

**1. Reference: Report on the CFT Process, page 12**

*“The network upgrade costs were provided by the BCTC whereas the gas transportation costs were supplied by TGVI and compared to the transportation costs associated with the GSX pipeline option. TGVI costs were used in the final analysis because they were lower than the estimated GSX toll”.*

- 1.1 Please confirm that as outlined above, the use of the lower TGVI estimates resulted in a more cost effective tier 1 proposal than might otherwise have been the case. If not, why not?
- 1.2 Given that regulatory approval for the GSX pipeline project is contingent on approval of VIGP, would this GSX approval also flow from an EPA for Duke Point Power?
- 1.3 If TGVI is confirmed as the fuel source for DPP, what penalties or other costs will be incurred by BC Hydro under its contractual arrangements with GSX PL? How would BC Hydro recover those costs?
- 1.4 Were any of the costs pertaining to GSX considered while evaluating the CFT proposals, with regard to the cost effectiveness for BC Hydro and its ratepayers? If so, please summarise. If not, why not?
- 1.5 If TGVI were not confirmed as a fuel source for DPP, how would this affect the validity of the CFT outcomes as currently projected?

**2. Reference: Report on the CFT Process, page 17 and Appendix J**

*“The common assumptions used for the analysis of CFT cost effectiveness are as follows:*

- *230 kV transmission cable in service after March 2009*
- *Mainland generation – electricity price same as Tier 1 CFT result”*

- 2.1 Page 15 of the CFT Report refers to a 2008 in service date for the 230 kV cables. What effect would that date (2008) have on the cost-effectiveness forecasts as outlined in Attachment A of Appendix J?
- 2.2 If an in service date of 2008 is possible, why were only later dates used?

**3. Reference: Appendix J, page 2**

*“In both the Tier 2 and ‘No Award’ scenarios, the energy backfill was assumed to come from new mainland generation at two price scenarios: 100% and 90% of the unit price of the Tier 1 project on VI but without the associated firm gas tolls in both cases.”*

*“Neither Tier 1 nor Tier 2 resulted in any deferral of the 230 kV cable.”*

*“For the purposes of this analysis, the base case assumptions were considered to be: 261 MW load requirement for fiscal 07/08; EIA electricity price forecast; pricing for mainland generation same as Tier 1 price i.e. VI 250 MW CCGT) excluding gas tolls; one year delay in the cable (i.e. 2010 in-service).”*

- 3.1 Why were different assumptions made with regard to pricing for the tier 1, tier 2 and ‘no award’ options? Why was 90% chosen as an alternative?
- 3.2 Why does the base case assume a (one year delay) 2010 in-service date for the 230 kV cables? Please reconcile this with the statement that Tier 1 did not result in any deferral of the cable.

**4. Reference: Appendix J, page 2**

*“Neither Tier 1 nor Tier 2 resulted in any deferral of the 230 kV cable. However both were credited with deferral of the next 230 kV cable: from 2020 to 2026 in the case of Tier 1, and from 2020 to 2023 in the case of Tier 2.”*

- 4.1 What credit was applied to these options for deferral of the next 230 kV cable?
- 4.2 How is this statement reconciled with the removal of a transmission deferral credit from the CFT evaluation process, as outlined on page 7 of the CFT Report?

**5. Reference: CFT Report, page 18**

*“The relative cost benefit of the Tier 1 option increases as the in-service date of the transmission cable is delayed.”*

*“Overall, from a purely quantitative standpoint, Tier 1 shows the lowest cost to ratepayers, especially when taking the uncertainty of the 230 kV installation into consideration.”*

- 5.1 What uncertainty does this statement refer to? Does uncertainty exist over actual installation of the cable, or just the timing?
- 5.2 Could the relative cost benefit of a delay in the 230 kV cable (for Tier 1) affect the planned in service date? Why?

- 5.3 What is the relative cost benefit for other options of expediting the 230 kV cable in-service date? Was this possibility considered when evaluating cost effectiveness? If not, why not?

**6. Reference: CFT Report, page 18**

*“However, the “No Award” scenario provides lower costs based on the sensitivities for higher gas prices and lower Mainland generation costs”.*

- 6.1 Are higher gas prices and lower Mainland generation costs considered unlikely? Why?
- 6.2 If higher gas prices are considered unlikely, please reconcile this with the statement in Reference 8 below.
- 6.3 If higher gas prices are considered likely, please explain why the no award options which show the lowest cost in the immediate term (as outlined in Appendix J, Attachment A) were not deemed the most cost effective solution.

**7. Reference Appendix J, page 3**

*“If, in the base case scenario, the pricing for mainland generation is 10% lower than the Tier 1 price, the Tier 1 outcome shows a savings of \$21 million over the Tier 2 outcome, and a premium of \$47 million over the “No Award” case. If, in the base case scenario, the High Gas Low Electricity forecast is substituted for the EIA electricity price forecast, the Tier 1 outcome shows a savings of \$2 million over the Tier 2 outcome, and a premium of \$33 million over the “No Award” case. Both of these alternates are considered stress tests of the base case scenario.”*

- 7.1 Please clarify whether ‘Low Electricity’ refers to demand, or cost, and how this is linked to the ‘High Gas’ forecast.
- 7.2 Please explain and justify the statement that these are considered stress tests of the base case scenario.
- 7.3 Was any forecast done with a High Gas – High Electricity scenario? If yes, how did this affect the results in Attachment A? If not, why not?

**8. Reference: Appendix I, page 47**

*“However, natural gas prices are projected to be higher for Vancouver Island compared to the Mainland over the entire forecast period”.*

- 8.1 What forecast period does this statement reference?

- 8.2 Given this statement, what impact on electricity prices from thermal generation on Vancouver Island can be anticipated? Would this affect only customers on Vancouver Island, or BC overall?

**9. Reference: Appendix I, (Load Forecast) pages 48 and 50**

*“The reasons for slowing growth rates for energy sales include the impact of the rate increase, a slowing of forecast penetration of energy using appliances as well as the anticipated slowing of the penetration of electric space heating.”*

*“The main reason for the decline in use rate in the near term, and the slower growth in use rate over the longer term, is assumption of the load impact associated with the 8.9% increase in electricity rates applied in 2004.”*

- 9.1 If high gas prices on Vancouver Island were to result in higher electricity rates, presumably the same factors would continue to apply. Is this correct?.
- 9.2 Do current energy demand projections include the impact of high electricity prices on Vancouver Island?
- 9.3 If yes, where is this reflected in the comparison of options and their cost-effectiveness?

**10. Reference: CFT Report, page 18**

*“The relative cost benefit of the Tier 1 option increases as the in-service date of the transmission cable is delayed. The relative cost benefit of the Tier 1 option increases as the in-service date of the transmission cable is delayed. Consequently, because of its size and economies of scale, Tier 1 is the CFT outcome most capable of mitigating any delay in the 230 kV cable.”*

*“For the Demand Management proposal, the need to negotiate a suitable curtailment arrangement with Norske Canada carries uncertainty relative to the outcome of the CFT process with its legally binding bids and fixed prices”.*

- 10.1 Please explain and expand on the reference to ‘fixed prices’.
- 10.2 Given the specifics contained in the NCDMP proposal submitted to the BCUC in September 2004, in relation to project number 3698376, what ‘uncertainty’ remains with regard to this option?
- 10.3 To what extent would the NCDMP option mitigate uncertainty over installation of the 230 kV cables?

**11. Reference: CFT Report, page 1**

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

11.1 Would the NCDMP option, if implemented, provide dependable capacity?

**12. Reference: CFT Report, pages 15, 17, and page 18 (reference 10 above)**

*“This outlook indicates that 252 MW of capacity purchased in the CFT is not sufficient to meet the load requirement in fiscal 2007/2008. The gap increases further if the construction of the proposed 230 kV transmission circuit is delayed beyond the October 2008 earliest in-service date.”*

*“Based on the most recent load forecast and supply outlook, the system was assumed to require additional energy starting in 2010. The total volume of new energy supply being added to the system under each of the three CFT outcomes was based on the energy contribution from the Tier 1 plant....”*

12.1 Please reconcile these two statements: if the CFT outcome is not sufficient for fiscal 2007/2008, why is additional energy not required until 2010?

12.2 If the Tier 1 capacity outcome is not sufficient by 2008, and the gap increases thereafter, please justify the statement that Tier 1 is the CFT outcome most capable of mitigating any delay in the 230 kV cable.

**13. Reference: CFT Report, page 16**

*“The best outcome is the one that results in the lowest NPV cost to BC Hydro and its ratepayers on a risk-adjusted basis i.e. recognizes cost and time certainty.”*

13.1 Given the estimate of a 2004 date for implementation of the NCDMP, and its apparent cost effectiveness, please explain why a combination of this alternative and the earliest in-service date for the 230 kV cables is not the best outcome.

**14. Reference: Table 6, CFT Report, page 18**

In this table, cost projections are given for a) base case and b) 230 kV Cable Delayed 1 year, and four other scenarios. The same values are shown in various tables in Attachment A of Appendix J, the Results summary.

14.1 Given that the base case already captures a one year delay in the 230 kV cable, i.e. a 2010 in-service date, the “delayed one year” corresponds to an in-service date of 2011. All other values shown in Table 6 relate to a 2010 in-service date. For direct comparison purposes, should the same in-service date not have been applied, instead of mixing them in the same table?

14.2 Please provide the same information (Table 6/Attachment A) in table form showing the various scenarios by identical cable in-service dates i.e. Table 6 for each in-service date.

**15. Reference: Appendix I, Load Forecast, page 56**

*“Factors contributing to this growth [in VT’s service sector] include the following:*

- *Possible increases in employment in the public sector following several years of provincial government reductions.*

15.1 Numerous privatisation or alternative service delivery initiatives are still underway in the provincial government, and the impact of these will continue into 2005 and perhaps beyond. Please justify the assumption that a *possible* increase in employment can be taken as contributing to future growth in this sector, or explain this statement.