

REDACTED

Request IR-1:

Page 1 of the application states “As part of the QEII Halifax Infirmary Expansion Project (QEII project), a 600-meter underground extension of 3 phase 25kV primary along Robie St in Halifax is required, involving significant civil construction and interruption on Robie St.”

(a) Why can’t this expansion project load be served by overhead (OH) lines?

(b) Please confirm the specific purpose of the new 600 m ductbank on Robie St., exclusive of the inclusion of the second 3 phase 25kV supply in the same ductwork.

(i) Please explain why this work (exclusive of the inclusion of the second 3 phase 25kV supply in the same ductwork) was not paid for entirely by the QEII project.

(c) Please explain why this project does not fall under the 1977 Underground Wiring Policy (Pole-Free Policy).

(d) Please provide a breakdown of the cost-sharing arrangement between QEII and NS Power.

(e) Please provide the existing distribution electrical system schematic supplying the QEII Halifax Infirmary.

(f) Please provide the proposed distribution electrical system schematic, including duct banks and cable lengths, for the QEII Halifax Infirmary expansion.

(g) Please provide a proposed underground circuit layout configuration for this project.

(h) Will any of the existing overhead distribution lines be removed as part of this expansion project?

- (i) If yes, please provide a removal drawing, along with the cost of removal and the value of the asset being removed.**
- (ii) Who will be responsible for the removal costs?**
- (iii) Are these costs included in the amount requested for Board approval?**

(a) An overhead option was evaluated for this area but was deemed infeasible due to significant physical construction challenges with the existing roadway. Additionally, the required easements were considered either highly unlikely to obtain or known to be unobtainable. Robie Street is a very congested urban area, and given these constraints, an underground solution was required regardless of NS Power's interest in increasing the capacity and pursuing a joint project. Please refer to IR-9 for more information on the overhead option that was assessed.

(b) The new ductbank will be used to introduce three new feeders into the downtown area - two supplying the QEII Redevelopment and a third extending an additional circuit from NS Power's 104H Kempt Road Substation to provide capacity for load growth along the Robie Street corridor. This circuit allows for future expansion along Robie Street and improves reliability ties to circuits located in the South End, including feeders from NS Power's 1H Lower Water Street Substation and the 2H Armdale Substation. The ductbank is designed to allow for future expansion where necessary as well as accommodate enough capacity to support densification on the Robie Street corridor.

(i) The QEII is fully responsible for all required overhead line extensions outside of Robie Street and all electrical extension work specifically to service their development. This included a new feeder extension from both the Kempt Road and Armdale Substations. The proposed project is only requesting cost-sharing on the increased size of civil infrastructure, which the Company has identified as required based on the lack of existing capacity and future growth along this route. The QEII

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1 will be responsible for approximately ■ percent of the civil costs as outlined in the
2 Memorandum of Understanding governing the cost-sharing agreement.

3
4 (c) This area of Robie Street is not included in the existing pole free zone that was developed
5 in coordination with HRM in the 1970s. HRM is not a contributing stakeholder in this
6 project.

7
8 (d) Please refer to Attachment 1 to NS Power's application; the Memorandum of
9 Understanding outlines the cost share agreement between NS Power and the contractor,
10 and Schedule A (page 8 of 10) provides the cost breakdown.

11
12 (e) The site under construction along Robie Street is a separate facility from the existing QEII
13 service. The electrical distribution servicing the existing site is located on Summer Street
14 and will not be impacted by this project.

15
16 (f) The ductbank route is located between Bell Road and Jubilee Road. The cable length for
17 the new feeder for NS Power is approximately 600 meters, split between six manholes
18 (each approximately 100 meters apart). For accurate lengths and conductor details, please
19 refer to Confidential Attachment 1, which illustrates both the QEII scope as well as NS
20 Power's proposed scope.

21
22 (g) Please refer to Confidential Attachment 1.

23
24 (h) Presently, the single-phase overhead line on Robie Street will remain and will be removed
25 incrementally as services are disconnected for the new Robie Street developments. This
26 approach will result in no increased cost to this project for service conversions and
27 eliminates the customer impact that would occur if the Company converted individual
28 homes to the underground network. Sections will be removed as development progress and
29 the individual services are disconnected, which is already occurring on several active
30 construction lots.

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NSPI Responses to NSEB Information Requests

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- 1 (i-ii) N/A
- 2
- 3 (iii) No.

**C0074130 Robie Street Underground IR-1 Confidential
Attachment 1 has been removed due to confidentiality.**

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Request IR-2:

Page 1 of the application states “NS Power will install a larger ductbank and a second underground supply that is needed to support anticipated load growth in the near future due to multiple planned developments which are near or already under construction along this corridor.”

(a) If NS Power were only supplying the QEII expansion project without constructing the large duct bank and a second underground supply, what would the project cost be for NS Power in that scenario?

(b) If this project was not implemented, what was NS Power's alternative plan to serve the anticipated new load growth?

(c) Was the option of direct-burial underground cable considered as an alternative to a duct bank for supplying the QEII Halifax Infirmary expansion project load?

(i) If so, please explain why this option was not preferred.

(ii) If not, why not?

(d) Was the option of direct-burial underground cable considered for the second 3 phase 25kV line as an alternative to a duct bank for supplying the anticipated load growth?

(i) If so, please explain why this option was not preferred.

(ii) If not, why not?

(e) Was a distribution planning study conducted to support the proposed solution in the project?

(i) If yes, please provide the report.

(ii) If not, please explain.

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1 Response IR-2:

2
3 (a) The cost today would be zero for the Company if NS Power chose not to pursue a cost-
4 share option with the hospital development and instead deferred the required infrastructure
5 investment to a later date, at which point the full cost would be borne by the Company.
6

7 However, this approach would have delayed necessary system upgrades and missed an
8 opportunity to leverage shared civil construction, resulting in higher future costs and
9 increased disruption. NS Power estimates that completing the same work independently in
10 2027 would cost NS Power over \$ [REDACTED] compared to \$4.5 million under this joint
11 project.
12

13 (b) There is no clear solution to implement new overhead capacity in downtown corridors such
14 as Robie Street. The Company reviewed several options when evaluating how to supply
15 the hospital expansion and all options ultimately required underground infrastructure. At
16 the time of initiating this project, during the planning stages of the hospital project, no
17 feasible alternative solutions were identified to bring service on Robie Street nor did the
18 utility have active plans for this area to bring additional supply from outside the area. An
19 option was reviewed to bring an overhead line extension down Robie Street for the hospital
20 service (please refer IR-9). This assessment illustrates the complexity and difficulty of
21 trying to bring a circuit overhead through Robie Street which becomes even more difficult
22 to construct if an additional supply was needed to address the load growth via an additional
23 circuit.
24

25 (c) No. NS Power's standard requires reinforced concrete encasement for all high voltage
26 feeder ductbank systems, as outlined below in sub-part (ii).
27

28 (i) N/A.
29

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1 (ii) NS Power's current standard requires the use of concrete encasement for main
2 feeder ductbank systems to ensure mechanical strength and protection of large high
3 voltage ductbanks. This also provides physical protection for the ducts and
4 equipment within the right-of-way, where the infrastructure co-exists with other
5 underground utilities that may need to excavate in close proximity.

6
7 (d) No, this option was not considered.
8

9 (i) N/A
10

11 (ii) NS Power did not consider direct-burial cable as an alternative for the second 3-
12 phase 25kV feeder due to established NS Power standards. The Company's
13 standard design for primary feeder installations in urban environments requires
14 concrete-encased ductbanks. This approach ensures:

- 15
16 • Mechanical protection against excavation damage, especially in congested
17 rights-of-way (ROWs) shared with other utilities
18
- 19 • Thermal stability for high-capacity conductors, which is critical for
20 maintaining ampacity and reliability
21

22 Ease of future access for maintenance and expansion, which is not feasible with
23 direct-burial installations. Direct burying cables results in the need to dig up lawns
24 and neighbourhoods when maintaining or replacing cables in the future.
25

26 Additionally, mixing infrastructure types (e.g., direct-burial and ductbank) within
27 the same ROW is discouraged due to coordination challenges and inconsistent
28 protection levels. The Robie Street corridor is a high-density urban zone with
29 multiple active and planned developments, making ductbank installation the only
30 viable long-term solution for reliability, safety, and future scalability.

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1
2 (e) A distribution Load Impact Study (LIS) was completed for the QEII development (please
3 refer to Confidential Attachment 1). There is no recently completed planning study for the
4 peninsula Halifax load growth. It should be noted that the sections of the original route
5 proposed in the LIS were determined not constructible during the detailed design phase.
6 As well, the service location for the hospital supply changed as their building design
7 matured. Although the origin supply for the hospital's new load did not change, the route
8 was required to adjust to Robie Street.

9
10 (i) N/A

11
12 (ii) Ongoing long-term planning for the Halifax Peninsula is considering the
13 cumulative impact of numerous residential developments, major districts proposed
14 by HRM (including the Cogswell and Young Districts), and several load impact
15 assessments underway to address anticipated large industrial electrification and
16 expansion. While a specific study recommending this solution is not available,
17 high-level concerns have been flagged, including the availability of 3-phase power
18 to supply developments along Robie between University Avenue and Cunard
19 Street. Given the scale of planned development, the Company did not want to miss
20 the opportunity to advance a project that was assessed and determined to be
21 eventually necessary. Delaying this investment while awaiting a formal study was
22 not appropriate given the significant cost savings identified by completing the
23 project now.

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Attachment 1 has been removed due to confidentiality.**

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Request IR-3:

(a) Please describe the specific scope of work associated with Phase 1 – Bell Road and Jubilee Road.

(b) Please confirm the specific purpose of this work.

(c) Please explain why NS Power cost shared this work with the QEII project.

(i) Has NS Power's portion of the cost of this work been included in the current application before the Board?

(a) If so, why?

(d) Does this work include the installation of a second underground 3 phase 25 kV supply in the same ductwork? Please explain.

Response IR-3:

(a) In this phase, work was completed to install underground infrastructure, including the ductbank and three manholes between the proposed riser pole on Bell Road and Manhole 5, as well as between the riser pole on Jubilee Road and Manhole 1.

(b) These specific sections were installed as part of the QEII expansion's supply infrastructure. Construction in this area was implemented first to meet QEII's scheduling requirements. The infrastructure on Jubilee was installed first to allow those ducts to also supply the development's temporary construction power which was needed early on in the project. The infrastructure on Bell Road was installed to accommodate the QEII development's requirement for all underground services in the Bell Road/Quinpool Road intersection to allow a clear route for machine access to the proposed laydown area at the northern end of the site.

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1 (c) Following several iterations exploring potential overhead routes for the QEII supply, it was
2 determined that an underground solution was required to bring the two required feeders to
3 the hospital expansion area. At the time of this decision, the Company identified that this
4 is a high growth area with no existing 3-phase infrastructure. Given the opportunity to share
5 excavation and installation costs, the Company began assessing a potential cost-share
6 arrangement. Through economic analysis, it was determined that proceeding with a cost-
7 share solution now would achieve significant customer savings compared to completing
8 the work independently at a later date. Given the significant cost savings and the need for
9 increased capacity through this corridor, the option to cost share was determined to be in
10 the best interest of customers. The infrastructure installed during Phase 1 was required to
11 facilitate additional circuits into the underground network. Additional ductwork was
12 installed during Phase 1 as part of the cost share agreement.

13
14 (i) Yes.

15
16 (a) The application is based on the portion of the civil infrastructure captured
17 under the cost share agreement. This also includes the installation of the
18 additional supply and electrical equipment for both Phase 1 and Phase 2.
19 The infrastructure installed during both Phase 1 and 2 is required to
20 facilitate the installation of the additional feeder and provide the extra
21 capacity for long term load growth. Any component in the scope of work
22 that is only to facilitate service to the hospital or was required regardless of
23 the cost share agreement is being fully funded by the hospital. For instance,
24 the work on Jubilee Road was required regardless of NS Power's interest in
25 cost share and referencing the estimate on page 21 of the application, the
26 Company is bearing only 5% of the total cost in that area as the majority of
27 the work was required for the hospital even if the utility did not enter into
28 an agreement.
29

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- 1 (d) Yes, the additional underground supply is included in the proposed civil infrastructure
2 installation for both Phase 1 and Phase 2. The work captured under the cost share agreement
3 for Phase 1 was entirely civil infrastructure. No electrical equipment has been installed to
4 date and is submitted as part of this application for approval.

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Request IR-4:

Page 1 of the application states: “NS Power will install a larger ductbank and a second underground supply that is needed to support anticipated load growth in the near future due to multiple planned developments which are near or already under construction along this corridor.” Further, page 1 states: “Based on forecasts from Halifax Regional Municipality (HRM) and developers, NS Power expects significant development and corresponding load growth within the Robie St area and downtown core.”

(a) Please identify the current load served by NS Power infrastructure in the Robie Street corridor.

(b) Please identify the anticipated load growth with the Robie Street corridor.

(c) Please provide the growth forecasts from HRM upon which NS Power developed its load growth forecasts.

(i) What is the date when these growth forecasts were prepared?

(ii) Have these growth forecasts considered the recent slowdown in HRM population growth, referenced by the Halifax Partnership (<https://halifaxpartnership.com/research-strategy/halifax-index/people/>)?

(d) Please explain how development and load growth in the downtown core affects the need for inclusion of the second 3 phase 25kV supply in the Robie Street corridor.

(e) Please provide the projected load growth over the next 10 years as anticipated in this application.

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1 Response IR-4:

2
3 (a) Currently, only a partial section (approximately 150 meters) of Robie Street on feeder 2H-
4 424 is serviced today within the identified corridor. Where service exists, it is via a radial
5 single-phase line to service small residential customers. The infrastructure is not sized or
6 configured to accommodate any significant development, particularly where 3-phase
7 service is required, nor does it offer reliability benefits as a feeder tie. The circuit is
8 currently serviced by a different feeder referenced in the hospital's LIS study and carries
9 approximately 5-10 amps of load. The limited load served highlights the absence of
10 scalable infrastructure available to support dense growth in this corridor and reinforces the
11 need for investment.

12
13 (b) The infrastructure being installed is expected to service approximately 3-4 MVA of load
14 for multiple development locations currently under construction. The ability to eventually
15 extend this infrastructure along Robie Street and tie into surrounding circuits from 1H
16 Lower Water Street and 2H Armdale will provide reliability benefits and enable circuit
17 reconfiguration, to allow more feeder configurations than what exist today. The QEII
18 service is being designed to accommodate up to 8MW on each circuit, with redundancy.
19 The third circuit proposed by NS Power will be tied into these two circuits within the
20 underground network, supporting other customers served by the hospital feeders and
21 providing an additional alternate supply to the hospital if required.

22
23 (c) NS Power's growth projections are based on high-level forecasts prepared early in 2025
24 with a five-year outlook and are regularly updated when new information becomes
25 available. The most recent revision of this forecast was in September 2025. These forecasts
26 incorporate known development applications submitted to NS Power and general urban
27 densification trends. Please refer to Confidential Attachment 1, filed electronically.

28
29 (i) The forecasts were prepared in 2025.
30

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1 (ii) These forecasts account for known developments and proposed projects by year and
2 requested load demand which have been submitted to NS Power. The population
3 growth chart referenced by the Halifax Partnership is not directly incorporated into
4 these specific projections. NS Power will reassess as new information is brought
5 forward regarding new large loads such as apartment complexes or long-term growth
6 nodes such as the Young and Cogswell Districts.

7
8 (d) Currently, no 3-phase supply exists on Robie Street between Quinpool Road and University
9 Avenue, a corridor identified as a dense growth area. Future extension of this circuit would
10 allow connection to additional corridors including Spring Garden Road/University
11 Avenue, Quinpool Road and Summer Street, to assist in alleviating future loading issues
12 on those circuits and provide new reliability tie points. As shown in the attached table, the
13 proposed new extension (104H-412) currently has available capacity to support new load
14 growth and offers opportunities for reconfiguring existing circuits when integrated.
15 Referencing the circuit diagram in IR-8, this proposed new feeder has opportunity to
16 expand in several avenues to support other feeders and meet both current and projected
17 load growth along Robie Street.

18
19 (e) It is projected that multiple feeders around the proposed area will reach or surpass capacity
20 within the next 2 to 5 years. This includes feeders such as 1H-427, 104H-421, 104H-432
21 and 104H-433, which could be reconfigured through expansion onto the proposed new line
22 extension. Please refer to NSEB IR-4 Attachment 1. Proactive measures, such as this cost
23 share option, allows the Company to address future capacity constraints while saving
24 potential spend on infrastructure by leveraging active construction in the city. By extending
25 existing circuits like 104H-412 that have available capacity, into areas currently lacking
26 supply, NS Power can fully utilize existing assets and implement new feeder configurations
27 to improve reliability through additional feeder ties.

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**C0074130 Robie Street Underground IR-4
Confidential Attachment 1 has been removed due to
confidentiality.**

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Request IR-5:

Page 1 of the application states: “By leveraging existing construction and crew mobilization, it is expected to result in savings of approximately \$2 million compared to completing as a standalone project in the future.”

Please explain specifically how NS Power developed this \$2 million savings estimate.

Response IR-5:

By leveraging existing ongoing construction, NS Power would only bear a portion of the civil costs – such as equipment mobilization, excavation, traffic control, remediation, etc.

To develop this approximation, NS Power used the cost breakdown provided by the contractor. To account for avoided costs, NS Power removed the portion of the shared design that would be completed by the QEII project regardless. The remaining scope, representing the incremental work required to achieve the expanded design, was then adjusted to reflect 100% cost responsibility by the Company. This included components such as reinstatement, installation, and administrative costs. These were calculated at full value rather than at the reduced cost-share percentage, to reflect what NS Power would have to contribute if the additional scope of work was completed independently. The estimate also factored in inflation to reflect the present value of those costs.

The standalone project cost (Alternative B: Underground 2027 – NS Power) is estimated at \$6,246,590, as documented in the “Description Summary of Alternatives” on page 8 of the application. The joint project cost (Alternative A: Underground 2025 – NS Power + QEII) is estimated at \$4,465,119, as shown on page 2 of the application.

This results in direct cost savings of approximately \$1.78 million, which NS Power rounded to \$2 million to account for:

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- Avoided mobilization and demobilization costs
- Shared excavation, traffic control, and reinstatement
- Reduced administrative overhead
- Avoidance of future inflationary impacts, etc.

In addition to direct cost savings achieved through cost-sharing, there are significant qualitative benefits to completing this work concurrently with the QEII project. From a safety perspective, future expansion of the underground network would be more complex and risk-prone due to the presence of energized equipment underground. Installing all infrastructure now avoids the need for added safety precautions and risk management associated with working around live systems.

Furthermore, Robie Street is a very active transit corridor and is expected to accommodate an expanded hospital entrance. Traffic control requirements for future construction would be substantial and disruptive to the public. Delaying the work could also result in unforeseen road restrictions that do not exist today. In contrast, the hospital's current construction schedule provides a window of opportunity to complete this work with fewer logistical constraints.

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Request IR-6:

Please explain why the estimated life of the asset is only 30 years.

Response IR-6:

The estimated 30-year life of the asset refers specifically to the electrical infrastructure. This includes underground conductors and associated electrical equipment, for which a 30-year life expectancy is considered reasonable by the Company. This estimate aligns with common practice for similar underground projects, such as the HRM Cogswell Redevelopment.

The civil components of the infrastructure are expected to remain in service beyond 30 years, assuming conditions remain consistent along this right-of-way. Based on the age and condition of NS Power's existing underground civil assets currently in service, it is reasonable to expect a lifespan of 50 years or more for the civil infrastructure.

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Request IR-7:

Page 1 of the application states: “Future growth nodes in the Cogswell District and Young District will require reconfiguration of existing distribution circuits supplied from Water St, Kempt Rd., and Armdale.”

(a) Please describe the general scope of work associated with these reconfigurations and explain specifically why they are required.

(b) Please establish the relationship between those reconfigurations and this project.

(c) What is the expected timeline for the utility to complete these reconfigurations?

Response IR-7:

(a) This comment is generalized based on the known growth nodes outlined by HRM. To accommodate supply capacity for growth nodes such as these, new configurations and feeder expansions will be necessary. Extending feeder supply into areas where none currently exists enables new feeder reconfigurations, such as offloading surrounding feeders which can more directly and efficiently service the expected new loads from growth in areas such as Cogswell and Young District.

(b) Establishing utility corridors for circuit extensions is becoming increasingly necessary given the growing congestion in HRM, particularly in the downtown core. Establishing new overhead capacity is becoming more challenging and difficult to construct. In general, the Company is confident that additional capacity and new supply sources will be required. The use of utility corridors such as Robie Street will be highly advantageous to supply growth nodes like Cogswell and Young. While these districts are key examples, there are several other areas of new high-rise development across the city, including Spring Garden

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1 Road, Quinpool Road, and Robie Street, that were not previously considered dense load
2 zones.

3
4 (c) Currently Robie Street does not have 3-phase power or capacity sufficient for the
5 anticipated growth. The expected timeline specifically to implement supply on Robie Street
6 is within the next 1-2 years. Advancement and expansion of this feeder would likely be
7 required within the following 5 years.

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Request IR-8:

Page 2 of the application states: “Given the anticipated load growth, additional electrical capacity is required to reliably serve customers. By increasing the available capacity within key corridors such as Robie St, NS Power will gain the flexibility to integrate new electrical supply into these growing areas, while fully leveraging the existing and planned capacity of nearby substations.”

(a) Please identify the specific growth areas into which the work associated with the current application will allow NS Power to gain the flexibility to integrate new electrical supply.

(b) Using a circuit drawing, please explain specifically how the proposed work associated with the current application will allow NS Power to gain the flexibility to integrate new electrical supply into these areas.

(c) Using a circuit drawing, please explain specifically how the proposed work associated with the current application will allow NS Power to fully leverage the existing and planned capacity of nearby substations and feeders.

Response IR-8:

(a) NS Power will be implementing a circuit from the 104H Kempt Road Substation into the underground system on Robie Street. The proposed supply will be serviced via 104H-431 from a new riser pole on Bell Road. Currently no 3-phase electrical supply exists on Robie Street between Quinpool Road and University Avenue. Extension of this circuit will provide the necessary infrastructure to connect these developments and enable future extension towards the Spring Garden district, which is expected to experience significant load growth in the Robie/College/Spring Garden Road area. The current active

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1 development sites along this proposed feeder route are located on Robie Street at the
2 intersections of Cherry Street, Cedar Street and Jubilee Road.

3
4 Surrounding this area, NS Power has received active plans for several new developments
5 along Quinpool Road including the St. Pats Redevelopment. Additional supply in this area
6 will improve reliability by introducing new tie points and providing flexibility to
7 reconfigure feeders to better allocate loading and fully utilize existing circuit capacity.
8 Each underground sections within the scope of the proposed project is designed to allow
9 future extension towards other areas, as shown in Attachment 1. This includes potential
10 expansion in the direction of North and South on Robie Street, as well as towards Quinpool
11 Road and Summer Street.

12
13 (b) Please refer to Confidential Attachment 1.

14
15 (c) Currently there is no 3-phase supply in this area, meaning capacity is currently very limited.
16 By extending this existing circuit, NS Power will fully utilize available capacity from the
17 104H Kempt Road Substation by extending circuits into growth areas that currently do not
18 have infrastructure. Currently feeder 104H-412 has available capacity and its extension
19 through the Robie Street ductbank will allow NS Power to integrate the available supply
20 into an area that is currently served by a radial, single-phase line. Attachment 1 illustrates
21 how the existing feeder on Quinpool Road will be able to extend into this area and provide
22 the needed supply for Robie Street.

**C0074130 Robie Street Underground IR-8 Confidential
Attachment 1 has been removed due to confidentiality.**

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Request IR-9:

Page 2 of the application states: “Currently, 3 phase power does not exist along this section of Robie Street. NS Power evaluated an overhead alternative along this corridor, but the physical constraints (i.e. clearance to buildings/proposed setbacks, required easements, vegetation impact, and conflicts with other utility infrastructure) make such an approach unfeasible.”

(a) Please provide a copy of the evaluation completed by NS Power.

(b) Did NS Power consider the Municipal Road right-of-way in its analysis for installing electrical infrastructure? Please explain.

Response IR-9:

(a) Please refer to Confidential Attachment 1.

(b) Yes, NS Power’s evaluation did consider the Municipal Road right-of-way as the primary location for the proposed infrastructure. However, several site-specific constraints rendered this design impractical. These included easements which were identified as necessary to construct the overhead line to current electrical code standards but were determined to be highly unlikely to obtain or known to be unobtainable (i.e. anchoring in Camp Hill Cemetery, QEII Hospital and Halifax Commons Park).

It should be noted that the design considered for the overhead option only applied to a single circuit. To obtain the additional capacity the Company believes is required for downtown utility corridors such as Robie Street, multiple circuits would eventually be needed. Overhead construction is limited to two circuits per pole by NS Power’s current standards and the physical constraints become much more difficult to navigate when adding a second circuit as anchoring lead lengths increase significantly. Due to all these

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1 factors, an overhead solution would not be practical and would not address the long-term
2 needs of this corridor. The solution to pursue underground infrastructure aligns with the
3 requirements of the QEII redevelopment, which necessitated underground service.
4 Although overhead construction was initially preferred, the project team explored multiple
5 routing options along Robie Street and ultimately concluded that a viable overhead path
6 could not be achieved.

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**C0074130 Robie Street Underground IR-9
Confidential Attachment 1 has been removed due to
confidentiality.**

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1 **Request IR-10:**

2
3 **Page 2 of the application states: “Alternate routes for feeder extensions have been reviewed;**
4 **however, similar physical constraints exist within those alternate routes as well.”**

5
6 **Please provide a copy of the alternate route review completed by NS Power.**

7
8 Response IR-10:

9
10 NS Power investigated the feasibility of extending circuits to Robie Street using overhead
11 construction via the following routes:

- 12
13 • Veterans Memorial Lane
14 • Cedar Street
15 • Cherry Street
16 • Shirley Street
17

18 These options were reviewed through on-site assessments and analysed by NS Power planners,
19 engineering teams, QEII’s design team and in consultation with HRM. These designs were not
20 formally drafted as they were not viable options (as outlined in IR-9).

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Request IR-11:

Page 2 of the application states: “Additionally, the underground network would be provisioned such that it can be expanded as new developments along Robie Street and nearby occur.”

(a) Please explain how the underground network will be provisioned such that it can be expanded as new developments along Robie Street and nearby occur.

(b) Please identify the cost included in the current application to accommodate this provision.

Response IR-11:

(a) Small sections of underground ductbank will be stubbed out at the extents of the construction area. This means an additional 1-2 meters of ductbank will be installed and capped outside of the manhole for simple extensions in future. This approach enables straightforward construction for future expansion, allowing the underground network to be extended as needed.

(b) It is a minimal cost for each structure to implement these provisions. It is estimated to be less than \$5,000 per structure including material, labour and remediation. The manholes are simply being designed with a short section that is pre-formed and prepped to facilitate future installations in a cost-effective, safer, and more efficient manner. The cost to core out new conduit into an active manhole would be significant in comparison to provisioning these ducts during initial construction.

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Request IR-12:

With regards to the “Capital Project Detailed Cost Estimate” on page 3 of the application:

(a) Please reconcile the noted “Materials” and “Contracts” costs with the project costs identified on page 8 of 10 of Attachment 1 of the application.

(b) Page 8 of 10 of Attachment 1 of the application states that Phase 1 (Bell Road and Jubilee Road) costs are “Actualized/Complete.” As such, please explain why NS Power has applied a 10% contingency to this portion of the project.

Response IR-12:

(a) The total cost-shared contract amount of \$ [REDACTED] (included on page 8 of 10 of Attachment 1 of the application under the total “Contract Price NSPI Portion”) was allocated within the project estimate by separating material costs from labour costs associated with infrastructure installation. This breakdown is approximately a [REDACTED] percent split, resulting in \$ [REDACTED] in material and \$ [REDACTED] in labour contracts as shown in the detailed cost estimate.

(b) The costs that have been incurred under Phase 1 only consider the civil costs. The electrical scope of work has not yet been completed or started. The 10 percent contingency applied to this portion of the project accounts for potential variances that may occur during the installation and completion of the electrical work.

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Request IR-13:

With regards to the Economic Analysis Model included with the application:

- (a) Regarding the sensitivity analysis: please identify the breakeven percentage variance of capital spend (i.e., identify the percentage increase in Alternative A capital spend at which the PV of revenue requirement of Alternative A and B would be equal).
- (b) Please explain specifically how the capital cost estimate for Alternative B was developed.

Response IR-13:

- (a) In order for the PV of revenue requirement between Alternative A and B to be equal, the capital investment for Alternative A would need to increase by 16.7 percent.
- (b) The Alternative B estimate was developed by applying an annual inflation rate of 3 percent to the Alternative A capital investment costs. In addition to this, NS Power estimated the incremental cost of civil construction related to power ductbanks assuming costs were not shared. The incremental costs were calculated by comparing the NS Power cost share portion of the contract costs against the line items which NS Power would incur the total cost of if the project was completed alone. These line items included:
- Excavation & Backfill;
 - Concrete, Reinforcing, Conduits & Pull Strings; and
 - Surface Reinstatements.

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1 NS Power assumed that any costs related to underground structures, drainage for manholes,
2 water line relocation, winter conditions, and temporary power would not be incurred if the
3 project was completed alone after QEII construction.

REDACTED

Request IR-14:

With regards to page 8 of 10 of Attachment 1 of the application:

(a) Please identify which line items/work scopes are intended to solely serve the QEII.

(b) Please explain how the NS Power percentage cost share for each line item was determined and explain why NS Power believes these percentage to be appropriate.

Response IR-14:

(a) The work required to solely serve the QEII was not included in the estimate. NS Power only submitted costs pertaining to the Company's portion of the cost share agreement.

(b) The cost breakdown is attributed to the amount of additional capacity NS Power is requesting in those specific work locations. For instance, the QEII required nine 4" conduits along Robie Street and NS Power requested an additional nine 4" conduits in this same corridor. As a result, approximately [REDACTED] of the material and labour costs are allocated to NS Power, reflecting the request to double the capacity. Accordingly, approximately [REDACTED] of associated costs, such as remediation, permitting, and design, are also shared. This approach represents a significant cost savings for NS Power, as the Company would otherwise bear 100% of the costs for remediation, excavation, labour, administration, and materials if the same work were completed independently at a later date.

In areas such as Jubilee Road, where the Company is requesting minimal alterations, the cost-share percentage is correspondingly low, typically between [REDACTED] for specific line items. The minimal expense is driven by the request from NS Power to stub out additional ducts to facilitate future expansion which would be significantly more costly in future if these were not installed today and needed later.

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REDACTED

- 1 Overall, the cost-share breakdown allows NS Power to leverage this site's construction by
2 splitting the costs approximately [REDACTED] split in favor of NS Power.