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Date: October 11, 2017

Attached is a file 'F Bass Site C comment Oct 10 2017.doc' which contains my written comments that recommend: 1) terminating the Site C Project; 2) renaming BC Hydro to "BC Energy Conservation Authority" and 3) reorganizing the organization to focus on the conservation of energy.

**Comment submitted by Fred Bass for Site C Review,
BC Utilities Commission
October 10, 2017**

To the BC Utilities Commission

Thank you for this opportunity to present my views on the Site C Project. And further, thank you for the enormous effort the Commission and its staff are making to gather information, process it and arrive at findings.

I am a physician who has trained extensively in preventive medicine and epidemiology. I came to Vancouver from the United States in 1975, where for three decades I worked in tobacco control at the community and clinical levels. In 1990, I served on Vancouver's Clouds of Change (global warming) Task Force and also on Vancouver's city council from 1999-2005.

This is a time of unprecedented ecological threat and economic uncertainty. Our species consumes much too much, including too much energy. Less is not only best; it's a matter of survival. The future is very uncertain, so small projects are wiser investments than giant ones.

I will be recommending that the Site C Project be terminated and also that BC Hydro transform itself into the BC Energy Conservation Authority.

My responses are to the questions that the Commission is addressing with the exception of question (b) on suspending the project:

a. ...Site C Project on time and within budget

Since this project has not faced the discipline of a full BCUC review, problems with the project may be present that such a review would have identified.

Regarding the project budget, if the Contingency Budget is representative of planning accuracy, the 45% consumed in the first two years of the project would extrapolate to 180% in eight years. This would be 80% over the initially-estimated cost. Such excess is consistent with the Oxford University worldwide study of dam projects (noted by the Commission's independent consultant, Deloitte LLP) which found that the average final project cost was 96% greater than the average initial estimate. If an 80% overage is projected onto the initial Site C Project Budget of \$8.335 billion, the final cost would total \$15.0 billion. If the overage were to be the 96% average noted in the Oxford study, the final cost would total \$16.3 billion

c...cost of terminating the Project

If terminating the project leads to a major change in the way BC deals with energy conservation, even if the termination cost \$3 billion, it would be a victory for BC citizens. Even without major change in energy policy, I believe that termination is the least-cost option for ratepayers.

d...optimum portfolio of generating projects and demand-side management (DSM)

The DSM performance of BC Hydro (BCH) has been dismal: the amount invested in DSM has been less than the average utility of the American Council for an Energy-Efficient Economy (ACEEE) and well below the ACEEE leaders. The DSM budget for 2017-19 compared to 2014-16 shows decreases of 25-33%.

Savings from solar photovoltaic and from residential heat & hot water, both vulnerable to DSM, were not even modeled in the BCH submission. Of 14 DSM strategies noted by ACEEE, BCH has done one; partially done five; and not done eight. Given the Province of BC's stated energy objective, "(b) to take demand-side measures and to conserve energy," this performance represents institutional failure.

Therefore, I think the needed portfolio should be guided by a name change—from BC Hydro to BC Energy Conservation Authority— and an appropriate restructuring of the organization consistent with a new and strong program to conserve energy.

e...peak capacity and energy demands

Experience has shown that the further into the future BCH's estimates of demand have been, the more likely BCH is to overestimate actual demand: 12% over for 10-year forecasts and 31% over for 20-year forecasts. Given: the flat demand for energy following 2007; the worldwide change in energy practices and that change's potential for conservation and, finally, the possibility of another financial crisis; BCH's estimates for future demand seem unreasonably rosy.

In conclusion, given this time of unprecedented ecological threat and economic uncertainty, I recommend that the Site C Project be terminated and that BC Hydro be transformed into the BC Energy Conservation Authority.

Thank you.

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