

REQUESTOR NAME: BCOAPO
INFORMATION REQUEST ROUND NO: #4
TO: BRITISH COLUMBIA HYDRO & POWER
AUTHORITY
DATE: May 14, 2012
PROJECT NO: 3698640
APPLICATION NAME: CPCN – Dawson Creek/Chetwynd Area
Transmission Project

**1.0 Reference: Exhibit B-22, page 33
Exhibit B-6, BCOAPO 1.6.1 and 1.6.2**

1.1 Please revise the responses to BCOAPO 1.6.1 and 1.6.2 based on the updated load forecast.

**2.0 Reference: Exhibit B-22, pages 5 and 25
Exhibit B-5, BCUC 1.39.1**

2.1 The response to BCUC 1.39.1 indicates that the existing area load is 112 MW.

2.1.1 What period (e.g. winter F2010 or winter F2011) was used to determine the 112 MW referenced in BCUC 1.39.1 as the “existing area load”?

2.1.2 Does the 112 MW include the 20.6 MW of load for 2011 associated with the five new customers (per Exhibit 22, page 5)?

2.1.3 Does the 112 MW include any other loads associated with Gas Producers with in-service dates after F2010? If yes, what are the MWs involved and when did they come “in-service”?

2.2 What portion of the 40 MW reduction for the winter of F2012 is due to new customers not energizing as forecast as opposed to existing customers having lower loads than forecast?

2.3 Please provide a schedule that sets out for each of the Other Load and Gas Producer loads: i) the F2010 (actual) values; ii) the original load forecast values for F2011 and F2012; and iii) the actual F2011 and F2012 loads.

2.4 What is the current (winter F2012) value for the load associated with those customers used to determine the original 112 MW value?

2.5 Based on this current value, please re-calculate the portion of the increase in capacity required to meet existing load (per BCUC 1.39.1).

2.6 Does BC Hydro plan to revise its capital contribution calculations based on these proportions? If not, why not?

**3.0 Reference: Exhibit B-22, pages 6-7; 24 and 31
Exhibit B-6, BCOAPO 1.1.2.1 and 1.4.1**

- 3.1 Exhibit B-22 states that BC Hydro has “recently been requiring new customers to sign agreements that BC Hydro can shed their load”. Is this the same requirement noted in response to BCOPAO 1.1.2.1 and that was initiated in 2009?
- 3.1.1 If not, please indicate how this current requirement differs in terms of the size of customers it applies to and when this change in requirements was introduced?
- 3.2 Based on the revised load forecast, how much (MWs) of the Other Load (page 31) and Gas Producer (page 24) load forecast for F2012 and F2013 is interruptible?
- 3.3 If not all of the Gas Producer load forecast for F2012 and F2013 is “interruptible” please explain why not.
- 3.4 Exhibit B-22, page 6 (line 28) states that “new customers” are required to sign agreements that BC Hydro can shed their load, while page 7 (line 28) states that all new industrial customers over 1 MW have to accept load shedding. Please clarify: i) do the required load shedding agreements just apply to new customers over 1 MW and ii) do they just apply to new industrial customers?

4.0 Reference: Exhibit B-22, pages 6-8 and 73 (lines 16-17)

- 4.1 Assuming DCAT and GDAT come into service in F2014 and F2016 as planned, will BC Hydro be able to meet the revised load forecast as of those dates based on the N-1 standard?
- 4.2 If the utility is not able to meet the N-1 standard for F2014, will any of the customers who have entered into load shedding agreements since 2009 be granted firm (i.e., N-1) service after DCAT is in-service? If so, how will the determination be made as to which of these customers receive firm service?

5.0 Reference: Exhibit B-22, pages 6, 11, 16, 18 and 21

- 5.1 Please provide an update as to the status of the binding and interim agreements addressing each customer’s portion of the DCAT System Reinforcement security.

**6.0 Reference: Exhibit B-22, pages 5, 6 and 83-85
Exhibit B-1-3, page 4-23 (revised)
Exhibit B-5, BCUC 1.39.1**

- 6.1 Exhibit B-22 (page 6) states that each of the five customer’s security arrangements will be based on its proportionate share of “new customer load”. Given the range of in-service dates noted in the discussion on the individual customers (pages 5 and 9 to 21), what in-service dates will be included in the identification of the MWs used to determine each customer’s “proportionate share”?

- 6.2 Exhibit B-22 uses a project cost of \$219 M when describing the determination of security to be provided by the DCAT customers. However, the updated cost of the project is \$222.3 M. Please reconcile.
- 6.3 As no DCAT customer has sought a Detailed Estimate please confirm that the final security deposit requirements will be based on the Actual Cost or the Estimated Actual Cost. If the latter, at what point in time will this “estimate” be established?

7.0 Reference: Exhibit B-22, page 36

- 7.1 Please confirm whether the \$116/MWh represents a levelized cost in real or nominal terms (i.e. if in real terms it would escalate at inflation to obtain the nominal cost in years after 2011 whereas if in nominal terms the \$116/MWh would also represent the nominal cost in future years).
- 7.2 Similarly, please clarify whether the \$50/MWH in 2011 \$ market price is in real or nominal terms.

8.0 Reference: Exhibit B-22, pages 41, 49 and 72

- 8.1 If possible, please indicate the degree to which the capital cost and the PV for Alternative B1 is less than that of the proposed DCAT project (e.g., is the difference less than 5%, greater than 20%?).

9.0 Reference: Exhibit B-22, pages 59-60

- 9.1 What was the total generation (GWh) in each of years from 2008-2011 from the five gas-fired plants listed?
- 9.2 Are the five gas-fired plants listed used primarily as base load generation? If not, when/how are they typically operated?
- 9.3 In Table 2, are the values shown for “energy contribution from existing gas-fired generation” the anticipated production over F2014-F2030 or the firm energy the stations are capable of producing in this period?
- 9.4 Does BC Hydro interpret the CEA as requiring at least of 93% of firm energy capability being from clean or renewable resources or at least 93% of energy actually produced being from clean or renewable generation?

10.0 Reference: Exhibit B-22, pages 64-65

- 10.1 Please provide a schedule that sets out the annual energy (MWh) used in the determination of the Cost of Energy in Table 7 for Alternatives G1 and G2. If the total energy supplied is not the same for both alternatives, please explain why.
- 10.2 On the same schedule please show for each alternative (G1 and G2) the split in energy as between system energy and local gas-fired generation.
- 10.3 Please confirm that, for purposes of costing system energy a market price of \$50/MWh (\$2011) was used for prior to the system need date of 2017

and an average plant gate price of \$116/MWh (\$2011) was used after the need date. If not, please explain what values were used and why.

11.0 Reference: Exhibit B-22, pages 66-67

- 11.1 Please provide a schedule that sets out the annual energy used in the determination of the Cost of Energy in Table 8. If the values are not the same as those for Table 7 please explain why.
- 11.2 Please explain why, for purposes of Table 8, this energy was not valued at \$50/MWh (\$2011) for energy used prior to the system need date of 2017 and an average plant gate price of \$116/MWh (\$2011) for energy used after the need date.
- 11.3 Please re-do Table 8 where the Cost of Energy is valued at \$50/MWh (\$2011) prior to the system need date of 2017 and an average plant gate price of \$116/MWh (\$2011) after the need date.

**12.0 Reference: Exhibit B-22, pages 6-7 and 73
Exhibit B-6, BCOAPO 1.1.2.1**

Preamble: On page 73 BC Hydro states that it “has advised all new industrial customers that they will need to participate in a remedial actions scheme (RAS) until a future GDAT project can be brought into service”.

- 12.1 Is this the same requirement and does this involve the same customers as the load shedding agreement requirement described in response to BCOAPO 1.1.2.1 and/or discussed on pages 6-7?
- 12.2 If not, what customers does this requirement (i.e., participation in a RAS until a future GDAT can be brought into service) apply to? In responding please describe both the size of customers it applies to and after what point in time this new requirement (as opposed to that outlined in BCOAPO 1.1.2.1) applied to customers requesting service.

**13.0 Reference: Exhibit B-22, pages 25 and 75
Exhibit B-6, BCOAPO 1.2.2**

- 13.1 At this point in time, does BC Hydro have any formal commitments (per BCOAPO 1.2.2) with Gas Producers who require service prior to F2016 apart from five identified customers? If yes, what are the total MWs associated with those customers whose individual loads fall into each of the following ranges: i) 0-1 MW; ii) 1-10 MW and iii) >10 MW?
- 13.2 Does the revised load forecast (for the period up to F2016) assume any loads for individual customers that fall into the following ranges: i) 0-1 MW or ii) 1-10 MW?
- 13.3 If yes, please break the revised Gas Producer load forecast down into the following three categories: i) individual customers with loads between 0-1 MW; ii) individual customers with loads between 1-10 MW and ii) individual customers with loads >10 MWs.

14.0 Reference: Exhibit B-22, page 78

14.1 Please clarify what is meant by an “eligible” customer. In doing so, please confirm whether, in order to be eligible, the customer must comply with the conditions of BC Hydro’s approved tariffs.

**15.0 Reference: Exhibit B-22, pages 80-81
Exhibit B-1, page 4-26 and Appendix I**

15.1 For purposes of calculating the “rate impact” of project, BC Hydro assumes there is no increase in overall energy sales (per Appendix I). However, for purposes of BC Hydro Offset calculation under Tariff 6 it is assumed that the project generates additional revenues (as a result of increased sales). Please reconcile this inconsistency.

**16.0 Reference: Exhibit B-22, pages 73 and 80-82
Exhibit B-15, BCOAPO 2.9.1
Exhibit B-14, BCUC 2.19.1**

16.1 Please confirm that the value for R is calculated using the full transmission or distribution rate as applicable to each customer. If not, what “rate” is used?

16.2 Does the \$429 M represent 7.4 times the estimated first 12 months of revenue for each customer? If not, how was it calculated?

16.3 Please provide a table (similar to page 5, Table 1) that sets out the total new customer loads (by year of in-service) used in the calculation of the R value.

16.4 If the total new loads used to calculate R exceed 73 MW please explain why this higher MW value is used when the DCAT upgrade can only provide N-1 service to 73 MW of new load (per BCUC 2.19.1)?

16.4.1 Also, please explain why any new loads in excess of the 73 MW wouldn’t be associated with the GDAT project and used in future calculations of potential customer cost responsibility for System Reinforcement costs connected with that project.

16.5 Please recalculate the equivalent of the \$429 M values based on 73 MW of new load at Transmission Service rates. For purposes of the calculation please assume an overall customer load factor equivalent to the (weighted) average for the three transmission customers.

16.6 Page 81 indicates that the value for R in the offset calculation is based on the first 12 months after the normal operations begin. In determining the offset amount of \$429 M did BC Hydro assume there was an unrestricted supply available to each customer in the first year to meet all of its electrical requirements?

16.6.1 If not, what assumptions were made about the availability of electricity to each customer?

16.6.2 If yes, please reconcile this assumption with the fact some customers are currently using on-site generation (per page 17) and all customers have load shedding agreements.

**17.0 Reference: Exhibit B-22, pages 82-83
Exhibit B-5, BCUC 1.51.3**

Preamble: The response to BCUC 1.51.3 states that the two Distribution Service customers will be required to pay an additional Distribution Extension Fee.

- 17.1 Please confirm that in calculating the Distribution Extension Fee required from customers, the offset provided by BC Hydro is based on the customer's anticipated billing demand (per Section 8.3 of the Terms and Conditions).
- 17.2 If this the case, are these customers not being credited twice for their anticipated billing demand – once in the determination of the Distribution Extension Fee and a second time in the determination of the BC Hydro offset to be provided under Tariff 6 for Transmission Reinforcement? If not, please explain why not.
- 17.3 Please recalculate the equivalent of the \$429 M – but exclude the loads associated with the two Distribution service customers.
- 17.4 Based on BC Hydro's calculations what is the proportionate share (i.e., %) attributable to the two distribution customers?

18.0 Reference: Exhibit B-1-3, pages 4-23 (revised)

- 18.1 Please outline the reasons for the increase in: i) Direct Definition Phase Costs and ii) Project Management, Engineering, Property, Consultation, and Environment Costs.
- 18.2 Given the later in-service date why has the allowance for inflation not increased?
- 18.3 Given that the P50 cost estimate has increased, why is the Project Reserve less?