

Village of Gold River  
Information request to BC Hydro #1

Request of BC Hydro regarding the upcoming hearing regarding the VI CFT process

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**Underlying concern:** Does BC Hydro feel that it has an obligation to answer concerns that its ratepayers and registered intervenors have with regard to the VI CFT?

**1.0 Cost Effectiveness Analysis**

In its January 23, 2004 direction to Hydro the commission panel encouraged to accept a cost effective portfolio with dependable capacity as low as 115Mw.

- 1.1 BC Hydro developed Section 17 (Addendum 10) in response. As it stands now has it ever been reviewed by the BCUC?
- 1.2 Was the Independent Reviewer involved in the development of Section 17 or the process surrounding the Cost Effectiveness analysis?
- 1.3 When Section 17 was developed was the updated load forecast analysis completed and available to those developing the process?
- 1.4 In developing Section 17 and the cost effectiveness analysis, what baseline variables were used (such as the load forecast) or assumptions were made by those developing the process?
- 1.5 When was the cost effectiveness analysis process completed (the development of the process not the actual undertaking)?
- 1.6 In developing the cost effectiveness analysis, Hydro states that “..to fairly compare the three CFT outcomes, it is necessary to equalize both the energy and the capacity being added to the system under each of the three CFT outcomes.”  
  
Was the method used the only way to “equalize” the three outcomes.
- 1.7 BC Hydro states in its cost-effectiveness policy paper “The latest BC Hydro load forecast shows Vancouver Island has a capacity requirement of 261 Mw in fiscal 07/08.”

When was that statement developed?

- 1.8 Was any gas price forecast risk factored into the Tier I option?
- 1.9 Was the Independent Reviewer involved in the monitoring or review of the manner in which the Cost Effectiveness analysis was conducted?
- 1.10 Was section 17, specifically the cost effectiveness analysis, considered a part of the CFT process?
- 1.11 Did BC Hydro follow the commission panel's recommendation when developing the cost effectiveness analysis to accept a cost effective portfolio with dependable capacity as low as 115 Mw, before considering other resource additions than on-island generation?
- 1.12 In referencing the Independent Reviewer's flow chart identifying the process and order that the CFT followed. Where is the Cost Effectiveness analysis?
- 1.13 What date did BC Hydro senior management request the cost effectiveness analysis and how long did it take to complete?
- 1.14 Who was tasked with carrying out the cost effectiveness evaluation?
- 1.15 Was there any direction given by senior management with regard to the manner in which the cost effectiveness analysis would be undertaken?
- 1.16 Was there any uncertainty or confusion about how the cost effectiveness analysis should be conducted?
- 1.17 When were bidders informed of how the cost effectiveness analysis would be conducted?
- 1.18 Does BC Hydro feel that the cost effectiveness analysis was handled in a manner that was consistent with the commission panel's recommendations?
- 1.19 On page 44 of the November 29, 2004 morning transcripts On behalf of BC Hydro Mr. Sanderson states that "In the expected conditions even at 150 Mw, I believe that it is right to say that Tier I is more attractive."

Was that analysis run and if so why wasn't it presented? If not, Could BC Hydro conduct that analysis and state its assumptions and "expected conditions" it used.

- 1.20 What role did the Updated Load Forecast play in the development and computation of the cost effectiveness analysis?
- 1.21 How did Hydro come up with the 600 GW/h total energy production for the tier II scenario?

## **2.0 The CFT and the Quantitative Evaluation Methodology (QEM)**

- 2.1 In the QEM, BC Hydro used two electricity price forecasts. They both used the Greenfield project as a baseline for future generation in both. Greenfield shows an average unit availability of 91.3%. Please explain what this means and identify how much the unit actually operated over the past year.
- 2.2 One of the electricity forecasts modeled a 25% capital cost recovery due to future risk involved with gas generation. What other factors other than price would alternative generating options produce? (for example other infrastructure costs, further development costs, reduced generation output.)
- 2.3 The VI CFT QEM description revised August 6<sup>th</sup>, 2004 contains the following statement. “The QEM does not involve subjective assessments other than those applied to construct the underlying assumptions and input data of the evaluation model.” Please identify what those subjective assessments were and the input data that resulted from them.
- 2.4 Which individuals formed the QEC?
- 2.5 What value was given to dispatchability in the QEM?
- 2.6 In order to fairly evaluate generation possibilities required to meet the capacity needs of Vancouver Island, is it absolutely necessary to ensure that projects are run through a CFT style process and meet the required criteria in order to guarantee a valid conclusion?
- 2.7 How did BC Hydro determine that the DPPLP project would return 1800 GW/h per year of energy?
- 2.8 Why did the QEM only utilize one gas price forecast?
- 2.9 Were the electricity price forecasts that BC Hydro used in the QEM consistent with others that they have presented to other bodies – such as the Crown Corporations committee?

- 2.10 Is the OMC payment made to the seller based on the bid capacity or the actual capacity/energy produced?
- 2.11 If a plant is dispatched are the ratepayers of BC still paying for its availability? If so how and how much?
- 2.12 Under section 4.4 of the QEM BC Hydro states “For all evaluation purposes other than portfolio assembly under section 4.4, the QEM adjusts the tendered bid capacity...”

Why in all other evaluations but the portfolio assembly?

- 2.13 How much was the DPPLP project (the winning bid) dispatched when determining the energy margin?
- 2.14 Why in the tender variable cost calculation in the QEM are interruptible gas transportation costs used instead of firm gas transportation costs?
- 2.15 What was the DPPLP project’s adjusted Bid Capacity?
- 2.16 Do interruptible gas transportation costs include any risk premium?
- 2.17 Implicit within a fair and competitive process is the notion that any bidder who meets all of the specified criteria will be at least evaluated.

Was the Green Island Energy project ever evaluated independently?

- 2.18 With regard to the CFT process, BC Hydro states on page 29 of the November 29, 2004 transcripts that “...island generation solutions were considered only. No off-island (generation) were considered.”

Does BC Hydro still maintain that position?

- 2.19 Where did the margin of error used to set the minimum threshold for the CFT come from? How was it established?
- 2.20 Does BC Hydro agree with Mr. Sanderson’s contention on page 36 of the November 29, 2004 morning transcripts that “The CFT process was a process run by the book and according to the book?”
- 2.21 Was the QEM an unbiased and fair means to evaluate the cost effectiveness of the qualifying portfolios?

- 2.22 If the CFT was a “work in progress” as identified by the commission panel, why didn’t BC Hydro if it was aware of the revised load forecast use it within the CFT?
- 2.23 Would it be fair to say that in assessing the DPPLP project’s cost-effectiveness under the terms of the CFT, essentially it was only compared to three other gas fired projects?
- 2.24 As the number of starts per year helps to identify the number of times that a project is expected to be dispatched, and the energy that it can generate, how many maximum starts per year were associated with the winning bid?
- 2.25 What average hydrological conditions did Hydro use when conducting the analysis? (the last year , two years, five year average etc.)
- 2.26 Has BC Hydro attained all of the necessary permits to allow DPPLP to proceed if it is accepted as the most cost-effective bidder?

### **3.0 Gas supply and transportation**

- 3.1 Why was the TGVI tolling option used in the CFT analysis when it had not even been approved and why weren’t the variety of possibilities that Mr. Sanderson stated on November 29, 2004 (with regard to gas supply options) modeled and averaged?
- 3.2 Due to the variability in gas prices, what modeling did BC Hydro do to determine how often during the year that gas prices would exceed the projected levels and would therefore cause BC Hydro to “dispatch” the DPPLP plant?
- 3.3 Does BC Hydro contend that regardless of the price of gas, it will operate the DPPLP plant during peak load periods due to the supply requirements on Vancouver Island for the next 25 years?
- 3.4 With regard to GSX Costs:
  - i) What costs have been incurred on GSX to date?
  - ii) What costs have be written off or a provision be taken for?
  - iii) What possible outstanding legal and economic liabilities does BC Hydro have should GSX not proceed?
  - iv) Why aren’t these factored into the gas supply analysis?

- 3.5 With regard to gas supply and the total gas use over the past 5 years and projections for the future 25 years:
- i) Please detail the length of purchase contract
  - ii) Please detail the length of transportation contract
  - iii) Please detail the cost per MW in NPV of power generated at Burrard Thermal.
  - iv) Please detail the cost per MW in NPV for power generated at ICP

#### **4.0 Transmission considerations**

- 4.1 What transmission options are available to increase the life or the rating of the HVDC cables? (refer to BCTC if unable to answer)
- 4.2 What were the line upgrade costs attributed to the Tier II option?

#### **5.0 The CFT Process as a whole – General Questions**

- 5.1 BC Hydro stated on January 13, 2004 that the 23 bidders registered for the CFT indicates a robust competition.
- Does Hydro conclude based on the number of projects evaluated that it was indeed a robust competition?
- 5.2 How many possible portfolio outcomes were identified by BC Hydro when 23 bidders registered for the VI CFT? (ask your VP distribution, she already gave me the answer once)
- 5.3 Did the CFT to identify all possible options for meeting the capacity and shortfall needs on Vancouver Island – or due to specific criteria did it eliminate some?
- 5.4 In BC Hydro's response to questions asked in the CFT initial review it stated "Peak shaving measures should not be included until they have been demonstrated to be reliable and a normal means for reducing firm peak loads."

Does BC Hydro accept the notion that new and more cost effective generation or supply options may become available in the future than simply those that they evaluated in the CFT?

- 5.5 Did the involvement of the Independent Reviewer ensure that the CFT process was followed in a fair and transparent manner?
- 5.6 Why didn't the Independent Reviewer report to the commission as encouraged by the BCUC?
- 5.7 With regard to the Hydro's gas portfolio:
- i) BCH stated at the CFT announcement that it can hedge gas costs across its gas portfolio. What is the cost that BC Hydro attributes to hedging gas prices?
  - ii) How will BC Hydro hedge these costs?
  - iii) Please detail the BC Hydro gas portfolio.
- 5.8 Did the president of BC Hydro ever make statements regarding portfolio assembly possibilities – specifically the combination of a Duke Point Project and the Green Island Energy project?
- 5.9 Does BC Hydro keep and have records of public input and comments received relative to the CFT process?
- 5.10 BC Hydro stated in its address to the BCUC on November 29, 2004 that "The commission is empowered to step in where it sees a threat to the public interest. Thus, commission involvement in the review of EPA's is by exception as opposed to routine.
- In making that assertion, does BC Hydro feel that the public interest is not at stake or in question in these proceedings?
- 5.11 On page 23 of the morning transcripts from November 29, 2004 BC Hydro states that many of the risks are now being undertaken by a private party. Could BC Hydro please identify those risks and those that will remain with BC Hydro?
- 5.12 What was the absolute need (capacity) that BC Hydro needed to satisfy in the VI CFT?

- 5.13 Does BC Hydro believe that it included in the VI CFT process all of the recommendations or suggestions that the Commission panel made to them?
- 5.14 If not, which ones did they not incorporate and why?
- 5.15 When were BC Hydro and its senior executives aware of the bid sizes that were tendered?
- 5.16 Does BC Hydro continue to contend that everybody knew all of the time what BC Hydro was asking for and how the bidding process was evolving?
- 5.17 Which committees and panels was Ms. Mary Hemmingsen involved with?
- 5.18 With regard to the implied 50 million dollar recovery by BC Hydro should DPPLP move forward:
- i) Will this form part of the IPP's capital charge?
  - ii) Will BCH pay a ROI on this amount?
  - iii) Will the IPP recover interest on these sums?
  - iv) Will there be any escalators attached to these charges?
  - v) How does this compare to carrying costs that BCH would incur if held on its own books?
- 5.19 With regard to the 70 million dollar write down identified by BC Hydro
- i) Please describe all items that are included in the announced 70 million dollar write down
  - ii) Were all of these costs approved in advance by the BCUC?
  - iii) Please detail the long range rate impact of this write down?
- 5.20 With regard to socio economic costs associated with the CFT
- i) Have socio economic costs/benefits been factored into the decision on the CFT?
  - ii) If yes, where are they evaluated and if not, why weren't they?

5.21 There was an extensive report conducted by Mark Jaccard on the topic of on island generation.

- i) Please detail why the Multiple account analysis not used in the CFT?
- ii) Duke point has been termed as the most cost effect option, when considering the Jaccard report it is clear that it is not. How can BCH arrive at such a different decision?

5.22 How are GHG cost calculated under the CFT?

5.23 How are GHG costs factored into CFT?

5.24 Please detail what these GHG costs are expected to be in each year of the 25 year contract?

5.25 Please detail the potential impact of the Kyoto Accord and provide an estimate of costs?

5.26 Were all of these costs factored into the CFT evaluation process?

5.27 At the CFT announcement, BC Hydro stated that when gas prices get too high they will not run the DPPLP project.

- i) At what gas price will the plant be turned off?
- ii) How many hours per year is VIGP forecast to operate?
- iii) If the plant is turned off when prices get too high, how will the demand be served and how is that possibility factored into the cost analysis? (penalties do not help to assess the cost effectiveness of a decision, they only serve as a possible recourse.)
- iv) If the demand can be served by other means, what is the need for the plant?

5.28 With regard to First Nations Benefits:

- i) Please provide details of the First Nations benefits agreement for the DPPLP project
- ii) Who will bear these costs?
- iii) Were these costs factored into the CFT?

- 5.29 With regard to costs associated with an Environmental Assessment:
- i) Why was Duke Point exempted from an EA?
  - ii) What are the real costs of exempting Duke Point from EA?
  - iii) What are the real economic costs of exceeding emissions set for SE2?
- 5.30 With regard to any regulatory risk relating to BC- Washington State memorandum on Air Quality:
- i) Please describe British Columbia's obligations under the memorandum signed by Premier Harcourt and Governor Gardner on Air Quality?
  - ii) Has the EPA been formally informed of these proceedings?
  - iii) Has the Washington State Department of Ecology been formally informed of these proceedings?
- 5.31 With regard to the cost of the CFT:
- i) Please detail all costs of operating the CFT
  - ii) How does this compare to the \$8 million dollars announced at the VIGP hearings in 2003?
  - iii) Please provide 3 examples of similar size RFP held by regulated utilities in the past 18 months with costs attached.
- 5.32 With regard to change of Law Clauses (I am not a lawyer and don't understand but have been asked by a constituent to ask this)
- i) Please explain the rationale for CFT clause relating to change of law?
  - ii) How does that compare to industry standard EPA's?
  - iii) How does this compare to Edison institute EPA's?
  - iv) Was the EPA offered under the CFT process significantly unique from the norm?
  - v) Was it significantly different from other EPA's that Hydro or Powerex has entered into?

5.33 In trying to understand the methodology of the analysis I would like some comparisons from active gas plants. So I am requesting some information about the performance of ICP.

- i) How much power was generated by ICP in each year since COD?
- ii) How does this performance compare to industry standard?
- iii) What is the NPV cost of power generated by ICP?
- iv) How does the tolling arrangement at ICP differ for that for Duke Point?
- v) How much gas price risk does BCH face from ICP?