrade and replacement costs, and difficult of repair compared**
12 **with overhead infrastructure.**
13
- 14 **(i) If yes, please explain whether HRM planners, the developer, and any relevant**
15 **municipal decision-makers were informed of the issues, and possible rate**
16 **impacts.**
17
- 18 **(ii) If no, please explain why not.**
19
- 20 **(i) Please list and compare all related upgrades, equipment, civil works, and associated**
21 **costs required for the 12.5 kV to 25 kV conversion under both overhead and**
22 **underground options, including primary equipment, secondary equipment,**
23 **protection equipment, transformer, civil works, poles, duct banks, vaults, switching**
24 **equipment, any other labour and material costs.**
25

26 Response IR-12:
27

- 28 **(a) NS Power did not prepare a separate detailed overhead feasibility study for the Seton Ridge**
29 **development. The conclusion that a scalable overhead construction model would not**
30 **represent a feasible long-term solution was determined through engineering review of the**

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1 approved development layout, anticipated future load growth requirements, and the
2 distribution system planning requirements identified in the Seton Ridge Load Impact
3 Study.

4
5 Through engineering review conducted by NS Power and discussions with the developer's
6 consultant, it was determined that accommodating a scalable overhead distribution
7 configuration within the approved development layout would present significant
8 constraints. These constraints included maintaining the required clearances between
9 overhead electrical infrastructure and adjacent buildings, preserving the approved
10 roadway, sidewalk, and multi-use pathway network, and providing sufficient corridor
11 space for future feeder expansion and the planned transition to 25 kV operation.

12
13 As described in response to IR-11(a), Seton Ridge is a high-density urban infill
14 development with an HRM-approved layout that includes new roads, sidewalks, multi-use
15 pathways, and closely spaced buildings. Based on NS Power's engineering review, these
16 constraints limit the ability to accommodate a scalable overhead distribution configuration
17 capable of supporting the long-term service requirements of the development.

18
19 Accordingly, and with the developer's commitment to undertake the civil works, NS Power
20 concluded that an underground solution represents the most practical long-term approach
21 for serving the development while preserving the approved urban layout, accommodating
22 future feeder expansion, and supporting the planned transition to 25 kV operation.

23
24 No separate detailed overhead design was developed following this review.

25
26 (b) HRM did not consult NS Power regarding utility servicing requirements prior to approving
27 the development plan and layout for Seton Ridge.

28
29 NS Power was not involved in the municipal approval process for the development layout
30 and did not have an approval role with respect to HRM's planning or land-use decisions.

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1 Electrical servicing requirements were evaluated separately through NS Power's normal
2 customer connection and system planning processes after details of the proposed
3 development became available to NS Power.

- 4
5 (c) For development projects within HRM, NS Power works directly with the developer and
6 the developer's consultants to review and design the electrical servicing arrangement based
7 on the projected electrical demand and the requirements of the distribution system.

8
9 The electrical servicing requirements are developed through an iterative process that
10 typically includes load forecasting, system impact assessments, engineering reviews,
11 servicing discussions, and coordination with the developer's design team. This process may
12 involve multiple reviews and consultations as the development design evolves.

13
14 NS Power's role is to determine the electrical infrastructure required to safely and reliably
15 serve the proposed development and to identify the associated distribution system
16 requirements. NS Power does not approve municipal development layouts and does not
17 direct developers to select either overhead or underground servicing as part of the
18 municipal planning process. Rather, NS Power evaluates the development as proposed and
19 determines the appropriate electrical servicing solution based on the specific characteristics
20 of the development, system requirements, and long-term planning considerations.

- 21
22 (d) NS Power advised the developer that the proposed project would require NSEB approval
23 and that implementation of the project would be dependent upon the outcome of the Board's
24 review and decision.

25
26 NS Power communicated to the developer that the Board has the authority to approve,
27 reject, or direct modifications to the proposed project as part of its review process.

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1 NS Power did not coordinate or communicate with HRM planners regarding the Board
2 approval requirements associated with this project. Any discussions regarding the
3 requirement for Board approval were between NS Power and the developer.

4
5 (e) If the Board does not approve the proposed underground system, NS Power would review
6 the Board's decision and supporting rationale and assess the implications for serving the
7 Seton Ridge development.

8
9 (f) NS Power does not consider an alternative servicing option to be feasible for the Seton
10 Ridge development.

11
12 As described in the application and in response to IR-11(a) and IR-12(a), NS Power
13 determined through engineering review that the approved HRM development layout does
14 not accommodate a scalable overhead distribution configuration capable of supporting the
15 long-term service requirements of the development. The approved layout includes new
16 roads, sidewalks, multi-use pathways, closely spaced buildings, and constrained utility
17 corridors, which limit the ability to accommodate overhead infrastructure while also
18 providing capacity for future feeder expansion and the planned transition from 12.5 kV to
19 25 kV operation.

20
21 Accordingly, NS Power concluded that an underground servicing approach represented the
22 most practical long-term solution for serving the development while preserving the
23 approved urban layout and supporting future distribution system requirements.

24
25 In addition, the proposed underground servicing arrangement has now been incorporated
26 into the development design and construction planning, and the developer has advanced
27 the associated civil infrastructure required to support the electrical distribution system. As
28 a result, implementation of an alternative servicing approach at this stage would require
29 significant redesign and re-evaluation of both the development and electrical servicing
30 plans.

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1
2 (g) NS Power is not aware of any requirement, agreement, or arrangement under which HRM
3 requires or directs NS Power to provide underground electrical service for the Seton Ridge
4 development or for new subdivisions generally.

5
6 (i) While NS Power is not aware of any agreement between HRM and NS Power
7 requiring underground electrical service for the Seton Ridge development, HRM's
8 Regional Subdivision by-law includes requirements applicable to new subdivision
9 development within Urban Service Areas.

10
11 Specifically, Section 30A of the Regional Subdivision by-law¹ requires that, where
12 a public street is constructed within an Urban Service Area, electrical power and
13 telecommunication wires be installed underground from the utility pole within the
14 street right-of-way to the individual properties in accordance with utility company
15 requirements.

16
17 This requirement is established through HRM's subdivision approval framework
18 and is not the result of an agreement between HRM and NS Power. NS Power did
19 not enter into an agreement with HRM requiring underground service for Seton
20 Ridge and is not aware of any HRM by-law, development agreement, or council
21 decision specifically directing NS Power to provide the distribution infrastructure
22 proposed in this application.

23
24 (h) In general, underground distribution infrastructure typically involves higher initial capital
25 costs than comparable overhead infrastructure. Underground systems can also result in
26 higher costs for certain upgrade, replacement, and repair activities due to the specialized
27 equipment, excavation, locating, and restoration work that may be required to access buried
28 facilities.

¹ <https://www.halifax.ca/media/94238>

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1
2 In contrast, overhead infrastructure is generally more accessible for inspection, repair,
3 modification, and replacement activities. However, overhead systems are typically more
4 exposed to external factors such as vegetation, vehicle impacts, and weather-related events,
5 which can lead to increased maintenance requirements and outage exposure.

6
7 The relative costs and operational considerations associated with overhead and
8 underground infrastructure depend on the specific project configuration, site conditions,
9 and system requirements. For the Seton Ridge development, the proposed underground
10 solution was selected based on the characteristics of the approved development layout and
11 the long-term distribution system requirements associated with serving the area and
12 accommodating future growth.

13
14 (i) The developer was informed that underground distribution infrastructure generally
15 involves higher capital costs than comparable overhead infrastructure.

16
17 Throughout the servicing discussions for the development, NS Power and the
18 developer worked collaboratively to evaluate the electrical servicing requirements
19 and associated infrastructure needs. As part of those discussions, the developer was
20 aware that underground servicing typically requires a higher initial capital
21 investment than overhead construction.

22
23 NS Power did not communicate potential rate impacts associated with this project
24 to HRM planners or municipal decision-makers. Any discussions regarding the
25 proposed electrical servicing arrangement, associated costs, and the requirement
26 for Board approval were conducted between NS Power and the developer.

27
28 (ii) N/A.
29

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1 (i) The underground infrastructure associated with this project is being designed and
2 constructed to accommodate both 12.5 kV and future 25 kV operation. Accordingly, the
3 major distribution equipment installed as part of the project is expected to be compatible
4 with future 25 kV operation, eliminating or significantly reducing the need for any future
5 replacement of the installed infrastructure as part of the voltage conversion.

6
7 Equipment installed as part of the project includes:

- 8
- 9 • Primary underground conductors;
 - 10 • Secondary underground conductors;
 - 11 • Pad-mounted transformers designed to support future 25 kV conversion
 - 12 requirements;
 - 13 • Underground switching equipment;
 - 14 • Associated terminations, splices, and electrical accessories; and
 - 15 • Ductbank infrastructure and underground cable pathways.
- 16

17 As the underground equipment is being selected with future 25 kV operation in mind, NS
18 Power does not currently anticipate the need for wholesale replacement of the underground
19 distribution infrastructure as part of the future 12.5 kV to 25 kV conversion. Accordingly,
20 a detailed comparison of future upgrade and replacement costs for primary equipment,
21 secondary equipment, protection equipment, transformers, ductbanks, vaults, switching
22 equipment, labour, and materials was not prepared.

23
24 As described in response to IR-4, a detailed overhead design was not developed for the
25 Seton Ridge development. Consequently, NS Power has not prepared a detailed assessment
26 of the future equipment replacement or upgrade costs that would be associated with an
27 equivalent overhead alternative as part of a future 12.5 kV to 25 kV conversion.

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1 **Request IR-13:**

2
3 **Pdf pg. 3 of the application states:**

4
5 **The developer will complete all required civil work, including trenching, duct**
6 **bank installation, concrete encasement, and surface restoration.**
7

8 **Pdf pg. 5 of the application states:**

9
10 **Risks intended to be covered by the contingency include uncertainties in**
11 **subsurface conditions, potential adjustments to duct bank configuration based**
12 **on field findings, material and labour quantity variations, minor refinements**
13 **during construction, and schedule coordination risks associated with**
14 **developer led civil work.**
15

16 **As such, the risks noted on pdf pg. 5 appear to be risks that are attributable to and the**
17 **responsibility of the developer. Therefore, please explain specifically why NS Power requires**
18 **a 10% contingency related to these risks.**
19

20 **Response IR-13:**

21
22 **The contingency allowance is not intended to cover costs incurred by the developer in performing**
23 **the civil works associated with the project. Rather, the contingency reflects uncertainties that may**
24 **affect the scope, quantities, schedule, and installation of the NS Power-owned electrical**
25 **infrastructure included in the project estimate.**
26

27 **While the developer is responsible for all costs, including overruns related to trenching, ductbank**
28 **installation, concrete encasement, and surface restoration, NS Power's work remains dependent on**
29 **the final civil installation and field conditions encountered during construction.**
30

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1 Examples include:

- 2
- 3 • Subsurface conditions: Unexpected field conditions may require modifications to cable
4 routing, pulling configurations, termination locations, or installation methods associated
5 with NS Power-owned equipment. These changes may affect labour, materials, and
6 construction activities within NS Power's scope.
7
 - 8 • Adjustments to ductbank configuration: If field conditions require changes to the final
9 ductbank arrangement, NS Power may need to revise cable installation plans, conductor
10 lengths, terminations, splicing requirements, or equipment locations associated with the
11 electrical infrastructure being installed.
12
 - 13 • Material and labour quantity variations: As with most Class 3 estimates, actual quantities
14 and installation requirements may vary from the estimate as detailed design is finalized and
15 construction proceeds.
16

17 The project was filed as a Class 3 estimate and the 10% contingency was established using
18 professional judgement from distribution engineering, project management, estimating, and
19 finance personnel, consistent with the project's estimate maturity and the remaining uncertainties
20 associated with execution. The contingency is intended to address potential impacts to the NS
21 Power scope of work and is not intended to fund costs that are the responsibility of the developer.

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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.

(c) Please explain whether NS Power was aware of the proposed underground development at the time the study was completed.

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1 **(d) If the underground requirement was not known at that time, please explain how the**
2 **project plan changed after the study.**

3
4 **(e) If NS Power was aware of the underground requirement at that time, please explain**
5 **why the study did not identify an underground section or underground construction**
6 **requirement.**

7
8 **(f) Please identify any findings or recommendations in the report that support the need**
9 **for underground construction to accommodate the 12.5 kV to 25 kV conversion and**
10 **future load growth.**

11
12 Response IR-14:

13
14 (a) Confirmed. While a formal refresh of the Seton Ridge Load Impact Study has not been
15 completed, System Planning has reviewed the study recommendations and continues to
16 consider the findings and recommended supply strategy to be valid.

17
18 (i) N/A.

19
20 (ii) (A) The study findings were reviewed during development of the Seton Ridge
21 capital project application. No formal study update was completed.

22
23 (B) The proposed system design reflects NS Power's current understanding of
24 area load growth and system development requirements.

25
26 (1) The most recent load and growth projections incorporated into
27 Planning's review were the 2026 planning forecasts used in
28 assessing current loading and future supply requirements for the
29 Rockingham area.

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- 1 (b) The feeder conversions and upgrades identified in the Seton Ridge Load Impact Study were
2 developed as system planning recommendations to accommodate forecast load growth and
3 support the future conversion of the Rockingham area from 12.5 kV to 25 kV operation.
4 The study does not specifically designate the proposed facilities as either overhead or
5 underground infrastructure and was not intended to be a detailed design document. Rather,
6 it identified the system modifications required to serve the forecast load and maintain long-
7 term system performance.
8
- 9 (i) Section 6.0 of the Load Impact Study does not specifically identify underground
10 structures or underground feeder sections associated with the proposed Seton Ridge
11 development. The study focuses on the system supply requirements, feeder
12 transfers, and future conversion strategy required to accommodate forecast load
13 growth and does not prescribe the physical distribution design within the
14 development.
15
- 16 (c) NS Power was aware of the proposed Seton Ridge development at the time the Load Impact
17 Study was completed and incorporated the forecast development load into its analysis.
18 However, the Load Impact Study was prepared to assess the distribution system impacts of
19 the development and identify the required system upgrades and was not intended to
20 establish the detailed servicing design for the development.
21
- 22 (d) At the time the Load Impact Study was completed, the detailed underground servicing
23 configuration reflected in this application had not been developed. Following completion
24 of the study, the developer advanced a development design based on an underground
25 servicing approach. As the project evolved, NS Power worked with the developer to review
26 the proposed servicing arrangement and develop a solution that would accommodate the
27 approved development layout, future feeder expansion requirements, long-term load
28 growth, and the planned transition to 25 kV operation.
29

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1 (e) The Load Impact Study was prepared to assess the impact of the forecast Seton Ridge load
2 on NS Power's distribution system and identify the system upgrades necessary to
3 accommodate future load growth and support the planned transition from 12.5 kV to 25
4 kV operation. The study was not intended to establish the detailed servicing configuration
5 within the development or prescribe whether facilities would be constructed overhead or
6 underground.

7
8 Accordingly, the study focused on system requirements, capacity needs, feeder
9 requirements, and long-term planning considerations rather than a specific distribution
10 design. As a result, the study did not identify a specific underground section or
11 underground construction requirement.

12
13 (f) The Load Impact Study does not specifically recommend underground construction as the
14 required solution for serving the Seton Ridge development. The purpose of the study was
15 to identify the system upgrades required to accommodate forecast load growth and support
16 the long-term conversion of the Rockingham area from 12.5 kV to 25 kV operation.

17
18 However, the study identifies several planning considerations that support the
19 infrastructure approach proposed in this application, including:

- 20
21 • The development is forecast to add approximately 12 MVA of load to the area.
22 • The initial phases of development can be supplied from the existing 12.5 kV
23 system, while subsequent load growth will require supply from future 25 kV
24 infrastructure.
25 • The Rockingham area is undergoing a planned transition from 12.5 kV to 25 kV
26 operation.
27 • Additional feeder capacity and future feeder expansion will be required to
28 accommodate long-term area load growth.
29

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1 As the project developed, NS Power determined that a radial supply arrangement would
2 create a significant concentration of load on a single feeder and expose a large number of
3 customers to a single point of failure. To improve long-term reliability and operational
4 flexibility, the proposed design accommodates future feeder access and looped distribution
5 system configurations.

6
7 The underground ductbank configuration allows multiple feeder pathways to be established
8 within the development and supports future integration with planned area infrastructure,
9 including future supply arrangements associated with the Suzie Lake Substation and the
10 broader Rockingham 12.5 kV to 25 kV conversion strategy. This provides additional
11 flexibility for future load transfers, feeder expansion, and system reconfiguration as growth
12 occurs.

13
14 Accordingly, while the Load Impact Study did not specifically identify underground
15 construction as a required solution, the proposed underground infrastructure was developed
16 to support the long-term planning objectives identified in the study, including future load
17 growth accommodation, reliability objectives, future feeder expansion, and the planned
18 transition to 25 kV operation.

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Request IR-15:

(a) Please provide SAIFI and SAIDI information from 2020 to 2026 for the related feeders and the proposed work area.

(b) Please evaluate the reliability performance against NS Power's applicable performance requirements or standards.

Response IR-15:

(a) Since the Seton Ridge Development is net-new construction, no previous performance data is available for the specific work area. For the existing feeders that will connect the new development, historic performance standards CKAIFI and CKAIDI (the more appropriate equivalents for circuit-level performance CKAIFI and CKAIDI are substituted for system-level SAIFI and SAIDI) are provided in the tables below:

CKAIFI	2020	2021	2022	2023	2024	2025	2026 YTD
23H-302	1.08	1.07	3.12	2.03	1.12	0.09	0.09
23H-303	0.45	3.22	2.03	1.07	0.03	0.11	0.18

CKAIDI	2020	2021	2022	2023	2024	2025	2026 YTD
23H-302	3.30	7.61	4.04	11.58	2.43	0.27	0.20
23H-303	1.33	2.02	0.38	11.18	0.10	0.21	0.38

(b) Over the period 2020-2026, neither of the two feeders related to the Seton Ridge Development have been considered performance feeders or potential performance feeders. The feeders have consistently been outside the worst 5% of feeders for CKAIFI or CKAIDI performance in each of these years.

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Request IR-16:

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

(a) Please explain the status of substation constructure and the load transfer.

(b) Please explain whether the conversion of 12.5 kV to 25 kV is preplanned regardless of the construction of Seton Ridge Development

(c) Please provide a table to describe the timeline of the conversion of 12.5 kV to 25 kV and explain whether it involves the whole 23H substation or only selected feeders of the substation.

(d) As the conversion performed through several phases, please provide a table to summarize and indicate the timeline of the conversion and associated feeder and length of the feeder.

Response IR-16:

(a) The Susie Lake (SL) Substation has not yet been constructed. Since completion of the Load Impact Study, NS Power has experienced challenges in securing a suitable site for the substation. As a result, the project has been delayed and the current target in-service date is 2028.

As the Susie Lake Substation is not yet in service, the load transfers contemplated in the Load Impact Study have not been completed. In the interim, conversion work completed elsewhere in the system has helped mitigate load growth impacts on the 23H-Rockingham station.

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- 1
- 2 (b) The 23H-Rockingham conversion from 12.5kV to 25kV is part of the long term system
- 3 plan for this area and would be required regardless of the Seton Ridge development.
- 4 However, implementation of this conversion is dependent on the availability of capacity
- 5 from the planned 25 kV Susie Lake substation, as adjacent substations have limited
- 6 capability to support the full transfer of load from the 23H-Rockingham service area. This
- 7 constraint arises because the 23H-Rockingham system currently operates as an electrically
- 8 isolated (islanded) 12.5 kV network, limiting its ability to be fully offloaded without
- 9 additional 25 kV supply infrastructure. Completion of the conversion will enhance system
- 10 interconnectivity and enable improved load transfer capability between surrounding
- 11 substations.
- 12
- 13 (c-d) No defined conversion timeline is currently available, as implementation is dependent on
- 14 the establishment of an additional supply source from Susie Lake substation capable of
- 15 providing sufficient capacity to support feeder conversion activities for the 23H-
- 16 Rockingham distribution feeders.

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Request IR-17:

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

(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.

Response IR-17:

(a) Confirmed. NS Power Regulations 2.6 and 2.12 apply to customer line extensions and service extensions associated with overhead distribution facilities.

(i) Regulation 2.11 – Underground Electric Services discusses cost responsibility for underground distribution systems. As discussed in IR-14, the Seton Ridge Load Impact Study was prepared to assess the distribution system impacts of the development and identify the required system upgrades. The study was not intended to establish the detailed servicing design for the development. Accordingly, references to Regulations 2.6 and 2.12 in the study should not be interpreted as determining the applicable servicing requirements. NS Power confirms that the Board-approved Regulations applicable to the servicing arrangement selected for the development will govern the project in practice.

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1 (ii) If an overhead distribution system were constructed to serve the Seton Ridge
2 development, the developer would be responsible for the upfront costs associated
3 with the overhead line extension required to serve the development.
4

5 Under NS Power's standard line extension practices, the developer is eligible for
6 rebates as customers connect within the development for up to 10 years. The total
7 rebate amount is determined based on the equivalent overhead line extension
8 required to serve the development (minus 10% administration fee). Each rebate is
9 calculated using 46 meters times the cost per-meter of the total eligible rebate.
10 Rebates are applied as customers are connected and may continue until the
11 applicable rebate limit is reached or 10 years since the original installation date.
12

13 In general:
14

- 15 • The developer would be responsible for the upfront costs associated with
16 constructing the overhead distribution extension required to serve the
17 development;
- 18 • NS Power would be responsible for the design, installation, ownership,
19 operation, and maintenance of the resulting NS Power-owned distribution
20 facilities;
- 21 • Individual customers connecting within the development would remain
22 eligible for the applicable line extension allowances in accordance with NS
23 Power's requirements; and
- 24 • Total rebates available to the developer would be limited to total overhead
25 line cost (minus 10% administration fee) and 10 years from the original
26 installation date.
27

28 The final amount of rebates to the developer would depend on the number and
29 timing of customer connections, and would be subject to the NS Power Regulations,
30 as amended from time to time.

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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.

Response IR-18:

(a) The network upgrades identified in the study relate to the broader system modifications required to support future growth driven by Seton Ridge development and the long-term transition of the Rockingham area from 12.5 kV to 25 kV operation. The proposed Seton Ridge underground project is not the specific network upgrade project identified in the Load Impact Study.

However, the proposed underground infrastructure was developed in consideration of those broader system requirements and is intended to support the long-term distribution strategy for the area. The project provides the electrical infrastructure required to serve the Seton Ridge development while also accommodating future feeder access, future load growth, and the planned evolution of the surrounding distribution system.

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1 Accordingly, while the project is not itself the network upgrade program described in the
2 Load Impact Study, it was designed to be consistent with, and supportive of the broader
3 system upgrades and long-term planning objectives identified in the study
4

5 (i) In line with NS Power's normal approach to system growth and development, NS
6 Power is responsible for the costs associated with network upgrades required to
7 accommodate broader system growth and the long-term conversion strategy, and
8 the planned transition of the Rockingham area from 12.5 kV to 25 kV operation.
9

10 The Seton Ridge development is being constructed as a multi-phase project that is
11 expected to develop over a number of years and aligns with anticipated system
12 growth in the area. Accordingly, NS Power does not anticipate recovering future
13 network upgrade costs from the developer or HRM. Future network upgrades will
14 be evaluated and advanced as required through NS Power's normal planning and
15 capital project processes.