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Request IR-1:

The table below provides a comparison of the total cost associated with regular and term labour, over time (OT) labour, and contracts for both the original and the ATO application:

Cost Description	Original Application	ATO application	Variance
Reg. and contract Labour	\$ 199,620	\$ 425,048	\$ 225,428
OT Labour (all)	\$ 127,594	\$ 494,458	\$ 366,864
Contracts	\$2,474,442	\$3,511,434	\$1,036,992

On pages 2 and 5 of the application, the variance reasons are provided.

(a) For the Regular and Contract Labour variance, please provide a breakdown of both the original scope and the expanded scope, specifying the tasks and allocated hours.

(b) For the Overtime Labour variance:

(i) Please provide a breakdown of both the original scope and the expanded scope, specifying the tasks and allocated hours of OT.

(ii) What types of NS Power resources were needed to be brought in from other regions of the province for this project? Were there any local resources available when the project was submitted?

(iii) Could outsourcing the work, which was carried out by the NS Power resources from other regions of the province, have been more cost-effective? Please explain.

(c) For the Contracts Variance:

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1 **(i) Please list all the outages along with their times and durations that were**
2 **required to complete the work.**

3
4 **(ii) Please provide any cost-support material from the vendor for the additional**
5 **materials and contract costs.**

6
7 Response IR-1:
8

9 (a) NS Power assumes this question relates to regular and term labour, not contract labour, and
10 has responded accordingly.
11

12 Regular & Term Labour

13 • TUC2 HP/IP Disassembly & Reassembly Support (Original Turbine Refurbishment
14 Scope) = 4,068.5 Hours

15 ○ This includes removal of the spindle, cover, cross-over piping, and other
16 miscellaneous piping that would interfere with refurbishment scope.
17

18 • TUC2 HP/IP Disassembly & Reassembly Support (Additional Scope for Balancing
19 Issues) = 3,152.5 Hours

20 ○ This includes removal of the spindle, cover, cross-over piping, and other
21 miscellaneous piping that would interfere with additional scope for balancing
22 issues.
23

24 (b)

25 (i) Overtime Labour & Overtime Term Labour

26 • TUC2 HP/IP Disassembly & Reassembly Support (Original Turbine
27 Refurbishment Scope) = 1,899.5 Hours

28 ▪ This includes removal of the spindle, cover, cross-over piping, and
29 other miscellaneous piping that would interfere with refurbishment
30 scope.

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- TUC2 HP/IP Disassembly & Reassembly Support (Additional Scope for Balancing Issues) = 3,638.5 Hours

- This includes removal of the spindle, cover, cross-over piping, and other miscellaneous piping that would interfere with additional scope for balancing issues.

(ii-iii) There were not a significant amount of NS Power resources that were brought in from other regions of the province for this project. Most of the term labour pool are local employees that worked at Tuft's Cove for this project. Any additional costs associated with term labour employees that travelled to Tuft's Cove for this project were insignificant. All the costs associated with regular and overtime labour were employees of Tuft's Cove.

(c)

(i) There was only one outage required for TUC2 to complete this project, which started on September 13, 2024, and ended on January 6, 2025.

(ii) Please refer to Attachment 1.

Description	Total Billing	Cost	Billing #	Cost	Billing #	Cost	Billing #
NSP HP PM+DS TFA+EIT(T)	\$ 465,141.00	\$ 175,684.00	1	\$ 289,457.00	4	\$ -	-
NSP-HP NS TFA+EIT(T)	\$ 386,342.00	\$ 137,568.00	2	\$ 248,774.00	5	\$ -	-
NSP-HP Laser Distortion Check-Mob(F)	\$ 20,266.00	\$ 20,266.00	14	\$ -	-	\$ -	-
NSP-HP Laser Distortion Check-Exe(T)	\$ 25,969.00	\$ 22,800.00	3	\$ 3,169.00	6	\$ -	-
NSP-HP Tooling/Shipping(F)	\$ 52,093.00	\$ 52,093.00	14	\$ -	-	\$ -	-
NSP IP PM+DS TFA+EIT(T)	\$ 8,282.00	\$ 8,282.00	13	\$ -	-	\$ -	-
NSP-IP Laser Distortion Check(T)	\$ 5,520.00	\$ 5,520.00	10	\$ -	-	\$ -	-
NSP-Tooling/Shipping (F)	\$ 12,884.00	\$ 12,884.00	14	\$ -	-	\$ -	-
Planning(F)	\$ 90,000.00	\$ 90,000.00	14	\$ -	-	\$ -	-
Total Original Scope	\$ 1,066,497.00	Cost	Billing #	Cost	Billing #	Cost	Billing #
EWA#1 - Weld Repair-Rotor Blade (24008A14)	\$ 139,258.35	\$ 114,806.35	7	\$ 22,883.00	11	\$ 1,569.00	15
EWA#3 - UK Machine Dynamics	\$ 73,947.00	\$ 58,241.00	8	\$ 7,426.00	12	\$ 8,280.00	16
EWA#7 - Parts Order-Birkosit-Tooling	\$ 10,651.00	\$ 4,654.00	9	\$ 5,997.00	17	\$ -	-
EWA#8 - #4 Gland Rub	\$ 704,954.00	\$ 704,954.00	19	\$ -	-	\$ -	-
EWA#9 - Lowspeed Balance	\$ 95,045.00	\$ 95,045.00	18	\$ -	-	\$ -	-
Total Additional Scope	\$ 1,023,855.35						
Total Project	\$ 2,090,352.35						

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #1
PO# 2132981 Item 11.1
HP Turbine-1a-PM+DS TFA+EIT
SECL Job# P-EFP-3046.01.0001

Labour	159,140.00
Per Diem	14,975.00
Expenses	1,569.00
Total	175,684.00

Hendricks
Lauren

Digitally signed by Hendricks Lauren
DN: cn=Hendricks Lauren, c=DE,
o=Siemens,
email=lauren.hendricks@siemens-
energy.com
Date: 2024.10.31 16:51:04 -04'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #2
PO# 2132981 Item 10.1
HP Turbine-1b-NS TFA+EIT
SECL Job# P-EFP-3046.01.0002

Labour	118,888.00
Per Diem	15,542.00
Expenses	3,138.00
Total	137,568.00

Hendricks
Lauren

Digitally signed by Hendricks Lauren
DN: cn=Hendricks Lauren, c=DE,
o=Siemens,
email=lauren.hendricks@siemens-
energy.com
Date: 2024.10.31 16:51:35 -04'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #3
PO# 2132981 Item 12.1
HP Turbine-1d-Laser Distortion Check-Execution
SECL Job# P-EFP-3046.01.0004

Labour	20,346.00
Per Diem	2,454.00
Total	22,800.00

Hendricks
Lauren

Digitally signed by Hendricks Lauren
DN: cn=Hendricks Lauren, c=DE,
o=Siemens,
email=lauren.hendricks@siemens-
energy.com
Date: 2024.10.31 16:52:00 -04'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #4
PO# 2132981 Item 11.1
HP Turbine-1a-PM+DS TFA+EIT
SECL Job# P-EFP-3046.01.0001

Labour	264,352.00
Per Diem	25,105.00
Total	289,457.00

Sokoloski
i Nikolas

Digitally signed by Sokoloski Nikolas
DN: c=DE, st=Bayern, o=Siemens,
email=nikolas.sokoloski@siemens-
energy.com,
serialNumber=Z003MFYS,
givenName=Nikolas, sn=Sokoloski,
cn=Sokoloski Nikolas
Date: 2024.11.29 11:04:10 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #5
PO# 2132981 Item 10.1
HP Turbine-1b-NS TFA+EIT
SECL Job# P-EFP-3046.01.0002

Labour	213,752.00
Per Diem	28,630.00
Expenses	6,392.00
Total	248,774.00

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2024.11.29 10:59:06 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #6
PO# 2132981 Item 12.1
HP Turbine-1d-HP Laser Distortion Check
SECL Job# P-EFP-3046.01.0004

Labour	2,760.00
Per Diem	409.00
Total	3,169.00

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2024.11.29 10:59:45 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #7
PO# 2132981 Item TBD
EWA#1-Weld Repair
SECL Job# P-EFP-3046.04-0001

Labour	99,428.00
Per Diem	14,315.00
Expenses	1,063.35
Total	114,806.35

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2024.11.29 11:00:17 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #8
PO# 2132981 Item TBD
EWA#3-UK Machine Dynamics
SECL Job# P-EFP-3046.04.0003

Labour	46,190.00
Per Diem	4,090.00
Expenses	7,961.00
Total	58,241.00

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2024.11.29 11:00:51 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major

Billing #9

PO# 2132981 Item TBD

EWA#7-Birkosit

SECL Job# P-EFP-3046.04.0007

Tooling	4,654.08
Total	4,654.08

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2024.11.29 11:01:15 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #10
PO# 2132981 Item 3.1
NSP-IP Laser Distortion Check(T)-Item 2c
SECL Job# P-EFP-3046.02.0003

Labour	5,520.00
Total	5,520.00

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2024.11.29 11:01:38 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #11
PO# 2132981 Item TBD
EWA#1-Weld Repair
SECL Job# P-EFP-3046.04-0001

Expenses	23,883.00
Total	23,883.00

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2024.12.12 15:30:51 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major**Billing #12****PO# 2132981 Item TBD****EWA#3-UK Machine Dynamics****SECL Job# P-EFP-3046.04.0003**

Labour	5,520.00
Expenses	1,906.00
Total	7,426.00

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2024.12.12 15:31:18 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major

Billing #13

PO# 2132981 5.1

NSP IP PM+DS TFA+EIT(T) 2a

SECL Job# P-EFP-3046.04-0001

Expenses	8,282.00
Total	8,282.00

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2024.12.12 15:31:34 -05'00'

Billing Detail Report
Nova Scotia Power Inc
Tufts Cove 2024 HP/IP Major CI C0051136 NSEB IR-1 Attachment 1 Page 15 of 20
Fixed Price Scopes
Billing #14

Job Number	P-EFP-3046.01.0003		
Job Description	NSP-HP Laser Distortion Check-Mob(F)		
	Expense Date	Description	Other Expenses Total
Other Expenses total			20,266.00
	2025-01-16	Fixed Price	20,266.00
Job Number	P-EFP-3046.01.0005		
Job Description	NSP-HP Tooling/Shipping(F)		
	Expense Date	Description	Other Expenses Total
Other Expenses total			52,093.00
	2025-01-16	Fixed Price	52,093.00
Job Number	P-EFP-3046.02.0004		
Job Description	NSP-Tooling/Shipping (F)		
	Expense Date	Description	Other Expenses Total
Other Expenses total			12,884.00
	2025-01-16	Fixed Price	12,884.00
Job Number	P-EFP-3046.03		
Job Description	Planning(F)		
	Expense Date	Description	Other Expenses Total
Other Expenses total			90,000.00
	2025-01-16	Fixed Price-Agreee Upon Price with Customer	90,000.00

Invoice Subtotal 175,243.00

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #15
PO# 2132981 Item TBD
EWA#1-Weld Repair-Rotor Blade (24008A14)
SECL Job# P-EFP-3046.04-0001

Expenses	1,569.00
Total	1,569.00

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2025.02.28 10:22:35 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major

Billing #16

PO# 2132981 Item TBD

EWA#3-UK Machine Dynamics

SECL Job# P-EFP-3046.04.0003

Labor	8,280.00
Total	8,280.00

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2025.02.28 10:23:32 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major

Billing #17

PO# 2132981 Item TBD

EWA#7-Parts Order-Birkosit-Tooling-in tooling list

SECL Job# P-EFP-3046.04.0007

Labor	5,997.60
Total	5,997.60

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2025.02.28 10:23:15 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major
Billing #18
PO# 2132981 Item TBD
EWA#9-FTS Lowspeed Balance
SECL Job# P-EFP-3046.04.0009

Labor	35,850.00
Employee Expenses	2,045.00
Expenses	57,150.00
Total	95,045.00

Chan Alan

Digitally signed by Chan Alan
DN: cn=Chan Alan, c=DE,
o=Siemens,
email=alan.chan@siemens-
energy.com
Date: 2025.02.28 10:23:00 -05'00'

Nova Scotia Power Inc-TUC2 2024 HP & IP Major

Billing #19

PO# 2152452 Item TBD

EWA#8-#4 Gland Rub

SECL Job# P-EFP-3046.04.0008

Labor	628,526.00
Employee	53,893.00
Expenses	22,535.00
Total	704,954.00

Sokoloski
Nikolas

Digitally signed by Sokoloski Nikolas
DN: c=DE, st=Bayern, o=Siemens,
2.5.4.97=NTRDE-HRB 6684,
email=nikolas.sokoloski@siemens-
energy.com, serialNumber=Z003MFYS,
givenName=Nikolas, sn=Sokoloski,
cn=Sokoloski Nikolas
Date: 2025.03.24 13:25:16 -0400

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Request IR-2:

The application noted that the amount of work estimated by Siemens and NS Power was conservative.

(a) Given what was learned from this project, will this change future cost estimates on similar projects (e.g. being less conservative in the amount of work required)?

(i) If not, why not?

Response IR-2:

(a) Based on the learnings from this project, NS Power will not change the approach to cost estimates for future steam turbine refurbishment projects. Each project will continue to be evaluated on a case-by-case basis, with cost estimates developed using the best available information at the time, including OEM recommendations, recent inspection data, accumulated run hours, and third-party expert opinions.

(i) It is important to note that the full scope of refurbishment work cannot be fully determined until the turbine is disassembled and internally inspected. As such, there will always be an element of uncertainty that may lead to scope and cost adjustments post-inspection. To manage this uncertainty, NS Power will continue to assess project-specific risks during the estimating phase and apply contingency amounts accordingly.