Board Staff Interrogatories

Hydro One

Application for Leave to Construct
Transmission Line and Associated facilities
EB-2012-0082

June 6, 2012

Board Staff Interrogatories
Leave to Construct
Lambton to Longwood Transmission Upgrade Project
EB-2012-0082

PROJECT COSTS

Interrogatory #1

Reference:
1) Exhibit B/Tab 4/Schedule 2/Pages 1
2) Exhibit B/Tab 4/Schedule 2/Pages 2, Lines 9 to 18

Preamble:
In the pre-filed evidence, HONI provided a cost estimate for the project totalling $39,998,000 including $4,081,000 for contingencies. HONI also provided a list of possible risks for which HONI has estimated contingency allowances (second reference).

Questions/Requests:
a) Please confirm that the items listed as potential risks were used to calculate the estimated contingencies costs.
b) One potential risk listed by HONI is: the "Use of High Temperature Low Sag Conductor, which is a new type of conductor for Hydro One."[1] Please provide support for why HONI considers this to be a risk that may result in costs above those accounted for in engineering, procurement, and construction costs.
c) Does the total contingencies cost of $4,081,000 account for any potential risk or contingency not identified in the list referred to in part a) of this interrogatory? If so, please provide a list of these other contingencies.
d) Please provide a table of the estimated contingency cost of each potential risk listed in parts a) and b) of this interrogatory and reconcile the total with the total contingencies costs of $4,081,000.
e) Confirm that the rate base on which HONI will be applying for rate increases will be the full amount of the project including the contingencies costs.
f) Does HONI expect future rate increases to be sought as a result of this project to be on the basis of when the project is placed in service i.e. "used and useful"?
g) Confirm that, if rates were granted on a basis which does not require that the project be used and useful, that ratepayers would be contributing the full amount of the project including the proposed contingency, even if the contingency amount is not required.

[1] Exhibit B/ Tab 4/Schedule 2/Pages 2, Lines 15 to 16

Interrogatory #2

Reference:

1) Exhibit B/Tab 4/Schedule 2/Pages 3-4

Preamble:

According to HONI the total cost of the project results in a cost of $571,000 per km. HONI also provided information on a comparable project, Burlington to Beach, which is significantly shorter in length (5.8 km vs. 70 km) and had a cost of $914,000 per km. HONI stated;

> The reconductoring of the proposed line from Lambton TS to Longwood TS is not a typical Hydro One's 230kV reconductoring projects because of the use of a high-temperature low sag conductor to achieve a summer long-term emergency rating between 1700-1900A per circuit. For this reason, a comparison of costs may not be directly applicable.[2]

HONI also indicated that the Burlington to Beach project differs from the Lambton to Longwood project due to volume of technical work, materials to be used, and locations of work.

Questions/Requests:

a) Please elaborate on the differences of technical work, materials to be used, and locations of work between the Lambton to Longwood project and the Burlington to Beach project.
b) Please provide a cost comparison of the major costs for the two lines on a per km basis including conductors and insulators.
c) Are there other examples of 230kV reconductoring in Ontario, and if so, please provide a table comparing the current proposal with the Burlington Beach and these other projects including year in-service, conductor rating and conductor and insulator cost per km, and a brief indication of the applicability of the comparison.
d) Please identify any other cost drivers that were not identified in part a) of this interrogatory that account for the difference between the two projects.
e) For every cost driver identified in parts a) and b), please provide the accompanying impact on costs. If possible, quantify the impact.
f) Please provide further details on how the use of a high-temperature low sag conductor for this project impacts the costs of the project in comparison to the costs of similar projects such as Burlington to Beach project. Please quantify the cost and labour impact of using high-temperature low sag conductor and provide a comparison.
g) Please indicate locations in Ontario or elsewhere where the high temperature conductor has been used. What has been the operational experience with the conductor?

[2] Exhibit B/Tab 4/Schedule 2/Page 3, Lines 16-19

PROJECT ALTERNATIVES

Interrogatory #3

Reference:

1) Schematic Diagram of Proposed facilities, Exhibit B/Tab2/Schedule 3

Preamble:

The section to be upgraded extends from Lambton to Macksville Junction and the line then continues on to Longwood, without any branches, with a section that does not require upgrading.

Questions/Requests:

a) Please confirm that the rating of the section Macksville Junction to Longwood is adequately rated to the same capacity as the upgrade portion.
b) What is the size and specification of the L24/L26 conductors on the Macksville to Longwood section?
c) Why can the same conductoring not be applied to the section from Lambton to Macksville Junction as already exists on the section Macksville Junction to Longwood?
d) If there is no reason why the same conductoring cannot be used, please indicate what would be the implications and the cost of using the same conductoring over the entire line as is used on the Macksville Longwood portion, compared with the high temperature conductor.
e) What would be the best alternative project if the high temperature conductor were not used or not available? Please describe that alternative and the cost.

Interrogatory #4

Reference:

1) Exhibit B/ Tab1/Schedule 5/Section 3.2/page 17, line 4
2) Exhibit B/Tab 4/Schedule 2/Pages 3-4

Preamble:

Board staff wishes to further examine the cost of the line upgrade and the alternatives that were considered after it was decided to increase capacity in the FETL interface and prior to deciding that the reinforcement of the capability on the L24/L26 line west of London was the best option. Reference 1 is in a document entitled “Ontario Power Authority’s Evidence” and in it the OPA indicates that Hydro One advised the OPA of the alternatives:

Questions/Requests:

a) Please indicate why the alternative Upgrading of the Scott-Buchanan circuits is more challenging and costly and by how much.
b) Please indicate what would be the estimated cost of the new transmission line mentioned if time to get it in service were not a concern.

PROJECT ECONOMICS

Interrogatory #5

Reference:
1) Exhibit B/Tab 4/Schedule 3
2) Exhibit B/Tab 4/Schedule 2/ Page 1

Preamble:
In its pre-filed evidence, HONI included a DCF analysis which resulted in a NPV of negative $41.9M. The assumptions of the analysis included, among others, zero incremental load and revenues, a 25 year evaluation period, $38.9M upfront capital, annual OM&A costs of $0.8M and a tariff of $3.57/kW/month.

HONI indicated that the zero incremental load and revenue assumptions reflect the fact that the provincial network pool peak load is forecast to remain essentially flat or decline over the 25-year evaluation period.

Questions/Requests:
a) Please provide any load forecasts, reports, studies, or other evidence that supports HONI's assumption of zero incremental load and revenue.
b) Please elaborate on why HONI has chosen an evaluation period of 25 years for the DCF analysis? Does HONI estimate that the useful life of the upgraded assets (new conductors and accompanying infrastructure) to be 25 years?
c) 'Table 1 - DCF Analysis' assumes total upfront capital of $38.9M while estimated project costs in Exhibit B/Tab 4/Schedule 2 are stated as $39.998M. Please reconcile these estimates.
d) 'Table 1 - DCF Analysis' assumes annual incremental OM&A costs of $0.8M while 'Table 3 - DCF Assumptions' indicates estimated annual OM&A are 1.60% of up-front capital expenditures. Board staff has calculated the estimated incremental OM&A to be $0.6M (=38.9 x 1.60%). Please comment on whether HONI agrees with Board staff's calculation of estimated OM&A.
e) Please provide support for the estimated OM&A of 0.8M per year.
f) HONI has assumed a Network Service Rate tariff of $3.57/kW/month in the DCF analysis while it has estimated an increase in the Network Service Rate to $3.58/kW/month due to this project. Why is HONI opting to use the current approved Network Service Rate of $3.57 instead of the forecasted rate of $3.58 in its DCF analysis?

ENVIRONMENTAL ASSESSMENT

Interrogatory #6

Reference:
1) Exhibit B/Tab 6/Schedule 1/Page 2/Lines 1 to 23

Preamble:
HONI indicated that the Lambton to Longwood project was screened out under the *Class Environmental Assessment for Minor Transmission Facilities* by the Ontario Ministry of Environment ("MOE"). According to HONI a screen out letter was filed with the MOE on March 9, 2012.

Questions/Requests:
a) Please provide a copy of the screen out letter filed with the MOE.

LAND MATTERS

Interrogatory #7

Reference:
1) Exhibit B/Tab 6/Schedule 6

Preamble:
HONI indicated that no new permanent rights will be required to accommodate this project as HONI enjoys existing statutory easement rights on provincially owned land and permanent rights on private property land on the Lambton to Longwood corridor.

However, HONI expressed that it would require temporary rights for construction purposes.

Questions/Requests:
a) Please provide an updated list of outstanding permits, licences and approvals needed to complete the construction of the Lambton to Longwood project.
b) Are there any other outstanding landowner issues/concerns that need to be addressed? If so, what is the status of these issues, what are HONI's plans for resolution and what is the expected timing for resolution?

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