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Mr. Robert Pellatt
Commission Secretary
BC Utilities Commission
Sixth Floor, 900 Howe St.
Vancouver, BC
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May 9, 2005

Re: BC Hydro and Power Authority – Resource Expenditure and Acquisition Plan
Intervenor Information Request

Dear Mr. Pellatt:

Please find attached a questions from Cloudworks Energy Inc. to BC Hydro and Power Authority under Information Request # 1.

Kindest regards,

A handwritten signature in black ink, appearing to read "John Johnson", is written over a light blue horizontal line.

John Johnson
Principal and Director, Cloudworks Energy Inc.

cc: Registered Intervenors

Cloudworks Energy Inc.
Information Request No. 1 to BC Hydro and Power Authority
May 9, 2005

BC Hydro and Power Authority – Resource Expenditure and Acquisition Plan

1.0 Reference: Application Document Table 2-1 pg. 2-5, 4th paragraph

“Achieving the BC Clean Electricity target may result in electricity rate increases of between 0.1 percent and 0.2 percent per year over the next decade.”

1.0 Given the Energy Planning Objective to establish a least cost sequence of resources on a risk-adjusted basis, how does this increased cost to ratepayers compare to:

1.1 the increased value of environmental benefits and social benefits that ratepayers will accrue from a shift to more environmentally and sustainably attractive energy generation alternatives such as small hydro and wind?

1.2 the low fuel price risk associated with small-hydro and wind generation?

1.3 the future increased fuel price risk implied by increasing volatility in gas and coal prices over the past 5 years?

2.0 Reference: Application Document Section 2.2.3.2, Chart 2-2, pg.2-11

“The analysis above indicates that both the Energy and Peak Demand of BC hydro have grown since the release of the 2004 IEP.”

2.1 Has BC Hydro considered the option of industrial load shedding to mute peak demand in winter months? If not, why not?

3.0 Reference: Application Document Section 2.3.1.2 pg. 2-13

“In the period until 2014, the Heritage Contract relies on 6000 Gwh of firm energy from Burrard or short-term market purchases during low water years.”

3.1 In light of Burrard’s heat rate, Burrard’s release of carbon into the lower mainland and associated environmental costs, and the increasing volatility of gas prices, explain how Burrard fits with BC Hydro’s primary planning objective of “least cost sequence of resources on a risk-adjusted basis” as discussed in 2.1.4 (pg. 2-5).

- 3.2 Assuming BC Hydro's imports are primarily from the U.S. and Alberta, how much has Alberta represented in percentage (volume not value) of total imports over the past 3 years? Similarly, how much have imports from the U.S. northwest accounted for over the past 3 years in terms of percentage of imports?
- 3.3 Short-term market purchases from the United States are presumably from a variety of energy sources. What does BC Hydro estimate the energy sources of its U.S. imports are at the present time (i.e., CCGT, gas cogeneration, coal, nuclear, large hydro, wind, small hydro)?
- 3.4 What is the average cost of U.S. imports in Canadian dollars per MWh in each of the past 3 years?
- 3.5 Based on the definition of BC Clean as defined by the Provincial Ministry of Energy and Mines, what percentage of imports could be considered Clean? Does BC Hydro account for the environmental cost of these "non-Clean" import sources when comparing the cost of imports to other domestic generation alternatives? If not, why not?
- 3.6 If short-term market purchases from the United States are simply unavailable due to an unforeseen regulatory decision in the US, an extreme drought in the Pacific Northwest, or supply shortages in the US northwest due to demand outstripping new supply as predicted by some forecasters beginning in 4-5 years, is Burrard the primary "back-up" energy source? What would the forecast average cost of energy from Burrard be over the next 10 years, including any amortized costs of any capital improvements planned for the facility prior to 2014, and assuming the facility ran at 50% of capacity?
- 3.7 Could a large diversified (geographically and by fuel type) portfolio of Clean Energy as defined by the Ministry of Energy and Mines with at least 50% of the energy available as "firm" energy not offset the fuel price risk and environmental cost associated with Burrard, not only over the next 10 years but into the longer term as well?
- 3.8 Is BC Hydro depending on a new gas or coal-based generator to be permitted within the next 10 years in the Lower Mainland to replace Burrard? What other sources are available to replace this source of energy if imports are not available?

4.0 Reference: Application Section 2.5.1.1, pg. 2-20

“When both [Cheakamus] units are completed, it is estimated there will be an energy gain of 46 Gwh/yr at Cheakamus.”

- 4.1 The Provincial Water Use Plan for the Cheakamus watershed has not been completed. What minimum instream flow release (or flow releases if they vary by season) was assumed to come up with the 46 Gwh/yr figure?

5.0 Reference: Application Section 2.6.2.3 New Supply Options pg. 2-38

“BC Hydro is exploring the possibility for issuing an RFP-type call for near-commercial energy projects in the future.”

- 5.1 Please provide a list of those technologies that BC Hydro currently considers “near-commercial”?
- 5.2 Does BC Hydro currently consider wind energy as “near-commercial” or “commercial”. How would this compare to run-of-river hydroelectric projects and explain any differences if they are not the same (i.e., not both commercial or not both non-commercial).
- 5.3 How would issuing an RFP for “near-commercial” energy projects comply with the BC Hydro objective to provide a least cost sequence of resources on a risk-adjusted basis? Why would BC Hydro support uneconomic energy generation when there is so much alternative energy available in the province already?