

Backgrounder

McCullough Report - A Reassessment of Site C Financial Viability

Report Summary

- In Fall 2017, respected Energy Economist Robert McCullough provided expert testimony and advice to the BC Utilities Commission on Site C and was one of two experts who briefed the BC Cabinet on Site C. His 28 page CV is attached.
- Based on new developments in 2020, the Peace Valley Landowners Association (PVLA) asked Mr. McCullough to reassess the financial viability of Site C taking into account escalating costs, unresolved geotechnical issues, dropping interest rates, dropping solar and wind costs, and the recent \$1 billion BC Hydro Site C related interest contract loss. His expert report is attached.
- PVLA recognizes that Site C will have numerous adverse effects including on First Nations, food security, wildlife, GHG emissions, and the environment. However, Deputy Minister Don Wright's December 2017 technical briefing lists impact on ratepayers and fiscal impacts/risks as the top two decision criteria.
- PVLA therefore asked Mr. McCullough the following question – Is it in the best interests of British Columbians to immediately cancel or to continue construction of Site C?
- Mr. McCullough concludes:

“Yes, immediate cancellation of Site C will likely save BC Hydro ratepayers \$116 million per year and the savings to ratepayers will grow over time as the cost of solar and wind power continue to drop. Cancellation of Site C will also avoid significant geotechnical risks.” [Page 15]

Other Key Report Findings

- The project has faced many problems. Continuing contractor issues have been large – including the bankruptcy of one major contractor soon after they were selected – but the major issues were and continue to be a function of the geology. Simply put, Site C is not a narrow rocky canyon. The banks are unstable and there is substantial tectonic activity in the area. The surface under the structure is shale – which adds significant risk as well.¹ [Page 3]
- In real terms, the cost of Site C has roughly tripled since 2005. [Page 6]
- Even in 2017, the relevance of B.C. Hydro's estimates to the real world surrounding British Columbia was questionable. The continued delay and cost escalation for Site C is especially significant since alternatives and market prices have declined enormously since Site C received its final investment decision. [Page 5]

¹ STAGE 2 ENGINEERING SERVICES SUMMARY REPORT, Klohn Crippen Berger Ltd. and SNC-Lavalin Inc., page 23.

- A term very infrequently mentioned in Site C reports is “roller-compacted concrete”. This is a cost-effective alternative to traditional construction methods being used at Site C. As opposed to the dam being composed of cement cast in place, roller compressed cement more closely resembles a layer cake, with layers being laid down sequentially and compressed. The first such dam was the Willow Creek Dam in Oregon. The layer cake approach proved to be cost effective, but seepage through the layers required lengthy and controversial repairs. [Page 7]
- While roller-compacted concrete is now an established construction practice, a number of articles have questioned the reliability of this approach if exposed to tectonic shocks.... In short, the authors are finding that there is a significant risk of sliding or cracking depending on the nature and preparation of the surface under the roller compacted concrete. [Page 8-9]
- In total, in my view, the in-service cost of Site C is most likely to exceed C\$12,722 million. In calculating the impact on rate and tax payers of such an increase, all assumptions were taken from the 2017 British Columbia Utilities Commission’s Site C Inquiry. [Page 11]
- The nature of politics is such that economic analysis in Site C has always considered sunk costs as a critical item in the decision whether to go forward with the project. Economic theory categorically states that sunk costs are, in fact, sunk. They are not part of the analysis in any economic decision. In the case of Site C, the basic question is: can the future costs of Site C compete successfully with alternatives? The clear answer is, no, they cannot. [Page 13]
- A central theme of the Deputy Minister’s 2017 presentation was the long-term impacts on British Columbia citizens if the project was terminated.² The fundamental question is whether the benefits of termination offset the costs British Columbia might face. The benefits are large and increase every year as the costs of alternatives diminish. [Page 14]
- In other words, BC Hydro has lost almost \$1.1 billion on interest contracts. To some degree, the derivative losses will be offset by reductions in actual interest paid during construction of the Site C project. However, since the losses now approximate the total forecasted interest, it seems impossible for the losses to be totally offset by lower interest rates at Site C. [Page 16]
- “Yes, immediate cancellation of Site C will likely save BC Hydro ratepayers \$116 million per year and the savings to ratepayers will grow over time as the cost of solar and wind power continue to drop. Cancellation of Site C will also avoid significant geotechnical risks.” [Page 15]

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² Site C Technical Briefing Don Wright, Deputy Minister to the Premier, December 11, 2017, page 32.