

October 7, 2013

VIA COURIER and ELECTRONIC MAIL

Board of Commissioners of Public Utilities
120 Torbay Road
P.O. Box 21040
St. John's, NL A1A 5B2

Attention: Ms. G. Cheryl Blundon
Board Secretary

Dear Ms. Blundon:

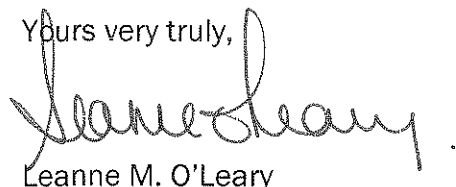
Re: 2014 Capital Budget Application of Newfoundland and Labrador Hydro

Please find enclosed the original and twelve (12) copies of the Written Submissions of Vale Newfoundland & Labrador Limited in respect of the above-noted Application.

We have provided a copy of this correspondence, together with enclosures, to all concerned parties.

We trust you will find the enclosed satisfactory.

Yours very truly,



Leanne M. O'Leary

LMO/js
Encl.

c.c. Geoffrey P. Young, Senior Legal Counsel, Newfoundland & Labrador Hydro
Gerard Hayes, Senior Legal Counsel, Newfoundland Power
Liam O'Brien, Curtis Dawe
Consumer Advocate, Thomas J. Johnson, O'Dea, Earle
Paul Coxworthy, Stewart McKelvey
Dean A. Porter, Poole Althouse

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IN THE MATTER OF the *Public Utilities Act*, (the “Act”): and

IN THE MATTER OF an Application by Newfoundland and Labrador Hydro for an Order approving (1) its 2014 capital budget pursuant to s. 41(1) of the Act; (2) its 2014 capital purchases, and construction projects in excess of \$50,000 pursuant to s. 41(3)(a) of the Act; (3) its leases in excess of \$5,000.00 pursuant to s. 41(3)(b) of the Act; and (4) its estimated contributions in aid of construction for 2014 pursuant to s. 41(5) of the Act and for an Order pursuant to s. 78 of the Act fixing and determining its average rate base for 2012.

1 **WRITTEN SUBMISSIONS OF VALE NEWFOUNDLAND & LABRADOR LIMITED**

2 The following are the written submissions of Vale Newfoundland & Labrador Limited
3 (“Vale”) in relation to Newfoundland and Labrador Hydro’s (“Hydro”) 2014 Capital
4 Budget Application before the Newfoundland and Labrador Board of Commissioners
5 for Public Utilities (the “Board”).

6 **I. Introduction and General Comment**

7 Vale is currently constructing a metallurgical processing plant in Long Harbour,
8 Newfoundland and Labrador. When the Long Harbour plant commences operation
9 and ramps up production it is expected to become Hydro’s largest industrial
10 customer, at approximately 2/3rds of the total industrial customer load, based on

1 current projections of Vale usage and total industrial customer load. As such, Vale
2 will become the largest end consumer of electricity on the island Interconnected
3 system, consuming in excess of 5% of the total energy sold and therefore bearing the
4 similar portion of the costs of the island Interconnected system. Vale is projected to
5 pay approximately 5% of the island Interconnected portion of the Capital Budget
6 which represents approximately 80% of the total Capital Budget [PUB-NLH-1,
7 Attachment 1; 2014 Capital Budget Application]. It is in this context that Vale makes
8 the following submissions on the 2014 Capital Budget application.

9 The *Public Utilities Act* provides in Section 41 that a public utility must submit an
10 annual capital budget of proposed improvements or additions to its property for
11 approval of the Board (s. 41). Section 3(b) of the *Electric Power Control Act, 1994*
12 (*"the EPCA"*) governs the Board's review and consideration of Hydro's capital
13 budgets. Section 3(b) of the EPCA states that all sources and facilities for the
14 production, transmission and distribution of power in the province should be
15 managed and operated in a manner that results in i) the most efficient production,
16 transmission and distribution of power, ii) equitable access to an adequate supply of
17 power for all consumers in the province and iii) the delivery of power to consumers at
18 the lowest possible cost consistent with reliable service. Section 4 of the EPCA
19 provides the Board with responsibility for implementation of the power policy set out
20 in Section 3.

1 Overall, in this Application, the obligation is on Hydro to establish that the proposed
2 expenditures are necessary in the year proposed and are the lowest cost alternative
3 to ensure reliable service for consumers in the province. Vale has significant
4 concerns about the proposed 2014 Capital Budget and the overall growth in the
5 capital expenditures of Hydro, both in the historical data and the forecast capital
6 expenditures over the next five years. While Vale has not requested a hearing on this
7 Application, it relies on the Board to scrutinize the overall capital budget and each
8 specific project in the context of the submissions of each of the Intervenors.

9 II. LEVEL OF CAPITAL EXPENDITURE

10 i) The Current 2014 Capital Budget Application

11 Vale submits that apart from the examination and commentary on individual projects
12 outlined in the 2014 Capital Budget the Board must continually examine the overall
13 levels of capital expenditure proposed by Hydro in the larger context of ensuring that
14 expenditures are required in that year and represent the least cost alternative.

15 In past submissions to the Board, particularly from the Industrial Customers and the
16 Consumer Advocate, there has been repeated concern expressed over Hydro's
17 growing capital expenditure and the unchecked growth of same. Vale submits that it
18 has significant concerns about the exponential growth in the proposed overall capital
19 budget for 2014. As part of its regulatory function the Board has an obligation and
20 duty to scrutinize the overall quantum of each annual capital budget. This includes
21 an assessment of the growth of the level of capital expenditure and the impact this

1 growth has on the provision of electrical services in the province. The lack of
2 competition in Hydro's industry requires that the Board provide oversight on its' level
3 of capital expenditure. This oversight is necessary to ensure that Hydro's legislative
4 obligation to provide a reliable service at the lowest possible cost is achieved over
5 time.

6 Notwithstanding the critical review received on past capital budget submissions, the
7 2014 Capital Budget Application continues the trend of proposing escalating capital
8 expenditures. The continued growth of the capital budget dictates another review
9 and examination in response to the 2014 Capital Budget Application.

10 The planned 2014 expenditure represents an approximate increase of 30% over the
11 year prior if you include the supplemental application to be made to the Board over
12 the fall 2013 (2014 Capital Plan, Appendix 1, p.A2). The actual Capital Expenditures
13 for the period 2004 through to 2008 (2009 Capital Budget Application, Section G,
14 page G-1 & Section H, page H-1) and 2009 through 2013 (V-NLH-4, Attachment 1)
15 are presented below. This historical data demonstrates the increase in capital costs
16 over the past ten years to the degree that the currently proposed Capital Budget for
17 2014 is almost four times the actual expenditures just ten years ago. This increases
18 to a multiplier of five times if the \$151,400,000 projection, which includes the
19 supplemental application amount, is used as referenced at 2014 Capital Plan,
20 Appendix A, p. A2.:

1 **Capital expenditure from 2004 to 2008 in \$000.**

| | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|
| 2 | <u>2004</u> | <u>2005</u> | <u>2006</u> | <u>2007</u> | <u>2008</u> |
| 3 | 27,984 | 33,952 | 41,217 | 35,669 | 52,836 |

4 **Capital expenditure from 2009 to 2013F in \$000**

| | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|
| 5 | <u>2009</u> | <u>2010</u> | <u>2011</u> | <u>2012</u> | <u>2013</u> |
| 6 | 54,152 | 55,553 | 63,116 | 77,252 | 115,278 |

7 The proposed budget included in this application for 2014 of \$98,700,000 is
8 consistent with the forecast actuals for 2013. However, the forecast expenditures
9 over the next five years, including the current 2014 application year, signifies that
10 the annual level of capital expenditure is forecast to remain at this escalated level.
11 Further, comparison to the projections made for this same time frame in the 2013
12 Capital Budget Application reveal an overall increase in forecasting by Hydro in favor
13 of increasing expenditures.

14 **2014 Capital Budget from 2014 to 2018 in \$000 (2014 Capital Plan,**
15 **Appendix A, page A3)**

| | | | | | |
|----|-----------------------------|-------------|-------------|-------------|-------------|
| 16 | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
| 17 | 98,668 | 209,008 | 164,201 | 144,555 | 140,441 |
| 18 | 151,449 (with supplemental) | | | | |

19 **2013 Capital Budget from 2013 to 2017 in \$000 (2013 Capital Plan)**

| | | | | | |
|----|-------------|-------------|-------------|-------------|-------------|
| 20 | <u>2013</u> | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> |
| 21 | 66,145 | 111,682 | 135,224 | 136,100 | 153,322 |

1 The forecast for 2014 through 2018 is for the annual level of capital expenditure to
2 remain at this very high level. In fact, a look forward at the forecasted 2015 budget
3 as contained in the 2014 Capital Budget application reveals further expansion to the
4 capital budget, almost four times the budget five years prior in 2010 and almost
5 double the capital budget for the year prior, 2014. Such exponential growth to
6 maintain existing systems must be stringently analyzed and scrutinized. While the
7 2015 budget is not a part of this application, the inclusion of the 5-year forecast
8 provides a strong signal that the approach of Hydro on capital expenditures will not
9 change, but continue, into the next 5 years.

10 The increase in capital expenditure has a real and sizable impact on Hydro's rate
11 base and ultimately provincial rate payers. Vale's overriding concern of the impact
12 that the proposed future level of capital expenditures will have on rates is quantified
13 in PUB-NLH-34 and PUB-NLH-36. Employing Hydro's proposed annual forecast for
14 capital expenditures, the increase in annual revenue requirement from 2013 to
15 2018 is estimated at \$73,244,000 (PUB-NLH-34). This increase in revenue
16 requirement is derived solely and strictly from the escalating increase in capital
17 expenditure. Vale submits that this reality alone mandates an active and engaged
18 examination of Hydro's budgeting practices and project justifications on each annual
19 budget application and on the overall five-year forecast. As there is a direct link
20 between the escalating capital expenditures and increasing costs to all customers in
21 the province, the Board must engage now to stringently assess Hydro's overall
22 assertion that the capital expenditure at current and forecast levels are reflective of

1 inflation, the replacement and upgrading of deteriorating facilities, ensuring
2 legislative compliance and, most particularly, additions to meet load growth.

3 As approximately 80% of the capital budget expense is in the island Interconnected
4 system, one can reasonably estimate that 80% of the increase in annual revenue
5 requirement between 2013 and 2018 (or \$58,595,000) will end up being paid by
6 island Interconnected customers. This is in addition to an anticipated impact on
7 island Interconnected ratepayers in 2018 due to increased generation costs. Based
8 on Hydro and Nalcor available information, it is estimated that total revenue
9 requirement will increase by \$300 million in the five years to 2018, or by 60%. [2018
10 revenue requirement was calculated with reference to 2013 Test Year revenue
11 requirement; 2013-2018 impact due to increased capital, 2018 Muskrat Falls Power
12 Purchases and 2013 Test Year Holyrood fuel]. While Hydro uses anticipate load
13 growth as a justification for the capital budget expansion, over the same five years
14 load growth is expected to increase by only 9% for Island Interconnected customers
15 [Volume II of the Application, Tab 8, *Condition Assessment and Life Extension*,
16 Appendix F, p.F17]. With this shocking increase in rates Hydro must be expected to
17 do everything reasonable to keep rates low for their customers and ultimately the
18 economic benefit of the people of the province. Strikingly, throughout 2000 pages of
19 its 2014 Capital Budget Hydro emphasizes reliability in numerous places, but fails to
20 discuss the overall impact on rates of the proposed capital budget for 2014 and the
21 forecasted five-year plan.

1 ii) **Supplemental Application**

2 Hydro's practice of filing supplementary applications for capital projects while an
3 annual Capital Budget is before the Board has continued over the past several years
4 and is of concern to Vale. The practice fuels concern over Hydro's overall approach to
5 capital budgeting and the developing trend of larger amounts of capital expenditures
6 held over for inclusion within supplemental applications to the Board. At the time of
7 these written submissions a supplementary application is anticipated for a
8 substantial capital expenditure equaling more than 50% of the overall 2014 Capital
9 Budget currently proposed, or an extra \$52,800,000. Given the significant amount
10 involved in the proposed supplemental application, Hydro ought to have had a
11 sufficient lead time to allow its inclusion in the main 2014 Capital Budget
12 application, in place of a supplementary application within a short time frame of the
13 application process.

14 The 2014 Capital Plan, Appendix A, lists a project to add a 60 mW gas turbine at a
15 total cost of \$99,444,600. In response to NP-NLH-1 which questioned the timing of
16 the application for this project, Hydro advised that the application would be filed
17 "within the next several weeks". Given the absence of complete information on the
18 proposal, Vale cannot and should not comment at this stage on the individual merit
19 of this proposed capital expenditure. However, Vale submits that such expansive
20 applications and projects should have been ready for filing as part of the 2014
21 Capital Budget application and subjected to analysis as part of the overall application
22 as opposed to splitting the proposed expenditures over separate applications. As

1 part of the overall 2014 Capital Budget such significant expenditures must be
2 scrutinized to ensure that all alternative solutions have been thoroughly examined.
3 All information currently available on this project, including the reply to V-NLH-29,
4 suggests they have not. Vale submits that the Board should remain attentive to the
5 impact of supplemental applications while assessing the reasonableness of the
6 proposed level of capital expenditure each year, and as a trend over time and in
7 forecasts.

8 **iii) Recommendation re Capital Budgeting**

9 Vale recognizes that Hydro prepared the 2014 Capital Budget within the framework
10 of the existing legislation and Board Orders. It is not recommended that any change
11 in the capital budget procedure be implemented for the current Application before
12 the Board. However, as previously discussed, Vale has significant concerns about the
13 high level of capital expenditure proposed in this Application and the trend for
14 continuing growth as noted in the projections for the years 2015 to 2018. The
15 current rate-of-return regulation provides an incentive to Hydro to increase capital
16 expenditure. Globally, there are numerous other regulator models and practices
17 being employed by utilities. For example, these other models include the Australian
18 building block model, the UK price-cap (RPI-X) regulation, and a risk ranking system
19 for asset replacement. At this stage, Vale is not recommending any particular system
20 or practice for use in Newfoundland and Labrador and similarly, it is not
21 recommending substantial changes to current models as opposed to a potential
22 improvement to the existing system.

1 Vale respectfully submits that the Board should engage a knowledgeable,
2 independent third party to study the possibilities that exist for improvement to the
3 current regulation system. Ideally, this independent party should have global
4 experience, with the ability to outline utility capital budgeting approaches from other
5 jurisdictions including a review of the “best practices” used to regulate capital
6 expenditures within the rate-of-return regulation model. Finally, it is submitted, that
7 this independent party could explain the benefits and shortcomings of each
8 improvement and make practical recommendations for reform or improvement to the
9 system in our jurisdiction. Vale respectfully submits these recommendations as a
10 way to ensure that the utilities in Newfoundland and Labrador are best conforming to
11 the dual statutory requirements of ‘least cost’ and ‘reliable service’.

12 **THE FUTURE OF HOLYROOD**

13 A related discussion to the unchecked growth of Hydro’s capital structure and of
14 equal concern to Vale is the high level of capital expenditure at Holyrood, a facility
15 that will be shut down or placed into stand-by mode when Muskrat Falls comes on
16 line, estimated by Hydro as 2017 (V-NLH-11). The actual capital expenditures for
17 Holyrood over the 5 year period from 2007 to 2011 averaged \$7,492,000 annually.
18 The actual expenditure in 2012 and forecast for 2013 is \$15,219,000 and
19 \$30,187,000, respectively. This demonstrates a doubling and then quadrupling of
20 the capital expenditures over the past two years on a facility which is scheduled for
21 shut down after four years. Of greater concern is the planned capital expenditure on

1 Holyrood in the next four years as it approaches and reaches its date of substantial
2 shut-down.

3 **2014 Capital Plan (Holyrood), Appendix A, page A7, in\$000:**

| | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|
| 4 | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> | <u>2018</u> |
| 5 | 12,157 | 7352 | 15,163 | 5497 | 3500 |

6 The forecast capital expenditures for Holyrood for 2014 to 2018 represent an
7 increased investment in capital which will be nonoperational within five years. In
8 response to NP-NLH-7 Hydro advises that it expects to recover the 2013-2021
9 capital expenditure by 2020 when all aspects of Holyrood are shut down. This
10 accelerated depreciation schedule results in significantly higher annual depreciation
11 costs. This is in addition to the increased interest and return on equity. Thus we
12 have a compounding negative impact on customers.

13 The ongoing and substantial capital investment in Holyrood must be assessed and
14 scrutinized against the backdrop of forecast future use of Holyrood within the island
15 Interconnected system. The future use of Holyrood by relevant years, net production
16 and capacity factors is summarized in V-NLH-9 Table 1 and presented below for years
17 2013 through to 2020:

18 **Future Production and Capacity at Holyrood**

| | | | |
|----|-------------|-------------------------|-----------|
| 19 | <u>Year</u> | <u>Production (gWh)</u> | <u>CF</u> |
| 20 | 2013 | 982 | 24% |
| 21 | 2014 | 1556 | 38% |
| 22 | 2015 | 1845 | 45% |
| 23 | 2016 | 2028 | 50% |
| 24 | 2017 | 1569 | 38% |
| 25 | 2018 | 20 | 0% |
| 26 | 2019 | 20 | 0% |
| 27 | 2020 | 20 | 0% |

1 The forecasts for net production and capacity factor demonstrate that even on the
2 submission from Hydro that load increases will require operational reliability from
3 Holyrood, the capacity factor for Holyrood does not exceed 50% over the next four
4 years and Holyrood is scheduled for stand-by mode in the fifth year of the 5-year
5 forecast from 2014 forward. The response to V-NLH-11 confirms that Muskrat Falls
6 will be on line in 2017. V-NLH-15 clearly shows that with one generator down at
7 Muskrat Falls the other three generators can easily equal the output of Holyrood.
8 Based on information provided in the RFIs one generator can be out at Muskrat Falls
9 without any requirement for Holyrood to go from standby mode to full generation.
10 Despite specific questions posed in V-NLH-12, 13, 14 and 16, Hydro has filed no
11 evidence for the Board to review to confirm that the Muskrat Falls power supply is or
12 will be unreliable for the first three years of generation, 2017-2020. The suggestion
13 that the Muskrat Falls supply will be unreliable in the early stages was offered by
14 Hydro as rationale for investing significant capital expenditure in Holyrood in the next
15 several years. Without any evidence before the Board to support this proposition, the
16 Board should scrutinize the continued capital expenditure in Holyrood given its time
17 as a generating facility is known to be fixed.

18 Vale submits that in the Board's evaluation and scrutiny of specific projects related to
19 the Holyrood generating facility consideration should be given to the reasonable
20 likelihood that the facility will not be required for power generation between 2018
21 and 2020 beyond a standby mode and therefore very little weight should be given to
22 the generating requirements for that three year period. Further, many of the specific
23 projects related to Holyrood are two year projects commencing in 2014 which will not

1 be completed until mid-2015 and therefore any benefit derived or risk reduced will
2 be realized over an operating period of two years or less. The specific projects
3 reviewed below are discussed in this context.

4 **INDIVIDUAL 2014 CAPITAL BUDGET PROJECTS**

5 Vale comments below on some of the individual projects proposed in Hydro's capital
6 budget application. Notwithstanding the following, Vale submits that its failure to
7 comment on any specific project should not be interpreted as a validation or sanction
8 of that project. The specific projects identified and commented upon below
9 represent those which, from Vale's perspective, appear most problematic in this
10 2014 Capital Budget application:

11 i) *Holyrood – Upgrade Excitation Systems Units 1 and 2 - \$1,110,000 [2014*
12 *Capital Projects \$500,000 and Over: Page C22-C23]*

13 Hydro seeks approval for this project to replace the control section of the existing
14 Exciters on Units 1 and 2 at Holyrood through an upgrade on one unit in 2014 and
15 the second in 2015 during scheduled outages. This project has a significant
16 proposed capital expenditure (\$1,110,000) when the benefits from this will be
17 significantly reduced when Holyrood is converted to synchronous condenser load in
18 2017 [V-NLH-10, p.2, Table 1]. Hydro suggests that upgrade or replacement is
19 necessary as the manufacturer cannot guarantee spare parts or product support
20 after 2015. Vale submits that in the context of the larger issue of the finite
21 generating life of the Holyrood facility, Units 1 and 2 are only required for the winters
22 of 2015-2016 and 2016-2017.

1 The existing system was installed on Unit 1 in 2000 and Unit 2 in 1999 (Report to the
2 PUB “*Upgrade Excitation Systems, Unit 1 and 2, Holyrood, May 2013*”, page 3,
3 Section 3.1). When details from the Report to the PUB and responses to V-NLH-21
4 are cross-referenced, it is noted that only five of the items that are no longer
5 supported by the manufacturer have ever been replaced by Hydro over the past 14
6 years. The following table summarizes information from the two documents:

| 7 | Part | Consumption | Number | Safety |
|----|----------------------------|---------------------------|-----------------|--------------|
| 8 | <u>Description</u> | <u>since Installation</u> | <u>in Stock</u> | <u>Stock</u> |
| 9 | Digital Arcnet | 3 | 1 | 1 |
| 10 | Control Electronics PPC322 | 4 | 1 | 1 |
| 11 | Power Pack | 1 | 1 | 1 |
| 12 | Pulse Generator | 1 | 1 | 1 |
| 13 | Converter Electronics Card | 6 | 1 | 1 |

14 Reviewing this, it is apparent that even though they have used more than one part on
15 at least 3 separate items (Digital Arcnet, Control Electronics PPC322 and Converter
16 Electronics Card), Hydro has maintained an ongoing stock level of “one”, reasonably
17 interpreted that Hydro has a low expectation of multiple failures of the same part
18 dictating a larger inventory stock at any given time. Further, the recorded “safety
19 stock”, interpreted as the lowest level of inventory that should be maintained at any
20 one time, is also low at one. Again, this demonstrates that Hydro has a very low
21 expectation that several of these parts which will not be supported by the
22 manufacturer would be required over a short period.

23 Vale submits that the real concern here for Hydro is the assurance of adequate spare
24 parts for the exciter units over the two year period when Holyrood would be operating
25 as a generating facility and the manufacturer cannot guarantee replacement part

1 availability. This is, in essence, a stocking and a planning issue for Hydro and should
2 not mandate a \$1,000,000 system upgrade. The reply to V-NLH-21(b) confirms that
3 a complete set of spare parts can be purchased for \$100,000 which would double
4 Hydro's current replacement stock of supply parts. If the risk of maintaining two
5 complete sets is deemed an unacceptable level of risk associated with maintenance
6 of the exciter and overall excitation system until 2017, then it is submitted that an
7 additional \$100,000 (and overall expenditure of \$200,000) by Hydro could allow
8 purchase of two more control electronics and four more converter cards. Following
9 this purchase, Hydro would have in inventory the same number of each of these
10 parts as has been used by the company over the last 14 years. This proposed
11 expenditure of \$200,000 as opposed to the budget capital expenditure of
12 \$1,110,000 seems to carry very minimal risk of problems at a significantly reduced
13 capital expenditure on an overall asset which has a finite life as a generating facility.
14 Vale submits that this project, with a budgeted capital expenditure of \$1,110,000 to
15 remedy risks which are limited in time and which could be answered by a lower cost
16 planning option, is not reasonably justified and should not be approved by the Board.

17 ii) *Holyrood – Install Fire Protection Upgrades - \$369,100 [2014 Capital*
18 *Projects \$200,000 and Over but Less than \$500,000: Page D76-D80]*

19 At pages D76-D80 of its application Hydro seeks approval of this project to install
20 various fire protection upgrades at the Holyrood facility. This project is effectively a
21 fire prevention project recommended by Hydro's insurer, FM Global. In response to

1 NP-NLH-10 and NP-NLH-11 Hydro has confirmed that its' insurance premiums are
2 not contingent on meeting these recommendations from their insurer.

3 There are three components to this project with an overall proposed capital
4 expenditure of \$369,100, listed in priority from a fire protection point of view (V-NLH-
5 28(b)):

- 6 • Install Automatic Shut-off valve: \$144,800
- 7 • Install Concrete Curbing: \$118,700
- 8 • Apply fire proofing to the pipe supports: \$105,600

9 This project is not scheduled for completion until 2015. With this projected time
10 frame for completion of the upgrades, by the time the upgrade is completed there will
11 only be two years remaining in the main generating life of the Holyrood facility. After
12 2017 Holyrood will be in standby mode and while there may be a quantity of fuel on
13 site it will be vastly reduced as Units 1 and 2 are forecasted to be operated
14 approximately 72 hours per year and Unit 3 forecasted to use fuel for 24 hours per
15 year [V-NLH-10, Table 1]. Vale submits that the overall risk for fire protection
16 significantly and dramatically declines with 2017.

17 Vale also questions the timing of Hydro's planned capital expenditure on this project
18 in 2014 (and 2015) as the recommendations for the fire protection upgrades were
19 originally made by the insurer, FM Global, on October 21, 2008 (V-NLH-28(c)). Vale
20 submits that as seven years will have passed since the recommendation was first

1 made to the proposed installation date, this project has obviously not been a priority
2 for Hydro over the past five years since the date of the initial recommendation. As
3 such, it cannot reasonably pass the test of a necessary capital expenditure for the
4 continuation of reliable service. Vale further submits that this is another example of a
5 capital expenditure the benefits of which will be significantly diminished by 2017
6 when Holyrood is converted to synchronous condenser load.

7 Given the low priority allocated to this project, the delay in Hydro's action on this
8 recommendation since October 2008, and the limited time over which the upgrade
9 would be in use with the finite generating life at Holyrood, Vale submits that Hydro
10 has failed to establish that this project is reasonably required for Hydro to meet its
11 obligations to provide a reliable service to its customers.

12 iii) *Holyrood – Replace DC Distribution Panels and Breakers - \$174,200*
13 *[2014 Capital Projects \$50,000 and Over but Less than \$200,000: Page*
14 *E66-E68]*

15 This is another example of a significant capital expenditure the benefits from which
16 will be significantly reduced by 2017. Hydro seeks approval for a project to replace
17 the DC distribution panels and breakers on Unit 1 and the purchase of spares for the
18 Stage 1 (Units 1 and 2) DC electrical system at Holyrood. The first paragraph and
19 significant portion of the justification provided for this project originates in the
20 January 1, 2013 failure of Unit 1. Hydro justified that the project is necessary to
21 ensure the reliability of the system and make available an adequate supply of critical
22 spares.

1 Through response to RFIs further information was disclosed including admission that
2 the root cause of the January 1, 2013 failure is not known (V-NHL-27(a)) and that
3 there is no connection between the DC distribution panels and the January 11, 2013
4 failure (V-NLH-27(b) and PUB-NLH-29). While one portion of the justification for the
5 project submitted by Hydro is the January 2013 incident, the project was actually
6 included in the 2013 five-year plan and was therefore proposed prior to this failure
7 (PUB-NLH-27 & 29).

8 The second portion of the project justification lies in the age of the panels. The
9 panels in question are 30 years old and some breakers are not available from the
10 manufacturer to access for spares or replacement stock. Within this project, Hydro is
11 proposing two separate DC panel and breaker projects: a 2014 project for Units 1
12 and 2 and a 2015 project for Unit 3. The 248 VDC panel on Unit 2 was installed in
13 1991 and has a 30 year anticipated service life. There is no clear or complete
14 evidence presented to explain why this panel is being changed now versus
15 addressing whether replacement breakers are available for this panel. Hydro's
16 response to V-NLH-27(c) lists the types of breakers that are currently stocked,
17 without reference to the quantity or to the breakers for which no spares are currently
18 in inventory.

19 Vale submits that there is insufficient evidence before the Board upon which to
20 determine whether this capital expenditure is prudent and reasonable or whether the

1 problem identified by Hydro has a lesser cost option in accessing spare breakers for
2 inventory. Subject to the agreement of the Board on this evidentiary point, Hydro
3 should be directed to provide a clear picture of all of the components for the three
4 units, including a simplified single line diagram, supplemented with a table listing all
5 components under the headings of Generation Unit, Component Description, Part
6 Number, Number in Service, Number of Spares (Stock) and Obsolete (yes/no).
7 Failing the disclosure of this level of information, Vale submits that there is
8 insufficient information on this expenditure to make an informed decision on its
9 approval at this time and its ranking from Hydro is only “29” in priority.

10 iv) *Holyrood – Install Cold-Reheat Condensate Drains and High Pressure*
11 *Heater Trip Level Unit 3 - \$517,200 [2014 Capital Projects \$500,000 and*
12 *Over: Page C30-C31]*

13 Hydro is seeking approval for this \$517,000 project to install a condensate collection
14 system (drain pots) on the cold-reheat piping near the steam turbine on Unit 3 as
15 well as piping modifications for the trip level switches on the high pressure heater on
16 the same Unit. Hydro states that this is another project being done at the
17 recommendation of the insurer, FM Global. The scheduled installation date is 2015
18 [Report, “*Install Cold-reheat Condensate Drains and High Pressure Trip Modifications*
19 *Unit 3, Holyrood, July 2013*”, Vol. II, Tab. 13, p.9], or two years prior to the conversion
20 of Unit 3 at Holyrood to synchronous condenser load. Similar installations were done
21 to Units 1 and 2 in 2009 and 2010 which raises the question as to why this work
22 would not have been completed on all three Units at that time if the risk was
23 identified by FM Global and necessary for the provision of reliable service. In the

1 ranking of priority of projects, this project was ranked by Hydro as only "28" in
2 priority.

3 One of the components of this project is to modify the piping so that the condensate
4 level switches can be tested every three months as per the FM Global
5 recommendation (Report, p.5). In response to V-NLH-25 Hydro confirms that the
6 switches could currently be tested as frequent as every six months given the current
7 requirements for generation from Holyrood. Hydro proposes that between now and
8 2017 the best time interval between tests will increase somewhat as Holyrood is
9 required to support more system load through increased operating time until the
10 Labrador Island Transmission Link is completed and in service. Hydro has not
11 quantified this increase in time interval between tests. However V-NLH-9 indicates
12 that the maximum Holyrood capacity factor after installing these modifications is
13 50%, thus indicating the generating station is not going to be operated much, if any,
14 above six months a year.

15 In response to IC-NLH-19 Hydro confirms that there have been no known incidents to
16 date on Unit 3 as a consequence of not having this installation completed. Hydro has
17 provided no explanation as to why this significant capital expenditure is necessary for
18 the last two years of operation at Holyrood when the absence of incidents involving
19 Unit 3 to date would suggest otherwise. Given the forecast for operations at
20 Holyrood over the next five years and the absence of any historical problems or

1 incidents with water damage to the steam turbine in Unit 3, Vale submits that
2 operating Unit 3 for an extra two years, from the 2015 installation to the 2017 shut
3 down, without this capital expenditure is both a low risk option and a prudent
4 decision. The low risk associated with operating without this project is perhaps
5 reflected in the priority ranking of “28” afforded the project by Hydro. Vale submits
6 that the significant capital expenditure of \$517,200 on this project is not justified
7 and should be disallowed.

8 **SUBMISSION ON COSTS**

9 Vale respectfully requests that the Board award Vale costs on the within Application
10 on the same basis as any award of costs made in favor of the Consumer Advocate
11 and/or the Industrial Group. An award of costs in favor of Vale is justified based on
12 the fact that:

- 13 i) As noted in the Introduction, when Vale’s processing plant in Long Harbour
14 begins production, Vale will be the single largest industrial customer of
15 Hydro. As discussed above in the submissions surrounding overall capital
16 expenditure, an increase in capital expenditure, barring other
17 circumstances, increases the rate base of Hydro and consequently the
18 revenue requirements for Hydro into the future. As also noted above, the
19 current capital expenditure application for 2014 and the forecasted
20 budgets for years 2015 through 2018 will impact revenue requirements,
21 and hence customer rates, well past the date of first production at Long

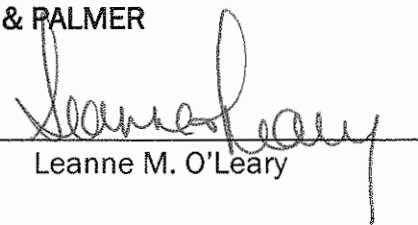
1 Harbour. Vale has a significant interest in the participating in an
2 examination of Hydro capital budget process and in the within Application;
3 and
4 ii) With respect, the Consumer Advocate cannot be expected to represent the
5 varied interests of all of Hydro's customers. Similarly, within the larger
6 group of "industrial customers" there may, at times, arise significant
7 differences of interest, perspective and position with regard to matters
8 included in Hydro's various applications, and as recently apparent in the
9 RSP application. Given the issues raised in the within Capital Budget
10 Application, Vale's submissions on the within Application were distinct
11 from the submissions of the Industrial Customer Group and Consumer
12 Advocate focusing commentary and scrutiny on several projects not
13 addressed by either of the Industrial Customer Group or the Consumer
14 Advocate.

ALL OF WHICH IS RESPECTFULLY SUBMITTED ON BEHALF OF VALE NEWFOUNDLAND &
LABRADOR LIMITED.

DATED at St. John's, in the Province of Newfoundland and Labrador, this 17th day of
October, 2013.

COX & PALMER

Per:


Leanne M. O'Leary

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