

**BC Hydro  
Resource Expenditure and Acquisition Plan (2005 REAP) - CFT**

**Joint Industry Electricity Steering Committee  
Information Request No. 2**

**Q 14. Reference:** Testimony of Mary Hemmingsen, Page 3, Page 16;

**Explanation:** Energy is to be delivered under an EPA with a term ranging from 15-40 years (as selected by the bidder) from projects with a Commercial Operation Date (COD) targeted between October 1, 2008 and October 1, 2009.

Term Flexibility: Bidders will be permitted to select an EPA term of 15, 20, 25, 30, 35 or 40 years.

**Request:**

- 14.1 Why are bidders restricted to specific contract terms / length?
- 14.2 Why are terms of less than 15 years not allowed?
- 14.3 Will BC Hydro apply backfill energy and value of energy in evaluation of bids?
- 14.4 Provide the range of estimated project development times by technology, including Site C and Revelstoke #5.
- 14.5 Explain why the BC Hydro CFT process does not consider projects with a COD beyond October 1, 2009, considering that the COD provides for only 4-5 years for project completion.

**Q 15. Reference:** Testimony of Mary Hemmingsen, Page 4;

**Explanation:** BC Hydro has applied or allowed a variety of escalation factors to bid prices, Green Attributes, GHG offsets:

- 50% of CPI,
- CPI,
- 5%.

**Request:**

- 15.1 Provide an explanation of and rationale for each of the escalation factors used in the bid prices and evaluation criteria / adders / credits.

**Q 16. Reference:** Testimony of Mary Hemmingsen, Page 7;

**Explanation:** The basis for the additional value provided by a project that provides firm energy on an hourly resolution is the levelized cost of Revelstoke Unit #5, inclusive of foregone system benefits to BC Hydro, a proxy for BC Hydro's cost of incremental intra-day system capacity.

**Request:**

- 16.1 Provide the unit MWh cost before and after forgone system benefits to BC Hydro for each of 40 years of the EPA term and the assumed Capacity factor.
- 16.2 Provide the forecast MWH cost by year for ICP (Elk Falls) and the DPP EPA for the term of each of the contracts, along with the assumed gas prices and without the "value of energy", with a capacity factor equivalent to the assumed factor for Revelstoke #5.
- 16.3 Explain why BC Hydro has selected Revelstoke #5 rather than thermal resources.
- 16.4 What are they capacity and energy limits for Revelstoke #5?

**Q 17. Reference:** Testimony of Mary Hemmingsen, Page 8;

**Explanation:** The gap between demand and non-discretionary supply is met by discretionary generation such as dispatchable resources and imports.

**Request:**

- 17.1 Provide a table of dispatchable resources with the related capacity and energy.

**Q 18. Reference:** Testimony of Mary Hemmingsen, Page 13, Page 14;

**Explanation:** As in past calls, BC Hydro is requiring that projects be located in BC to ensure reliability and security of supply and to be consistent with the BC Energy Plan.

Projects that are not located within the system will be eligible but the point of delivery must be at a specified point on the [BCTC] system.

**Request:**

- 18.1 Are projects located in Alberta or the US eligible if they can deliver at the interconnection with BCTC?

- 18.2 Confirm that for example, a CCGT or coal fired generator located outside British Columbia and prepared to provide all or part of its capacity or energy to BC Hydro at the interconnection with BCTC would be eligible. If not, explain why not.

**Q 19. Reference:** Testimony of Mary Hemmingsen, Page 13; Exhibit A, Page 2; Testimony of Doug Russell, Page 8;

**Explanation:** Eligible projects must use proven generation technology.

Subject to compliance with other mandatory requirements, all “proven” generation technologies and project types (except nuclear projects) are eligible. “Proven” technologies are generation technologies, which are proven, readily available in commercial markets and in commercial (not demonstration) use, as evidenced by at least 3 generation plants generating energy for a period of not less than 3 years, to a standard of reliability generally required by good utility practice and the standard required under the proposed EPA for this Call. Prototype and near-commercial technologies are not eligible for this Call.

**Request:**

- 19.1 Are these criteria for proven technologies applied generally in utility CFT’s?
- 19.2 Under what conditions can and are new technologies developed and implemented commercially?
- 19.3 Are similar criteria applied to all generation technologies and bids? If not, why not?
- 19.4 How does: “Best Available Technology Economically Achievable” relate to proven generation technologies?
- 19.5 Will the restrictions imposed by BC Hydro prevent the application of new GhG management technology exclude some bidders?

**Q 20. Reference:** Testimony of Mary Hemmingsen, Page 15, 16, 19;

**Explanation:** BC Hydro completed a review of comparable acquisition processes, including mandatory requirements, from several jurisdictions in both Canada and the United States.

Generally speaking, BC Hydro’s proposed F2006 Call mandatory requirements, as well as its terms and conditions, are comparable to and consistent with those of the examined jurisdictions.

While BC Hydro may be more stringent than some jurisdictions on some issues, it is less stringent on other issues. In developing the form of EPA for the F2006 Call, BC Hydro first identified the product it needed to acquire. BC Hydro then developed a set of terms and conditions that would secure delivery of that product. BC Hydro checked those terms and conditions against contracts in other jurisdictions to ensure that, taken as a whole, the proposed risk allocation is aligned with other jurisdictions.

**Request:**

- 20.1 How has BC Hydro assured itself that it has not applied the criteria from other jurisdictions such that the BC Hydro criteria overall are more onerous?
- 20.2 For each of the comparable acquisition processes examined, provide the utility/jurisdiction, date of the call(s), size of the call and number of months/years from the date of the call to the COD.

**Q 21. Reference:** Testimony of Mary Hemmingsen, Page 21;

**Explanation:** Any changes in the amount of property tax payable as a result of a change in the assessed value of the property will be the responsibility of the successful bidder.

**Request:**

- 21.1 Has BC Hydro evaluated the effect on bids of the flow-through limitation on property taxes?
- 21.2 Has BC Hydro experienced a change in assessment practices on its facilities? Provide a list of changes in assessment practices with the effect on property taxes.
- 21.3 What is the understanding of BC Hydro of the industrial assessment and taxation practices in British Columbia? Provide copies of studies or references that BC Hydro has reviewed.
- 21.4 Compare and contrast industrial taxation practices and levels in BC vs. other jurisdictions.

**Q 22. Reference:** Testimony of Mary Hemmingsen, Page 25; Testimony of Doug Russell, Page 5;

**Explanation:** Natsource's review of multiple GhG studies and modeling results found that \$19 to \$50 per tonne was a reasonable range for projected compliance costs with future GhG regulation in 2015.

For planning purposes, the average price used by the Government of Canada in determining the number of tonnes the Climate Fund might purchase is \$10 per tonne.

The 2005 Climate Change Plan makes it clear that all previous commitments that have been made concerning the LFE system will be honoured. This includes the commitment that the cost of compliance to industry, including thermal power generators, will be no more than \$15 per tonne of CO<sub>2</sub> equivalent.

**Request:**

- 22.1 In evaluating the Kyoto agreement, what costs did the Government of Canada factor into its evaluations?
- 22.2 When the term “reasonable” is applied to a range such as \$19 to \$50, define “reasonable” and its application.
- 22.3 Why would governments not limit the liability and economic cost of GhG taxes / offsets and compliance costs?

**Q 23. Reference:** Testimony of Mary Hemmingsen, page 30;

**Explanation:** BC Hydro believes that a significant amount of cost effective energy is available from small projects.

**Request:**

- 23.1 Quantify the significant amount of cost effective energy by source and location / region of the province and capacity factor.
- 23.2 Provide the price level or range that BC Hydro interprets as cost effective.
- 23.3 Describe how BC Hydro will factor in capacity costs for non-firm energy in the evaluation of bids.

**Q 24. Reference:** Testimony of Mary Hemmingsen, Page 30;

**Explanation:** BC Hydro appears to make a distinction between stakeholders and others such as First Nations and customers.

**Request:**

- 24.1 Define the term “stakeholders” as used by BC Hydro.

**Q 25. Reference:** Testimony of Mary Hemmingsen, Exhibit B, Page 1, 4;

**Explanation:** BC Hydro will calculate the real levelized bid price for both Small and Large Project Evaluation.

BC Hydro wants to avoid being compelled to accept a sub-optimal result, which could result if relevant non-price criteria were ignored.

**Request:**

- 25.1 Will BC Hydro also be calculating and publishing the nominal annual cost for the term of the EPA's?
- 25.2 Confirm that non-price criteria and costing are subjective.
- 25.3 Why would application of non-price criteria not lead to a sub-optimal result?

**Q 26. Reference:** Testimony of Mary Hemmingsen, Exhibit B, Page 5;

**Explanation:** The target minimum is 800 GWh/y of firm energy and 800 GWh/y of non-firm energy.

**Request:**

- 26.1 Express the energy in related capacity (MW) that BC Hydro is anticipating.

**Q 27. Reference:** Testimony of Mary Hemmingsen, Exhibit B, Page 8. 9;

**Explanation:** BC Hydro refers to the Public Service Company of Colorado and a US\$8.75/MWh credit.

**Request:**

- 27.1 Confirm that the Colorado electricity supply in Colorado is 97% thermal and 3% hydro or the polar opposite of British Columbia.

**Q 28. Reference:** Testimony of Mary Hemmingsen, Exhibit B, Page 2;

**Explanation:** BC Hydro appears to limit regulatory risk to the BCUC.

**Request:**

- 28.1 List the regulatory agencies that have jurisdiction over generation project developers in BC.

28.2 Provide a description of the regulatory risks experienced by generation project developers in BC that BC Hydro is aware of through its development activities and the BC Hydro CFT processes.

28.3 Has BC Hydro considered the broader regulatory risks in developing the CFT process and lead times?

**Q 29. Reference:** Testimony of Mary Hemmingsen, Exhibit B, Page 8. 9; Testimony of Doug Russell, Page 6;

**Explanation:** BC Hydro refers to the Public Service Company of Colorado and a US\$8.75/MWh credit.

BC Hydro will be an LFE company.

**Request:**

29.1 Confirm that the Colorado electricity supply in Colorado is 97% thermal and 3% hydro or the polar opposite of British Columbia.

29.2 Explain the criteria that would make BC Hydro an LFE company.

29.3 What other utilities in BC will be LFE companies? By what criteria?

**Q 30. Reference:** Testimony of Doug Russell, Page 3;

**Explanation:** Climate change is the fluctuation in temperature, precipitation and all other aspects of the Earth's climate due to the natural greenhouse gas cycle and human induced greenhouse effect through the release of GhG emissions.

**Request:**

30.1 What is the difference between Global Warming and Climate Change?

30.2 Are there other factors in climate change, such as sun activity?

**From:** Wallace, Brian [rbw@bht.com]

**Sent:** Tue 7/26/2005 10:24 PM

**To:** Commission Secretary BCUC:EX; BC Hydro Regulatory Group

**Cc:** Bill LeGrow [West Fraser Mills]; Bruce Duncan [Columbia Power Corporation]; Dan Potts [JIESC]; Dave Humber [West Fraser Mills]; Dave Newlands [Elk Valley Coal Corp]; David Austin [IPPBC]; David Craig [CECBC]; David Perttula [Terasen Gas]; Geza Vamos; Jim Quail [BCPIAC]; John Johnson [Cloudworks Energy Inc]; Lloyd Guenther [JIESC]; Penny Cochrane [City of New Westminster]; Scott Thomson [Terasen Gas]; Thomas Hackney [BC Sustainable Energy Assoc]; William Andrews [BCSEA]

**Subject:** RE: Project 3698388 - BC Hydro 2005 REAP JIESC IR#2

**Attachments:**  JIESC REAP-CFT IR2.pdf(29KB)

Please see attached.

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