

January 27, 2011

Nancy McNeil
Clerk of the Board
Nova Scotia Utility and Review Board
1601 Lower Water Street, 3rd Floor
P.O. Box 1692, Unit "M"
Halifax, NS B3J 3S3

**Re: CI#38142 – RTU Replacement Program- NSPI Information Requests (IRs) -
P -128.10**

Dear Ms. McNeil:

Enclosed are the IR responses pertaining to the capital item referenced above.

These IRs were received on December 22, 2010.

Regards,


Lee Thomson-Lutz MBA, CMA
Manager Capital,

Encl.

CI 38142 – RTU Replacement Program (NSUARB P-128.10)
NSPI Responses to UARB Information Requests

NON-CONFIDENTIAL

Request IR-1:

Please identify the manufacturer and age of each of the RTU's replaced as part of the 2010 program.

Response IR-1:

2010 RTU Replacement Program – Manufacturer and Age of Units

Site	Name	RTU Manufacturer	RTU Model	Install Date	RTU Age (years)
014V	Ridge*	Landis & Gyr	MPS- 9000S	04/27/1988	21.70
012V	Lequille	Landis & Gyr	Telegyr 5520	6/28/1993	17.52
013V	Gulch	Landis & Gyr	MPS- 9000S	3/26/1988	22.78
004S	Townsend St. 69KV Sub	Landis & Gyr	Telegyr 5100	6/30/1994	16.52
081S	Reserve St	Landis & Gyr	Telegyr 5200	10/11/1994	16.23
101H	Cobequid Road	Landis & Gyr	MPS- 9000S	4/7/1994	16.75
003W	Big Falls	Landis & Gyr	Telegyr 5520	3/26/1988	22.78
030W	Souriquois	Landis & Gyr	Telegyr 5320	3/14/1994	16.81

In response to ACE 2010 IR-GP10a) NSPI stated that there were 9 RTU's to be replaced under this capital submission. This was an over sight. There were actually 10 RTU's budgeted under this capital item.

*The White Rock site which was referenced in the revised submission has been replaced by the Ridge site.

Both the Victoria Junction and New Page sites have been deferred. Eight RTU's have been replaced under this capital item.

CI 38142 – RTU Replacement Program (NSUARB P-128.10)
NSPI Responses to UARB Information Requests

NON-CONFIDENTIAL

Request IR-2:

Please describe the replacement RTU's that were installed as part of the 2010 program with respect to manufacturer, functionality and expected service life.

Response IR-2:

In 2010, all of the RTUs were purchased from QEI Incorporated. The two types of RTU's that were purchased are ePAQ-9100 and Stn-9150.

These RTU's contain the same components excluding the power supply. The difference between the two types of RTU's referenced above are the ePAQ-9100 stores the main processor board and power supply in a 19" rack-mount chassis. The Stn-9150 stores all of the RTUs with the main processor board mounted on a metal panel. All critical components for these two types of RTUs are interchangeable.

The function of an RTU is to provide communications to the SCADA system.

The expected lifespan of these units is 10-15 years as recommended by the manufacturer.

NON-CONFIDENTIAL

Request IR-3:

Please explain if NSPI has implemented any programs that would help extend the service life of new RTU's prior to and following their installation.

Response IR-3:

An annual RTU maintenance check is performed by NSPI's System Maintenance technicians in each region on all RTUs. This is an end-to-end check to ensure the RTU and its components are functional and operating as expected.

Replacement parts have also been used to extend the life of a number of the existing RTU's.

The RTU's replaced in 2010 are part of a 5 year RTU replacement program that is driven by a full analysis of each site including the associated failures, spare parts and age.

CI 38142 – RTU Replacement Program (NSUARB P-128.10)
NSPI Responses to UARB Information Requests

NON-CONFIDENTIAL

1 **Request IR-4:**

2
3 **Please explain whether the new RTUs will be compatible with any future upgrade to or**
4 **replacement of the existing supervisory control and data acquisition (SCADA) system.**

5
6 **Response IR-4:**

7
8 Yes, the new RTUs are compatible with future upgrades/replacements of the existing SCADA
9 system.

CI 38142 – RTU Replacement Program (NSUARB P-128.10)
NSPI Responses to UARB Information Requests

NON-CONFIDENTIAL

Request IR-5:

Please provide the estimated cost of each RTU for each of the stations included in the 2010 program per ACE 2010 and the actual cost of each RTU.

Response IR-5:

2010 RTU Replacement Program – Material -Budget, Revised Budget and Actual Costs

Site	Name	ACE 2010 Budget (\$)	Revised Budget Estimate (\$)	Actual Cost (\$)
014V	Ridge*	37,500	20,976	12,319.26
012V	Lequille	35,000	20,525	14,240.32
013V	Gulch	35,000	23,508	18,368.03
004S	Townsend St. 69KV Sub	35,000	11,652	11,801.84
081S	Reserve St	35,000	10,280	13,424.71
101H	Cobequid Road	35,000	13,240	18,448.60
003W	Big Falls	35,000	19,310	14,788.61
030W	Souriquois	35,000	12,045	12,234.34
	New Page**	60,000	27,559	0*
	Victoria Junction**	35,000	22,115	0*
Total		377,500	181,210	115,625.71

* Ridge replaced the White Rock site, which was referenced in the revised submission.

**Site deferred.

CI 38142 – RTU Replacement Program (NSUARB P-128.10)
NSPI Responses to UARB Information Requests

NON-CONFIDENTIAL

Request IR-6:

Please provide the following information by station

(a) Estimated labor and material costs of the upgrades from ACE 2010

(b) Actual labor and material costs

(c) Variance and reasons for same

Response IR-6:

(a-b) 2010 RTU Replacement Program – Labour ACE 2010 Budget, Revised Budget and Actual Costs

Site	Name	Labour		
		ACE 2010 Budget (\$)	Revised Budget (\$)	Actual Costs (\$)
014V	Ridge*	18,087	5,337	7,343.08
012V	Lequille	16,962	8,892	10,606.67
013V	Gulch	16,962	31,110	31,004.15
004S	Townsend St. 69KV Sub	16,962	4,449	6,527.17
081S	Reserve St	16,962	6,226	8,158.99
101H	Cobequid Road	16,962	32,887	32,635.97
003W	Big Falls	16,962	23,998	24,476.98
030W	Souriquois	16,962	15,113	16,317.99
	New Page**	28,220	8,430	0*
	Victoria Junction**	16,959	12,860	0*
Total		182,000	149,302	137,071.00

* Ridge replaced the White Rock site, which was referenced in the revised submission.

**Site deferred

CI 38142 – RTU Replacement Program (NSUARB P-128.10)
NSPI Responses to UARB Information Requests

NON-CONFIDENTIAL

Response IR-6: (cont'd)

2010 RTU Replacement Program – Materials ACE 2010 Budget, Revised Budget and Actual Costs

Site	Name	Materials		
		ACE 2010 Budget (\$)	Revised Budget (\$)	Actual (\$)
014V	Ridge*	37,500	20,976	12,319.26
012V	Lequille	35,000	20,525	14,240.32
013V	Gulch	35,000	23,508	18,368.03
004S	Townsend St. 69KV Sub	35,000	11,652	11,801.84
081S	Reserve St	35,000	10,280	13,424.71
101H	Cobequid Road	35,000	13,240	18,448.60
003W	Big Falls	35,000	19,310	14,788.61
030W	Souriquois	35,000	12,045	12,234.34
	New Page**	60,000	27,559	0*
	Victoria Junction**	35,000	22,115	0*
Total		377,500	181,210.00	115,625.71

*Ridge replaced the White Rock site, which was referenced in the revised submission.

**Site deferred.

(c) The RTU work order amount originally submitted in the 2010 ACE plan was \$780,137. This budget was based on estimates from NSPI's pre-2010 RTU vendor. As part of the RTU project an RFP was issued and a new vendor was selected resulting in reduced costs. Both the Victoria Junction and New Page sites have been deferred, which also resulted in a decrease. The revised project total for this work is \$512,974.

CI 38142 – RTU Replacement Program (NSUARB P-128.10)
NSPI Responses to UARB Information Requests

NON-CONFIDENTIAL

1 Response IR-6: (cont'd)

2
3 The original material costs in ACE 2010 were \$377,500. The revised estimate for
4 materials was \$181,210 based on a new vendor quote. The actual material costs for the
5 RTU's was \$115,625. The decrease in material costs was due to favorable pricing and
6 two sites being deferred.

7
8 The labour cost for installing the RTU's was originally estimated in ACE 2010 was
9 \$182,000. The revised estimate for labour was \$149,302. The actual labour costs are
10 \$137,071. The decrease in labour is due to the deferral of the RTU's not being installed
11 at both the Victoria Junction and New Page sites.

12
13 NSPI is requesting Board approval on the revised submission amount totaling \$512,974.