

From: [REDACTED]
To: [Commission Secretary BCUC:EX](#)
Subject: Revised Submission for Site Inquiry
Date: Thursday, August 31, 2017 9:23:01 AM

August 30, 2017

Via email

Attention, Mr. David Morton, Panel Chair

Re; Site C Inquiry Submission

Van-Port Sterilizers Ltd has long-proposed building a merchant pumped storage hydroelectric plant in combination with a commercial wastewater reclaim-treatment pipeline at Jordan River, a project that we believe could have significant impact on demand for electricity as it would catalyze identified major industrial, agricultural, commercial and residential development initiatives along the pipeline corridor.

The site also provides opportunities to integrate other types of bulk energy storage plants (compressed air, compressed carbon and electrolytic hydrogen) into the project to firm up large volumes of surplus intermittent renewable generation.

We believe our project power would produce and deliver at a lower cost per kW/h than from Site C. Our project is referenced in Appendix F4 attached to the BCH 2008 LTAP and ROU. We offer the following counter-arguments to conclusions made by Powerex. While we believe these comments are relevant regarding the economic and technical feasibility of developing alternatives to Site C, we do not believe that a suspension of Site C is needed to justify the cost-effectiveness of our project and seek only to clarify its competitive status against conventional waste management and pumped hydro schemes.

Contrary to the claim by Powerex, the flow regimes of municipal wastewater and storm water could easily be accommodated in the proposed twin pipelines or in the tanks built into the proposed seawalls, a fact that is also supported by the system capability to absorb intermittent renewable energy for pumping and storing as firm energy on a 24/7 basis.

The claim that the project would have had a net negative energy impact on the BCH system is not valid as the project would be self-powered and could easily satisfy its 25 MW demand, with an additional surplus of 25

MW to be generated by its thermal electric conversion of spent carbon filter (with an additional 25 MW x 6 hrs of hydro storage = 49 MW surplus). Further, the CRD will now be consuming an equivalent 25 MW of power priced at much higher cost to run its recently-approved conventional sewage works that will never return a dime or otherwise catalyze taxable economic development.

The claim that Vanport 'would be better off to sell the thermal output to BCH' also is suspect as it ignores the fact that we could just as easily sell the output back to the CRD or to others as firm blocks of energy in competition with BCH. This claim also fails to address the fact that we proposed that BCH would not have exclusive rights to the water and would to first bid for it. We also offered to pay BCH a grid access fee in lieu of signing any EPA.

We also proposed that the pumps could otherwise be easily switched to be run with surplus imported renewable energy while thermal output is re-directed to run other industries, bulk energy storages and/or the spent filter converted to biogas for combined heat and power operations.

To date, BCH has refused all requests to review a modification to our proposal that would employ a simple hydraulic capture and compression device to control 100% of smokestack gases (the device is a venturi-valve installed in an overhead pipeline that is gravity-fed with a small % of the hydro storage, thereby solving a 'significant hurdle').

Admittedly, the JVSRP was proposed and characterized as a 'potentially viable pumped hydro project when in fact it is really nothing more than a simple water pipeline connecting into a decommissioned hydro reservoir. While it is true that' the current proposal is not materially different in terms of the pipeline and pumping station proposals that were originally submitted, it also is true that the AE analysis was an unauthorized redesign of the original proposal. In fact, VPS had already redesigned the project to work in concert with a saltwater-type pumped storage that could be easily built with a quick re-commissioning of the abandoned Forebay reservoir and, that it would likely be far more successful than the first commercially successful plant of its type (see Yanbaru , Japan plant that is located further inland and at a lower elevation than the Forebay Reservoir).

Both BCH and the CRD have also ignored the fact that the JVSRT pipeline and pump station designs are directly comparable to a highly profitable

wastewater export pipeline from Santa Rosa California to a high elevation geothermal project that is returning revenues of \$ 70 Million yr. Another ignored fact is a consultant's report prepared for BCH by Knight-Piesold that identified the potential for building 2 x 1,000 MW capacity saltwater reservoirs at JOR, a fact that contradicts all previous conclusions in addressing the potential for pumped hydro storage operations at JOR.

We believe Site C also needs to be compared with projected costs to rebuild the entire JOR hydro project and all of which is in competition with the rationale being employed to justify Site C. We have requested BCH to consider that the proposed saltwater 'peak' reservoir also be accessed via the Boneyard Lake-to-Peak leg of the JVSRP route profile, thereby significantly increasing operating efficiencies as well as providing a rationale for proceeding with the proposed undersea DC cable to be laid from Port Angeles to JOR.

The issue of the ownership of water rights for JVSRP and/or for a saltwater pumped up into hydro storage operation is a prime consideration for investors in determining project competitiveness v. Site C. We believe there is no obligation to pay water taxes for such resources and the JVSRP could not be classified as an energy project.

Therefore, given that the proposed system design has potentially significant economic implications for BCH ratepayers, we believe the current review of Site C could be beneficially informed by immediate issuance of an order to conduct a Request for Proposals to build the JVSRP along its submitted 'Route Profile'. The RFP could be quickly issued and responded to within the timeframe for this review, with bidding pipeline contractors detailing the costs of the option with minimal requirement for BC Hydro (and/or the CRD) to pay the tab or hire outside experts.

Thank you for your consideration

Richard Tennant, President

Van-Port Sterilizers Ltd.