

BC Hydro Long Term Acquisition Plan

Project 3698514/ BCUC Order # G-96-08

WestPac LNG Corporation Information Request No. 1 of July 17, 2008

To: British Columbia Hydro and Power Authority

- 1.0 Reference: Section 2.3.2 Heritage Thermal – Burrard Generating Station. BC Hydro notes a requirement “to rely on Burrard for its full capacity of 900 MW to reliably meet its obligations in the LM/VI region at least until 5L83 is in service...”**
- 1.1 Please clarify whether the resource associated with 5L83 is intended to provide base load power supply or is intended to replace Burrard as a lower mainland peaking facility.
- 1.2 If the resource associated with 5L83 cannot be used to provide firm peaking supply during the first three months of a critical water year, does this mean that Burrard will be required regardless of the decision on and timing of 5L83?
- 1.3 Please provide any analysis done on the alternatives to Burrard that have been evaluated by BC Hydro to provide the type of service expected out of Burrard for the next 10 years.
- 1.4 Other than Burrard, please list the contingency supply sources available to BC Hydro in the event that 5L83 is not in operation within the required timeframe.
- 2.0 Reference: Section 2.3.11 SD 10 Impact on Resource Requirements. “Canadian Entitlement” and “market reliance”.**
- 2.1 Please provide a summary, by month for 2007 and by month for the first 6 months of 2008, of the volume and cost of electricity purchases in the United States that were physically delivered to BC Hydro. Please provide this volume as well as the volume that was delivered for each month under the Canadian Entitlement.
- 2.2 Please provide a summary, by month, of BC Hydro/ Powerex electricity exports that were physically made out of B.C. to the United States for 2007 and the first 6 months of 2008. Please provide the volume and revenue associated with these exports.

- 2.3 Please provide a summary of the supply source and the fuel used to generate the electricity purchased and imported for BC Hydro for the first 6 months of 2008.
- 2.4 Please provide a summary of the supply source and the fuel used to generate the electricity returned to BC Hydro/ Powerex under the terms of the Canadian Entitlement for the first 6 months of 2008.
- 2.5 Please provide a summary of Canadian Entitlement volumes that were returned to BC Hydro/ Powerex and resold to U.S. markets for each of the first 6 months of 2008. Please provide price information if this is not proprietary information.

3.0 Reference: Section 3.3.2 Small Hydro/ Table 3-21

- 3.1 Based upon the figures in Table 3-21, please provide a month by month projection the total estimated cost of power from a nominal run-of-the-river project, during a critical water year, including both the cost of the intermittent power from this facility and the cost to purchase power to back-up the intermittent supply. Please assume that BC Hydro will have to purchase both capacity and energy to back up the intermittent supply.

4.0 Reference: Section 3.3.4.3 Wind Integration Costs/ Table 3-21

- 4.1 Based upon the figures in table 3-21, please provide a month by month projection of the total estimated cost of power from a nominal wind project, during a critical water year, including both the cost of the intermittent power from this facility and the cost to purchase power to back-up the intermittent supply. Please assume that BC Hydro will have to purchase both capacity and energy to back up the intermittent supply.

5.0 Reference: Section 5.3.3 Natural Gas Plant Modeling. BC Hydro notes that "...natural gas-fired generation in B.C. is expected to be dispatched very infrequently."

- 5.1 Based upon current gas price projections and the projected cost of GHG offsets or carbon credit purchases, please provide an estimate of the dispatch cost of power from the Island Co-generation facility. Based upon these same projections, please provide a forecast of how often this facility would run, on a monthly basis, during a critical water year.

6.0 Reference: Section 5.6 Clean Power Call Portfolio Analysis

- 6.1 Please identify the circumstances and project attributes that would allow a gas-fired co-generation project to bid into this call.

7.0 Reference: Section 5.8 Site C LTAP Action Items

- 7.1 The BC Hydro website notes that the estimated cost of the Site C project is between \$5 and \$6.6 billion. Based upon the latest information, what is BC Hydro's current estimate of the capital cost? Does this include the estimated cost of any transmission line upgrades that would be required to deliver power from Site C to the major market areas? If not, what is the current BC Hydro estimate of this cost?

- 7.2 Based upon this current total capital cost to deliver Site C power to the lower mainland, please provide the current estimated UEC for this supply.

8.0 Reference: Section 6.4 Contingency Resource Plan

- 8.1 In view of the probability that a new gas-fired power generation facility will be required in B.C. by as early as 2014, and given the estimated 6 year time frame to design, permit and construct such a facility, please provide the proposed action plan to evaluate and acquire this supply.

- 8.2 If the results of the Clean Energy Call make it clear that a fully dispatchable, firm source of capacity is required to "firm up" this power to ensure it is available during periods of high demand, when would BC Hydro expect to develop and issue such a call for firming power?