

BRITISH COLUMBIA UTILITIES COMMISSION
B.C. Sustainable Energy Association, *et al*, Information Request No. 1 to BC Hydro
May 9, 2005
BC Hydro 2005 Resource Expenditure and Acquisition Plan

General

1.1.0 Reference: 2005 REAP, general

- 1.1.1 Why does the term “climate change” does not appear in the 2005 REAP document?
- 1.1.2 What is BC Hydro’s current policy concerning climate change?
- 1.1.3 In what ways does the 2005 REAP reflect BC Hydro’s policy concerning climate change?

1.2.0 Reference: 2005 REAP, general

Bob Elton, the CEO of BC Hydro, is said to have expressed a corporate commitment to ‘no net environmental impact.’

- 1.2.1 Please confirm and provide the correct wording of BC Hydro’s commitment to ‘no net environmental impact.’
- 1.2.2 What is the nature of the ‘no net environmental impact’ commitment in terms of BC Hydro’s corporate governance?
- 1.2.3 Please describe the ways in which the 2005 REAP implements Hydro’s ‘no net environmental impact’ commitment.

1.3.0 Reference: Appendix A, *Energy Efficiency Plan*, p.4

Under the heading, “Changes from Previous Power Smart 10 Year Plan,” and the subheading “Assumptions,” the *Energy Efficiency Plan* states:

Avoided greenhouse gas regulatory cost: These are assumed to be zero, down from \$3 per tonne in the Power Smart plan, to align with BC Hydro’s resource planning practice. BC Hydro is reviewing this assumption as part of the 2005 Integrated Electricity Plan.

In the BCUC’s VIGP Decision, the Commission directed BC Hydro to assign a greenhouse gas liability risk factor of \$10 per tonne CO₂e to the VIGP Benchmark.

- 1.3.1 Does BC Hydro acknowledge in principle the existence of greenhouse gas liability risk?
- 1.3.2 What is BC Hydro’s “resource planning practice” regarding greenhouse gas liability risk? Please provide references.
- 1.3.3 Is it correct to read the above-quoted statement as implying that BC Hydro’s *Energy Efficiency Plan* assigns no value to ‘avoided greenhouse gas regulatory cost’? If not, please

describe how the *Energy Efficiency Plan* does assign a value to ‘avoided greenhouse gas regulatory cost.’

1.4.0 Reference: 2005 REAP, general

1.4.1 Please describe the process by which BC Hydro determines the relative amounts of DSM and new generation that will be included in its proposed 2005 REAP.

Chapter 2, Resource Planning

1.5.0 Reference: 2005 REAP, Chapter 2, Resource Planning, p.2-2/2-3

The text states:

...Currently, 34 IPPs provide approximately 7,000 GWh of electricity to BC Hydro's system. A further 27 IPPs are contracted to bring on over 4,100 GWh of supply in the future. BC Hydro has incorporated the voluntary Energy Plan goal (Policy Action #20) of acquiring 50% of new supply from “BC Clean Electricity” sources developed in-province into its energy acquisition processes. Of the total of 61 contracts, 37 are for green energy, providing over 2,900 GWh.

1.5.1 Please confirm that the above statistics refer to GWh *per year*.

1.5.2 Does BC Hydro follow the definition of “BC Clean Electricity” set out in *BC Clean Electricity Guidelines*, by Ministry of Energy and Mines, April 2004?

1.5.3 Please provide BC Hydro's definition of “green energy,” and explain how it differs from BC Clean Electricity.

1.5.4 Please provide a table showing the types of generating technologies and the corresponding numbers of IPP contracts for (a) the 37 IPP contracts for green energy, and (b) the IPP contracts that are *not* green energy.

1.5.5 Do the figures quoted above include Load Displacement projects (contracts)?

1.5.6 Does BC Hydro's voluntary commitment to 50% of new generation being BC Clean Electricity include (a) Load Displacement projects and (b) Energy Efficiency projects as ‘new generation’?

1.6.0 Reference: 2005 REAP, Chapter 2, Resource Planning, Table 2-1

Table 2-1 shows “BC Energy Plan Objectives and 2004 IEP Objectives.”

1.6.1 Are BC Hydro's current planning objectives the same as the 2004 IEP planning objectives? If not, please identify any differences.

The table quotes from the *BC Energy Plan*: “Achieving the BC Clean Electricity target may result in electricity rate increases of between 0.1 to 0.2% per year over the next decade.”

1.6.2 Is it BC Hydro's view that this an *estimate* of the rate impact of the 50% BC Clean Electricity objective, or that it is a *cap* on the number, size and types of actions that contribute toward achieving the 50% BC Clean Electricity objective.

1.6.3 Does BC Hydro track the potential rate impact of actions that contribute to the 50% BC Clean Electricity objective? If so, please indicate how this tracking is done, and provide the results for the most recent period available.

1.7.0 Reference: 2005 REAP, Chapter 2, Resource Planning, s.2.5.3 Supply Side Energy Calls, and s.2.7.2 Acquisition Plan

1.7.1 Please confirm that where the F2006 Call refers to "GWh" it means "GWh/y." If not, please explain.

1.8.0 Reference: 2005 REAP, Chapter 2, Resource Planning, s.2.3.1.4 Existing IPP EPAs

The document states:

In light of the Commission's February 17, 2005 Order No. E-1-05 (the "VICFT Order") accepting the VICFT Agreement as filed as an energy supply contract pursuant to section 71 of the *Act*, the DPP has been added to the resource portfolio. BC Hydro will continue to retain certain contingency plans in place until the conditions identified in the VICFT Order are met and any initiated appeal process has been exhausted. [underline added]

1.8.1 Please describe the contingency plans that will be retained in place pending confirmation of the VICFT Agreement.

1.8.2 How will the 2005 REAP be affected if the EPA for the DPP project does not proceed?

1.9.0 Reference: 2005 REAP, Chapter 2, Resource Planning, s.2.5.2 Load Displacement Projects, Appendix C Load Displacement Plan

Section 2.5.2, p.2-22, states:

Load Displacement projects are compared with other resource options on the basis of the utility cost, the total resource cost and the rate impact measure test.

1.9.1 Are Load Displacement projects required to meet the criteria for 'green energy'?

1.10.0 Reference: 2005 REAP, Chapter 2, Resource Planning, Table 2-5 Resource Additions

Table 2-5 Resource Additions uses a column heading "Firm/Dependable Amount," which is described in a footnote as "Firm relates to energy values in GWh and dependable relates to capacity in MW." (p.2-24)

1.10.1 What is the rationale for including only "firm energy" and not "non-firm energy" or "energy"?

1.11.0 Reference: 2005 REAP, Chapter 2, Resource Planning, s.2.5.5 Security of Supply
Chart 2-5, Firm Energy Supply/Demand Outlook 2004 Load Forecast and Proposed Resource Supply Stack.

- 1.11.1 What are the implications of the use of the term “Firm Energy” as distinct from ‘energy’?
- 1.11.2 Please confirm that the drop in total Firm Energy in F2015 is due to the anticipated decommissioning of Burrard Thermal.
- 1.11.3 What is meant by the statement that Chart 2-5 depicts firm energy requirements “before considering contingencies”?

1.12.0 Reference: 2005 REAP, Chapter 2, Resource Planning, p.2-30: Demand Side Management 2005 REAP Action; Table 1-4 Status of Responses to Commission Directives (pp. 1-6 & 1-7); and RRA Decision section 9.0

- 1.12.1 Please briefly describe for identification the terms Power Smart 1, Power Smart 2, Power Smart 3, Power Smart 4, and Power Smart 5.
- 1.12.2 Please confirm that the “current Power Smart 10 Year Plan (Power Smart 2)” in the Application corresponds to the “Power Smart 2 ... found in the Power Smart 10-Year Plan (Exhibit B1-2, Tab I, Table 4.5)” on page 183 of the Decision.
- 1.12.3 Please describe how BC Hydro interprets the RRA Decision in relation to Power Smart 2; and to Power Smart 3, 4 and 5.
- 1.12.4 Please explain why BC Hydro is not presently proposing to proceed with Power Smart 3, 4 and 5.
- 1.12.5 Please explain under what conditions BC Hydro would proceed with Power Smart 3, 4 and 5.
- 1.12.6 Please provide a summary description of Power Smart 2, 3, 4 and 5, indicating their respective elements, Total Resource Cost (TRC), Utility Cost (UC) and Ratepayers Impact Measurement (RIM).

1.13.0 Reference: RRA Decision, page 185, “Achievable Potential”

The RRA Decision defines “Achievable Potential,” with reference to the Conservation Potential Review Update, as “Achievable Potential which is the proportion of the savings identified in the Economic Potential Forecast that could realistically be achieved within the study period.”

- 1.13.1 Please confirm that the savings expected from the Power Smart 2, 3, 4, and 5 programs referenced in the present proceeding are those that BC Hydro characterized as “Achievable Potential which ... could realistically be achieved within the study period” in the RRA review.

1.13.2 What, in BC Hydro's view, are the factors that determine "Achievable Potential"? Are general societal attitudes important? Are regulatory standards such as building codes and product standards important?

1.13.3 Does BC Hydro periodically review its assessment of "Achievable Potential"? If so, when and by what process?

1.14.0 Reference: 2005 REAP, Chapter 2, Resource Planning, Burrard Thermal, p.2-31

Under the heading "2005 REAP Action," the following is stated:

BC Hydro has completed an economic analysis of Burrard. BC Hydro is managing O&M and capital expenditures at Burrard to support the plant being able to provide capacity to 2014.

1.14.1 Is BC Hydro asking the Commission to approve (a) maintaining Burrard Thermal through to 2014 and/or (b) decommissioning Burrard Thermal in 2015?

1.15.0 Reference: 2005 REAP, Chapter 2, Resource Planning, p.2-37; and BC Hydro Response to BCUC IR 1.8.0

BC Hydro indicates that "BC Hydro Conservation Potential Review 2004 Residential and Commercial Capacity Reduction Study is expected to be complete by the end of June 2005."

1.15.1 Please confirm that a copy of the report will be provided to the participants in this proceeding as soon as the report is available.

1.16.0 Reference: 2005 REAP, Chapter 2, Resource Planning, p.2-38; and BC Hydro Response to BCUC IR 1.8.0

The 2005 REAP indicates that a report on Site C will be completed by Q1F2005.

1.16.1 Please provide a copy of the Site C report.

1.17.0 Reference: 2005 REAP, Chapter 2, Resource Planning, p.2-38

The 2005 REAP states:

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

1.17.1 Please elaborate, and explain the meaning of "near-commercial energy projects."

1.18.0 Reference: 2005 REAP, Chapter 2, Resource Planning, Table 2-6 Existing EPAs

Table 2-6 indicates 534 GWh for VICFT/DPP in F2008 and 1,260 GWh in F2009.

1.18.1 Are these figures maximums, or are do they represent expected dispatch?

1.19.0 Reference: 2005 REAP, Chapter 2, Resource Planning, Table 2-7 Summary of Expenditures

Table 2-7 indicates contracted expenditures of \$80-million for VICFT/DPP in F2008 and \$112-million in F2009.

1.19.1 What do these expenditure figures include?

1.19.2 Please provide the capacity charges, energy charges and any other expenditures for VICFT/DPP for the various fiscal years. Please provide energy charges for both expected dispatch and maximum dispatch.

1.20.0 Reference: 2005 REAP, Chapter 2, Resource Planning, Tables 2-6 and 2-7

The tables show contracted energy and contracted expenditures for F2006 to F2009.

1.20.1 Would the cost of contracted energy be accurately indicated by dividing the figures in Table 2-7 by the figures in Table 2-6? If not, please explain why not.

1.20.2 Please provide a table showing the cost of contracted energy for F2006 to F2009 in \$/MWh by contract type.

Chapter 3, Capital Plans

1.21.0 Reference: 2005 REAP, Chapter 3, Capital Plans, Table 3-1

Table 3-1, "Capital Expenditure Forecast F2005 to F2007"

1.21.1 What does the item "Demand Side Management" include? Where is "Load Displacement" if it is not within "Demand Side Management"?

1.21.2 Please confirm that the term "capital" used throughout includes program spending. If not, please explain where proposed program spending summarized.

1.21.3 Does the 2005 REAP discuss the rationale for the *level* of proposed spending on Energy Efficiency programs? If so, please provide references. If not, please provide the rationale.

1.22.0 Reference: 2005 REAP, Chapter 3, Capital Plans, p.3-14

Generating facilities have been classified into three categories, one of which is "strategic," which includes "all cascading stations."

1.22.1 What are "cascading stations"?

1.23.0 Reference: 2005 REAP, Chapter 3, Capital Plans, p.3-21 Site C

1.23.1 Is BC Hydro seeking Commission approval of any expenditures regarding Site C as part of this 2005 REAP? If so, please explain.

1.24.0 Reference: 2005 REAP, Chapter 3, Capital Plans, p.3-28

Proposed expenditures for First Nations consultation and negotiations “do not contain provision for any settlement costs that may result.”

1.24.1 If First Nations settlement costs are not contained in the 2005 REAP, where are located within BC Hydro’s financial planning and Commission oversight?

1.25.0 Reference: 2005 REAP, Chapter 3, Capital Plans, p.3-31, s.3.8.1.5 GM Shrum – Transformer Replacement Stage 2

The text states that “An in-service failure [of the existing transformers] could result in the release of a significant volume of oil to the environment.”

1.25.1 Do the proposed replacement transformers come with spill containment?

Chapter 4, DSM

1.26.0 Reference: 2005 REAP, Chapter 4, Demand Side Management, p.4.1; s.4.4 Peak Reduction

The text states:

A third category, Peak Reduction, has been created to recognize a possible new line of initiatives. This category is at the concept stage and there are no Peak Reduction programs being proposed in this REAP.

The text says that a draft of the study titled “BC Hydro Conservation Potential Review 2004: Residential & Commercial Capacity Reduction Study” is expected early in F2006.

1.26.1 Please confirm that the draft study will be provided to the participants in this proceeding as soon as the draft study is available.

1.27.0 Reference: 2005 REAP, Chapter 4, Demand Side Management, Table 4-1

Table 4-1 “Requested DSM Funding for F2006 and F2007” is almost entirely for capital, plus a tiny bit of OMA.

1.27.1 Please discuss whether the term “capital” in Table 4-1 includes what would otherwise be thought of as program expenses.

1.27.2 Does BC Hydro use an accounting methodology to convert program expenses to “capital”? If so, please describe it.

1.28.0 Reference: 2005 REAP, Chapter 4, Demand Side Management, p.4-1/4-2; Table 4-1

The text states that “By F2012, total DSM electricity savings from historic and current activity are expected to grow to 6,000 GWh per year...” It also states that “Seventy-five percent of the overall target is expected to come from energy efficiency initiatives and 25% from Load Displacement.” (p.4.2).

Table 4-1 shows Requested DSM Funding for F2006 and F2007.

- 1.28.1 Please provide a revised version of Table 4-1 showing the Energy Efficiency, and Load Displacement, respectively, as a percentage of Total DSM, for F2006, F2007 and combined F2006 and F2007.
- 1.28.2 Please provide a table showing the Requested Funding and Expected Electricity Savings for Energy Efficiency, Load Displacement, and Total DSM, for F2006, F2007, and other years for which data is available up to F2012.
- 1.28.3 Is it accurate to conclude that the requested funding for Energy Efficiency produces larger Expected Electricity Savings than does the requested funding for Load Displacement on a \$ per GWh basis? If not, why not? If so, should expenditures on Energy Efficiency be increased in relation to expenditures on Load Displacement?
- 1.28.4 Please describe the process, the analytical techniques and the criteria by which BC Hydro decides on the amount of requested funding for Energy Efficiency and for Load Displacement, and for the programs within each heading.
- 1.28.5 Does BC Hydro produce estimates of the Expected Electricity Savings that correspond to various alternative levels of expenditure on (a) the Energy Efficiency portfolio and the Load Displacement portfolio, and (b) the programs within the Energy Efficiency and Load Displacement portfolios?

1.29.0 Reference: 2005 REAP, Chapter 4, Demand Side Management, p.4-1

The text refers to the dollar value of savings by residents and businesses “on their electricity bills” due to certain quantities of DSM electricity savings.

- 1.29.1 How are these figures for the dollar value of savings on customers’ bills calculated? Are the figures aggregated from DSM electricity savings estimates for different rate classes and corresponding marginal rates? Or are “bill savings” equivalent to the value of DSM electricity savings at the marginal cost of new electricity supply?

1.30.0 Reference: 2005 REAP, Chapter 4, Demand Side Management, p.4-4, Definition of Peak Reduction

The text states that “Peak Reduction... does not include short-term demand management efforts such as curtailment programs, which are used for operational contingencies.”

- 1.30.1 Please give some examples of recent curtailment programs, indicating the nature of the contingency and the types of demand management measures implemented.

1.31.0 Reference: 2005 REAP, Chapter 4, Demand Side Management, p.4-5, s.4.1.3 Performance to Date; and s.4.1.5 DSM Impact Evaluation

The text provides “actual” DSM Energy Savings for F2003 and F2004. (p.4-5)

- 1.31.1 How does BC Hydro measure actual electricity savings due to DSM in a given year?

1.32.0 Reference: 2005 REAP, Chapter 4, Demand Side Management, p.4-5/4-6, s.4.1.3 Performance to Date

The text states that “BC Hydro's projected costs [for DSM] over the 5-year period from F2003 through F2007 are down \$12 million, or 2.6%, from \$467.5 million to \$455.5 million.”

1.32.1 Why does BC Hydro project/propose reduced DSM spending over the 5-year period from F2003 to F2007?

1.33.0 Reference: 2005 REAP, Chapter 4, Demand Side Management, p.4-34, s.4.4.0 Peak Reduction

1.33.1 Please describe how BC Hydro assesses the monetary and non-monetary value of Peak Reduction.

1.33.2 Please describe how Peak Reduction affects the dispatch of BC Hydro's generation resources. What does BC Hydro do with capacity that is freed up by Peak Reduction?

1.34.0 Reference: 2005 REAP, Chapter 4, Demand Side Management, p.4-40, s.4.6.0 Stepped Rates

The text states:

The rate for the first 90 percent of electricity consumed (Tier 1), relative to a historical baseline, would be set such that the total charge for 100 percent of the historical baseline remains unchanged from the current Rate Schedule 1821 tariff thereby achieving revenue neutrality.

1.34.1 Please clarify whether “revenue neutrality” means that a firm that consumes electricity equal to 100% of its historical baseline would pay a total charge unchanged from the firm's total charge under the current tariff.

1.35.0 Reference: 2005 REAP, Appendix A, Energy Efficiency Plan, p.1

The definition of “Base Year & Planning Horizon” states:

The base year is F2003, comprising the twelve months ended March 31, 2003, and including expenditures and electricity savings from the latter part of F2002.

1.35.1 Should this read ‘savings from the last nine months of calendar 2002’ instead of “F2002”? If not, please explain.

1.36.0 Reference: 2005 REAP, Appendix A, Energy Efficiency Plan, p.1

The definition of “Avoided cost” states:

Electricity savings are valued using the scenario average of BC Hydro's September 2004 electricity price forecast, with the exception of savings in F2003 and F2004, for which actual prices are used. This is assumed to reflect the electricity supply cost that is avoided due to DSM.

1.36.1 Please define “the scenario average of BC Hydro’s September 2004 electricity price forecast.”

**1.37.0 Reference: 2005 REAP, Appendix A, Energy Efficiency Plan, p.17, Table 8
“Customer Bill Savings (\$000)**

1.37.1 Are the figures for Customer Bill Savings based on the marginal electricity price for the pertinent customer class? Or are they based on “the scenario average of BC Hydro’s September 2004 electricity price forecast,” referred to on p.1 of Appendix A?

1.38.0 Reference: 2005 REAP, Appendix A, Energy Efficiency Plan, p.19, Table 9. Cost Test Results

1.38.1 Do the benefits in Table 9 include deferral of capacity and transmission additions?

1.39.0 Reference: 2005 REAP, Appendix B, Energy Efficiency Program Summaries, p.25, SLED

The text states:

Within the residential sector, holiday lighting accounts for 445 MW in Peak Demand and results in over 73 GWh in annual electricity consumption.

1.39.1 Please describe how the figure of 445 MW in Peak Demand is estimated.

1.39.2 Please provide a table showing estimated Peak Demand in MW due to Holiday Lighting by customer class.

1.39.3 Please provide the daily and monthly profile of the energy demand estimated to be attributable to holiday lighting.

1.40.0 Reference: 2005 REAP, “F2006 Call”

BC Hydro website (<http://www.bchydro.com/info/ipp/ipp20988.html>): “2005 Open Call for Power”:

(1) *BC Hydro 2005 Open Call for Power Non-Technical Overview;*

(2) *BC Hydro 2005 Open Call for Power Procurement Process Description;*

(3) *Schedule A – Key Principles of Quantitative Evaluation Methodology – TLDC Projects;*

(4) *Schedule B – Key Principles of Quantitative Evaluation Methodology – SDC Projects;*

(5) *Schedule C – EPA Term Sheet – TLDC Projects; and*

(6) *Schedule D – EPA Term Sheet – SDC Projects.*

1.40.1 Please confirm that the “2005 Open Call for Power” described on the BC Hydro website is the same as the “F2006 Call” cited in the 2005 REAP. If not, please describe the relationship between the two, including whether the F2006 Call supersedes the 2005 Open Call for Power.

- 1.40.2 Please confirm that the terms and conditions set out in the 2005 Open Call for Tenders ((1) *BC Hydro 2005 Open Call for Power Non-Technical Overview*; (2) *BC Hydro 2005 Open Call for Power Procurement Process Description*; (3) *Schedule A – Key Principles of Quantitative Evaluation Methodology – TLDC Projects*; (4) *Schedule B – Key Principles of Quantitative Evaluation Methodology – SDC Projects*; (5) *Schedule C – EPA Term Sheet – TLDC Projects*; and (6) *Schedule D – EPA Term Sheet – SDC Projects*) are the same as the terms and conditions that will be applied in the F2006 Call. If the terms and conditions are or will be different, please provide the terms and conditions that will be applied to the F2006 Call.
- 1.40.3 Please provide the terms and conditions that will be applied to the F2007 Call (or, if they are substantially similar to those of the F2006 Call, please describe the differences).
- 1.40.4 Please explain why demand-side management is not included as an energy product that can be bid into the F2006 Call. Will demand-side management be included as an option in the F2007 Call?
- 1.40.5 How are greenhouse gas emissions and the associated costs of regulatory liability risks calculated and considered in the F2006 Call and F2007 Call?
- 1.40.6 Does BC Hydro accept that its planning and acquisition of energy should take into account (a) a general public interest, and (b) a ratepayer interest, in reducing greenhouse gas emissions?
- 1.40.7 In BC Hydro's energy acquisition planning procedures are there measures for avoiding forms of electricity generation that have intensive greenhouse gas emissions? If so, please describe such measures.
- 1.40.8 Please confirm that neither the F2006 Call nor the F2007 Call contemplates projects in which BC Hydro provides, pays for, or takes the price risk of, the fuel supply.
- 1.41.0 Reference: BC Hydro 2005 Open Call for Power Procurement Process Description; section 6. Transparent Process.**
- 1.41.1 Please confirm whether, in BC Hydro's view, the present proceeding is an appropriate occasion for interested parties and "BC Hydro stakeholders" to raise their concerns regarding:
- (a) the process by which BC Hydro proposes to acquire generation or demand-side management in order to meet its obligations in regard to the demand-supply balance;
 - (b) the terms under which BC Hydro proposes to acquire generation or demand-side management; and
 - (c) the types of generation or demand-side management to be acquired.
- 1.41.2 Does BC Hydro view the CFT or the filing of ensuring Electricity Purchase Agreements as appropriate occasions on which to raise such concerns?

**1.42.0 Reference: BC Hydro 2005 Open Call for Power Procurement Process
Description; section 8. Mandatory Requirements.**

- 1.42.1 What distinction, if any, does BC Hydro makes between “VA” and “W” as measures of energy or power.
- 1.42.2 What is BC Hydro’s reason for disallowing “split bids”?

**1.43.0 Reference: BC Hydro 2005 Open Call for Power Procurement Process
Description; section 9. Electricity Purchase Agreements.**

- 1.43.1 Based on what criteria did BC Hydro arrive at 10 MVA as the point at which to distinguish between the SDC (Small Distribution-Connected) and the TLDC (Transmission and Large-Distribution Connected) streams?

**1.44.0 Reference: BC Hydro 2005 Open Call for Power Procurement Process
Description; section 10. Tendering Options: Clean Projects (page 6).**

- 1.44.1 Please explain what BC Hydro means by “using” the “green attributes” of a project and what rationale BC Hydro has for prohibiting such use.
- 1.44.2 Does BC Hydro assess a monetary value for the “green attributes”? If so, how is the assessment made and what is the amount of the assessment?
- 1.44.3 In BC Hydro’s opinion, does the “BC Clean Electricity” designation preclude generation that uses fossil fuels?

**1.45.0 Reference: BC Hydro 2005 Open Call for Power Procurement Process
Description; section 10. Tendering Options: Green Credit (page 6).**

- 1.45.1 Please define “Ecologo certification” and provide references, if any, for this definition.
- 1.45.2 Does “Ecologo certification” address greenhouse gas emissions? If so, how? Does the certification preclude generation that uses fossil fuels?

**1.46.0 Reference: BC Hydro 2005 Open Call for Power Procurement Process
Description; section 11. Islanding (page 6).**

- 1.46.1 Please define “Islanding.”

**1.47.0 Reference: BC Hydro 2005 Open Call for Power Procurement Process
Description; section 17. Time Schedule (page 9).**

- 1.47.1 Please confirm whether the times given are current for the F2006 Call, i.e. CFT Issue: Fall 2005; Tender Submission: Winder 2005/06; and EPA Award: Winder 2006.

**1.48.0 Reference: BC Hydro 2005 Open Call for Power Procurement Process
Description; section 18. Regulatory Issues (page 9).**

1.48.1 Please confirm that, in BC Hydro's view, electricity purchase agreements entered into pursuant to the F2006 and F2007 Calls will be subject to review under section 71 of the *Utilities Commission Act*.

**1.49.0 Reference: BC Hydro 2005 Open Call for Power Evaluation for TLDC Tenders:
Schedule A and BC Hydro 2005 Open Call for Power Evaluation for SDC Tenders:
Schedule B.**

1.49.1 Please describe BC Hydro's rationale for making two separate "streams" in the F2006 Call (i.e. up to 200 GWh from "small distribution-connected IPPs"; and up to 800 GWh of firm supply and up to 800 GWh associated non-firm supply from "transmission-connected and large distribution-connected IPPs.")

1.49.2 Please describe the rationale for the respective sizes of the two streams (i.e., 200 GWh; and up to 800 GWh firm + 800 GWh non-firm).

1.49.3 Please describe the rationale for the different firm energy/non-firm energy requirements in the two "streams."

1.49.4 Please confirm that the "50 MVA of maximum power output" described in *Schedule B* of the 2005 Open Call for Power is equivalent or approximately equivalent to the 200 GWh cited in the F2006 Call.

1.49.5 Please confirm that projects in the "small distribution-connected IPPs" stream of the F2006 Call will be limited to 10 MVA in size. If so, please explain the rationale for this limitation.

1.49.6 Does BC Hydro expect most or all of the tenders for the 200 GWh stream in the F2006 Call to be small or micro hydro-electric projects? If not, what forms of generation does BC Hydro expect to be bid into this stream?

1.49.7 Will BC Hydro screen hydro-electric projects bid into the F2006 or F2007 Calls for environmental criteria, including whether they are "run-of-river" or employ impoundment of water? If so, how will such screening be done?

1.49.8 What forms of generation does BC Hydro expect to be bid into the "transmission and large distribution-connected" stream of the F2006 Call?

1.49.9 What forms of generation does BC Hydro expect to be excluded from, or disadvantaged within, the "transmission and large distribution-connected" stream of the F2006 Call?

1.49.10 How will BC Hydro evaluate – in monetary and qualitative terms – any non-firm energy that is bid into the "transmission and large distribution-connected" stream? How will the

non-firm energy component of a tender be evaluated against firm energy in competing tenders?

- 1.49.11 Why does the Adjusted Bid Price (ABP) reflect the cost of energy delivered to the Lower Mainland?
- 1.49.12 Does the ABP standard of delivery to the Lower Mainland reflect actual, or estimated, costs to BC Hydro? If estimated, please provide the calculation.
- 1.49.13 In addition to delivery to the Lower Mainland, what other methods has BC Hydro considered for assigning transmission adjustments to tenders? If any, please provide details.
- 1.49.14 Regarding electricity generated by IPP projects on Vancouver Island, please discuss the extent to which such electricity would actually be delivered to the Lower Mainland, and the extent to which such electricity would be likely to reduce the amount of electricity delivered to Vancouver Island from the Lower Mainland, with associated line losses.
- 1.49.15 Please specify what the “heavy load hour” and “light load hour” periods are, by month.
- 1.49.16 Why are SDC bidders not given the option to elect the “Hourly Firm Option”?
- 1.50.0 Reference: BC Hydro 2005 Open Call for Power Term Sheet for TLDC Tenders: Schedule C and BC Hydro 2005 Open Call for Power Term Sheet for SDC Tenders: Schedule D.**
- 1.50.1 Will an “expansion of [a] Seller’s Plant” (Schedule C: Operation, page 3; Schedule D: Operation, page 2) trigger a requirement to seek regulatory approval by the Utilities Commission?
- 1.50.2 Why is the escalation of the firm energy price set at 50% of the CPI (Schedule C: Price – Initial Term, page 5; Schedule D: Price – Initial Term, page 4)?
- 1.51.0 Reference: Schedule C: Environmental Attributes: Permit Allocations, page 10 and Schedule D: Environmental Attributes: Permit Allocations, page 7: “Seller retains all liability for on-site emissions and the permit allocations and other rights arising from on-site reductions in greenhouse gas emissions.” (Also Schedule C: Clean Projects: Liabilities, page 11; and Schedule D: Clean Projects: Liabilities, page 7)**
- 1.51.1 How is the public interest in greenhouse gas emissions reductions affected by this term?
- 1.51.2 Is BC Hydro of the opinion that it can contractually avoid liability for greenhouse gas emissions that it causes or that arise from its purchases of electricity?
- 1.51.3 Has BC Hydro assessed the cost and feasibility of offering terms to cover the purchase of Kyoto-compliant greenhouse gas offsets by the IPPs with which it contracts for generation? If so, please provide the assessment or assessments.

1.52.0 Reference: Schedule C: GHG Requirements, page 11 and Schedule D: GHG Requirements, page 8.

- 1.52.1 By “offset” does BC Hydro mean Kyoto-compliant greenhouse gas emissions offset? If not, why not?
- 1.52.2 Is Option A premised on the Buyer (i.e. BC Hydro) purchasing greenhouse gas offsets and being required to do so by law or regulation?
- 1.52.3 Under Option A, if no offsets for emissions were required, would the seller still be required to make payments to the Buyer?
- 1.52.4 How would the rate for GHG payments be determined under Option A?
- 1.52.5 Has BC Hydro estimated per-tonne costs of offsetting GHG emissions using (a) Kyoto-compliant and (b) non-Kyoto-compliant offsets? If so, please provide the most current estimates.
- 1.52.6 Please define “BC based offsets.” Are they Kyoto-compliant?
- 1.52.7 Please confirm that BC Hydro is proposing that where an IPP has a project that attracts a requirement for GHG offsets the IPP, rather than BC Hydro, would be required to pay for such offsets?
- 1.52.8 If so, does BC Hydro expect that IPPs will gamble on a zero risk of such liability so as to minimize the size of the their bid energy charge?

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