

**From:** [RogerBryenton](#)  
**To:** [Commission Secretary BCUC:EX](#); [Site C Submissions BCUC:EX](#)  
**Cc:** [RogerBryenton](#); [Eoin Finn](#)  
**Subject:** 1. Site C Deloitte Report - page 109 and 2. BC Hydro submission and "Trade" electricity from annual reports/service plan reports.  
**Date:** Saturday, September 9, 2017 12:02:09 PM

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Dear BCUC,

As part of the Inquiry process, I have 3 questions and one comment to better understand electricity demand and supply and various options;

1. Existing electricity supply - from various annual reports, such as the service plan 2016/17, page 22 Domestic sales are shown as 57,652 GWh. "Trade" is shown as 36,574, but gas and electricity are combined. Going back to 2013/14/15, the electricity and gas amounts were roughly 50:50. Thus if we apply 50% of the amount to electricity it would give an estimate of 18,000 GWh, which does not seem out of line with 2013/14/15 numbers. What is that 18,000 GWh actually? Is that a surplus to BC's domestic use of 57,652?

2. Using the above numbers, but referring to page 24, on "cost" of energy, the Total is 62, 588 GWh. When compared to the domestic value on page 22, of 57, 652 GWh, that would mean a "surplus" of 4,932 GWh. Deleting the 74GWh for gas generation, and possibly 138 GWh for "trade", gives a remainder "surplus" of 4,720 GWh. Is this correct? If so, it would indicate that there is an existing "surplus" approximately equal to the output of the Site C project.

3. In the recent Deloitte study, British Columbia Hydro and Power Authority – British Columbia Utilities Commission Inquiry Respecting Site C – Project No. 1598922, Site C – Alternative Resource Options and Load Forecast Assessment, on page 109, Appendix E, Figure 5 shows "Price of Energy in BC by Year". Is this for "new power", or for "overall power", including heritage costs?

There is no "reference" line to compare this line to what the estimated cost of Site C power would be. In particular, it is important to add "Site C, "from here on". This would incorporate remaining costs, NOT reduced by the \$26/MWh as per the BC Hydro Submission, F-1-1, page 62, which purports an "Incremental cost ...of \$34/MWh".

To make that purported "Site C cost" equivalent to alternatives, the fictitious \$26/MWh (removed by OIC 590-2016) must be added back in as should the artificial difference between transmission costs of \$10 for Site C power, and \$22 for wind power (page 62). Thus the actual cost of Site C power, going forward should be shown as \$72/MWh. Again, when this is added to the chart, Figure 5, will the \$72/MWh be added to heritage power or will it be the price of "new" energy on that chart, as in my first paragraph of question 3 above?

Comment - At least one additional "run" of the simulation, as per Deloitte study, page 109, is imperative. This would include market power, and/or Columbia Treaty power at an equivalent cost as an option, to meet and energy shortfall, in order to RATIONALLY plan BC's energy future. It is a simple task to alter the "self-sufficiency requirement" of the Clean Energy Act to enable "power trading" to be

incorporated into "power planning". Not to do so, would leave the Site C in an artificially, "politically" un-level comparison. Thus to evaluate alternative options on a rational basis, this evaluation and determination is essential.

Please provide this information to myself and other submitters as soon as possible, as it is essential to have this data in order to perform correct calculations and submissions.

Thank you very much

Sincerely, Roger Bryenton, P. Eng. (former), MBA, Energy Systems Consultant, SPEC and Suzuki Elder [REDACTED]

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