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Log No. 7683

**VIA EMAIL/FACSIMILE**

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November 26, 2004

Mr. Cameron Lusztig  
Director, Regulatory Affairs  
British Columbia Transmission Corporation  
Suite 1100, Four Bentall Centre  
1055 Dunsmuir Street  
PO Box 49260  
Vancouver, BC V7X 1V5

British Columbia Hydro and Power Authority  
Call for Tenders for Capacity on Vancouver Island  
Review of Electricity Purchase Agreement

**Exhibit No. A-4**

Dear Sir:

Re: British Columbia Hydro and Power Authority ("BC Hydro")  
Call for Tenders for Capacity on Vancouver Island ("CFT")  
Review of the Report on the CFT Process dated November 19, 2004 ("CFT Report")

Attached please find Commission Information Request No. 1 to British Columbia Transmission Corporation regarding BC Hydro's CFT Report. Please provide a hard copy and an e-mail file in response.

Yours truly,

*Original signed by:*

Robert J. Pellatt

JBW/rt

Attachment

cc: Mr. Richard Stout  
Chief Regulatory Officer  
British Columbia Hydro and Power Authority  
Registered Intervenors

BRITISH COLUMBIA UTILITIES COMMISSION  
Commission Information Request No. 1 to BCTC

**British Columbia Hydro and Power Authority (“BC Hydro”)  
Call for Tenders for Capacity on Vancouver Island (“CFT”)  
Report on the CFT Process dated November 19, 2004 (“CFT Report”)**

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**1.0 Reference: CFT Report, pp. 14, 17**

BC Hydro states that it has examined three possible outcomes for the CFT.

- 1.1 On page 17 of the CFT Report, BC Hydro refers briefly to a number of contingency measures to address supply shortfalls on Vancouver Island. In the case of the Tier 2 or No Award scenarios, what contingency plan does British Columbia Transmission Corporation (“BCTC”) have to serve Vancouver Island?
- 1.2 What are BCTC’s preferred options?

**2.0 Reference: CFT Report, p. 16**

BC Hydro states at page 16 of the CFT Report; “Even with this acquisition, the preferred timing of new 230 kV AC cable circuit to Vancouver Island remains at that project’s earliest in-service date of F2009.”

- 2.1 Have any of the Vancouver Island supply transmission options changed materially since the Vancouver Island Generation Project (“VIGP”) hearing? Have any new options been analyzed that were not considered at the time of the VIGP hearing? If so, please provide any reports or studies that examine those options.
- 2.2 Please provide a list that summarizes the considered Vancouver Island supply transmission options that could be put into service before F2010, and their costs.
- 2.3 Please provide an update and assessment of the “HVDC Light” connection from the Lower Mainland to Vancouver Island that has been raised by Sea Breeze Pacific Regional Transmission System, Ltd.

**3.0 Reference: BCTC Capital Plan dated May 31, 2004, p. 105  
CFT Report, pp. 14, 17**

BCTC stated at page 105 of the Capital Plan that the planned in-service date for the 230 kV AC line to Vancouver Island is October, 2008.

BC Hydro’s response to the Commission’s Information Request 1.5.2 in the Commission hearing into the Terasen Gas (Vancouver Island) Inc. (“TGVI”) 2004 Resource Plan and Liquefied Natural Gas (“LNG”) Storage Project Application is found in Exhibit No. C7-4 for that proceeding. The response states; “...it is likely that BC Hydro will confirm the earliest in-service date for transmission reinforcement to Vancouver Island.”

BC Hydro states at page 17 of the CFT Report; “The common assumptions used for the analysis of CFT cost effectiveness are as follows: ... 230 kV transmission cable – in service after March 2009.”

- 3.1 Is an October, 2008 in-service date for the 230 kV AC line to Vancouver Island still current? If not please explain why not and provide a new estimate for the in-service date.
- 3.2 Please provide engineering or progress reports for this project.
- 3.3 Are the estimated capital costs referenced in the BCTC capital plan for this project still accurate? If not, what are the new estimates and why have they changed?

**4.0 Reference: BCTC Response to BC Hydro IR 12.1 Regarding BCTC's Capital Plan**

- 4.1 Please update the milestone schedule for the 230 kV project that was provided in the response to BC Hydro IR 12.1.
- 4.2 Please identify the greatest risks for achieving each of the identified milestones by the date indicated, and the steps that are being taken to mitigate those risks.
- 4.3 Please provide the project plan that was referenced in the response.
- 4.4 Please supply the planned reliability characteristics for the new 230 kV AC cable circuit.
- 4.5 Will the 230 kV AC cable circuit follow the existing 1L17 and 1L18 corridor? If not, is planning sufficiently advanced to have defined the new corridor? If the new corridor has been defined, please provide a map outlining the expected route.

**5.0 Reference: CFT Report, p. 15, Table 5, 500 kV AC Transmission Rating  
BCTC Capital Plan, p. 25 – 500 kV Circuits 5L29, and 5L31, Thermal Assessment and Optimization  
BCTC Response to BCUC IR 6.5 Regarding BCTC's Capital Plan**

- 5.1 Please provide the reliability indices of the 500 kV AC lines (5L29 and 5L31) for each of the last five years.
- 5.2 Please provide an update to the 500 kV thermal assessment and optimization initiative, including any engineering project reports and/or evaluation reports conducted for this project.
- 5.3 Please provide the limiting thermal characteristic curve for the cables or conductors that define the 1300 MW dependable capacity rating of these lines (Supplemental Reference: Response to BCUC IR 2.48.2, VIGP Hearing).
- 5.4 Please supply a sensitivity analysis that shows the dependable capacity uprating or derating of the lines, for a thermal range of +/- 10 degrees C, in 2 degree steps, of the thermally-limiting component in the lines. For instance, if the current at the 1300 MW rating was measured to cause a temperature rise 2 degrees lower than rated, determine the revised capability at rated temperature, and so on for the other temperature steps.

**6.0 Reference: BCTC Capital Plan, p. 27 – High Voltage Direct Current (“HVDC”) System**

BCTC states that the capital investments for the HVDC facilities are intended to ensure a firm capacity is maintained to 2007 and that an emergency capacity is maintained thereafter.

- 6.1 Please provide assessment reports for this project.
- 6.2 Please describe any performance improvements of the HVDC facilities.
- 6.3 What capacities are referred to in the above statement?
- 6.4 Please define emergency capacity. For how long and under what conditions will the HVDC be expected to perform at emergency capacity?

**7.0 Reference: CFT Report, p. 1**

BC Hydro states; “In particular, dependable capacity must be in place by 2007 to offset the fact that the high voltage direct current (HVDC) transmission system will no longer be able to reliably supply Vancouver Island from the mainland of the province.”

- 7.1 When was the last detailed condition assessment performed on the HVDC systems to support the 2007 declaration of the system no longer being able to provide dependable capacity?
- 7.2 If any work has been done since the VIGP hearing to validate the 2007 date for zero-rating of the HVDC system with regard to providing dependable capacity, please provide details. If the decision to zero rate the HVDC systems for planning purposes as of 2007 was not re-evaluated concurrently with the CFT process, please explain why not.
- 7.3 If not already provided during the VIGP hearing, please provide the most recent detailed condition assessment or expected life analysis performed on the HVDC systems. Please provide copies of any such reports or studies that address the following topics as they pertain to the HVDC systems:
  - condition assessments;
  - expected life analyses; and
  - benefit/cost analyses for investments in the system over \$1,000,000, whether implemented or considered.
- 7.4 Please explain the benefits associated with continued operation of the HVDC systems and the investment on the systems that is shown in Table 3.1 of the BCTC Capital Plan, if the HVDC systems can no longer be relied upon to provide dependable capacity?
- 7.5 Please provide the reliability indices of the HVDC links for each of the last five years.