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Request IR-1:

At Page 1 of 6 of the Application CI C0051815 RTU Replacements Program – Phase 6 (Exhibit N-1), NS Power states:

This project provides for the replacement of fourteen RTUs in 2025 through 2027. The associated telecommunications equipment and the connection of Intelligent Electronic Devices (IEDs), such as recloser controllers, transformer meters, and relays, are included in this project.

(a) Please, for all Phase 1 RTUs:

(ii) Provide representative Issued for Construction (“IFC”) packages (including design basis documents, IFC drawings, and cable lists) for each RTU site. If the IFC drawings do not exist, please provide all scope documents that were used to estimate the project pricing, along with a detailed breakdown of the estimated costs and tasks.

(iii) Provide the corresponding as-built station drawings for each site (RTU/SCADA/protection panels) and associated cable schedules identifying and quantifying IED and telecom connections.

(iv) For each Phase 1 site, summarize all variances between IFC and as-built conditions, including design changes, field modifications, and any deviations implemented during construction.

(b) For all planned Phase 6 RTUs, provide representative IFC packages if available or detailed technical scope, as-built station drawings (i.e., RTU/SCADA/protection panels), and cable schedules quantifying IED/telecom connections. If the IFC drawings do not exist, please provide all scope documents

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1 **that were used to estimate the project pricing, along with a detailed breakdown of**
2 **the estimated costs and tasks.**

3
4 Response IR-1:

5
6 (a)

7 (i) Phase 1 IFC drawings/packages, scope documents and detailed estimated costs and
8 tasks breakdowns are not available. The records associated with Phase 1 date back
9 approximately 15 years, and the key personnel involved in earlier phases are no
10 longer with the Company. In addition, the historical data relevant to this request is
11 not accessible due to the cyber incident. NS Power's IT team is working diligently
12 with cyber security experts to bring the affected portions of its IT system back
13 online, but the data required to fully respond to the foregoing question is not
14 expected to be recovered.

15
16 (ii) The corresponding Phase 1 as-built drawings and cable schedules are not available,
17 as NS Power did not retain copies of the red-line as-built drawings from the field
18 installation. Rather, red-line changes were implemented into the final drawings;
19 past versions of drawings are not currently able to be retrieved due to the cyber
20 incident, and it is uncertain at this time if the data is expected to be recovered.

21
22 (iii) Due to the absence of IFC and as-built documentation for Phase 1, a variance
23 summary cannot be provided.

24
25 (b) Please refer to Confidential Attachments 1-2 for representative IFC packages and available
26 scope documents for Phase 6.

27
28 For representative IFC packages, please refer to Confidential Attachment 1. These are for
29 the following sites:

- 30 • 91V – Fourth Lake Hydro (PDF pages 1-73)

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- 74N – Springhill (PDF pages 74-240)
- 2V – Avon #2 Hydro (PDF pages 241-339)

For sites where IFC packages do not yet exist, please refer to scoping documents included as Confidential Attachment 2 for External Connection Sheets (ECS) and Confidential Attachment 3 for Substation System Operating Diagrams (SOD) that were used to inform the estimates. The ECS and SOD documents provided information that was used to help prepare the overall estimate for the project. Individual site estimates for each RTU were not prepared.

The table below represents an estimated average cost for the 11 remaining sites without an IFC package. The tasks associated with the listed sites include Engineering and Design, Drafting, Installation, Testing and Commissioning, and Project Management. Some sites do not have civil work and/or power meters and have been estimated accordingly. Based on the civil quotation and work completed for 74N-Springhill, comparable civil costs are anticipated for five other sites requiring similar work. An exception is 4S-Townsend St. Distribution, where a higher civil cost is expected due to more extensive scope of civil activities expected (please refer to IR-8 (b) for more details on 4S Townsend St. Distribution). These estimated civil costs are shown in the table below.

S/N	List of Sites	Internal Labour (\$)	Contracts (Elect Eng Tech) (\$)	Contracts (Civil) \$	Materials - Travel Exp & Meals (\$)	Materials RTU (\$)	Materials- Cables, Accs and Test Equipment (\$)	Materials -Power Meters (\$)	Total (\$)
1	1V Avon 1	100,843	22,619	-	10,303	96,051	8,714	4,700	243,230
2	14H Burnside Gas Turbine	100,843	22,619	-	10,303	96,051	8,714	-	238,530
3	82V Elmsdale	100,843	22,619	10,129	10,303	96,051	8,714	4,700	253,359

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S/N	List of Sites	Internal Labour (\$)	Contracts (Elect Eng Tech) (\$)	Contracts (Civil) \$	Materials - Travel Exp & Meals (\$)	Materials RTU (\$)	Materials- Cables, Accs and Test Equipment (\$)	Materials -Power Meters (\$)	Total (\$)
4	87W Hubbards	100,843	22,619	10,129	10,303	96,051	8,714	4,700	253,359
5	1C Pt Tupper Sub	100,843	22,619	10,129	10,303	96,051	8,714	4,700	253,359
6	15V Sissiboo	100,843	22,619	-	10,303	96,051	8,714	-	238,530
7	4S Townsend Dist	100,843	22,619	82,145	10,303	96,051	8,714	9,400	330,075
8	50N Trenton GS	100,843	22,619	-	10,303	96,051	8,714	-	238,530
9	50N Trenton Sub	100,843	22,619	10,129	10,303	96,051	8,714	-	248,659
10	83S VJ GT	100,843	22,619	-	10,303	96,051	8,714	-	238,530
11	85S Wreck Cove Sub	100,843	22,619	10,129	10,303	96,051	8,714	-	248,659
	Total	1,109,273	248,809	132,790	113,333	1,056,561	95,854	28,200	2,784,820

1

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**Review of C0051815 NSEB IR-1 Attachment 1 has
been removed due to confidentiality.**

**Review of C0051815 NSEB
IR-1 Attachment 2 has been removed due to
confidentiality.**

**Review of C0051815 NSEB
IR-1 Attachment 3 has been removed due to
confidentiality.**

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Request IR-2:

At Page 2 of 6 of the Application CI C0051815 RTU Replacements Program – Phase 6 (Exhibit N-1), NS Power states:

Contingency is determined using a combination of internal subject matter expert judgment (professional engineers and project managers) and the non-binding contingency guidelines. Consistent with the maturity checklist this project is being filed as a Class 3 Estimate with a contingency value appropriate to that range.

(a) Please provide the methodology used to develop the Class 3 Estimate. For example, is the estimate based on historical data or NSPI's prior RTU replacement experience?

(b) Please confirm if the methodology used to develop the Class 3 Estimate in this Phase different than it was for Phases 1 to 5.

(i) If not, please explain any differences in methodology.

(c) For each of Phases 1 to 5, please provide a summary of contingency usage, including:

(i) The original contingency amount and percentage of the base estimate for each phase.

(ii) Whether the contingency was fully used, partially used, or unused for each phase.

(iii) A breakdown of how contingency was applied, categorized at a minimum into: scope changes, field conditions/site constraints, compliance or documentation requirements, labour or productivity variances, and material or vendor cost variances.

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- 1
- 2 **(d) Please explain how the actual experience with contingency usage in Phases 1 to 5 has**
- 3 **informed:**
- 4
- 5 **(i) The contingency amount and percentage included in the Phase 6 Class 3**
- 6 **Estimate; and**
- 7
- 8 **(ii) Any changes to risk identification, risk allowances, and estimate methodology**
- 9 **for Phase 6.**
- 10
- 11 **(e) For Phases 1 to 5, please describe how NS Power has tracked and observed**
- 12 **productivity on RTU replacement work, including:**
- 13
- 14 **(i) Any improvements in work methods, sequencing, or standardization of RTU**
- 15 **installations.**
- 16
- 17 **(ii) Any measurable changes in labour productivity (e.g., hours per RTU, by role**
- 18 **or by activity), and whether these represent gains, losses, or no material**
- 19 **change over time.**
- 20
- 21 **(f) Please explain how observed productivity performance and any efficiency gains (or**
- 22 **losses) from Phases 1 to 5 have been reflected in the Phase 6 labour-hour and cost**
- 23 **estimates, including:**
- 24
- 25 **(i) Whether and how historical actuals from earlier phases were used or adjusted**
- 26 **in developing Phase 6 labour assumptions.**
- 27
- 28 **(ii) Any explicit adjustments made for evolving infrastructure complexity,**
- 29 **compliance requirements, accessibility challenges, and broader technological**
- 30 **scope, and how these interact with any productivity gains achieved to date.**
-

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(g) For Phase 6, please provide the current project risk register (or equivalent internal risk log) used at the time the Class 3 Estimate was prepared, listing for each identified risk:

(i) A brief description of the risk;

(ii) Its assessed probability and impact (quantitative or qualitative); and

(iii) The principal mitigation measures assumed in the estimate.

(h) For the earlier RTU replacement phases (Phases 1–5), please identify any internal post-project reviews, close-out reports, or formal “lessons learned” assessments that informed the scope, cost estimate, or delivery approach for Phase 6.

(i) Please populate the table below, listing the estimates for the previous Phases, the actual costs, variances, and explanation of the variances.

Phase	Estimated Cost (Class 3)	Actual Cost	Variance	Explanation of Variance
Phase 1				
Phase 2				
Phase 3				
Phase 4				
Phase 5				

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Response IR-2:

(a) The methodology used is based on the project team's experience on prior RTU replacement projects, actual estimates received on material pricing, and anticipated cost changes from increased complexity.

(b) The methodology used is consistent with prior phases and has been progressively refined based on experience and lessons learned from those prior phases.

(i) N/A

(c) (i) The following table includes the contingency amount and percentage of base estimate for all previous projects. The first four projects were before NS Power implemented more standard contingency guidelines.

CI Number	Title	Total Approved (including Contingency) (\$)	Contingency (\$)	Contingency %
38142	RTU Replacement Program	512,974	6,000	1%
40245	2011 RTU Replacement	459,517	7,500	2%
41428	2012 RTU Replacement	314,026	-	-
43227	2014 RTU Replacement	687,839	10,933	2%
46572	2017 RTU Replacement	693,354	47,984	10%
52308	2018 RTU Replacement	988,056	60,693	10%

(ii-iii) Contingency was only required on Phase 3, and was unused for the rest of the Phases. As a result of the cyber incident, NS Power is not currently able to provide the specific details of what elements drove the use of contingency.

(d) (i) The use, or lack thereof, of contingency in prior phases does not have a significant impact on how contingency was determined for Phase 6. The contingency in Phase

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1 6 was based on subject matter expert judgement taking into consideration the added
2 complexity of RTU replacements and potential market volatility in material pricing.
3

4 (ii) Any changes to risk identification, risk allowances, and estimate methodology was
5 based on internal subject matter experts including the potential challenges related
6 to the current replacement process, not only the experience with past phases.
7

8 (e) (i-ii) NS Power did not maintain a formal, program-level hours-per-RTU productivity
9 metric across previous projects. Site conditions and implementation variability (e.g.
10 replacement strategy, condition of documentation, wiring situation) also limit direct
11 comparability on a per-RTU basis.
12

13 Across previous projects, NS Power implemented incremental standardization and
14 Quality Assurance (QA) enhancements, incorporating field feedback and aligning
15 to more current and widely adopted technologies and materials. While
16 program-level hours-per-RTU metrics were not maintained, productivity improved
17 in several ways, including greater predictability, reduced clarification questions,
18 and supply-chain efficiencies. Phase 6 builds on this foundation and marks our shift
19 to the program's most comprehensive standardization and QA practices to date.
20

21 Over time, there has been increased alignment of work activities with the
22 appropriate specialized roles required for RTU replacement projects. This is
23 reflected in the more clearly defined labour categories identified in Phase 6.
24 Assigning tasks to resources with the appropriate expertise has improved task
25 execution efficiency and supported a more optimized use of labour. While this
26 change does not necessarily reflect a uniform reduction in total hours across all
27 roles, it represents an improvement in labour productivity through better role fit and
28 reduced overlap of responsibilities.
29

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- 1 (f) (i) Historical actuals from the most recent RTU Replacement project (CI 52308, Phase
2 5) were used in developing the original Phase 6 estimate. Recent experience and
3 actuals from the completed RTU replacements under this project were used in
4 developing the revised Phase 6 estimate. As noted in section (e) above, through
5 Phases 1 to 5, NS Power has implemented incremental standardization and QA
6 enhancements, incorporating field feedback and aligning to more current and
7 widely adopted technologies and materials resulting in several productivity
8 improvements. This has been reflected in the Phase 6 estimate.
9
- 10 (ii) Please refer to IR-8 part (a) for the incremental labour adjustments made in the
11 estimate for Phase 6 versus the estimate for Phase 1 for evolving infrastructure
12 complexity, compliance requirements, accessibility challenges, and broader
13 technological scope.
14
- 15 (g) (i-iii) Please refer to Attachment 1.
16
- 17 (h) No internal post-project reviews, close-out reports or formal lessons learned assessments
18 for the earlier RTU Replacement projects were completed. Please refer to part (f).
19

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(i) Please refer to the table below.

CI Number	Approved Amount (\$)	Actual Cost (\$)	Variance (\$)	Explanation of Variance
38142	512,974	410,229	(102,745)	No information available due to cyber incident
40245	459,517	398,506	(61,011)	No information available due to cyber incident
41428	149,751	119,268	(30,483)	No information available due to cyber incident
43227	687,839	857,093	169,254	No information available due to cyber incident
46572	693,354	585,319	(108,035)	No information available due to cyber incident
52308	988,056	\$652,129	(335,928)	106W Pubnico Point Windfarm RTU has not been completed yet.

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Review of C0051815 NSEB IR-2 Attachment 1 Page 1 of 1

Risk ID	Risk Description	Category	Impact	Likelihood	Risk Score	Owner	Mitigation Plan	Contingency Plan	Status
R-001	Site accessibility	Operational	Medium	High	6	SM Electrician Lead	Confirm site access requirements early and make provision for what is needed	Reschedule work	Open
R-002	Outage windows	Schedule	High	Medium	6	Outage Planner	Provide outage schedule for all sites to outage planner; apply for outage proactively ahead of time	Split work into multiple outage windows	Open
R-003	Supply chain delays for RTU hardware	Supply Chain	High	Medium	6	Procurement	Obtain vendor lead times and place orders early	Expedite order with vendor	Open
R-004	Weather conditions	External	Medium	Medium	4	SM Electrician Lead	Plan work based on weather forecast; prepare for seasonal risks	Postpone work during adverse conditions	Open
R-005	Crew skill gaps with the new RTU	People	Medium	Medium	4	Lead Engineer	Coordinate training sessions	Pair experienced resources with newer ones	Open
R-006	Resource constraints	People	Medium	Medium	4	Manager	Hire experinced term labour	Escalate for additional resources	Open

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Request IR-3:

At Page 4 of 6 of the Application CI C0051815 RTU Replacements Program – Phase 6 (Exhibit N-1), NS Power represents the following table:

Location: General Plant CI#: C0051815 Title: RTU Replacements Program – Phase 6 Execution Year: 2025 - 2027						
Description	Unit	Quantity	Unit Estimate	Total Estimate	Cost Support Reference	Completed Similar Projects (FP#s)
Regular Labour						
SM Electrician	PD	922	\$ 450	\$ 414,700		
Telecontrol Engineer	PD	648	\$ 457	\$ 295,812		
Telecontrol Technologist	PD	295	\$ 450	\$ 132,750		
PLT - Field Resources	PD	230	\$ 450	\$ 103,500		
Drafting SME CADD	PD	130	\$ 425	\$ 55,250		
Project Manager	PD	600	\$ 450	\$ 270,000		
SCADA	PD	52	\$ 425	\$ 22,100		
			Sub-Total	\$ 1,294,112		
Term Labour						
RTU Technician	PD	1090	\$ 425	\$ 463,250		
				\$ 463,250		
Overtime Labour						
SM Electrician	PD	20	\$ 900	\$ 18,000		
			Sub-Total	\$ 18,000		
Travel Expense						
Travel	Lot	1	\$ 117,150	\$ 117,150		
			Sub-Total	\$ 117,150		
Materials						
RTUs	Ea	14	\$ 70,664	\$ 989,300		
Cable and Accessories	Ea	14	\$ 8,000	\$ 112,000		
Power Meters	Ea	14	\$ 5,170	\$ 72,380		
Test Equipment and Tools	Lot	1	\$ 11,000	\$ 11,000		
			Sub-Total	\$ 1,184,680		
Contracts						
Electrical Engineering Technologist	Days	546	\$ 900	\$ 491,400		
Civil Construction	Days	156	\$ 1,430	\$ 223,080		
			Sub-Total	\$ 714,480		
Meals						
Meals	Units	378	\$ 40	\$ 15,120		
			Sub-Total	\$ 15,120		
Contingency						
Contingency		10%	\$ 3,806,792	\$ 380,679		
			Sub-Total	\$ 380,679		
Interest Capitalized						
AFUDC Interest				\$ 17,848		
			Sub-Total	\$ 17,848		
Vehicle Overhead						
Vehicle AO				\$ 650,565		
				\$ -		
			Sub-Total	\$ 650,565		
Administrative Overhead						
Labour AO				\$ 1,000,498		
Contractor AO				\$ 103,533		
			Sub-Total	\$ 1,104,031		
				SUB-TOTAL (no AO, AFUDC)	\$ 4,187,471	
				TOTAL (AO, AFUDC included)	\$ 5,959,915	
				Original Cost	\$ 2,747,780	
Note 1: The labour figures noted above are an average of salaries across a variety of jobs within similar classifications including fringe, and are used solely for budgeting purposes. Note 2: Small differences in totals are attributable to rounding.						

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1 **(a) For Phase 6 (CI C0051815) and Phase 1, please provide an itemized equipment list in**
2 **Excel format, derived from the “Materials” estimate for each phase, that:**

3
4 **(i) Identifies each piece of equipment (including, at a minimum, RTUs, power**
5 **meters, communications cables, test equipment, and any associated**
6 **telecommunications or networking components).**

7
8 **(ii) Shows, for each item and for each phase: description, manufacturer, model or**
9 **catalog number, part number, quantity, unit of measure, unit cost, extended**
10 **cost, and whether the item is new, reused, or refurbished.**

11
12 **(iii) Indicates, for each item, the pricing basis used in the estimate and, where the**
13 **pricing basis is a vendor quote or agreement, identifies the vendor name and**
14 **quote or agreement date. Please also provide either copies of the relevant quote**
15 **or agreement pages or a comparison table showing quoted unit prices versus**
16 **the unit prices used in the Phase 6 estimate, with a brief explanation of any**
17 **material differences.**

18
19 **(iv) Provides either electronic copies of, or hyperlinks to, the current technical and**
20 **installation manuals and data sheets for each RTU model and each associated**
21 **major component (meters, IEDs, communications equipment).**

22
23 **(b) For Phase 6 (CI C0051815) and Phase 1:**

24
25 **(i) Please explain the material cost variances between Phase 6 and Phase 1 by**
26 **major cost driver (e.g., different RTU models, added cyber-security or**
27 **telecommunications equipment, different site count, or inflation/market price**
28 **changes).**

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- 1 (ii) **Please explain any significant labor cost variances, identifying how differences**
2 **in equipment scope, site conditions, installation methodology, or**
3 **commissioning/testing requirements contributed to the labor estimate**
4 **changes.**

5
6 **Response IR-3:**

7
8 Please note that NS Power has responded to the questions in this IR with reference to the
9 Company's updated detailed cost estimate for Phase 6, filed on December 9, 2025. As such, the
10 values in NS Power's responses will differ from those in the estimate reproduced by Midgard
11 above.

- 12
13 (a) (i-ii) Please refer to Partially Confidential Attachment 1 for an itemized materials list.

- 14
15 (iii) Please refer to Partially Confidential Attachment 1, and Partially Confidential
16 Attachments 2 and 3 for quotes for RTU and Ion Meter.

- 17
18 (iv) Please refer to Confidential Attachment 4 for Phase 1 RTU documents. Please refer
19 to Confidential Attachment 5 for Phase 6 RTU documents.

- 20
21 (b) (i) The material cost variances between Phase 6 and Phase 1 of the RTU Replacement
22 Program are driven by a combination of changes in technology and
23 inflationary/market conditions. The key cost drivers are different RTU models and
24 inflation/market price changes. The RTU models used for Phase 1 in 2010 are now
25 15-year old technology, whereas the Phase 6 RTUs leverage newer technology and
26 designs. Inflation and market price changes over the past 15 years have also
27 increased the material cost of the RTUs and associated equipment as outlined
28 below.

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1 Phase 6 involves the replacement of legacy RTUs with newer, more modern RTUs.
2 These RTUs have a more modern design compared to those deployed in Phase 1.
3

4 Material pricing in Phase 6 reflects cumulative inflation and market-driven cost
5 increases over the 15 years since Phase 1. Global supply chain disruptions, price
6 increases during and after the COVID pandemic and currency fluctuations (i.e.
7 lower Canadian dollar) have contributed to higher vendor pricing relative to Phase
8 1.
9

- 10 (ii) Due to the recent cyber incident that impacted NS Power and the time elapsed since
11 Phase 1 of the RTU Replacement Program (2010), detailed records of the original
12 labour assumptions, execution methodologies, and scope definitions are no longer
13 available. Accordingly, comparisons between Phase 6 and Phase 1 are based on the
14 available estimates for Phase 1 and Phase 6 and NS Power's recent experience
15 delivering similar RTU replacement and installation work.
16

17 Based on these considerations, the labour cost variances between Phase 6 and Phase
18 1 are driven by several factors.
19

20 Since Phase 1, the scope and complexity of RTU systems have evolved
21 significantly. Phase 6 RTUs incorporate expanded functionality and increased
22 integration with SCADA, protection and control (P&C) devices, Intelligent
23 Electronic Devices (IEDs), and other substation devices. As noted in IR-7 part (b),
24 there are now over 4 times the number of I/O points to the RTU in Phase 6 as
25 compared to Phase 1. There is also the addition of J-Box cabinets at the Phase 6
26 sites for marshalling the wiring from the field devices to the RTUs. These
27 advancements reasonably require more engineering, configuration, testing, and
28 validation efforts than would have been required during earlier phases of the
29 program.
30

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1 In addition, some remote sites in Phase 6, such as 91V Fourth Lake, present site
2 accessibility constraints and require increased travel time and coordination with
3 other internal and external resources, resulting in higher installation effort
4 compared to more easily accessible sites completed in earlier phases.

5
6 Installation methodologies have also matured over time. Current practices place
7 greater emphasis on pre-work, detailed planning, and controlled cutover execution
8 to minimize operational risk and overall field labour for the installation and
9 commissioning. These activities, while necessary to meet present-day reliability
10 and safety expectations, result in additional labour effort that would not have been
11 included in the Phase 1 estimate. Commissioning and testing requirements have
12 similarly expanded. Phase 6 reflects current expectations for more comprehensive
13 functional testing, communications validation, and system integration checks. The
14 increase in the number of inputs to the RTU to be tested and commissioned for
15 Phase 6 compared to Phase 1 also contributes to the labour cost increase. This level
16 of verification requires increased involvement from specialized resources,
17 including Telecontrol Engineers, Technologists, SCADA personnel, and RTU
18 Technicians, contributing to higher labour hours relative to earlier phases. The
19 greater emphasis on pre-work, detailed planning and QA (Quality Assurance)
20 enhancements have resulted in more efficient installation and commissioning work
21 with greater predictability of time required and reduced clarification questions from
22 the field crews.

Phase 6													
Category	Description	Manufacturer	Part Number	UOM	Qty	Unit Cost	Ext. Cost	For use status	Pricing Base for Estimate	Vendor	Quote#	Agreement Date	
RTU	Cabinet, RTU, SCADA, custom, modular, turn-key.	NovaTech Automation	Custom - Configured per site requirements	EACH	14	\$ 96,051	\$ 1,344,714	New	Quote (See notes)	NovaTech Automation	1224-027 R2 (IR-3 Att2)	NA	Cabinet configurations vary by site. Due to pending design details and quoted cost differential, the estimate includes the higher-cost RTU as a conservative measure. The estimate also applies a 1.39 USD exchange rate and a 2.6% projected increase in material costs.
Power Meter	Meter, Power, Digital, Power quality and revenue capable, with communications interface	Schneider Electric		EACH	7	\$ 4,700	\$ 32,900	New	Quote (See notes)	Schneider Electric Canada Inc. c/o Energy Instrumentation Sales Ltd.	25-236 (IR-3 Att3)	NA	Quote pricing was \$4,645, cost used for estimate was increased due to the time that would elapse between time of estimate and time of actual spend.
Cables and Accessories	Examples of types of materials under this category, list is non-ehaustive and varies with site requirements: - Communication, control, and power cables, type and length requirements vary by site. - Rigid and flexible conduit, components and fittings. - Cable tray components. - Position transducers. - Panel enclosures and components (JBox).	Various - See Notes	Various - See Notes	Lot (per site)	14	\$ 8,000	\$ 112,000	New	See Notes	See Notes	See Notes	See Notes	Cost estimate for lot based on SME knowledge.
Test Equipment and Tools	Allowance for test equipment and/or tools requirements.	Various - See Notes	Various - See Notes	Lot	1	\$ 10,000	\$ 10,000	New	See Notes	See Notes	See Notes	See Notes	Cost estimate for lot based on SME knowledge of typical requirements.
Telecom/Networking Components	See Notes	See Notes	See Notes	N/A	0	\$ -	\$ -	See Notes	See Notes	See Notes	See Notes	See Notes	Typically not required for replacement sites as communication circuit is existing.

Phase 1													
Category	Description	Manufacturer	Part Number	UOM	Qty	Unit Cost	Ext. Cost	For use status	Pricing Base for Estimate	Vendor	Quote#	Agreement Date	Notes
RTU	See Notes	QEI Automation Solutions	Custom - Configured per site requirements	EACH	10	Data not available	Data not available	New	Data not available	QEI Automation Solutions	Data not available	Data not available	According to site documents and internal knowledge, all of the replacement RTUs were of QEI make and all would have been new equipment.
Power Meter	See Notes	See Notes	See Notes	EACH	0	See Notes	See Notes	See Notes	See Notes	See Notes	See Notes	See Notes	According to site documents, no IED Power Meters were installed under Phase 1.
Cables and Accessories		Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	
Test Equipment and Tools		Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	
Telecom/Networking Components	See Notes	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Data not available	Typically not required for replacement sites as communication circuit is existing.

Note 1: Where it is noted "Data not available", the records available related to Phase 1 do not include the information requested. Available records for Phase 1 are approximately 15 years old, and key personnel who worked on earlier phases are no longer with the Company; in addition, data is not available as a result of the cyber incident, and it is uncertain at this time if the data required to respond to this request will be recovered.



13555 W. 107th Street; Lenexa, KS 66215
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Bill To

Nova Scotia Power

End User

Nova Scotia Power
- Outdoor & Indoor Cabinets - Setups A3B, B2T, B3B, B3T, and B4T.

Shipping Terms	Ship Via	Payment Terms	Validity
FOB Origin, Freight Prepaid & Add	TBD	Net 30	60 Days

Regional Sales Manager
Nathan Sagon Regional Sales Manager E: nathan.sagon@novatechautomation.com P: 574-298-3439

Scope

Overview

NovaTech will supply five cabinets according to the customer's specifications.

- Setup A3B: Outdoor enclosure, 3 Orion I/O, bottom cable entry
- Setup B2T: Indoor enclosure, 2 Orion I/O, top cable entry
- Setup B3B: Indoor enclosure, 3 Orion I/O, bottom cable entry
- Setup B3T: Indoor enclosure, 3 Orion I/O, top cable entry
- Setup B4T: Indoor enclosure, 4 Orion I/O, top cable entry

NovaTech will also provide spare items as requested.

Loose Hardware

Qty	Part Number	Description
4		
15		
4		
8		



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NovaTech Enclosure Services

As a part of this offering, NovaTech will include the equipment in one wall mount enclosure and four network servers/racks, as described below.

- Orion components will be mounted on a swing rack, wired, and fused from the source power of 125V dc.
- Source power will land on the PDU and distributed to each device at 125V dc.
- The RTU will be fully wired, and tested in our Lenexa, Kansas, facility prior to shipment.
- Cabinets will be fabricated as per previously provided projects with the changes stated in the email.
- Enclosure and network servers/racks are described in more detail below.

Bill of Major Materials – Setup A3B (Outdoor - Wall Mount Enclosure)

Qty	Part Number	Description
1		
3		
1		
2		
2		
1		
1		
1		
1		
1		
2		
1		
1		
2		
1		
1		
3		
1		
1		
18		
8		
1		
1		



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Qty	Part Number	Description
1		
1		
1		
1		
2		
1		
1		
19		
2		
4		
2		
2		
2		
2		
1		
1		
1		
9		
5		
4		
1		
1		
62		
62		
48		
48		
12		
12		
1		
10		
1		
AR		
Spares Kit		
2		
2		
2		



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Qty	Part Number	Description
2		
1		
1		
4		
4		
1		

Bill of Major Materials – Setup B2T (Indoor - Network/Server Rack)

Qty	Part Number	Description
1		
2		
1		
1		
2		
1		
1		
1		
1		
2		
1		
1		
3		
1		
1		
18		
6		
1		
1		
19		
3		
2		
2		



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Qty	Part Number	Description
2		
1		
1		
1		
1		
9		
5		
4		
41		
41		
32		
32		
8		
8		
1		
10		
AR		
Spares Kit		
2		
2		
2		
4		
4		
1		

Bill of Major Materials – Setup B3B (Indoor - Network/Server Rack)

Qty	Part Number	Description
1		
3		
1		



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Qty	Part Number	Description
1		
2		
1		
1		
1		
1		
2		
1		
1		
1		
3		
1		
1		
18		
8		
1		
1		
19		
4		
4		
2		
2		
1		
1		
1		
1		
9		
5		
4		
62		
62		
48		
48		
12		
12		
1		
10		



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Qty	Part Number	Description
AR		
Spares Kit		
2		
2		
2		
4		
4		
1		

Bill of Major Materials – Setup B3T (Indoor - Network/Server Rack)

Qty	Part Number	Description
1		
3		
1		
1		
2		
1		
1		
1		
2		
1		
1		
1		
3		
1		
1		
18		
8		
1		
1		
1		
1		



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Qty	Part Number	Description
19		
4		
4		
2		
2		
1		
1		
1		
1		
9		
5		
4		
62		
62		
48		
48		
12		
12		
1		
10		
AR		
Spares Kit		
2		
2		
2		
4		
4		
1		

Bill of Major Materials – Setup B4T (Indoor - Network/Server Rack)

Qty	Part Number	Description
1		
4		



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Qty	Part Number	Description
1		
1		
2		
1		
1		
1		
1		
2		
1		
1		
1		
3		
1		
1		
18		
8		
1		
1		
1		
1		
19		
4		
4		
2		
2		
1		
1		
1		
1		
9		
5		
4		
78		
78		
60		
60		



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Qty	Part Number	Description
15		
15		
1		
10		
AR		
Spares Kit		
2		
2		
2		
4		
4		
1		

Clarifications

- Additions or changes from the stated scope may result in a change order reflecting additional scope, associated pricing, and lead time.

Exclusions

- Installation of hardware, including wiring.
- This offering does not include any installation, wiring, assembly services, or services to modify settings or configuration of intelligent electronic devices (IEDs) supplied by others.



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Commercial

Qty	Product & Description	Lead Time	Unit Price (USD)	Extended (USD)
1		To be scheduled	81,080.00	81,080.00
2		12-14 Weeks ARO	59,235.00	118,470.00
3		12-14 Weeks ARO	58,020.00	174,060.00
1		12-14 Weeks ARO	63,670.00	63,670.00
3		12-14 Weeks ARO	63,670.00	191,010.00
1		12-14 Weeks ARO	67,350.00	67,350.00
1		To be scheduled	10,000.00	10,000.00
Total:				\$705,640.00



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Appendix A – Orion Hardware Number Descriptions

[REDACTED]

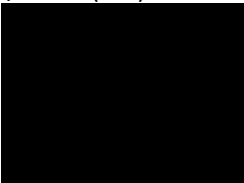
Includes 2 ea RJ45 Ethernet Ports, 1 ea SFP Slot, 2 ea Serial Ports, 12 V dc @ 12W Power Output

-
-
-
-
-
-
-
-



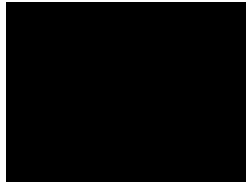
Master/Client (IED):

-
-
-
-
-



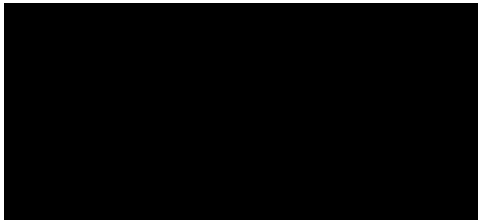
Slave/Server (SCADA):

-
-
-
-
-



Software:

-
-
-
-
-
-



SFP Transceiver:

-





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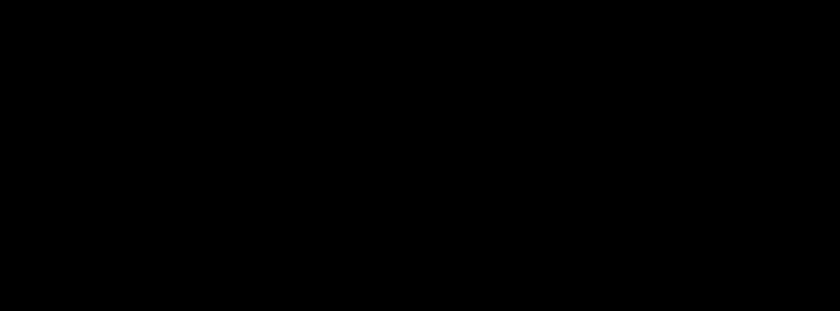
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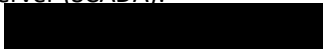
Orion

-
-
-
-
-
-
-
-
-



Slave/Server (SCADA):

-



Software:

-



Schneider Electric Canada Inc.

c/o

Energy Instrumentation Sales Ltd.
Ph: (902) 826-7540 Fax: (902) 826-7314
Email: kurtis@eisl.ca

PRICE QUOTE

Attention:	Dave Charbonneau	EIS Quote #:	25-236
Company:	NS Power	Date:	August 22, 2025
City, Province:	Halifax, NS	Estimated Delivery:	5-6 Weeks ARO
Phone:	(902) 428-7795	Validity:	September 21, 2025

Item	Qty	Part # & Description	Per	Subtotal
1.00	2		\$4,645.00	\$9,290.00
TOTAL				\$9,290.00
NOTES 1 – All Pricing is in Canadian Funds. 2 - Applicable taxes not included.				

Please direct your order to:

Schneider Electric Canada Inc.
535 Edinburgh Drive
Moncton, NB
E1E 4E3
Phone: 506-857-0719 Ext. 209

Name:	<i>Kurtis Langille</i>
Title:	Sales Rep (902) 497-4668
Websites:	www.powerlogic.com

Schneider Electric Canada Inc.

c/o

Energy Instrumentation Sales Ltd.

Ph: (902) 826-7540 Fax: (902) 826-7314

Email: kurtis@eisl.ca

1. Contract Terms

All contracts for the sale of goods and services between Schneider Electric Canada Inc. ("SEC") and the legal entity purchasing the goods and services ("Purchaser") are subject to the following terms and conditions ("Schneider Sale Terms"). Any variation from the terms and conditions herein contained require the signed consent of an authorized SEC representative. Purchase orders received from the Purchaser for SEC products will be subject to the standard SEC terms and conditions. These Schneider Sale Terms shall prevail and exclude all other terms, including without limitation any purchase orders and SEC will not be bound by any terms, conditions, or pricing stated on the purchase order, unless agreed to in writing by SEC.

2. Prices

Unless otherwise stated, prices quoted are valid for acceptance for a period of 60 days from tender offer date. Should the decision to accept our offer be delayed to a later date, we would be pleased to either confirm our offer or rebid.

Hourly rates and Travel Costs will be as set out in the then current SEC Field Services Demand labour rates. Specialized tools and test equipment are deemed "Miscellaneous Costs".

Purchaser will provide free and clear access to perform the stated work. There will be additional charges for any delays or site issues not caused by SEC and for additional trips to the site as a result of work cancellation. SEC has not included on-site orientation, safety training or other site specific requirements unless specifically identified in a quotation. Any such site requirements shall be at Purchaser's expense.

SEC's work estimates are based on normal work hours (8 hours) (approximately 8:00 a.m. to 5:00 p.m. local time) and no overtime or premium hours are included. If work is completed outside these times extra charges will apply.

Minimum Billing: Field specialists are billed at a 4-hour minimum for travel and services performed in less than 4 hours, and a 8-hour minimum charge for services otherwise performed in 5-8 hours.

The price must be renegotiated for any shipment delayed for more than 210 days from originally anticipated release date or scheduled shipment date (except where the delay is solely caused by SEC). Furthermore, any customer request to delay shipment with less than 48 hours notice will be subject to a charge not exceeding 5% of the project value.

Prices do not include the arrangement and cost of a utility shutdown. Prices quoted are based on foreign exchange rates, customs tariffs and other direct taxes in effect at the date of quotation. Any changes in foreign exchange rates, sales taxes, customs tariffs or other taxes shall be chargeable to the Purchaser.

Cost Escalation: In the event of any changes in any taxes, charges, levies, duties, or other government or administrative bodies, after the date of execution of this Terms and Conditions of Sale, The current rates are on the Schneider Electric website and are published annually. Each revision will automatically replace the previous and shall be incorporated by reference into these Schneider Sales Terms.

3. Taxes

Prices quoted do not include taxes, duties or any other governmental levies all of which are extra payable by Purchaser.

4. Terms of Payment

Terms are net 30 days from date of invoice. Late payments will be subject to interest charges at the rate of two percent (2%) per month. All pricing is in Canadian funds unless otherwise stated. Invoices for pro-rata payments become due on the date of shipment. If at Purchaser's request, shipments are delayed, payments for the product will be invoiced to the Purchaser to the extent of completion, as a percentage of the total contract price. Equipment held for the Purchaser shall be at the risk and expense of the Purchaser.

5. Delivery

Delivery dates quoted are subject to confirmation at the time of contract award and until such confirmation may change solely based on SEC's circumstances. All confirmed dates are based on the prompt receipt by SEC of all necessary information enabling work to proceed without interruption. For contracts of supply and installation of equipment, a delivery date will be established at the time of contract award. Should the installation of the equipment be delayed beyond that date, SEC reserves the right to invoice for the supply portion of the contract and ship or place the material into storage at the customer's option and expense.

6. Force Majeure

SEC will be excused and not be liable for any non-performance of a contract if such delay or non-performance is due to any cause beyond the reasonable control of SEC, or which SEC could not reasonably foresee or reasonably provide against, and which prevents SEC from carrying out the terms of the contract. This includes but is not limited to the following: war, revolution, insurrection or hostilities (whether declared or not), riot, civil commotion or uprising, flood, earthquake, tempest, hurricane, lightning or other natural disaster; fire or explosion; strike, lockout or other industrial disturbance whether at SEC or one of its suppliers; sabotage, accident, embargo, car shortage, wrecks or delays in transportation, non-delivery of materials or order or action of government authority. Any delay resulting from such cause shall extend the date of delivery accordingly. SEC reserves the right to cancel the contract, if in its opinion such circumstances threaten or cause extended delay in the performance thereof.

7. Cancellation

Purchase orders placed by the Purchaser and accepted by SEC may be cancelled only with the consent of SEC. A cancellation charge may be payable by the Purchaser to cover costs, including design and engineering, materials purchased and production costs incurred to a maximum of 100% of the selling price.

8. Liability

SEC shall not be liable, whether in contract or in tort (including negligence or strict liability) or otherwise, for any damages arising from the use of the goods supplied there under, or for any special, indirect or consequential damages arising from delays, however caused through non-delivery, or through defects in materials or workmanship or from any other cause whatsoever. No claim of any kind whether as to a product delivery or for non-delivery of a product or for Service, whether in contract or in tort (including negligence or strict liability) or otherwise, shall be greater in amount than the purchase price of the product or the charges for the Services in respect of which the claim is made.

Schneider Electric Canada Inc.

c/o

Energy Instrumentation Sales Ltd.

Ph: (902) 826-7540 Fax: (902) 826-7314

Email: kurtis@eisl.ca

These disclaimers and limitations of remedies apply to all warranties offered to Purchaser and to all purchase orders. The warranties and conditions set forth in this Schneider Sale Terms are exclusive and in lieu of all other expressed or implied warranties, conditions, representations and guarantees (except warranties of title), including, but not limited to implied warranties of merchantability, merchantable quality, and fitness for a particular purpose. Except as may be expressly provided in an authorized writing by SEC, SEC shall not be subject to any other obligations or liabilities whatsoever, other than as stated above with respect to equipment sold or services rendered by SEC.

9. Warranty

To the extent applicable, SEC warrants that the services required as part of their purchase order will be performed by qualified personnel with care, skill and diligence, in accordance with the applicable generally accepted professional standards recognized by the industry.

SEC warrants the goods, if any, supplied, of its own manufacture against defects in material or workmanship arising under normal use and service for a period of 18 months from the date of invoice. Further, SEC warrants refurbished goods, if any, supplied, of its own manufacture against defects in material arising under normal use and service for a period of 12 months from the date of invoice. The obligation of SEC under this warranty is limited to the replacement or repair without charge FOB the factory of SEC provided that the Purchaser will give SEC written notice of the defect immediately after the defect has come to the Purchaser's attention.

SEC shall not be responsible for defects in material or workmanship of, or work done, goods furnished or repairs made by third parties.

10. Loss or Damage of Goods in Transit

Delivery of goods by SEC will be deemed to be made to the Purchaser upon obtaining a signed receipt from the carrier showing receipt of the goods in good order. Title to the goods will remain with SEC until payment in full is made by the Purchaser and all risk for safekeeping and condition of the goods will become the responsibility of the Purchaser upon deemed delivery.

SEC is not liable for any loss or damage, delay or non-delivery. SEC's responsibility ceases upon receipt of acknowledgment in writing from the carrier of shipments in good order.

11. Safety

Schneider Electric employees shall not perform work that, in their sole opinion, is not free of reasonably foreseeable harm. This includes working on electrical equipment that, in their sole opinion, has not been placed in an electrically safe working condition.

Site and working conditions shall meet or exceed those specified by applicable Occupational Health and Safety Act and Regulations.

The purchaser shall inform Schneider Electric of:

(a) Known hazards, or reasonably foreseeable hazards, that are related to Schneider Electric's scope of work and the site where the work will be performed; and

(b) Information about the worksite necessary to identify hazards and assess risk for the protection of the health and safety of Schneider Electric personnel.

This information might include, but is not limited to:

(a) Providing an accurate up-to-date single line diagram of the electrical distribution system;

(b) Providing relevant Workplace Hazardous Materials Information System (WHMIS) information such as Material Safety Data Sheets (MSDS) and floor plans indicating areas where hazardous materials are located and emergency exits for service rooms and other areas of operation; and

(c) Other site specific information relative to the purchaser's operation, process and safety systems.

12. Confidential Information

It means any information provided by a party ("Disclosing Party") to the other party ("Recipient Party") or to which the Recipient Party had access as a result of the negotiation or performance of the order, which is not generally known to the public, including without limitation, information relating to: (a) the design, specifications and content of the equipment or documentation as contained with the equipment or otherwise; and (b) the terms of this Terms and Conditions of Sale; Each party agree that all such confidential information will be received in confidence and will be used only for the purpose of carrying out the obligations of, or with respect to the Purchaser, for the purpose of installing, operating, maintaining and repairing the equipment purchased pursuant to this Conditions of Sale (the "Purpose"). Notwithstanding anything to the contrary in this Section 12, the Recipient may, on a need basis and for the purpose, disclose the Confidential Information to third parties, provided that such third party recipient is legally bound by a non disclosure agreement consistent and no less constraining than the terms of this Section and that the disclosing Recipient remains liable to for any breach of the terms of this section 12 by the third party recipient.

13. Intellectual Property

SEC retains ownership of all right, title and interest (including copyright) in and to the intellectual property. Nothing in this Terms and Conditions constitutes a transfer or conveyance of any right, title or interest in the software or intellectual property, except the limited right to use it as provided in the documentation.

14. Nature of the Relationship

For all purposes of this Schneider Sale Terms, SEC shall be an independent contractor and does not constitute the Parties as partners, joint venturers or, except as provided in this Terms and Conditions, agents of each other, and no Party may so represent itself in this manner

15. Amendments

No amendment, supplement, modification, waiver or termination of the purchase order or this Schneider Sale Terms is binding unless executed in writing by both parties.

16. Governing Law

All matters arising out of or relating to the execution, construction, interpretation or breach thereof, are to be governed by the provincial laws where services are performed and the federal laws of Canada applicable therein. SEC agrees to bring any action claims or legal proceedings in any way pertaining to this order, or the execution, construction, interpretation or breach thereof in the courts of the jurisdiction specified above and in no other court or tribunal whatsoever.

Schneider Electric Canada

5985 McLaughlin Road

Mississauga, ON L5R 1B8

Tel.: (905) 366-3999

www.schneider-electric.com/ca

Document Number S0180CO120EP R0

Schneider Electric Canada Inc. Standard Terms & Conditions of Sale are an integral part of this quotation

Review of C0051815 NSEB IR-3 Attachment 4 has been removed due to confidentiality.

**Review of C0051815 NSEB IR-3 Attachment 5
has been removed due to confidentiality.**

NON-CONFIDENTIAL

Request IR-4:

At Attachment 1 of the letter filed by NS Power on December 9, 2025, NS Power presents its updated Capital Project Cost Estimate. According to the Capital Project Detailed Estimate, the total internal labour cost, including travel and meals, is CAD \$1,556,044,¹ while the Labour Administrative Overhead (AO) is CAD 735,272 (47%),² which corresponds to 1,750 Person-Days (PD)³ for the project (125 PD⁴ per RTU).

(a) Please provide the components (e.g., rates and allocation basis) of the \$735,272 Labour AO on 1,750 PD internal labour, including how it was calculated.

(b) Please provide a similar breakdown for the components of Contractor AO on 136 contractor PD, distinguishing from internal AO. Please describe the methodologies for calculating Contractor AO, Labour AO, and Vehicle AO, including, for example, the applicable cost base, the percentage or rate applied, any minimum or maximum caps, and the manner in which each overhead category differs from related direct costs.

(i) Please detail how the methodologies used to calculate the Contractor AO, Labour AO or Vehicle AO in Attachment 1 of the letter filed by NS Power on December 9, 2025 differ from the methodologies used to calculate the figures provided in Application CI C0051815 RTU Replacements Program – Phase 6 (Exhibit N-1). For all differences, please explain the reason for the change.

¹ The sum of the total regular labour cost of \$1,016,722, term labour cost of \$273,420, overtime labour cost of \$121,660, travel expenses of \$119,042, meals of \$25,200.

² The labour overhead cost of \$735,272 which is 47% of the sum of the total regular labour cost of \$1,016,722, term labour cost of \$273,420, overtime labour cost of \$121,660, travel expenses of \$119,042, meals of \$25,200.

³ If the unit cost of labour is \$420 per person-day (PD), then a total labour overhead costs of \$735,272 corresponds to approximately 1,750 PD (calculated by dividing \$735,272 labour overhead costs by \$420) unit labour cost.

⁴ Calculated by dividing 1,750 PD by 14 RTUs.

NON-CONFIDENTIAL

(c) Please provide the loading and resulting dollar amount for each overhead category in both the original and updated estimates, including step-by-step calculations that reconcile each amount to the revised Capital Cost Detailed Estimate.

Response IR-4:

(a-b) Please refer to the tables below for the calculation of Labour and Contractor AO. The calculation is the total labour costs by charge type multiplied by the Labour AO rate for the year.

Labour Overhead Calculation				
Charge Type	2024 Cost (\$)	2025 Cost (\$)	2026 Onwards Cost (\$)	Total (\$)
Regular Labour	66,316	170,554	779,852	1,016,722
Term Labour	-	11,759	255,469	267,228
Term Labour Overtime		6,192		6,192
Overtime Labour	41	17,852	103,767	121,660

Year	Labour AO (%)
2024	57.79%
2025	56.63%
2026 and beyond	53.98%

Charge Type	2024 Labour AO Cost (\$)	2025 Labour AO Cost (\$)	2026 Onwards Labour AO Cost (\$)	Total Labour AO (\$)
Regular Labour	38,321	96,578	420,980	555,879
Term Labour	-	6,659	137,907	144,566
Term Labour Overtime		1,753		1,753
Overtime Labour	12	5,054	28,008	33,074
				735,272

NON-CONFIDENTIAL

Contractor Overhead Calculation				
Charge Type	2024	2025	2026 and beyond	Total
Contracts	29,157	194,307	236,120	459,584
Contractor Overhead Rate	15.27%	14.46%	10.45%	
Contractor Overhead Cost (\$)	4,453	28,101	24,682	57,236

The methodologies for calculating Contractor AO, Labour AO, and Vehicle AO are summarized below:

Labour AO Rates

Eligible expenses are accumulated and allocated on the basis of capital labour as a percentage of total labour, to determine the total eligible overhead costs to be capitalized, as outlined in NS Power's NSEB-approved Accounting Policy 6230 – Application of Administrative and Vehicle Overhead (Self – Constructed Assets). The amount of total eligible expenses to be capitalized are divided by the capital labour driver to determine the applicable AO rate. When determining the capital labour driver, NS Power adjusts total Overtime Labour by 50 per cent, to account for overtime labour rates. As such, only 50 percent of the Overtime Labour costs attract Administrative Overhead.

Contractor AO Rates

The remaining eligible expenditures that are not allocated to capital through the labour AO rates constitute the total eligible expenditures to be allocated through the Contract AO rate. The contract labour percentage is applied to the remaining eligible expenses to determine the amount of eligible expenses to be capitalized through the contract AO rate. The amount of total eligible expenses to be capitalized are divided by the total contract costs driver to determine the applicable AO rate.

NON-CONFIDENTIAL

1 Vehicle AO Rates

2
3 The vehicle AO rate is only attributed to Energy Delivery and is determined by calculating
4 the eligible vehicle costs and prorating these costs between capital and operating activities
5 based on historical use of these vehicles. The total forecast vehicle costs attributed to
6 capital activities and divided by the total forecast capital labour driver to determine the
7 vehicle AO rate. This allocation allows for the proper capitalization of vehicle related costs
8 across the entire program, but can lead to capital projects that may not require vehicles to
9 incur Vehicle Overhead.

10
11 These rates are calculated in accordance with NSEB-approved Accounting Policies 6230
12 – Application of Administrative and Vehicle Overhead (Self-Constructed Assets) and 6235
13 – Application of Administrative Overhead (Constructed Assets).

14
15 There is no difference in methodology between Attachment 1 of the letter filed by NS
16 Power on December 9, 2025, and the original figures provided in Application CI C0051815
17 RTU Replacements Program – Phase 6 (Exhibit N-1 of NS Power’s 2026 ACE Plan). The
18 rates change yearly.

19
20 (c) Due to the cyber incident, NS Power does not currently have access to the original estimate
21 details to provide a comparison table. Please refer to the tables above for the calculation of
22 the overheads for the current estimates.

CONFIDENTIAL (Attachment Only)

Request IR-5:

At Page 1 of 3 of the NSPI (NSUARB) IR-66 (Exhibit N-9 of 2025 ACE Plan), NS Power presents the following table:

CI	Cost Element	Source
C0031048 - 91H-T11 Transformer Replacement	Materials	Purchase Agreement
	Contracts	Internal Expertise/Purchase Agreement
	Consulting	Internal Expertise
C0050834 - Spare EHV Breaker Replacements	Materials	Purchase Agreement
	Contracts	N/A
	Consulting	N/A
C0050852 - 10V-T1 Transformer Replacement	Materials	Internal Expertise/Purchase Agreement
	Contracts	Internal Expertise/Purchase Agreement
	Consulting	Internal Expertise
C0051815 - RTU Replacements Program Phase 6	Materials	Vendor Quotes
	Contracts	External Advice and Internal Expertise
	Consulting	N/A

(a) For Phase 6 (CI C0051815) Contracts costs:

- (i) Please identify all external parties whose advice or services informed the Contracts cost estimate (e.g., engineering consultants, installation contractors, OEMs), and for each, provide the relevant statements of work, proposals, rate sheets, emails, or other documentation that describe their scope, rates, and assumptions.**
- (ii) Please identify the NS Power internal groups or roles whose internal expertise was used to develop the Contracts estimate.**
- (iii) Please explain how the inputs from external advice and internal expertise were translated into the final Contracts line-item amounts (e.g., by showing**

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1 estimated hours or PD, labour rates, unit rates, and any mark-ups or
2 contingencies applied).

3
4 **(b) For the major RTU supply and services involved in Phase 6 (including RTUs,**
5 **associated telecommunications/networking components, and**
6 **installation/commissioning services), please describe the procurement strategy used**
7 **(e.g., competitive tender, negotiated/sole-source, standing offer), and for each major**
8 **contract or purchase:**

9
10 **(i) Please indicate whether the scope was competitively tendered, and if so, the**
11 **number of bidders and the range of bid prices or rates received.**

12
13 **(ii) Please summarize the evaluation criteria used to select the successful vendor(s)**
14 **(price, technical capability, standardization, schedule, etc.).**

15
16 **(c) With respect to the allocation of work between internal resources and external**
17 **contractors for Phase 6, please describe any internal analysis NS Power has**
18 **undertaken comparing the estimated cost of the chosen delivery model to alternative**
19 **delivery models.**

20
21 **(i) If such analysis exists, summarize the alternative options considered, their**
22 **indicative total costs and labour hours, and the principal reasons for selecting**
23 **the current delivery model for Phase 6.**

24
25 **(ii) Please provide equivalent analyses for Phases 1 to 5, comparing the estimated**
26 **cost and labour hours of the delivery model used with those of any alternative**
27 **delivery models, and provide the rationale for selecting the final approach.**
28

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1 Response IR-5:

2
3 (a)

4 (i) NS Power maintains a list of contractors that have existing Engineering Master
5 Services Agreement (EMSAs), which is used as the primary source for engaging
6 external resources required to support project delivery. For engineering consulting
7 services, EastPoint Engineering was selected based on the specific expertise
8 required for the RTU Replacement Project to support the scope of work. NS Power
9 Procurement has Engineering Services agreements in place with various
10 engineering firms with set rates for various engineering positions. Eastpoint
11 Engineering is one of NS Power's preferred engineering services vendors. Please
12 refer to Confidential Attachment 1 for the Engineering Services Procurement
13 document.

14
15 For civil engineering services, NS Power routinely engages contractors from its
16 approved EMSA list, including Black & McDonald Ltd. and Harbour Construction.
17 Both firms are familiar with NS Power's standards and the civil work typically
18 associated with RTU installations. Requests for quotations are issued based on site-
19 specific civil packages, and the contractor with availability and competitive pricing
20 is selected. Attachment 2, Confidential Attachment 3, Attachments 4-6, and
21 Partially Confidential Attachment 7 are sample communications demonstrating the
22 request-for-quote process, along with representative civil package and statements
23 of work from similar RTU-related projects. The estimated cost of civil was an
24 average from quotes provided from work on similar projects. Confidential
25 Attachments 8-11 are the MSA documents for Black & MacDonald and Harbour
26 Construction.

27
28 (ii) The contract cost estimates for Phase 6 were informed by internal subject matter
29 expertise across relevant NS Power functional groups with direct experience
30 delivering RTU replacement and related substation work. This included input from

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1 project management and engineering, based on their experience with the technical
2 work, current delivery practices, coordination with contractors and vendors, and
3 risk considerations.

4
5 (iii) The final Contracts line-item amounts for Phase 6 were developed using a
6 combination of internal expertise and external vendor and contractor input. Internal
7 subject matter experts provided estimates of the scope, and expected duration of
8 work based on current project requirements and previous experience delivering
9 similar RTU projects. These inputs were translated into estimated person-days or
10 hours by labour category, and then costed using current applicable labour rates. For
11 the Electrical Engineering Technologist, the rate was based on the Engineering
12 Services Agreement with Eastpoint Engineering as noted in the response to part (a)
13 above.

14
15 For externally contracted work, including engineering and civil construction, line-
16 item amounts were informed by recent comparable project costs. Where detailed
17 hourly breakdowns were not provided by contractors, costs were captured as lump-
18 sum contract values and converted to equivalent person days and labour hours for
19 reporting consistency as requested in 2025 ACE Plan IR-140.

20
21 Contingency allowances were applied at the project level and are intended to
22 address uncertainties such as foreign currency fluctuations; resource rate increases
23 and additional work that may be required. The contingency rate applied in the Phase
24 6 estimate is 10% which is consistent with NS Power's non-binding contingency
25 guidelines for a Class 3 estimate. The resulting estimates are summarized in the
26 revised cost estimation sheet for the RTU Replacement Project – Phase 6, filed on
27 December 9, 2025.

28
29 (b) The RTU vendor was selected using a Request for Proposal (RFP) competitive process.
30 The RTUs were procured utilizing the resulting GSA (Goods and Services Agreement).

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1 All associated telecommunications/networking and installation/commissioning services
2 were performed by internal resources.

3
4 (i) The RFP for an RTU vendor was issued to market in April 5, 2023, and Partially
5 Confidential Attachment 12 provides the recommendation which summarizes the
6 competitive process used for this initiative as well as the evaluation criteria.

7
8 (ii) Please refer to Partially Confidential Attachment 12.

9
10 (c) No formal comparative cost analysis was undertaken for Phase 6 to evaluate alternative
11 delivery models for allocating work between internal resources and external contractors.
12 The allocation of work was based on the nature of the tasks required, the specialized skills
13 associated with each labour category, and the availability of internal resources to perform
14 the work. NS Power did not have the capability of using only internal resources due to the
15 amount of work required and the resource capacity constraints on our internal resources.
16 Therefore, experienced external contractors were engaged to assist with the project
17 engineering workload and civil activities. It does not make sense for NS Power to maintain
18 a specialized resource compliment for activities such as civil work at our substations. It is
19 much more efficient to this outsource this work to experienced contractors who specialize
20 in this area.

21
22 (i) N/A.

23
24 (ii) This type of analysis was not undertaken for Phases 1 to 5; a similar approach, as
25 described above for Phase 6, was applied to Phases 1 to 5, utilizing external
26 engineering and contractor resources when needed.

**Review of C0051815 NSEB IR-5 Attachment 1
has been removed due to confidentiality.**

From: [Otokunrin, Deborah](#)
To: [gbyrnes@blackandmcdonald.com](#)
Cc: [tmceachern@blackandmcdonald.com](#); [kdemings@blackandmcdonald.com](#); [Brabant, Andrea](#)
Subject: Request for Quote/Price
Date: April 2, 2025 3:04:00 PM
Attachments: [74N IFS CIVIL PKG.pdf](#)

Hi Greg,

Attached is the civil package for substation 74N-Springhill.

Kindly provide a quote and estimated lead time for the work at the site.

Thank you.

Deborah Otokunrin | Telecom Project Manager | **Nova Scotia Power**

T: 902-219-2353 | C: 902-210-9210

E: deborah.otokunrin@nspower.ca

www.nspower.ca

**Review of C0051815 NSEB IR-5 Attachment 3
has been removed due to confidentiality.**

STATEMENT OF WORK

This SOW shall be governed by the terms of the Master Agreement between Nova Scotia Power Inc. and Harbour Construction Company Ltd. effective as of November 1, 2021.

Authorization Number: _____ Date: September 16th 2022

Project: RTU Installation – Civil Works – Various Sites – 57S, 82S & 16N

1. Description of the Services:

- Supply and installation of buried conduit
- Installation of pullpits
- Grounding installation
- Gravel works

2. Contract Time:

Services to commence on Sept. 26th and completed on or before: Nov. 30th.

3. Services to be performed at (Location/Address) Various sites

4. Contract Price:

(a) Time and Materials Basis:

- See attached quote

Estimated Total Contract Price: \$ 59,210.00 plus HST.

NOVA SCOTIA POWER INCORPORATED

Issued by: _____

Name: Balraj Bilkhu

Title: Engineering Lead, Substation & Transmission

HARBOUR CONSTRUCTION COMPANY LTD

This SOW has been accepted on September 16, 2022 by:

Authorized Signature of Service Provider: 

Name: Josh Gallant

Title: Director - Harbour Construction Company Limited

STATEMENT OF WORK

This SOW shall be governed by the terms of the Master Agreement between Nova Scotia Power Inc. and Harbour Construction Company Ltd. effective as of June 1, 2022.

Authorization Number: _____ Date: June 1, 2023,

Project: Cleveland (22C), SW Margaree (58C), St. Peter's (59C) Substations – Civil Work

1. Description of the Services:

- Civil Work – Conduit excavation and placement

2. Contract Time:

Services to commence on May 29th, 2023 and completed on or before: August 1st, 2023

3. Services to be performed at (Location/Address) Cleveland (22C), SW Margaree (58C), St. Peter's (59C) Substations

4. Contract Price:

(a) Time and Materials Basis:

- See attached quote

Estimated Total Contract Price: \$ 108,360.00 plus HST.

NOVA SCOTIA POWER INCORPORATED

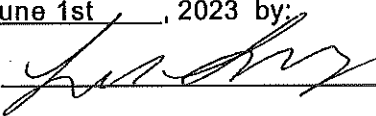
Issued by: _____

Name: Chris Milligan

Title: Director, System Planning & Grid Integration

HARBOUR CONSTRUCTION COMPANY LTD

This SOW has been accepted on June 1st, 2023 by:

Authorized Signature of Service Provider: 

Name: Josh Gallant

Title: Director

STATEMENT OF WORK

This SOW shall be governed by the terms of the Master Agreement between Nova Scotia Power Inc. and Harbour Construction Company Ltd. effective as of June 1, 2022.

Authorization Number: _____ Date: June 1, 2023

Project: 16W, 89W, 84W, 25W, 4N, 7N, 87H, Substations – Civil Work

1. Description of the Services:

- Civil Work – Conduit excavation and placement

2. Contract Time:

Services to commence on May 29th, 2023 and completed on or before: October 1st, 2023.

3. Services to be performed at (Location/Address) 16W, 89W, 84W, 25W, 4N, 7N, 87H, Substations – Civil Work

4. Contract Price:

(a) Time and Materials Basis:

- See attached quote

Estimated Total Contract Price: \$ 168,405.00 plus HST.

NOVA SCOTIA POWER INCORPORATED

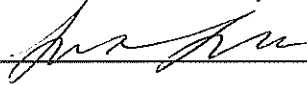
Issued by: _____

Name: Chris Milligan

Title: Director, System Planning & Grid Integration

HARBOUR CONSTRUCTION COMPANY LTD

This SOW has been accepted on June 1st, 2023 by:

Authorized Signature of Service Provider: 

Name: Josh Gallant

Title: Director

SCHEDULE "E"

STATEMENT OF WORK

This SOW shall be governed by the terms of the Master Agreement between Nova Scotia Power Inc. and Black & McDonald Ltd. effective as of the 1st day of August 1st 2022.

Authorization Number: _____ Date: _____

Project: 74N – Springhill RTU

1. Description of the Services:

- Project Preparation (Project Safety Plan)
- Site Mobilization
- Supply/Install buried conduit as per dwg S 074N0 5 401 00 001
- Perform grounding repairs (if required), with materials supplied by NSPI
- Site Demobilization

2. Contract Time:

Services to commence on April 24, 2025 and completed on or before: May 30, 2025.

3. Services to be performed at (Location/Address) 74N Springhill Substation.

4. Contract Price:

(a) Time and Materials Basis:

- **See attached quote**

Estimated Total Contract Price: \$ plus HST.

NOVA SCOTIA POWER INCORPORATED

Issued by: _____

Name: _____

Title: _____

BLACK & MCDONALD LIMITED

This SOW has been accepted on April 11, 2025 by:

Authorized Signature of Service Provider: Black & McDonald Limited

Name: Karen DeMings

Title: Estimating Manager

**Review of C0051815 NSEB IR-5 Attachment 8
has been removed due to confidentiality.**

**Review of C0051815 NSEB IR-5 Attachment 9
has been removed due to confidentiality.**

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

**Review of C0051815 NSEB IR-5 Attachment 10
has been removed due to confidentiality.**

**Review of C0051815 NSEB IR-5 Attachment 11
has been removed due to confidentiality.**

**Remote Terminal Unit (RTU) Supplier of Choice
Recommendation – RFP-01/2023-053 C
July 2023**



Project Details	
Reference ID	RFP-01/2023-053 C
Project Name	Remote Terminal Unit (RTU) Supplier of Choice
Project Owner	Mahmoud Ahrari
Project Type	RFP
Department	TRANSMISSION GENERAL / Trans. Gen. Telecom - 0000000064
Budget	
Project Description	NSPI is issuing this request for proposal (“RFP”) to solicit proposals to purchase ten (10) remote terminal units (RTU) initially, as per technical specification. Please refer to Attachment "A" for the technical specifications. There is no NERC CIP or security risk for these RTUs. The RTU is a small microprocessor-based device which enables ECC operators to monitor and control a remotely located substation. They are not connected to the corporate network or any public network, and maintenance for them must be performed on-site since they are not remotely accessible.
Open Date	Apr 05, 2023 9:30 AM ADT
Intent to Bid Due	Apr 12, 2023 10:00 AM ADT
Close Date	May 24, 2023 5:00 PM ADT

Submitted to:

- | | |
|-----------------|---|
| • Andrea Mackay | Procurement Operations Manager, T&D Procurement & Real Estate |
| • Chuck Victor | Engineer, Senior Specialist, T&D Technical Services |
| • Peter Murray | Director, Procurement & Real Estate and Corporate Security |
| • Glen MacLeod | Director, Customer & Grid Intelligence |

Prepared by:

- | | |
|------------------|--|
| • Mahmoud Ahrari | Procurement Team Lead, T&D Procurement & Real Estate |
|------------------|--|

 Nova Scotia
POWER
An Emera Company

- Eric Penney Telecontrol Engineer, T&D Technical Services

- a) Is competitive from a quality and cost perspective.
- b) Will enter into an agreement with NSPI for a period not less than five (5) year(s).
- c) Has the ability to meet required project timelines.
- d) Meets the required specifications.

- **NovaTech Automation**

Total CAD expenditure from this Recommendation:

THIS RECOMMENDATION		
Capital or Operating?	Capital	
Total Expenditure of this Recommendation is		
Total Budgeted for this Scope of Work is:		
Difference Between Recommended Expenditure and Budgeted Amount is:		
TOTAL PROJECT INFORMATION		
Total Project Budget is:		
Total Committed to Date is:		
Total Spent to Date is:		
Total Project Value Remaining:		
If Value Remaining is Negative has Project Received Approval to Overspend?		N/A

On April 5, 2023, a Request for Proposal for the Remote Terminal Unit (RTU) Supplier of Choice was issued to the following companies:

Contacted and Did Not Respond or Declined

**Remote Terminal Unit (RTU) Supplier of Choice
Recommendation – RFP-01/2023-053 C
July 2023**



[REDACTED]

NovaTech Automation:

[REDACTED]

Risk Review:

Safety: All risks identified in this initiative are being mitigated through standard NSPI SWP's and procedures.

Recommendation:

The evaluation team confidently presents this Recommendation and believes the process was both competitive and transparent and requests your approval.

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Request IR-6:

At Page 2 of 2 of the NSPI (NSUARB) IR-140 (Exhibit N-9 of 2025 ACE Plan), NS Power states:

The Phase 1 RTU Replacement Project was for the replacement of 8 units. Below is the estimate of labour hours.

Regular Labour (Internal)	Unit	Days	Total Hours	Avg Hours per RTU
T & D Labor (Engineering & Technicians)	PD	485	3880	485

(a) Please populate the table below to provide the labour hours per RTU for Phase 1, consistent with the format and level of detail provided for Phase 6. If an exact allocation for Phase 1 is not available from the original estimate or records, please provide NS Power's best estimate, explain the basis for that allocation, and identify any assumptions made.

	Phase 1	Phase 6
	Total	Total
	Average hours per RTU	
SM Electrician	[enter hours]	240
SM Electrician (overtime)	[enter hours]	492
Telecontrol Engineer	[enter hours]	208
Telecontrol Technologist	[enter hours]	160
PLT-Field Resources	[enter hours]	40
RTU Technician	[enter hours]	200
Drafting SME CADD	[enter hours]	360
Project Manager	[enter hours]	64
SCADA	[enter hours]	16
Electrical Engineering Technologist	[enter hours]	201
Civil Construction	[enter hours]	57
Total	485	2038

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(b) For both Phase 1 and Phase 6, please complete the table below by providing, for each role, the average hours per RTU allocated to each project phase, and the total hours per RTU. Please ensure that, for each role and phase, the Phase 1 and Phase 6 totals per RTU reconcile to the average hours per RTU previously provided in response to IR-140.

	Phase 6						
	Breakdown based on project phase						Total
	Engineering / design	Drafting	Installation	Test	Project management	Travel time	
	Average hours per RTU						
SM Electrician	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	240
SM Electrician (overtime)	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	492
Telecontrol Engineer	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	208
Telecontrol Technologist	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	160
PLT-Field Resources	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	40
RTU Technician	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	200
Drafting SME CADD	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	360
Project Manager	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	64
SCADA	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	16
Electrical Engineering Technologist	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	201
Civil Construction	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	57

Review of C0051815 - RTU Replacements Program - Phase 6 (NSEB M12550)
 NSPI Responses to NSEB Information Requests

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	Phase 6						
	Breakdown based on project phase						Total
	Engineering / design	Drafting	Installation	Test	Project management	Travel time	
	Average hours per RTU						
	Total	0	0	0	0	0	0

(c) For a representative Phase 6 RTU installation site, describe the planned sequence of major work steps and for each step provide the expected crew composition by job title, the typical days on site or person-days, and any assumptions regarding shift length, parallel versus sequential work, and required outages.

Response IR-6:

The average labour hours per RTU for each labour category based on NS Power's revised submission for the RTU Replacement Project – Phase 6 are provided below, with NS Power's calculation assumptions. These average hours differ from Midgard's calculation above; all subsequent IR responses utilize NS Power's calculation as shown below. Please note that each of the sites differ in terms of location, accessibility, complexity, etc. and that the actual amount of labor for each of the categories may vary from these average estimates per RTU.

Phase 6 Labour Hours				
Labour Category	Person Days	Hrs/Day	Total Hrs	Average Hrs/RTU
SM Electrician	420	8	3,360	240
Electrician/Technician (overtime)	112	8	896	64
Engineering	861	7	6,027	431
Telecontrol Technologist	364	7	2,548	182
PLT-Field Resources	280	8	2,240	160
RTU Technician	630	8	5,040	360
Drafting SME CADD	70	7	490	35
Project Manager	350	7	2,450	175
Electrical Engineering Technologist	352	7	2,464	176
Civil Construction	100	7	700	100
PLT (overtime)	28	8	224	16
Total	3,817		28,189	1,939

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(a) The Phase 1 labour distribution presented below represents NS Power's best estimate based on the information available. For Phase 1 allocations, NS Power has assumed as follows:

Some resources that are included in Phase 6 were not present in Phase 1 such as a dedicated Project Manager, Telecontrol Technologist, Electrical Engineering Technologist and RTU Technician. The estimated hours for Phase 1 have been allocated to the resources that were available at the time as shown in the table below. There was also no overtime work estimated for Phase 1. For Phase 1 allocations we assumed a similar ratio as the Phase 6 estimate for engineering, electrician/technicians, PLT field resources and Drafting.

No civil work was included in Phase 1, as new points and associated wiring were not within the scope for those sites.

	Phase 1	Phase 6
	Total	Total
	Average hours per RTU	
SM Electrician	176	240
Electrician/Technician (overtime)	0	64
Engineering	254	431
Telecontrol Technologist	0	182
PLT-Field Resources	46	160
RTU Technician	0	360
Drafting SME CADD	9	35
Project Manager	0	175
Electrical Engineering Technologist	0	176
Civil Construction	0	100
PLT (overtime)	0	16

Total	485	1,939
--------------	------------	--------------

(b) Please refer to the tables below. As indicated above, totals for Phase 6 will reconcile to NS Power's revised calculations above. NS Power does not typically budget based on the project phases listed below; as such please refer to NS Power's assumptions below.

Review of C0051815 - RTU Replacements Program - Phase 6 (NSEB M12550)
NSPI Responses to NSEB Information Requests

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	Phase 6						
	Breakdown based on project phase						Total
	Engineering /Design	Drafting	Installation	Test	Project management	Travel time	
SM Electrician	14	0	108	94	0	24	240
Electrician/Technician (overtime)	0	0	0	32	0	32	64
Engineering	403	0	7	7	0	14	431
Telecontrol Technologist	154	0	7	7	0	14	182
PLT - Field Resources	0	0	0	136	0	24	160
RTU Technician	64	0	164	92	0	40	360
Drafting SME CADD	0	35	0	0	0	0	35
PM	0	0	0	0	168	7	175
Electrical Engineering Technologist	148	0	7	7	0	14	176
Civil Construction	0	0	100	0	0	0	100
PLT (overtime)	0	0	0	8	0	8	16
Total	783	35	393	383	168	177	1,939

Assumptions for allocations in Table above:

- SM Electrician: Most time allocated to installation and testing/commissioning. Some time for scoping under engineering/design. Time for travel to site.
- Electrician/Technician overtime: Allocated to testing/commissioning and travel to site.
- Engineering and Telecontrol Technologist: Most time allocated to engineering/design. Time allocated for technical assistance for installation and testing/commissioning. Travel time for scoping and site visits.
- PLT Field Resources: Most time allocated to support testing/commissioning requirements for outages, switching procedures, etc. Time for travel to site.
- RTU Technician: Most time allocated to installation and testing/commissioning. Time for scoping and support for engineering/design. Time for travel to site.
- Drafting SME CADD: Time allocated to drafting.
- Project Manager: Most time allocated to Project Management. Travel time for site visits.
- Electrical Engineering Technologist: Most time allocated to engineering/design. Time allocated for technical assistance for installation and testing/commissioning. Travel time for scoping and site visits.
- Civil Construction: Time allocated for installation phase.
- PLT overtime: Allocated to testing/commissioning and travel to site.

Review of C0051815 - RTU Replacements Program - Phase 6 (NSEB M12550)
 NSPI Responses to NSEB Information Requests

NON-CONFIDENTIAL

	Phase 1						
	Breakdown based on project phase						Total
	Engineering /Design	Drafting	Installation	Test	Project management	Travel time	
SM Electrician	21	0	72	58	0	25	176
Electrician/Technician (overtime)	0	0	0	0	0	0	0
Engineering	185	0	6	6	44	13	254
Telecontrol Technologist	0	0	0	0	0	0	0
PLT - Field Resources	0	0	0	38	0	8	46
RTU Technician	0	0	0	0	0	0	0
Drafting SME CADD	0	9	0	0	0	0	9
PM	0	0	0	0	0	0	0
Electrical Engineering Technologist	0	0	0	0	0	0	0
Civil Construction	0	0	0	0	0	0	0
PLT (overtime)	0	0	0	0	0	0	0
Total	206	9	78	102	44	46	485

Assumptions for allocations in Table above:

- SM Electrician: Most time allocated to installation and testing/commissioning. Some time for scoping under engineering/design. Time for travel to site.
- Electrician/Technician overtime: Not included in estimate.
- Engineering: Most time allocated to engineering/design. Time allocated for technical assistance for installation and testing/commissioning. Travel time for scoping and site visits.
- Telecontrol Technologist: Not included in estimate.
- PLT Field Resources: Most time allocated to support testing/commissioning requirements for outages, switching procedures, etc. Time for travel to site.
- RTU Technician: Not included in estimate.
- Drafting SME CADD: Time allocated to drafting.
- Project Manager: Not included in estimate.
- Electrical Engineering Technologist: Not in estimate.
- Civil Construction: Not included in estimate.
- PLT overtime: Not included in estimate.

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1 (c) A sequence of major planned work steps for a representative Phase 6 RTU installation site
2 is as follows:

- 3
- 4 1. Civil Installation
 - 5 2. Electrical Installation
 - 6 3. Testing/Commissioning
- 7

8 Please refer to the table above in part (b) for the expected resources for each major work
9 step and the expected work hours. The crew complement for the Electrical Installation and
10 Testing/Commissioning work steps is made up of one SM Electrician and one RTU
11 Technician with support from PLT field resources. The Electrical Installation work is
12 preceded by Civil Construction, where required, by external contractors with one RTU
13 Technician providing site supervision. The typical days on site for an RTU installation is
14 approximately 25 - 32 days depending on actual crew complement. The normal shift length
15 for the Technicians is 8 hours per day. These work steps i.e. civil installation, electrical
16 installation and testing/commissioning are normally done sequentially. There are planned
17 outages required to fully test and commission the RTU and sometimes planned outages are
18 required for the installation work.

19

CONFIDENTIAL (Attachment Only)

Request IR-7:

At Page 2 of 2 of the NSPI (NSUARB) IR-140 (Exhibit N-9 of 2025 ACE Plan), NS Power states:

The increase in estimated labour hours for Phase 6 in comparison to Phase 1 is a direct result of evolving infrastructure complexity, changes in compliance requirements, accessibility challenges, enhanced technological scope and testing procedures, and workforce constraints. These factors collectively contribute to the higher labour effort required compared to Phase 1.

(a) Please provide the RTU installation and commissioning test procedures used for Phase 1 and the updated test procedures to be used for Phase 6. For each, please include any relevant checklists, commissioning forms, and sign-off requirements that define the testing scope.

(b) Using a mark-up, comparison table, or other clear method, highlight the material differences between the Phase 1 and Phase 6 test procedures (e.g., additional tests, added devices, additional documentation or sign-offs), and explain how each change contributes to increased labour effort.

(c) Please estimate the incremental labour hours per RTU attributable to the additional Phase 6 testing and commissioning activities identified in part (b), distinguishing between engineering/design effort and field execution.

Response IR-7:

(a-b) Please refer to Confidential Attachment 1 for Phase 1 representative checklists and Confidential Attachment 2 for Phase 6 representative checklists, which shows the standardized checklist template and includes commissioning form completion and sign-off requirements.

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1
2 The material difference in test procedures is the volume of checks executed in Phase 6.
3 From the Phase 1 site External Connection Sheets (ECS), the inferred total I/O
4 (Input/Output) point count at time of installation is approximately 425, averaging 53 points
5 per RTU across 8 RTUs. In contrast, Phase 6 is projected to have 3,192 points, averaging
6 228 points per RTU across 14 RTUs, a 4.3-fold increase per RTU. The total I/O point count
7 is important because it shows how many signals the new RTU must handle and drives labor
8 up or down, since every point has to be designed, wired, programmed, tested, and
9 commissioned. Phase 6 requires more test instances and records per RTU due to a higher
10 initial I/O point count and additional points from more IEDs and a broader device mix. The
11 increased point counts strengthen SCADA and grid operation by enhancing telemetry and
12 control, improving system condition monitoring, supporting system planning, and helping
13 reduce outage duration, thereby supporting reliability and service quality for customers.
14 Although the checklist template is unchanged, this increases procedure length and the
15 volume of supporting records, driving higher labour effort.

- 16
17 (d) The incremental labour hours per RTU attributable to the Phase 6 testing and
18 commissioning activities are shown in IR-8 part (a). Please refer to the column labelled as
19 Change in Test Procedures.

**Review of C0051815 NSEB IR-7 Attachment 1
has been removed due to confidentiality.**

**Review of C0051815 NSEB IR-7 Attachment 2
has been removed due to confidentiality.**

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Request IR-8:

At Page 2 of 2 of the NSPI (NSUARB) IR-140 (Exhibit N-9 of 2025 ACE Plan), NS Power states:

The increase in estimated labour hours for Phase 6 in comparison to Phase 1 is a direct result of evolving infrastructure complexity, changes in compliance requirements, accessibility challenges, enhanced technological scope and testing procedures, and workforce constraints. These factors collectively contribute to the higher labour effort required compared to Phase 1.

(a) For each job title listed in the table below, please provide NS Power's best estimate of the average hours per RTU in Phase 1 and Phase 6. All cells should be expressed as hours per RTU. Please ensure that, for each role and phase, the Phase 1 and Phase 6 totals per RTU reconcile to the average hours per RTU previously provided in response to IR-140.

	Phase 1	Phase 6						
		Labour increase because of						Total
		Infrastructure complexity	Change in compliance	Change in test procedure	Scope change	Accessibility change	Workforce constraints	
	Average hours per RTU							
SM Electrician	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	240
SM Electrician (overtime)	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	492
Telecontrol Engineer	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	208
Telecontrol Technologist	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	160
PLT-Field Resources	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	40
RTU Technician	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	200

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	Phase 1	Phase 6						
		Labour increase because of						Total
		Infrastructure complexity	Change in compliance	Change in test procedure	Scope change	Accessibility change	Workforce constraints	
	Average hours per RTU							
	Drafting SME CADD	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]
Project Manager	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	64
SCADA	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	16
Electrical Engineering Technologist	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	201
Civil Construction	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	[enter hours]	57
Total	485	0	0	0	0	0	0	2038

(b) Please provide recent site photographs that visually demonstrate “Infrastructure Complexity” and “Accessibility Change”.

(i) For each such site, please explain how the observed infrastructure complexity and accessibility conditions have changed between Phase 1 and Phase 6, and how those changes are reflected in the incremental labour hours allocated to the “Infrastructure complexity” and “Accessibility change” categories in the table in part (a).

Review of C0051815 - RTU Replacements Program - Phase 6 (NSEB M12550)
 NSPI Responses to NSEB Information Requests

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Response IR-8:

(a) Please refer to the table below. Please also refer to IR-6. The identified drivers of increased labour hours are interrelated qualitative factors that collectively affect the overall labour effort. The information provided below represents NS Power's most reasonable estimate of their contribution to the overall average labour hours.

	Phase 1	Phase 6						
		Labour increase because of						Total
		Infrastructure complexity	Change in compliance	Change in test procedure	Scope change	Accessibility change	Workforce constraints	
	Average hours per RTU							
SM Electrician	176	19	1	13	19	6	6	240
Electrician/Technician (overtime)	0	19	1	13	19	6	6	64
Engineering	254	80	4	14	78	2	0	431
Telecontrol Technologist		82	4	15	80	2	0	182
PLT-Field Resources	46	46	0	0	46	11	11	160
RTU Technician		104	7	72	104	36	36	360
Drafting SME CADD	9	13	0	0	13	0	0	35
PM		53	9	18	53	9	35	175
Electrical Engineering Technologist		79	4	14	77	2	0	176
Civil Construction		50	0	0	50	0	0	100
PLT (overtime)	0	6	0	0	6	2	2	16
Total	485	551	30	159	545	76	96	1,939

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(b) Please refer to the following attachments:

- Confidential Attachment 1: Recent Site Photos - Infrastructure Complexity (74N)
- Confidential Attachment 2: Drawing markup with recent Site Photos - Infrastructure Complexity (4S)
- Attachment 3: satellite image demonstrating site accessibility challenges - Accessibility Challenges (91V)

(i) For Confidential Attachment 1 (Springhill, 74N), the Phase 6 replacement RTUs accommodate additional IED connections and higher I/O point counts across a broader equipment mix. Phase 1 installations generally involved simpler architectures with lower I/O point counts and interfaces, which narrowed design, installation, and commissioning scope. The denser wiring and termination volumes, expanded cable management, modernized panel designs, and more detailed quality assurance and IFC packages translate into increased labour recorded in the “Infrastructure complexity” category in part (a) across engineering/design, drafting, project management, travel, installation and testing.

For Confidential Attachment 2 (Townsend Street, 4S), the drawing markup and associated photos illustrate the type of additional civil scope encountered at some Phase 6 locations, including routing between yard equipment and building interiors. This introduces penetrations, conduit/tray pathways, and interface coordination between yard and building systems, increasing overall complexity relative to comparable Phase 1 work. The resulting effort is captured under “Infrastructure complexity” in part (a) for activities such as civil planning, travel, approvals, surveying, excavation, conduit installation, surface restoration, and documentation.

For Attachment 3 (Fourth Lake Hydro, 91V) the satellite imagery highlights accessibility challenges in Phase 6. Access includes off-road approaches, uneven terrain, and weather-dependent planning, along with safety considerations and

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1 increased travel time compared to Phase 1. These conditions are reflected in the
2 “Accessibility change” category in part (a) for activities including
3 mobilization/demobilization, logistics and equipment transport, safety planning,
4 and scheduling tied to seasonal conditions.

5
6 In summary, Phase 6 involves higher infrastructure complexity and more
7 challenging access as demonstrated in the attachments. These increases result from
8 higher I/O and IED integration and from additional civil scope at select locations.
9 They are reflected in part (a) as incremental labour under “Infrastructure
10 complexity” and “Accessibility change” for activities such as engineering/design
11 and drafting; installation, testing, and commissioning; civil planning and execution;
12 travel, logistics, and mobilization.
13

**Review of C0051815 NSEB IR-8 Attachment 1
has been removed due to confidentiality.**

**Review of C0051815 NSEB IR-8 Attachment 2
has been removed due to confidentiality.**



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Request IR-9:

At Page 1 of 3 of the NSPI (NSEB) Undertaking U-6 (Exhibit N-21 of 2025 ACE Plan), NS Power states:

Since Phase 1, regulatory and internal standards have advanced, particularly in areas like cybersecurity, safety, and quality assurance i.e. internal documentation standards. These changes necessitate additional time and specialized expertise to meet current expectations.

(a) Please provide a list of the standards, guidelines, and internal procedures applicable to RTU installations in Phase 1 and in Phase 6 in the areas of cybersecurity, safety, and quality assurance, noting any updates or revisions that apply in Phase 6.

(b) Since Phase 1, please identify any changes in external compliance or regulatory requirements, and in internal standards, that have contributed to increased Phase 6 project management and related labour (including engineering, drafting, review, testing, and documentation). For each such change:

(i) Please identify the new or revised requirement (including whether it relates to cybersecurity, safety, or quality assurance) and indicate whether it applied in Phase 1.

(ii) Please provide a reference to the applicable standard, guideline, or internal document.

(iii) Please provide NS Power's estimate of the additional labour hours and cost attributable to the change, by affected labour category or discipline, to the extent reasonably available.

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Response IR-9:

(a) The following is a list of standards, guidelines and internal procedures applicable to RTU installations in Phase 6 and Phase 1 in the areas of cybersecurity, safety and quality assurance. Please refer to part (b) for noted updates/revisions that apply in Phase 6.

- Emera Cybersecurity standards
- NS Power Contractor Safety Management Program
- NS Power Safety Rules
- NS Power Safety Manual
- NS Power Safe Work Practices
- Vehicle Practices
- Improved internal documentation
- Improved IFC Work Packages and documentation (i.e. RFW – Request for Work packages)

(b)

(i) The following are new or revised requirements applied to current RTU projects that did not apply to Phase 1:

- Emera Cybersecurity standards – Cybersecurity
- NS Power Contractor Safety Management Program - Safety
- Improved internal documentation – Quality Assurance
- Improved IFC Work Packages (i.e. RFW – Request for Work packages) – Quality Assurance

The following is a brief description of how each of these new or revised requirements impacted the Phase 6 project:

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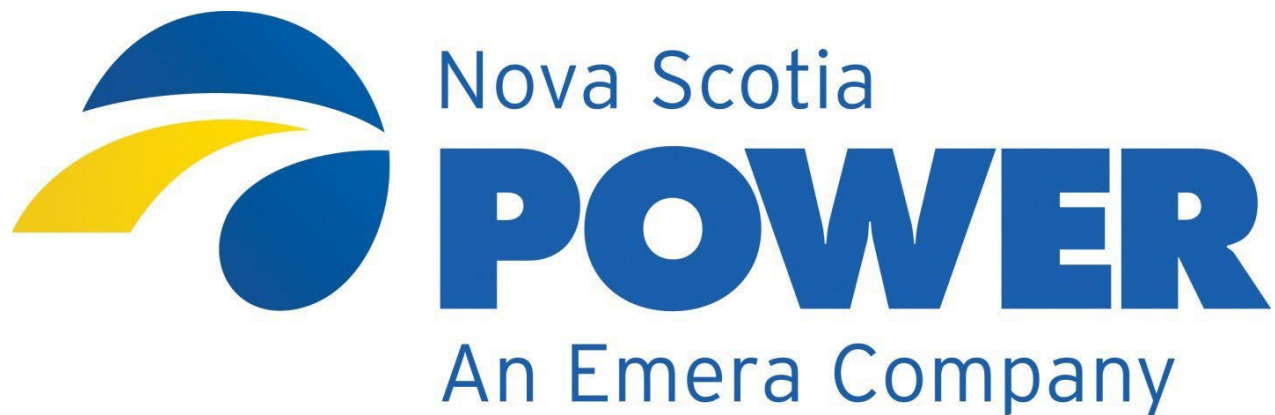
1 Emera Cybersecurity Standards apply to all aspects of cyber security including the
2 laptops used by the engineers, technologists and technicians working on the project.
3 It takes more time and approvals to get the required software tools installed and
4 functioning on the laptops.
5

6 NS Power Contractor Safety Management Program is a much more comprehensive
7 program for managing contractor safety than was available for earlier phases. It
8 includes managing the required safety documentation, arranging start up meetings
9 and supervising the contractor on site.
10

11 Improved internal documentation and improved IFC work packages are practices
12 that we follow to ensure improved quality assurance for the drawings and work
13 packages that are issued.
14

15 (ii) Please refer to Attachment 1 for the NS Power Contractor Safety Management
16 Program. The improved internal documentation and IFC Work Packages internal
17 practices are not formally documented. These are internal practices that NS Power
18 personnel apply to improve the quality of the substation drawings used in RTU
19 installations to support the overall installation and commissioning of the RTU.
20

21 (iii) Please refer to IR-8 (a) for the estimate of additional hours associated due to the
22 change in compliance for regulatory and internal standards for cybersecurity, safety
23 and quality assurance.



Contractor Safety Management Program

2023

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1. BACKGROUND

The safety of employees and the public is more important than any business interest. Emera shares in the desire of our employees, customers, shareholders, and others to enjoy the benefits of a sound economy in a safe and sustainable environment. Emera is committed to meeting business objectives in a manner which is respectful and protective of the safety of people in the workplace, the environment, and communities in which we operate.

2. PURPOSE

At Nova Scotia Power Inc. (hereafter identified as NSPI), we believe all occupational illnesses and injuries are preventable. The purpose of the Contractor Safety Management Program (CSMP) is to prevent injuries and illness as well as other safety and environmental incidents due to the activities of contractors working for NSPI.

The Contractor Safety Management Program establishes minimum standards for contractor management and provides guidance to employees who manage contracts to ensure safe completion of contracted work. The program establishes clear accountabilities, requires active engagement of contractors, and provides a consistent and structured approach to contractor Health, Safety and Environmental (HSE) management.

3. SCOPE

The NSPI Contractor Safety Management Program follows EMRA-CSP-PRC-001 and provides guidance to those who oversee the contracting of work and services. When specific departments (i.e. Procurement, Legal, Risk and Insurance, Health and Wellness, Environment, etc.) make changes to policies, procedures or systems which impact the CSMP, that department is responsible to advise the NSPI Safety Department to ensure appropriate reviews and updates to the CSMP are completed.

4. DEFINITIONS

The terms used in this document are those used by NSPI and are defined to ensure understanding. Contractors may use different terms in their own documentation; however, these should be defined to ensure all parties understand. Dollar amounts are in Canadian dollars.

Shall: Indicates a requirement – the function/accountability must be done without exception or deviation. Shall does not allow for a deviation.

Should: Indicates a recommendation – the function/accountability should be considered.

Can: indicates a possibility or a capability – action is possible if a situation arises and legal or other requirements necessitate action, or, where legal and other requirements are not present, the potential or capability to act.

May: Indicates permission – action is required if situation arises and legal or other requirements necessitate action, or, where legal or other requirements are not present, a choice to act.

Interested Party(ies): Person or organization that can affect or be affected by or perceive itself to be affected by a decision or activity, including customers, communities, suppliers, regulators, nongovernmental organizations, investors and employees.

Hazard: Any source of potential illness, injury, or damage under certain conditions. Hazard classes considered are usually biological, chemical, ergonomic, physical, psychosocial and safety.

NSPI Hazard Analysis**APPENDIX B:** Document containing foreseeable hazards and controls for the overall contract. The document is completed prior to the execution of the contract and is updated as applicable.

Risk: The potential for illness, injury or property damage when exposed to a hazard. Risk = consequence X exposure X probability where consequence is the severity resulting from an unwanted effect, exposure to a hazard (i.e. percentage of workforce/public exposed to hazard or frequency of exposure to hazard) and probability is the likelihood of an unwanted event occurring (dependent on effectiveness of controls and barriers in place to prevent the undesired event).

Field level risk assessment (FLRA): Documented assessment of the job, site and conditions and other factors to be performed for each task. A daily FLRA is conducted on site by all people involved in the task. The risk assessment must be revisited at some point during the day or whenever there is a change (e.g. change in conditions, returning from break, etc.) The FLRA is used to identify risks, associated hazards and the control measures required.

5. ROLES AND RESPONSIBILITIES

The participants outlined below shall be aware of and follow the requirements of the CSP in addition to other applicable HSE and company standards as applicable.

5.1. Contract Management Team (i.e. Capital Projects, AMO, Hydro, Lingan, Western Region, Forestry, etc.)

- a. Includes Senior Management, Contract Manager and other applicable management groups
- b. Take ownership and ensure adequate resources are available for the successful implementation and execution of the Contractor Safety Management Program.
- c. Ensures the Contract Manager has proper signing authority
 - “Official Guidelines for the Delegation of Authority Process” (N-GP-1)
 - “Guideline for Obtaining the Proper Commitment and Approvals When Purchasing Equipment, Materials, and/or Contracted Services and for Real Estate Transactions” (N-GP-2)

5.2. Contract Manager

- a. Contract Manager is the NSPI employee responsible for the overall contract management. They generally shall:

- Be identified for each contract
 - Oversee the overall implementation, execution, and completion of the contract
 - Complete the Contractor Performance Evaluation (Appendix M) at the end of the contract and ensure the Contractor Performance Evaluation is uploaded on ISN..
Performance reviews will be completed twice per year for contractors working over six months on NSPI sites.
 - May also act as the NSPI Site Representative
- b. The Contract Manager specifically shall:
- Ensure responsibilities under Appendix I are agreed upon (if delegated) and fulfilled

5.3. NSPI Site Representative (or designate)

- a. The NSPI Site Representative is the individual responsible for **overseeing** the work being performed by the contractor. Where different employees are fulfilling the roles of Contract Manager and NSPI Site Representatives, the roles of each are to be defined for each prior to the start of the contract. They generally shall:
- Be identified as the contact for those involved in the contract
 - Ensure applicable parties, as necessary, are aware of planned activities prior to work execution
 - Be aware of, and/or enlist the services of a knowledgeable representative, applicable HSE requirements (acts, regulations, policies, procedures and contract specifications).
 - Ensure effective communication and coordination of work with other contractors or NSPI representatives on site
 - Consult with NSPI resources such as, but not limited to, Health and Wellness, Safety, Environment, Procurement, Engineering, as applicable
- b. The NSPI Site Representative specifically shall:
- Ensure their agreed upon responsibilities under Appendix I are fulfilled

5.4. Contractors

- a. See Appendix C

5.5. Subcontractors (directly employed by Contractor)

- a. Adhere to the same HSE standards as required by the Contractor

5.6. NSPI Safety Department

- a. Assist Contract Manager / NSPI Site Representative (i.e. Orientations, monitoring, policies, procedures, regulations, etc.)
- b. Periodically Review and Update the CSP
- c. Support the use and implementation of the CSP
- d. Annually monitor compliance to EMRA-CSP-PROC-001

5.7. NSPI Environmental Department

- a. Periodically Review and submit updates to the NSPI Safety Department
- b. Assist Contract Manager / NSPI Site Representative (i.e. Orientations, Spill Response, etc.)
- c. Support the use and implementation of the CMSP

5.8. Health and Wellness

- a. Provide support and act as a resource regarding workplace policies and procedures (i.e. Alcohol and Drug Procedure, etc.)

5.9. Procurement Department

- a. Administer the Request for Proposals (RFP) process
- b. Provide support for contractor selection and procurement
- c. Review past performance and evaluations from returning contractors in collaboration with Contract Manager / NSPI Site Representative during prequalification stage
- d. Notify Contractors they've been successfully awarded contract

5.10. Project Review Team

- a. The Project Review Team (PRT) will be made up of resources from Safety, Environment, Engineering, Capital Projects, Procurement, Legal and a project representative (ie. the Contract Manager). The PRT can be used when the work to be completed is non-core, large scale or is dealing with work in which we may require outside expertise to identify all of the requirements for the NSPI Hazard Analysis (Appendix B) and Request For Proposals (RFP).

6. GENERAL

There are five principal phases of the CSMP life cycle:

- **Prequalification**
- **Pre-job Work Plan & FLRA**
- **Contractor Training & Orientations**
- **Monitoring of Work Execution**
- **Post-job Evaluations**

Note: All work completed by or on behalf of the contractor shall follow governing legislation, industry standards and the policies and procedures of NSPI. Nova Scotia Power has the authority to require contractors to cease work if they do not adhere to the health, safety, or environmental obligations.

7. PREQUALIFICATION PHASE

7.1. Three Tiers of Contractor (see Appendix A – Process Flow Diagrams)

Note: there are three tiers of contractor in the CSMP. Please refer to the following charts:

Contract Levels	Risk Mitigation	Risk
Tier 1	Mitigate Risk (ISN: COR Certified, Appendix B, Site Safety Plan (including JSAs), Procedures, FLRA, Orientations, PPE, adherence to Emera / NSPI Policies)	High Risk
Tier 2	Mitigate Risk (Procedures, JSAs, FLRAs, Orientations, PPE, adherence to Emera / NSPI Policies)	Medium Risk
Tier 3	Mitigate Risk (Orientations, PPE, adherence to Emera / NSPI Policies)	Low Risk
Tier 1 - High Risk		Examples
Any Non-Core Work should be considered		
Handling Hazardous Material	Asbestos, X-Ray NDT	
Work from Heights	Requiring fall protection	
Confined / Restricted Space	Boiler work, diving	
Live Systems	Electrical, HEP (Ferminite)	
Civil (Safety by Design)	Structural Tower, Fire System	
Excavation	Setting poles, construction	
Major Lifts (complex)	Rotor, vessels, transformers	
Blasting / Explosives	Demolition, construction	
High Energy Piping	Welding, replacement	
Tree Cutting	Chain sawing, heavy equipment	
Helicopter (piloting)	Transmission line surveys	
Towing (vehicles, heavy equipment)	Vehicles, heavy equipment	
Mining (Code of Practice)	Hydro construction	
Bulk Transport	Fuel, chemicals, poles, etc.	
Storm Response Contractors	PLT, Pole Setting, Diggers,	
Hot Work	Welding, Grinding, Cutting, Burning	
Grounds Keeping	Bush hogs, boom mowers	
High potential energy	Conveyors, overhead doors	
Working on (or) under water	Diving, utilizing watercraft	

Boiler Maintenance	Repairs, inspections
Transmission Construction & Repair	New plant
Distribution Construction & Repair	New plant
Working in dust laden environments	Concrete cutting, flyash clean
Traffic Control	Working near roadways
Remote Work	Some Hydro Sites, T&D Const.
Use of new and emerging technologies	Drones , Autonomous Surface Vehicles (ASV's), ROV's
Tier 2 - Medium Risk	
Examples	
All other work that does not fall into Tier 1 or Tier 3 categories	Non Intrusive Work In Non-High Risk Environments, Consulting Work In Non-High Risk Environments
Tier 3 - Low Risk	
Examples	
Vendor deliveries	Floor mats, water, coffee
Office equipment servicing	Computers, photocopiers

7.2. Contract Planning

The contract planning stage identifies and defines the scope of the work to determine and evaluate the HSE requirements and to develop contract specifications. During this stage, an initial assessment of the HSE risks shall be completed and incorporated into the contract specifications and the overall contract execution phase. The contract execution phase will be based upon the nature of the work, complexity, and safety / probability factors.

7.2.1. Scope of Work

- a. The contract scope describes and documents the work to be performed. Include any milestones, reports, deliverables, and end products that are expected to be provided by the contractor as well as timelines for completion of all deliverables.
- b. Consideration should be given to the following:
 - Description of the job or services to be performed and the required resources
 - The qualifications required to perform the work, the availability of contractors and/or operations
 - Contractor performance expectations (i.e. contract schedule, outage schedule HSE issues and deliverables, etc.)
 - Level and Type of Risk

7.2.2. Hazard Identification, Evaluation and Control

- a. HSE hazard identification is an essential aspect of effective job planning. This provides clear direction regarding HSE requirements to contractors to allow them to be better prepared to perform the work safely and without environmental incident. The Contract Manager shall identify the known HSE hazards based upon the scope of work.
- b. The contractor must, at a minimum, address the hazards identified by using the NSPI Hazard Analysis (Appendix B), or equivalent, as part of their bid submission.

Note: The Appendix B is not intended to provide an exhaustive list of hazards and controls and should only be used for guidance. Additional hazard identification and control measures may be required.

7.2.3. Contract HSE Program

- a. The Contractor shall follow their own HSE program which shall meet or exceed NSPI policies, practices, procedures, standards, and regulatory requirements. If the contractor's procedures do not meet NSPI expectations and regulatory requirements, the contractor shall follow NSPI policies and procedures; these exceptions shall be reviewed and agreed to as part of the planning and/or assessment and orientation stages prior to work starting by the Contract Manager / Site Representative.
- b. When working with multiple contractors, the Contract Manager / Site Representative may identify a general contractor or other responsible party to assist with the coordination of communication for the purpose of ensuring health and safety on the worksite.

7.2.4. Contract Specifications

- a. HSE requirements shall be identified in this section. The contract document sets the minimum requirements for HSE expectations of contractors and based on the scope of work additional requirements may need to be specified. The Contract Manager / Site Representative, or designate with specific experience, knowledge and training, may also conduct a site hazard assessment of the intended work site to help identify the potential HSE hazards associated with the work and site conditions.
- b. Examples of HSE requirements to consider include (but are not limited to):
 - Minimum control measures required to eliminate/mitigate specific hazards
 - WCB Certificate of Recognition of their HSE Program (or equivalent)
 - List of controlled products that are prohibited or limited on the work site
 - Site specific information that may be beneficial to communicate during the RFP process
 - Fuel storage and handling (i.e. fuel tank registration and Transportation of Dangerous Goods)
 - Waste stream management (e.g. approved disposal methods, containment, and labeling)
 - Protection of fish habitat (i.e. silt control)
 - Spill prevention and response (i.e. spill kits, waste oil transfers)
- c. All contractors must designate an appropriate person on site to provide safety and health direction particularly if the job involves:
 - Large or complex contracts, and/or,
 - Construction work or work that involves high risk activities
 - ✓ Work requiring fall protection
 - ✓ Confined Space Entry
 - ✓ Diving
 - ✓ Blasting

✓ Storm Response

7.3. Contract Evaluation and Award

Contractors are evaluated at this stage to determine if they meet the criteria specified in the bid documents. Contractors who are selected for final evaluation shall meet the standard HSE qualification requirements and the requirements outlined in the bid specifications.

7.3.1. Safety and Health Program

- a. Contractor should have Safety Certification from a WCB Safety Certified Audit Provider (i.e., Certificate of Recognition (COR)):
 - Construction Safety Nova Scotia
 - East Coast Mobile Medical Inc.
 - Ennis Safety Services
 - HSE Integrated Limited
 - Nova Scotia Trucking and Safety Association
 - Occupational Health and Education Services (2002) Inc
 - Safety Services Nova Scotia
 - Enger Safety
 - ABW Consulting Inc
- b. Out of Province Contractor may have a Safety Certification from a recognized Safety Certified Audit Provider (such as COR or ISO18001).
- c. Contractors who are not certified or whose certification is not recognized must complete the Health, Safety & Environment Program Checklist (Appendix G). Based on the responses submitted, additional information or documentation may be required. Nova Scotia Power retains the right to review and require modifications to the Contractor Safety Management Program even if the Contractor has a letter of “Good Standing”. The Safety Department shall be involved in the review of the Contractor HSE program.

7.3.2. Health, Safety and Environment (HSE) Qualifications

- a. The HSE qualification establishes the eligibility of contractors to bid on work to be performed. Contractors are selected based upon their HSE management abilities and other key requirements. Contractors possess a letter of “Good Standing” or complete a Health, Safety & Environment Selection Criteria (see Appendix H) form for consideration during the bid evaluation.

7.3.3. Commercial Liability and Automobile Liability Insurance

- a. All Contractors shall provide General Commercial Liability (minimum \$2 million) and Automotive Liability (minimum \$2 million) insurance to ensure they have the financial capacity to address potential liabilities and complete the scope of work as determined by the Procurement and the Legal Department. Additional insurance requirements must be outlined in the Bid Submission section of the contract.

- b. Proof of insurance shall be uploaded to the NSPI Contractor Database.
- c. NSPI's Corporate Insurance Department is to be notified of any incidents involving third parties (including environmental, pollution incidents) within 24 hours of being aware of the incident. These include:
 - Any incident involving bodily injury
 - Any incident involving a fatality
 - Any third-party liability incidents expected to exceed \$15 000
 - Any automobile claims expected to exceed \$15 000
 - Any environmental / pollution claim expected to exceed \$75 000
 - Any environmental / pollution claim where there is a release of pollutants to any body of water (i.e. lakes, oceans, etc.)

Note: Third party can refer to a customer, supplier, business partner or a member of the public. When reporting incidents mentioned above, the forms provided on the Advisory Notice to insurers should be used. The claim form should be forwarded in accordance with the claims reporting process.

7.3.4. Workers' Compensation Board (WCB) Documentation

- a. Contractors shall provide proof that they are registered and in good standing with the Workers' Compensation Board by providing a clearance letter. In Nova Scotia, these letters are issued quarterly. Contractors outside Nova Scotia must provide documentation of registration with the regional workers' compensation board (or equivalent), if applicable.
- b. Documented proof shall be uploaded to the NSPI ISN Platform.

7.3.5. Safety Performance

- a. This step will include a review of the Safety and Health Performance document completed by the contractor which will cover specific leading and lagging indicators over the past three years. Past NSPI Contractor Performance Evaluation forms will be considered prior to the awarding of a contract.

7.3.6. Environmental Considerations

- a. The Contractor's past environmental performance will be included in the review prior to the contract. Past NSPI Contractor Performance Evaluation forms will be considered prior to the awarding of a contract.

7.3.7. Notification of Contract

- a. Local regulations may require applications, document submissions or other criteria to be met before a contract commences. The Contract Manager shall verify the appropriate requirements have been submitted and, if applicable, approved before the execution of the contract.

8. PRE-JOB WORK PLAN & FLRA PHASE**8.1. Pre-Job Tasks**

This step ensures the HSE requirements have been communicated and understood by all parties prior to starting work. Any required corrective actions can be identified, agreed upon and completed before the work begins.

8.1.1. Contractor HSE Documentation Submission

- a. The approval to start work is conditional pending the submission of required documentation within a specified time frame:
 - Contractor's letter of Good Standing or HSE Safety program if not available
 - Site Safety Plan (Tier 1)
 - Procedures and FLRA (Tier 1 & Tier 2)
 - Training certificates and qualification records are available for review

8.1.2. Contractor, Supplier and Manufacturer

- a. The Contractor is responsible for their employees and those involved in the project / site including subcontractors. Subcontractor names will be submitted to the Contract Manager / Site Representative for review and approval. NSPI reserves the authority to approve or prevent workers, subcontractors, etc. from working on NSPI sites or projects.

8.1.3. Start-Up Meeting

- a. A Start-Up Meeting shall be held with the Contract Manager / Site Representative and the contractor prior to starting work. Topics covered in the meeting may include but not be limited to:
 - Identified Hazards and Controls requirements
 - Site Safety Plan and requirements
 - Emergency Response
 - Roles and responsibilities

9. CONTRACTOR ORIENTATIONS & TRAINING PHASE**9.1. Orientations & Policy Review**

- a. The General Orientation provides information on policies and procedures, while the Site Orientation provides specific on-site information.
- b. The Contract Manager / Site Representative arrange orientations
- c. All Tier 1 and Tier 2 Contractors shall participate in a general and/or site orientation prior to starting work with NSPI.
- d. Tier 3 Contractors shall participate in a site orientation.

- e. Orientations are valid for a 12-month period. Participation is tracked on the ISN Platform for Tier 1&2 Contractors..

10. MONITORING OF WORK EXECUTION PHASE

10.1. Job Mobilization and Execution

Ensures appropriate implementation and communication to relevant parties and ensures the work is conducted according to contract specifications.

10.1.1. Performance Monitoring

- a. The Contract Manager / Site Representative or designate is responsible to monitor the HSE aspects of the contractor's work activities. The extent of monitoring is influenced by several factors including but not limited to:
 - Level of risk associated with contractor activity
 - Complexity of the tasks to be performed, and/or
 - Duration of the contract
- b. The documentation of proof of monitoring may include:
 - Documented Observations
 - Area Inspections
 - Copies of Contractor Safety Education Meeting Minutes
 - Copies of Contract Manager/ Site Representative Contractor Meeting Minutes
 - Proactive incident reporting

10.1.2. Incident Reporting

- a. Any NSPI, contractor or subcontractor employee who observes a hazardous act or condition shall report the incident. All NSPI, contractor or subcontractor employees have the authority to stop work on any site when an unsafe act or condition is observed.
- b. NSPI places a high emphasis on the reporting of proactive incidents which identify potential or actual substandard acts or conditions before they can create a high potential or actual incident.
- c. Details of the incident shall be documented. The Contract Manager / Site Representative is responsible to ensure that contractor incidents are entered and distributed through the NSPI Incident Reporting Database.
- d. Serious incidents are to be reported immediately to the Contractor Supervisor and NSPI Contract Manager / Site Representative. The Contract Manager / Site Representative shall follow Safe Work Practice 03, Incident Response once the incident has been reported. Serious incidents meet the following criteria:

- Significant High Potential Incident (NSPI Safety Incident Report Matrix Level 1 / 2)
 - No immediate threat outside the incident site, but the potential exists
 - Risk to public, workers or environment
 - Likely need for external emergency agencies
 - Requires significant involvement of external emergency services, federal and/or provincial agencies
 - Injury requiring transport to a Medical Facility
 - Potential for environmental impact
 - Emergency Spill or uncontrolled release of hazardous substance continuing
 - Significant, ongoing environmental effects
 - Effects extended beyond the project site
 - Any electrical contact regardless of whether it results in an injury
 - Creates local / media interest
- e. Minor incidents are reported immediately to the Contractor Supervisor and the NSPI Contract Manager / Site Representative. Minor incidents meet the following criteria:
- No immediate health and safety threat to the public or personnel
 - Low potential to escalate
 - Control of hazardous substance completed or pending
 - Non-emergency spill
 - Handled entirely by the company or contract personnel
 - No media interest in the incident

10.1.3. Observations, Inspections, Site Visits and Audits

- a. Performance Monitoring includes conducting and documenting inspections of work areas and job observations of tasks being completed. Inspections and observations are conducted by the contractor. The Contract Manager / Site Representative will look for documented evidence during a site visit and/or an audit.
- b. The Contract Manager / Site Representative or designate will conduct observations and complete at least one Site Inspection Form and a Safety Observation Form to monitor compliance with the contractor specifications and HSE expectations.
- c. Any act or condition that is an immediate risk to the health and safety of workers or the public shall result in the immediate halt of work until the risk has been mitigated.
- d. The NSPI Safety Department will complete eight total site audits annually of Tier 1 and Tier 2 contractors and report the results to the Contract Manager.

10.1.4. Contractor Statistical Reporting

- a. The Contract Manager is responsible for gathering the following information monthly for Tier 1 Contractors (see Appendix F):
 - Percentage (%) of contractors that have completed orientation. Tier 1 Contractors include high risk and large-scale contracts/projects. Contractor Orientation is required for contractors, if contractors are used, all targets for that quarter and future quarters must be 100%.

- Percentage (%) of monitoring plan completed. Tier 1 Contractors include high risk and large-scale contracts/projects. Monitoring includes observations, inspections, and audits/assessments.
- Measurement of Medical Aid, Restricted Work, Lost Time, and Fatalities

10.1.5. Communication and Coordination

- a. Efficient and Accurate communication and coordination are essential for each stage of the contract and the work being done to ensure plans, hazards and controls are known by all affected. Consideration should be given to the following, but not limited to:
 - FLRA: task needs to be reviewed, assessed, and documented by those completing the work. The assessment will include the identification of hazards and the controls put in place to eliminate and/or mitigate the risk. The assessment will also consider the competency of the work crew, working conditions, etc.
 - Coordination and communication and Security plans: Site access, coordination of work and information and the various types of communication need to be considered to ensure the safety and security of workers, the public and the site.
 - Documentation and Records: Those involved in the contract need to ensure they have the appropriate documentation for the site, work being done, contract requirements, and other appropriate documentation. This includes, but is not limited to Safety Data Sheets, OH&S Policy, Acts and Regulations, Site Safety Plan, contact information, emergency information, etc.

10.1.6. Health, Safety and Environment (HSE) Noncompliance

- a. Contracts must include a provision requiring contractors to conform to HSE requirements while performing their obligations under the contract.
- b. Noncompliance will result in corrective actions appropriate to the nature and seriousness of the issue, as determined by NSPI, which may include previous violations by the contractor or subcontractor and extenuating circumstances.
- c. Actions can include, but not limited to, warnings (verbal and/or written), coaching, suspension and/or termination, subject to the terms of the applicable contract. Noncompliance and corrective actions are handled on a case by case basis.

10.1.7. Contract Changes

- a. Any significant changes to a contract require review to ensure that the HSE impacts of the change are considered. This review shall include the contractor, Contract Manager / Site Representative and any other applicable personnel and shall be documented.

11. POST JOB EVALUATION PHASE**11.1. Contract Completion**

Verifies the contract specifications have been fulfilled and the performance of the contractor has been evaluated. Consideration should be given to HSE, quality, execution, contract management and any other appropriate criteria.

11.1.1. Demobilization

- a. Upon completion of the work the Contract Manager / Site Representative shall ensure the worksite is inspected to verify contract conditions have been met, all required work and documentation has been completed, materials have been returned if applicable, any unsafe or environmentally hazardous conditions have been rectified and the site has been properly cleaned up and material properly disposed.
- b. Hazards identified in the inspection that cannot be immediately controlled shall be identified and corrective actions assigned.

11.1.2. Performance Evaluation and CloseOut

- a. The completion date is when all contract activities have been completed including demobilization from site, correcting of deficiencies, etc.
- b. The Contract Manager / Site Representative shall perform a contract evaluation to assess the contractors Health, Safety and Environmental performance as well as technical performance, compliance with contract specifications and other appropriate criteria.
The evaluation also provides the contractor with the opportunity to provide feedback to NSPI to allow NSPI to improve its processes.
- c. The documented evaluation is to be filed and updated on the Contractor Database in order to be accessible for future contracts and evaluations.

12. APPENDICES

Appendix	Title	Description
A	Tier 1, 2 and 3 Checklists	Used by NSPI and Contractors to assist stepping through the Contractor Safety Management Program (CSMP)
B	NSPI Hazard Analysis	Used by NSPI and Contractors to identify and communicate known hazards within scope
C	Contractor Service Provider Responsibilities	Guideline supplied to Contractors and service providers to reinforce responsibilities
D	Safety Plan Checklist	Used by NSPI to verify that safety requirements are covered in Contractors Site Safety Plan
E	Incident Report Form	Form used by NSPI; can be used by Contractors in the absence of their own Incident Report form
F	Monthly Report Form	Used by Contractor to capture and record safety stats, sent to NSPI Capital Contract Administrator

G	Health, Safety & Environment Program Checklist (non-COR)	Used by NSPI to verify quality of Contractor's HSE program when non-COR
H	Health, Safety & Environment Selection Criteria	Filled out by Contractor then reviewed and scored by NSPI
I	Contract Manager Site Representative Checklist	Used by NSPI to clearly define key responsibilities within Contractor Safety Management Program (CSMP)
K	Observation/ Inspection Form	Form used by NSPI; can be used by Contractors in the absence of their own Site Inspection form
L	Start-up Meeting Checklist	Used by NSPI to verify program requirements have been met and project can be safely executed
M	Performance Evaluation Scorecard	Used by NSPI to rank and provide feedback based on a Contractor's performance
N	Environmental Handbook	Guideline supplied to Contractors and service providers to communicate Environmental requirements
O	Orientations	Presented to Contractors to communicate site specific safety/operational information
P	EMA/NSP Policies	Presented to Contractors to communicate numerous Emera and NSPI policies
Q	NSPI Safety Manual	Work methods and other requirements used by NSPI and Contractors.

13. RECORD OF REVISIONS

Summary of Revisions	Authorized By	Signature	Date of Authorization
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Document created	Sean Brennan		18/05/2018
Document revised	Dave Jardine		30/11/2021

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Request IR-10:

At Page 2 of 3 of the NSPI (NSEB) Undertaking U-6 (Exhibit N-21 of 2025 ACE Plan), NS

Power states:

Some of the Phase 6 installations are taking place in more remote and/or physically constrained substation environments, increasing travel, setup, and execution times.

(a) For Phase 6, please provide the forecast travel and site setup hours and costs, and show these as a percentage of (i) total labour hours and (ii) total Phase 6 project cost.

(i) Please indicate whether travel and site-setup hours and costs per RTU are materially different from those experienced in earlier RTU replacement phases, and, if so, briefly identify the principal drivers (for example, number of remote sites, typical site distances, site access constraints, or overtime requirements attributable to travel and scheduling).

(b) For both Phase 1 and Phase 6, please list the site locations for all RTU replacements, with the phases shown separately. For each site, please provide:

(ii) Location Identifiers:

- a. Substation or generating station name (full location identifiers used internally).**
- b. If the asset is associated with multiple levels (e.g., area → zone → substation), list the complete hierarchy.**
- c. Municipality or nearest community**

NON-CONFIDENTIAL**(iii) Operational Access & Logistics:**

a. Distance to the primary crew depot or service centre used for this work (approximate km by road, if available).

b. Please identify substations with access constraints that NS Power considers material to RTU replacement execution (e.g., limited road access, terrain challenges, seasonal restrictions, space limitations)

(iv) Asset-Specific Information (if a site contains more than one RTU serving distinct functions):

a. Identify the function, bay, or internal asset tag so units can be differentiated.

Response IR-10:

(a) Please refer to the table below for forecast travel, site setup and labour costs per RTU by resource and the percentage of total labour hours and total labour cost.

Resource	HRS	Cost	Travel	Setup	Travel	Rate	Travel +	Percent	Percent
		(\$)	Time	* Time	+ Setup	(per hr.)	Setup	Total	Cost
			(hrs.)	(hrs.)	(hrs)	(\$)	Cost (\$)	HRS	(Labour)
								(%)	
SM Electrician	240	182,280	24	12.5	36.5	54	1,980	1.9	0.11
Telecontrol Engineer	431	389,172	14		14.0	123	1,722	0.7	0.09
Telecontrol Technologist	182	136,500	14		14.0	54	750	0.7	0.04
PLT - Field Resources	160	124,320	24	8.5	32.5	56	1,804	1.7	0.10
Drafting SME CADD	35	26,250	0		0.0	54	-	0.0	0.00
Project Manager	175	158,200	7		7.0	65	452	0.4	0.02

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Resource	HRS	Cost (\$)	Travel Time (hrs.)	Setup * Time (hrs.)	Travel + Setup (hrs)	Rate (per hr.) (\$)	Travel + Setup Cost (\$)	Percent Total HRS (%)	Percent Cost (Labour)
RTU Technician (term)	360	273,420	40	16.0	56.0	54	3,038	2.9	0.16
SM Electrician - Overtime	64	97,328	32		32.0	109	3,476	1.7	0.19
PLT - Overtime	16	24,332	8		8.0	109	869	0.4	0.05
					0.0		-	0.0	0.00
Electrical Engineering Technologist	176	316,665	14		14.0	129	1,800	0.7	0.10
Civil Construction	100	142,919	0		0.0	204	-	0.0	0.00
Totals	1939	1,871,386						11.0	0.85

* Setup time:

Assumed to be 0.5 hours per day for 25 days for SM Electrician

Assumed to be 0.5 hours per day for 17 days for PLT Field Resources

Assumed to be 0.5 hours per day for 32 days for RTU Technician

(i) As shown in Attachment 1, there is a 45% increase in estimated drive time for the sites in Phase 6 versus the sites in Phase 1. This is primarily a result of the remote sites included in Phase 6 such as 91V Fourth Lake Hydro, 85S Wreck Cove Hydro, and 15V Sissiboo Hydro, resulting in a 28% increase in the average distance to the sites in Phase 6 versus Phase 1. There is no material difference in the site setup hours in Phase 6 versus the earlier Phases.

(b) (i-iii) Please refer to Attachment 1 with the list of site locations for all RTU replacements for Phase 1 and Phase 6 with information on Location Identifiers, Operational Access and Logistics, and Asset-Specific Information.

For sites with more than one RTU serving distinct functions, units are differentiated by asset number and function as follows:

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- 1 • 50N-RTU2, hard-wired I/O points.
- 2 • 50N-RTU3, IED soft points.
- 3 • 82V-RTU1, hard-wired I/O points.
- 4 • 82V-RTU2, IED soft points.

5

6 Note: RTU# is a site-specific sequential asset identifier with no cross-site meaning.

Site Number	Site Name	Site Level	Municipality	SM Work Depot	Distance to SM Work Depot (km)	Average Distance (km)	Access Constraints	Asset Info RTU#
Phase 1								
4V	White Rock Hydro	Hydro Plant	Annapolis	Valley	20			RTU1
12V	Lequille Hydro	Hydro Plant	Annapolis	Valley	96			RTU1
13V	Gulch Hydro	Hydro Plant	Digby	Valley	115			RTU1
4S	Townsend St.	Substation	CBRM	Sydney	0			RTU1
81S	Reserve St.	Substation	CBRM	Sydney	17			RTU1
101H	Cobequid Road	Substation	HRM	Metro	21			RTU1
3W	Big Falls Hydro	Hydro Plant	Queens	South Shore	16			RTU1
30W	Souriquois	Substation	Shelburne	South Shore	70			RTU1
Totals					355	44.4		
Phase 6								
91V	Fourth Lake Hydro	Hydro Plant	Digby	Valley	179		Very remote, rough dirt roads, accessible in dry months only, very long drive from depot	RTU1
74N	Springhill	Substation	Cumberland	Truro	91			RTU1
15V	Sissiboo Hydro	Hydro Plant	Digby	Valley	149		Remote hydro site, long drive from depot	RTU1
85S	Wreck Cove Substation	Substation	Victoria	Sydney	110		Remote hydro site, not easily accessible in winter months	RTU2
83S	Victoria Junction Gas Turbine	Generating Plant	CBRM	Sydney	10			RTU1
50N	Trenton Generating Station	Generating Plant	Trenton	Stellarton	9			RTU1
1C	Pt. Tupper Substation	Substation	Richmond	Pt. Hawkesbury	3			RTU2
14H	Burnside Gas Turbine	Generating Plant	HRM	Metro	16			RTU1
82V	Elmsdale	Substation	East Hants	Metro	52			RTU1 & RTU2
50N	Trenton Substation	Substation	Trenton	Stellarton	9			RTU2 & RTU3
1V	Avon 1 Hydro	Hydro Plant	West Hants	Valley	60			RTU1
87W	Hubbards	Substation	Chester	Metro	43			RTU1
2V	Avon 2 Hydro	Hydro Plant	West Hants	Valley	62		Rough dirt road, very steep sections	RTU1
4S	Townsend St. Distribution	Substation	CBRM	Sydney	0			RTU2
Totals					793	56.6		

128%

Notes:	Increase in average distance Phase 6 vs. 1	28%
	Increase in approx. drive time Phase 6 vs. 1	45%

Approximate Travel Time		
Travel time	Minutes	Average (min.)
20 min	20.0	
1 hr 1 min	61.0	
1 hr 15 min	75.0	
0 min	0.0	
21 min	21.0	
21 min	21.0	
24 min	24.0	
36 min	36.0	
	258.0	32.3
2 hr 5 min	125.0	
58 min	58.0	
1 hr 41 min	101.0	
1 hr 30 min	90.0	
14 min	14.0	
14 min	14.0	
4 min	4.0	
33 min	33.0	
48 min	48.0	
4 min	4.0	
46 min	46.0	
27 min	67.0	
50 min	50.0	
0 min	0.0	
	654.0	46.7

145%

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Request IR-11:

**At Page 2 of 3 of the NSPI (NSEB) Undertaking U-6 (Exhibit N-21 of 2025 ACE Plan), NS
Power states:**

Also, because the installations are much broader in scope, dedicated Project Management resources are required to properly manage the overall planning, design, and implementation of the project. This broader scope involves multiple specialized roles, which increases labour hours but also enhances system resilience and operational value.

(a) Please detail the specific tasks, roles or scope changes in Phase 6 RTU installations that required additional Project Management hours beyond prior phases, including hour breakdowns.

Response IR-11:

(a) Please refer to IR-8 (a), which shows the increased labour for Phase 6 compared to Phase 1 for dedicated project management support. The higher project management effort is driven by the expanded scope of work and infrastructure complexity, particularly involving increased point counts as noted in IR-7 (b) and civil work in the substations for the connection of additional substation devices as noted in IR-3 (b) (ii). As a result, project management resources are required to coordinate with external contractors to ensure civil work is properly coordinated in the substations.

Workforce constraints are another key factor for the project manager to navigate in order to coordinate the availability of electricians within specific time windows scheduled around planned outages for installation and testing. In addition, site accessibility challenges occasionally cause activities to be rescheduled, as certain sites may not be accessible at certain times of year, which can require further coordination. As an example, 91V-Fourth Lake can often become inaccessible at times during winter due to heavy snowfall and its

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1 remote location, where snow-clearing services may need to be arranged prior to being able
2 to undertake work.

3
4 Ongoing tracking of project expenditures and forecasts is required to ensure the project
5 remains within the approved budget and key milestones and deadlines are met.

6
7 While a dedicated Project Management function remains necessary for the RTU
8 Replacement Project, execution experience gained from the two completed sites has
9 allowed for refinement of the Project Manager's labour allocation. Specifically, the Project
10 Manager supports multiple concurrent projects, and labour hours are now distributed across
11 those projects rather than being fully attributed to the RTU Replacement Project as was
12 initially estimated. This adjustment has been reflected in the revised Phase 6 filing through
13 reduced Project Management labour hours.

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Request IR-12:

At Page 2 of 3 of the NSPI (NSEB) Undertaking U-6 (Exhibit N-21 of 2025 ACE Plan), NS Power states:

Accessibility Challenges and Work Force Constraints

Some of the Phase 6 installations are taking place in more remote and/or physically constrained substation environments, increasing travel, setup, and execution times. These locational and physical challenges directly impact both the time required to reach sites and the time required for the various installation tasks compared with more accessible sites in earlier phases. The involvement of experienced System Maintenance Substation Technicians in RTU installation work is impacted by their primary focus on critical operational duties. While they remain committed to supporting capital projects, their availability is managed alongside essential system maintenance activities. As a result, their contributions to capital work, including RTU installations, are often coordinated through overtime efforts to help maintain progress without compromising core operational responsibilities.

At Page 2 of 2 of the NSPI (NSUARB) IR-140 (Exhibit N-9 of 2025 ACE Plan), NS Power also states:

The Phase 1 RTU Replacement Project was for the replacement of 8 units. Below is the estimate of labour hours.

Regular Labour (Internal)	Unit	Days	Total Hours	Avg Hours per RTU
T & D Labor (Engineering & Technicians)	PD	485	3880	485

Preamble: In Undertaking U-6 (Exhibit N-21 of 2025 ACE Plan), NS Power states that accessibility challenges and workforce constraints require work to be performed on overtime to maintain progress on RTU installations. However, in the Phase 6 capital project detailed estimate, overtime is only explicitly budgeted for the SM Electrician, with an allowance of 20 person-days for the entire project.

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(a) Please clarify whether overtime has been assumed or budgeted for any other activities or job titles involved in the Phase 6 RTU installations.

(i) If so, identify where this overtime is reflected in the Phase 6 estimate.

(b) For both Phase 1 and Phase 6, please complete the table below, showing for each job title the average regular hours, overtime hours, and total hours per RTU. If necessary, please include a brief footnote describing any assumptions (e.g., conversion from person-days to hours).

	Phase 6		
	Regular	Overtime	Total
	Average hours per RTU		
SM Electrician	[enter hours]	[enter hours]	240
SM Electrician (overtime)	0	11	492
Telecontrol Engineer	[enter hours]	[enter hours]	208
Telecontrol Technologist	[enter hours]	[enter hours]	160
PLT-Field Resources	[enter hours]	[enter hours]	40
RTU Technician	[enter hours]	[enter hours]	200
Drafting SME CADD	[enter hours]	[enter hours]	360
Project Manager	[enter hours]	[enter hours]	64
SCADA	[enter hours]	[enter hours]	16
Electrical Engineering Technologist	[enter hours]	[enter hours]	201
Civil Construction	[enter hours]	[enter hours]	57
Total			2038

Response IR-12:

(a) Overtime labour is assumed only for Electrician/Technician and PLT in the Phase 6 revised estimate. No overtime labour is assumed for any other roles.

(i) In the revised Phase 6 detailed estimate, overtime is reflected in labour line items for:

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- Electrician/Technician (Overtime Labour): 112 person-days (representing approximately 64 hours per RTU)
- PLT (Overtime Labour): 28 person-days (representing approximately 16 hours per RTU)

(b) The following tables present the average labour hours per RTU for Phase 1 and Phase 6, split into regular and overtime hours, with totals shown for each line item. Figures for Phase 6 reflect the revised estimate filed on December 9, 2025. Please refer to IR-6 for the calculation from person-days (as shown in NS Power's submission) to hours.

	Phase 1		
	Regular	Overtime	Total
	Average hours per RTU		
SM Electrician	176	0	176
Electrician/Technician (overtime)	0	0	0
Engineering	254	0	254
Telecontrol Technologist	0	0	0
PLT-Field Resources	46	0	46
RTU Technician	0	0	0
Drafting SME CADD	9	0	9
PM	0	0	0
Electrical Engineering Technologist	0	0	0
Civil Construction	0	0	0
PLT (overtime)	0	0	0
Total			485

REDACTED (CONFIDENTIAL INFORMATION REMOVED)

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	Phase 6		
	Regular	Overtime	Total
	Average hours per RTU		
SM Electrician	240	0	240
Electrician/Technician (overtime)	0	64	64
Engineering	431	0	431
Telecontrol Technologist	182	0	182
PLT-Field Resources	160	0	160
RTU Technician	360	0	360
Drafting SME CADD	35	0	35
PM	175	0	175
Electrical Engineering Technologist	176	0	176
Civil Construction	100	0	100
PLT (overtime)	0	16	16
Total			1,939

1

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Request IR-13:

At Page 1 of 1 of the letter filed by NS Power on December 9, 2025, NS Power states:

Since the filing of the 2025 ACE Plan application, Nova Scotia Power Inc. (NS Power, Company) has completed some work on CI C0051815. As a result, the Company has reviewed and updated its detailed cost estimate to align more closely with its recent experience, which has resulted in an overall decrease of approximately \$900,000.

(a) Please identify what work has been completed for each Phase 6 RTU site.

(i) Please provide expected in-service dates for the 14 Phase 6 RTUs along with the project start date for each of the RTUs.

(ii) If any RTU sites have been fully completed, please provide in-service dates for each site and the specific scopes of work executed at those locations, along with the schedule of the completed work.

(b) For each completed RTU installation for Phase 6, please tabulate the actual costs by major category of NSPI's detailed estimate, in accordance with the Descriptions provided in Attachment 1 of the letter.

(c) Please explain how the actual unit hours, unit labour costs, and field productivity from the completed RTU installations for Phase 6 compare with the assumptions used in the original Capital Project Detailed Estimate.

(d) Please describe any execution or constructability lessons learned from completed work that directly contributed to lower forecast costs for the remaining RTUs under CI C0051815.

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Response IR-13:

(a) Please refer to the table below for what work has been completed for each Phase 6 RTU site:

S/N	RTU Replacement Project Sites	Completed Work
1	91V-Fourth Lake	Scoping & Site visit, Engineering & Design, Drafting, Installation, Testing & Commissioning
2	74N-Springhill	Scoping & Site visit, Engineering & Design, Drafting, Civil work, Installation, Testing & Commissioning
3	2V-Avon 2	Scoping & Site visit, Engineering & Design, Drafting
4	15V-Sissiboo	Scoping & Site visit, Engineering & Design in progress
5	85S-Wreck Cove Sub	Scoping & Site visit, Engineering & Design in progress
6	50N-Trenton GS	Scoping & Site visit, Engineering & Design in progress
7	87W-Hubbards	Scoping & Site visit, Engineering & Design in progress
8	14H-Burnside Gas Turbine	Scoping & Site visit, Engineering & Design in progress
9	83S-VJ GT	Scoping & Site visit, Engineering & Design in progress
10	4S-Townsend Dist	Scoping & Site visit, Engineering & Design in progress
11	82V-Elmsdale	Scoping & Site visit, Engineering & Design in progress
12	1C-Pt Tupper Sub	Scoping & Site visit
13	50N-Trenton Sub	Scoping & Site visit
14	1V-Avon 1	Scoping & Site visit

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- (i) Please refer to the table below for the start date and expected in-service dates for the 14 Phase 6 RTUs.

S/N	RTU Replacement Project Sites	Start Date	Expected In-Service Date
1	91V-Fourth Lake	Apr-24	Feb-25
2	74N-Springhill	Apr-24	Nov-25
3	2V-Avon 2	Apr-24	*Feb-26
4	15V-Sissiboo	Apr-24	*May-26
5	85S-Wreck Cove Sub	Apr-24	*Aug-26
6	50N-Trenton GS	Apr-24	*Oct-26
7	87W-Hubbards	Apr-24	*Nov-26
8	14H-Burnside Gas Turbine	Apr-24	*Dec-26
9	83S-VJ GT	Apr-24	*Feb-27
10	4S-Townsend Dist	Apr-24	*May-27
11	82V-Elmsdale	Apr-24	*Aug-27
12	1C-Pt Tupper Sub	Apr-24	*Oct-27
13	50N-Trenton Sub	Apr-24	*Nov-27
14	1V-Avon 1	Apr-24	*Dec-27

*For sites where IFCs have not yet been issued, in-service dates are preliminary and subject to change.

- (ii) Please refer to the table below for the RTU sites that have been fully completed:

S/N	RTU Replacement Project Sites	Project Start Date	Scoping and Site Visits	Engineering & Design and Drafting	Civil Work	Installation Start Date	Testing and Commissioning	In Service Date	Scope of Work
1	91V-Fourth Lake	Apr-24	Jul-24	Nov - Dec 2024	N/A	Jan-25	Feb-25	Feb-25	Scoping & Site Visits, Engineering & Design, Drafting, Installation, Testing & Commissioning
2	74N-Springhill	Apr-24	Aug-24	Jan - Sept 2025	Apr-25	Oct-25	Nov-25	Nov-25	Scoping & Site Visits, Engineering & Design, Drafting, Civil work, Installation, Testing & Commissioning

- (b) Please refer to the table below. These project actuals are as of December 31, 2025. They include the completion of two sites 91V Fourth Lake and 74N Springhill and all labour activities noted in the tables above. It is important to note that design and engineering work

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are performed in parallel across multiple sites rather than being executed sequentially on a site-by-site basis. The actuals also include materials ordered for multiple sites. As a result of the cyber incident, NS Power is not able to separate the actuals by site because this level of granularity is not currently available.

Regular Labour	Regular Overtime	Term Labour	Term Overtime	Contracts	Materials	Freight Postage Delivery	Vehicle Allocated Costs	Admin Overhead	Contractor AO	AFUDC	Total
\$ 236,834	\$ 23,202	\$ 9,258	\$ 6,191	\$ 162,451	\$ 693,957	\$ 8,752	\$ 125,235	\$ 148,443	\$ 23,730	\$ 38,300	\$ 1,476,354

(c) The detailed site-specific actual unit hours and unit labour costs are not fully available for comparison, primarily because some labour categories such as: Engineering & Design, Drafting, and Project Management are executed in parallel across multiple sites rather than sequentially on a per-site basis. Also, as a result of the cyber incident, NS Power is not currently able to separate the actuals by site because this level of granularity is not currently available.

Notwithstanding these limitations, experience gained from the completed sites in Phase 6 RTU installations has provided insight into field productivity and resource utilization, leading to a more efficient and optimized use of labour resources.

(d) Following completion of scoping and site visits for all 14 sites, there were some scope revisions resulting in reductions for some elements of work and materials initially estimated. Please refer to IR-14 Attachment 1 for more details.

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Request IR-14:

At Attachment 1 of the letter filed by NS Power on December 9, 2025, NS Power presents its updated Capital Project Cost Estimate:

Location: General Plant Cl#: C0051815 Title: 2025 RTU Replacement Project Execution Year: 2025 - 2027						
Description	Unit	Quantity	Unit Estimate	Total Estimate	Cost Support Reference	Completed Similar Projects (FPF's)
Regular Labour						
SM Electrician	PD	420	\$434	\$ 182,280		
Engineering	PD	861	\$452	\$ 389,172		
Telecontrol Technologist	PD	364	\$375	\$ 136,500		
PLT - Field Resources	PD	280	\$444	\$ 124,320		
Drafting SME CADD	PD	70	\$375	\$ 26,250		
PM	PD	350	\$452	\$ 158,200		
			Sub-Total	\$ 1,016,722		
Term Labour						
RTU Technician	PD	630	\$434	\$ 273,420		
Overtime Labour						
Electrician/Technician	PD	112	\$869	\$ 97,328		
PLT	PD	28	\$869	\$ 24,332		
			Sub-Total	\$ 121,660		
Contracts						
Electrical Engineering Technologist	PD	352	\$900	\$ 316,665		
Civil Construction	PD	100	\$1,430	\$ 142,919		
			Sub-Total	\$ 459,584		
Travel Expense						
Misc. Travel - Accomodation	Lot	1	\$85,050	\$ 85,050		
Rental Vehicle	Lot	1	\$33,992	\$ 33,992		
			Sub-Total	\$ 119,042		
Meals & Entertainment						
Living Expenses (Meals)	Lot	1	\$25,200	\$ 25,200		
			Sub-Total	\$ 25,200		
Materials - Misc listing						
RTUs	Ea	14	\$96,051	\$ 1,344,714		
Cable and Accessories	Ea	14	\$8,000	\$ 112,000		
Power Meters	Ea	7	\$4,700	\$ 32,900		
Test Equipment and Tools	Lot	1	\$10,000	\$ 10,000		
			Sub-Total	\$ 1,499,614		
Vehicle Overhead						
Vehicle T&D Labour Regular AO	lot			\$ 391,564		
				\$ -		
			Sub-Total	\$ 391,564		
Contingency (10% of Forecast)						
Contingency		10%	\$3,515,242	\$ 351,524		
			Sub-Total	\$ 351,524		
Interest Capitalized						
Interest	lot	1		\$ 7,889		
			Sub-Total	\$ 7,889		
Administrative Overhead						
Labour AO				735,272		
Contractor AO				57,235		
			Sub-Total	\$ 792,507		
SUB-TOTAL (no AO, AFUDC)				\$ 3,866,766		
TOTAL (AO, AFUDC included)				\$ 5,058,726		
Original Cost				N/A		
Note 1: The labour figures noted above are an average of salaries across a variety of jobs within similar classifications including fringe, and are used solely for budgeting purposes. Note 2: Small differences in totals are attributable to rounding.						

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- 1 **(a) Please provide a comparison of the original Capital Cost Detailed Estimate as filed in**
2 **Exhibit N-1 versus the updated Capital Cost Detailed Estimate included in NS**
3 **Power's letter dated December 9, 2025, in the form of an Excel spreadsheet.**
4
- 5 **(b) For each variance identified in Part (a), please explain whether the change is**
6 **attributable to:**
7
- 8 **(i) A change in measurement Unit (e.g., from Days to PD);**
9
- 10 **(ii) A change in Quantity (with quantification of the delta);**
11
- 12 **(iii) A change in Unit Estimate or Unit Rate (with quantification and basis for the**
13 **change);**
14
- 15 **(iv) A scope addition or deletion;**
16
- 17 **(v) A reclassification between cost categories; or**
18
- 19 **(vi) Other factors.**
20
- 21 **(c) NS Power indicates a Vehicle Overhead cost of CAD 391,564. Since the estimate**
22 **already includes a separate row for travel expenses, including rental vehicles, please**
23 **provide a detailed breakdown of the vehicle overhead cost and the activities to which**
24 **it relates.**
25
- 26 **(d) Please describe how Allowance for Funds Used During Construction (AFUDC) was**
27 **calculated in each Capital Cost Detailed Estimate, including the AFUDC rate or rates**
28 **applied, the total capital to which AFUDC is being applied, as well as the period of**
29 **time for which AFUDC is applied. Please provide the calculations in a working excel**
30 **sheet.**
-

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1
2 **(e) Please explain why the AFUDC amount has been reduced in the updated Capital Cost**
3 **Detailed Estimate, identifying the relative contributions of changes in the total**
4 **capitalized cost base, the timing of expenditures, and the AFUDC rate assumptions.**
5 **Please provide the previous calculation alongside the current calculation within a**
6 **working excel sheet.**

7
8 **(f) Please confirm whether the AFUDC amounts in both the original and updated**
9 **Capital Cost Detailed Estimates reflect an expectation that capital will be tied up for**
10 **only a brief period before being placed in service and included in rate base.**

11
12 **Response IR-14:**

13
14 (a) Please refer to Attachment 1.

15
16 (b) Please refer to Attachment 1.

17
18 (c) The requirement of a rental vehicle is not part of or impacted by vehicle overhead costs.
19 Please refer to IR-4 for an explanation of Vehicle Overhead.

20
21 (d) Allowance for Funds Used During Construction (AFUDC) is calculated based on the
22 monthly spend for the project prior to its in service date. The formula for calculating
23 monthly AFUDC = Cumulative Spend x AFUDC Rate/12 months. AFUDC is calculated
24 monthly from the initial charge date of April 2024 until March 2025, when the project is
25 deemed in service. Please refer to Attachment 2 for the AFUDC calculation for the current
26 Capital Cost Detailed Estimate. Please note that due to the cyber incident, NS Power does
27 not currently have access to the information needed to specifically reflect the monthly
28 estimate of AFUDC for the original cost estimate.

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- 1 (e) Per above, NS Power does not currently have access to the original AFUDC detailed
2 calculation.
3
- 4 (f) The AFUDC amount in both the original and updated Detailed Cost Estimates reflects the
5 financing cost of the capital required prior to the project being placed in-service. The
6 project is deemed in service when the first RTU is installed.

Current Estimate

Regular Labour				
SM Electrician	PD	420	\$434	\$ 182,280
Engineering	PD	861	\$452	\$ 389,172
Telecontrol Technologist	PD	364	\$375	\$ 136,500
PLT - Field Resources	PD	280	\$444	\$ 124,320
Drafting SME CADD	PD	70	\$375	\$ 26,250
PM	PD	350	\$452	\$ 158,200
			Sub-Total	\$ 1,016,722
Term Labour				
RTU Technician	PD	630	\$434	\$ 273,420
Overtime Labour				
Electrician/Technician	PD	112	\$889	\$ 97,328
PLT	PD	28	\$889	\$ 24,332
			Sub-Total	\$ 121,660
Contracts				
Electrical Engineering Technologist	Days	352	\$900	\$ 316,800
Civil Construction	Days	100	\$1,430	\$ 143,000
			Sub-Total	\$ 459,800
Travel Expense				
Misc. Travel - Accommodation	Lot	1	\$85,050	\$ 85,050
Rental Vehicle	Lot	1	\$33,992	\$ 33,992
			Sub-Total	\$ 119,042
Meals & Entertainment				
Living Expenses (Meals)	Lot	1	\$25,200	\$ 25,200
			Sub-Total	\$ 25,200
Materials - Misc listing				
RTUs	Ea	14	\$96,051	\$ 1,344,714
Cable and Accessories	Ea	14	\$8,000	\$ 112,000
Power Meters	Ea	7	\$4,700	\$ 32,900
Test Equipment and Tools	Lot	1	\$10,000	\$ 10,000
				\$ 1,499,614
			Sub-Total	\$ 1,499,614
Vehicle Overhead				
Vehicle T&D Labour Regular AO	lot			\$ 391,564
				\$ -
			Sub-Total	\$ 391,564
Contingency (10% of Forecast)				
Contingency		10%	\$3,515,458	\$ 351,546
			Sub-Total	\$ 351,546
Interest Capitalized				
Interest	lot	1		\$ 7,889
			Sub-Total	\$ 7,889
Administrative Overhead				
Labour AO				735,272
Contractor AO				57,235
			Sub-Total	792,507
			SUB-TOTAL (no AO, AFUDC)	\$ 3,867,004
			TOTAL (AO, AFUDC included)	\$ 5,058,964

Original Estimate

Regular Labour				
SM Electrician	PD	922	\$450	\$ 414,900
Engineering	PD	648	\$457	\$ 296,136
Telecontrol Technologist	PD	295	\$450	\$ 132,750
PLT - Field Resources	PD	239	\$450	\$ 103,500
Drafting SME CADD	PD	130	\$425	\$ 55,250
PM	PD	600	\$450	\$ 270,000
SCADA	PD	52	\$425	\$ 22,100
			Sub-Total	\$ 1,294,636
Term Labour				
RTU Technician	PD	1090	\$425	\$ 463,250
Overtime Labour				
Electrician/Technician	PD	20	\$900	\$ 18,000
PLT	PD	0	\$900	\$ -
			Sub-Total	\$ 18,000
Contracts				
Electrical Engineering Technologist	Days	546	\$900	\$ 491,400
Civil Construction	Days	156	\$1,430	\$ 223,080
			Sub-Total	\$ 714,480
Travel Expense				
Misc. Travel	Lot	1	\$117,150	\$ 117,150
Rental Vehicle	Lot	0	\$ -	\$ -
			Sub-Total	\$ 117,150
Meals & Entertainment				
Living Expenses (Meals)	Units	378	\$40	\$ 15,120
			Sub-Total	\$ 15,120
Materials - Misc listing				
RTUs	Ea	14	\$70,664	\$ 989,296
Cable and Accessories	Ea	14	\$8,000	\$ 112,000
Power Meters	Ea	14	\$5,170	\$ 72,380
Test Equipment and Tools	Lot	1	\$11,000	\$ 11,000
				\$ 1,184,676
			Sub-Total	\$ 1,184,676
Vehicle Overhead				
Vehicle T&D Labour Regular AO	lot			\$ 650,565
				\$ -
			Sub-Total	\$ 650,565
Contingency (10% of Forecast)				
Contingency		10%	\$3,807,312	\$ 380,731
			Sub-Total	\$ 380,731
Interest Capitalized				
Interest	lot	1		\$ 17,848
			Sub-Total	\$ 17,848
Administrative Overhead				
Labour AO				1,000,498
Contractor AO				103,533
			Sub-Total	1,104,031
			SUB-TOTAL (no AO, AFUDC)	\$ 4,188,043
			TOTAL (AO, AFUDC included)	\$ 5,960,487

Variance	Variance Explanation
Current - Original	
\$ (232,620)	For current estimate reduced quantity of SM Electrician days due to duplication in original estimate and a minor reduction in expected reduction in days required based on RTUs completed to date
\$ 93,036	Current estimate has slight increase in engineering days estimate due to expected increase in days based on RTUs done to date. Current estimate also includes SCADA engineering (\$22,100) from original estimate
\$ 3,750	Current estimate has slight increase in telecontrol technologist engineering days estimate due to expected increase in days based on RTUs done to date and assistance to PM with material management functions
\$ 20,820	Current estimate has slight increase in expected days required for PLT Field Resources for commissioning phase
\$ (29,000)	Current estimate has decrease in Drafting CADD days estimate based on expected reduction in CADD days required due to improved quality assurance practices during design phase
\$ (111,800)	Current estimate has decrease in Project Manager (PM) days estimate as the PM was determined not to be needed on a full time basis and has the capability to manage additional work outside this project.
\$ (22,100)	For current estimate SCADA engineering is included in Engineering above
\$ -	
\$ (277,914)	
\$ -	
\$ -	
\$ (189,830)	For current estimate reduced quantity of RTU Technician hours due to a duplication in original estimate, partially offset by an increased quantity of PDs expected based on RTUs completed to date.
\$ -	
\$ -	
\$ -	
\$ 79,328	Increase in expected overtime based on RTUs done to date
\$ 24,332	For current estimate added PLT overtime to cover for the commissioning phase, based on RTUs completed to date.
\$ 103,660	
\$ -	
\$ -	
\$ (174,600)	For current estimate reduced the expected days required for external engineering technologist due to some work being completed by internal engineering resources
\$ (80,080)	For current estimate reduced the estimated civil construction cost because only half of the sites require civil construction. This is partially offset by one of the sites requiring significant more effort for civil construction
\$ -	
\$ (254,680)	
\$ -	
\$ -	
\$ (32,100)	For the current estimate the rental vehicle costs are shown separately. There is an overall slight increase in estimated travel costs
\$ 33,992	In the original estimate the rental vehicle cost was included in Misc. Travel expenses
\$ -	
\$ 1,892	
\$ -	
\$ -	
\$ 10,080	Updated to reflect the expenses incurred on the first two RTU sites.
\$ 10,080	
\$ -	
\$ -	
\$ -	
\$ 355,418	In the current estimate the unit cost estimate for RTUs is increased based on quoted cost of RTUs. Refer to C0051815 Midgard IR-3 Attachment 1 for more details.
\$ -	
\$ (39,480)	In the current estimate the quantity of power meters is reduced as it was determined that power meters are required at 7 sites not 14. Refer to C0051815 Midgard IR-3 Attachment 1 for more details.
\$ (1,000)	Slight reduction in current estimate for tools and test equipment
\$ 314,938	
\$ 314,938	
\$ -	
\$ -	
\$ (259,001)	Overall internal labour is lower so correspondingly vehicle overhead is lower
\$ -	
\$ (259,001)	
\$ -	
\$ (29,185)	Overall estimate is lower so correspondingly the 10% contingency is lower
\$ -	
\$ -	
\$ (9,959)	Overall estimate is lower so correspondingly the interest capitalized is lower
\$ -	
\$ (9,959)	
\$ -	
\$ -	
\$ (265,226)	Overall internal labour is lower so correspondingly administrative overhead is lower
\$ (46,298)	Overall contract labour is lower so correspondingly contractor overhead is lower
\$ (311,524)	
\$ -	
\$ (321,039)	
\$ (901,524)	

CI - C0051815 AFUDC Calculation

	Cost Code	202404	202405	202406	202407	202408	202409	202410	202411	202412	202501	202502	Total Spend Prior to In-Service Date
Project Spend Eligible for AFUDC	Regular Labour	629	794	1,125	12,554	8,888	15,807	13,891	5,182	7,444	25,244	15,929	107,489
	Overtime Labour	-	-	-	-	-	41	-	-	-	2,791	5,505	8,337
	Term Labour	-	-	-	-	-	-	-	-	-	3,775	5,280	9,055
	Term Labour-Overtime	-	-	-	-	-	-	-	-	-	1,217	4,517	5,734
	Travel Expense	-	-	-	46	-	-	3,317	2,864	-	-	-	6,227
	Materials	-	-	-	1,583	-	6,612	-	-	1,285	11,299	821	21,600
	Contracts	-	-	-	6,333	18,972	-	-	621	3,231	9,378	13,919	52,454
	Freight Postage Delivery	-	-	-	-	-	-	-	-	80	536	480	1,096
	Meals & Entertainment	-	-	-	576	-	-	1,118	1,053	-	40	269	3,056
	Vehicle Allocated Costs	326	412	583	6,508	4,608	8,205	7,201	2,687	3,859	13,290	9,320	56,999
	Admin Overheads	363	459	650	7,255	5,136	9,146	8,027	2,995	4,302	17,567	14,847	70,747
	Contractor Admin Overhead	-	-	-	967	2,897	-	-	95	493	1,356	2,013	7,822
	Total Spend Excluding AFUDC:	1,318	1,665	2,359	35,821	40,501	39,811	33,556	15,497	20,695	86,493	72,900	350,617
	AFUDC Components												
AFUDC Calculation	Cumulative Spend:	1,318	2,983	5,342	41,164	81,665	121,476	155,032	170,528	191,223	277,717	350,617	
	Compound Month:	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO	
	AFUDC Rate:	6.72%	6.72%	6.72%	6.72%	6.72%	6.72%	6.72%	6.72%	6.72%	6.72%	6.72%	
	Cumulative AFUDC:	-	-	-	54	54	54	54	54	54	4,320	4,320	
	Cumulative Additions Spend + Cumulative	1,318	2,983	5,342	41,218	81,719	121,530	155,086	170,582	191,277	282,036	354,937	
	Total Calculated AFUDC:	7	17	30	231	458	681	869	956	1,072	1,580	1,989	7,889