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British Columbia Utilities Commission
Sixth Floor, 900 Howe Street, Box 250
Vancouver, BC, V6Z 2N3
Attn: Patrick Wruck, Commission Secretary

By email: commission.secretary@bcuc.com

Dear Sir:

Re: Site C Inquiry, Comments on Preliminary Report

I represent the B.C. Sustainable Energy Association. BCSEA respectfully offers the following high-level comments arising from the Panel's September 20, 2017 Preliminary Report.¹ BCSEA will also provide evidence and detailed submissions for the October 11, 2017 deadline.

1. Portfolio sensitivity analysis for comparing the financial costs to ratepayers of Site C options.

In BCSEA's view, portfolio analysis, and especially the sensitivity analysis of how the portfolio results change with changes in input assumptions, is the primary methodology that the Commission should rely on in answering question 3(a)(iv). The results of portfolio sensitivity analysis should be presented in terms of unit energy cost (UEC) for communication purposes and to respond to the wording of the terms of reference.²

The Preliminary Report emphasizes the UEC Analysis to the exclusion of portfolio sensitivity analysis. Significantly, the Preliminary Report makes no mention of BC Hydro's Table 20 "Sensitivity Analysis: Summary."³ Table 20 shows how the results of BC Hydro's analysis of the cost of completion, termination, and suspension-and-completion portfolios, and, of crucial importance for the inquiry outcome, it shows how the portfolio results change when key input assumptions are changed.⁴ In BCSEA's view, Table 20 (the format, not the numbers) is the presentation of the results of the analysis that will determine the Commission's findings in response to question 3(a)(iv).

¹ Exhibit A-13, http://www.sitecinquiry.com/wp-content/uploads/2017/09/DOC_90185_A-13_Preliminary-Report.pdf

² OIC 244/2017 s.3(a)(iv) uses the term "unit energy cost."

³ Exhibit F1-1, p.97, pdf p.106. Under the heading "BC Hydro Portfolio Results," the Preliminary Report provides BC Hydro's tables showing the resources selected in the three key portfolios (pp.94-96). However, these are only stage results. The 'bottom line' results of the portfolio analysis is the NPV for each portfolio and the sensitivity analysis that is shown in BC Hydro's Table 20.

⁴ For example, if the cost of completion of Site C is higher, or the cost of non-Site C alternatives is lower, than in BC Hydro's base case.

The Preliminary Report notes various limitations⁵ of what is referred to as BC Hydro's approach to UEC Analysis. In BCSEA's view, these are limitations of UEC Analysis itself that can't be fully resolved by successive adjustments to UEC figures. These limitations are exactly what portfolio sensitivity analysis provides and UEC Analysis does not provide.

The Panel has identified a number of important 'sensitivities' that it has required BC Hydro to address in the UEC Analysis. BCSEA respectfully suggests that these sensitivities (and others) should be analyzed first in the portfolio analysis and then the key results of the portfolio sensitivity analysis presented in a UEC format, in addition to being presented as the results of the portfolio analysis in a format such as that of Table 20 in F1-1.

2. Use portfolio sensitivity analysis in lieu of detailed findings of fact

BCSEA respectfully submits that the inquiry panel should rely on portfolio sensitivity analysis to deal with the complex, fact-dependent topics of load forecasting and future export market challenges and opportunities. These topics are the subject of numerous detailed questions for BC Hydro in the Preliminary Report.⁶ BCSEA is concerned that there isn't enough time in the remaining four or five weeks of this abbreviated three-month inquiry to adequately carry out a 'no stone unturned' approach. Rather, BCSEA submits that the best, most accurate conclusions will be obtained by focusing on appropriate values for portfolio sensitivity analysis.

3. Use portfolio sensitivity analysis to address the cost of capital

Site C has a different (lower) cost of capital than new IPP supply-side resources. BC OIC 590-2016⁷ makes BC Hydro's cost of capital for Site C different (lower) than an IPP's cost of capital for a new supply side resource. OIC 590-2016 has the effect of reducing ratepayers' costs of equity capital for Site C and implicitly increasing the financial burden to taxpayers by a corresponding amount. As a result, from the perspective of the cost to ratepayers, Site C (being constructed by BC Hydro) has a cost advantage not available in electricity purchase agreements by BC Hydro from IPPs for power from new supply-side resources.

The Preliminary Report states that the reduction of the Site C UEC (by \$26/MWh) due to the change in BC Hydro's financing costs for Site C "distorts the analysis of unit energy costs comparisons."⁸ This observation is correct in a resource planning process where the costs to both ratepayers and taxpayers are examined. However, the inquiry's terms of reference are limited to the cost impacts to ratepayers. Nevertheless, BCSEA suggests that the panel address the cost of capital topic openly and transparently in its report to the government. BCSEA suggests that the panel provide its conclusions regarding the costs to ratepayers of the Site C options and then tell

⁵ E.g., resource energy and capacity attributes, financing costs, project life spans, project timing, trade revenue, line losses, network upgrades, cost of incremental firm transmission, wind integration, capacity credit adder.

⁶ Regarding export market prices, the Preliminary Report asks questions regarding electricity markets, past and forecast prices, transmission constraints on exports, export-related transmission planning, regulatory restrictions in key export markets, technological advances such as smart inverter technology, Site C operational constraints, synchronous condense and sales of capacity, and the Energy Imbalance Market. Preliminary Report, Appendix C, question 22.

⁷ "With OIC No. 590-2016, BC Hydro's net income is now a fixed amount. Hence, the cost to the ratepayer of financing Site C is equal to BC Hydro's cost of debt." Exhibit F1-1, footnote 36, p.61, pdf p.70.

⁸ Preliminary Report, p.86

the government whether and how the results would be different if the cost of capital issue was taken into account.

4. Financial estimates and range of uncertainty

BCSEA respectfully suggests that the panel's final report should give more attention to the size of the range of uncertainty associated with important financial estimates than is done in the Preliminary Report. One example is that the panel accepts the figure of \$1.1 billion as the estimate for the cost of termination and remediation of the Site C project. This is a Class 5 estimate, which is a "-35%/+100%" estimate. As a result, accepting a \$1.1 billion Class 5 estimate is equivalent to accepting an estimate of \$700 million to \$2.2 billion for termination/remediation. This makes a big difference in readers' understanding of the financial information provided.

All the above is respectfully submitted.

Yours truly,

William J. Andrews



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cc. Fred James, BC Hydro Chief Regulatory Officer