



September 8, 2006

Wendy Shanks, Vice-Chair  
Yukon Utilities Board  
19-1114 First Avenue  
Whitehorse, Yukon Y1A 1A3

Dear Ms. Shanks,

**Re: Yukon Energy Corporation (“YEC”)  
20 Year Resource Plan 2006-2025  
Comments on Minister’s August 29<sup>th</sup> Letter and Whether YESAB  
Legislation Precludes the YUB from Considering Environmental and Socio-  
Economic Issues**

**Board’s Request for Comments**

At the August 30<sup>th</sup> Pre-Hearing Conference the Yukon Utilities Board (YUB) requested comments on the following two issues:

1. Applicability of Part 3 of Act and Minister of Justice’s August 29<sup>th</sup> letter.<sup>1</sup>
2. Whether YESAB legislation precludes the YUB from considering environmental and socio economic issues?<sup>2</sup>

**Summary of Parties’ Comments - August 30<sup>th</sup> Pre-Hearing Conference**

The August 29<sup>th</sup> letter from the Minister stated as follows in regard to Part 3 of the *Public Utilities Act* (the Act) and projects being considered by the YUB in the current proceeding mandated under section 18 of the Act by the Minister’s letter to the Board of June 5, 2006:

“Of course, any specific projects to be implemented by YEC will be subject to various regulatory approvals and reviews. In addition, we would like to note that prior to the implementation of any proposed significant energy projects by YEC (e.g. construction of the Carmacks to Stewart

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<sup>1</sup> Transcript, August 30, 2006 -- pg 38, lines 15 to 17 and pg 10, line 22 to pg 11, line 4.

<sup>2</sup> Transcript, August 30, 2006 -- pg 38, lines 12 to 15 and pg 11 lines 7-12.

transmission line), it is the governments' intention to refer the details of such projects to the YUB for review and recommendation under the provisions of Part 3 of the *Public Utilities Act*."

A number of parties including YEC provided preliminary comments on the Minister's August 29<sup>th</sup> letter expressing concerns about duplication if the YUB carries out two separate reviews of the same projects<sup>34</sup> as well as concerns about time being of the essence with regard to the Carmacks-Stewart Transmission Project<sup>5</sup> and the other near term projects.<sup>6</sup>

YEC today is not able to offer the Board any substantive new information or views on August 29<sup>th</sup> letter. It does, however, provide the following additional comments.

**Further Comments of YEC on Applicability of Part 3 of Act and Minister's August 29<sup>th</sup> letter**

***(i) YEC Commitment to Ensure Significant Energy Projects Brought Before the Board***

As the Board is aware, YEC committed in the 2005 Revenue Requirement hearing to seek, prior to construction, review by the YUB of any new YEC capital project costing \$3 million or more. However, as the Board is also aware, there is no legislative framework currently in place in Yukon, outside of a revenue requirement or rate hearing process, to mandate the YUB to review or approve capital projects of YEC or YECL.

In this context, the Resource Plan was prepared by YEC to facilitate honouring of its commitment to seek prior YUB review of major capital projects costing \$3 million or more. The intent of YEC in this regard was clearly set out in the original January Resource Plan now filed with the Board. The Resource Plan specifically provided for review by the YUB of near term generation and transmission projects being considered by YEC that would cost \$3 million or more, and to provide as well a clear planning context within which the Board could review and recommend on such projects.

***(ii) Minister's June 5<sup>th</sup> Letter Mandates Comprehensive Review of Near Term Significant Projects***

The Minister's letter of June 5<sup>th</sup> to the Board simply establishes the mandate for the Board, to proceed with its review of these projects as set out in the Resource Plan. More specifically, on the matter of significant energy projects, that letter amongst other things, directs the YUB, under section 18 of the Act, as follows:

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<sup>3</sup> Transcript, August 30, 2006 -- pg 31, line 12 to pg 32, line 9 (YECL).

<sup>4</sup> Transcript, August 30, 2006 -- pg 35, line 10 to pg 37, line 6 (YEC).

<sup>5</sup> Transcript, August 30, 2006 -- pg. 31, line 12 to pg 32, line 9 (Peter Percival).

<sup>6</sup> Also see YEC's comments at Transcript August 30, 2006 -- pg 37, lines 11 to 21 and pg 37, lines 22 to 25.

- The Board is required to review and report by a specific date (now extended to January 15, 2007) on various specific matters, including on any near term YEC energy projects for generation and transmission in the Resource Plan with expected cost commitments of \$3 million or more before 2009. Based on the Resource Plan, this direction specifically covers the Carmacks-Stewart Project, the Aishihik Third Turbine Project, and the Mirrlees Life Extension Project.
- The scope of review includes consideration of the effects of such spending commitments on electricity rates to be charged to Yukon consumers, and **with regard to generation or transmission projects**, the necessity for the proposed spending commitments and, to the extent currently known, their physical and engineering characteristics and their economic consequences with emphasis on several specific considerations including:
  - the effects of such spending commitments on meeting expected industrial load forecast requirements,
  - evidence that all reasonable options have been considered, that the proposed spending commitments on these projects have been selected on reasonable grounds related to technical feasibility, cost efficiency and reliability, and
  - the analysis of risks from all causes and possible modifications to design or schedule resulting from environmental review and related regulatory approvals.

In summary, the Board is mandated today by the Minister's June 5<sup>th</sup> letter to review and report by January 15, 2007 on certain very clear matters which specifically include review of the need for (and alternatives to) the Carmacks-Stewart project and other significant near term energy projects costing \$3 million or more. That review is clearly intended to be comprehensive and YEC believes it provides the YUB with the authority to undertake the type of review required to help guide YEC and the Yukon Government (i.e., the Carmacks-Stewart Project in particular cannot proceed without approval of the Minister responsible for YDC under OIC 1993/108) in making timely decisions in relation to those projects in the very near future.

***(iii) Part 3 of Act Not Currently Applicable to Current YUB Hearing***

Part 3 of the Act is not referenced by the Minister's letter of June 5<sup>th</sup>, and is not therefore currently applicable to this YUB hearing. At the present time Part 3 also does not apply to any of the Resource Plan projects subject to review by the YUB in the current hearing.

YEC notes that for Part 3 to apply, a project must first be designated by OIC as a regulated project pursuant to Part 3 of the Act. Prior to such OIC designation, no application pursuant to Part 3 can be made, or is required to be made, by a utility. Further, no YUB review can commence under Part 3 prior to a reference by the Minister pursuant to Part 3 after the necessary OIC designation and the necessary subsequent utility application.

**(iv) Board Can Comment on the Need for Further Review in its Report**

YEC feels it is within the scope of the Board's current mandate to comment in its Report to the Minister on the applicability and/or need in the future for any further YUB review of significant energy projects reviewed in the current hearing. In this way the Board can thereby address the stated concerns about duplication, costs, and other matters – including YEC's concerns about any delays that may impair YEC's ability to meet Yukon electricity requirements in a timely and cost effective manner.

**Does YESAB Legislation Preclude YUB from Considering Certain Issues?**

The YUB asked parties to comment on whether the YESAB legislation precludes the YUB from considering environmental and socio-economic issues, and more specifically on whether the review provided by the Yukon Environmental and Socio-Economic Assessment Board (YESA Board) precludes the YUB from considering environmental, social, and economic issues in this proceeding.

The YUB does not have the jurisdiction under the *Public Utilities Act* or under the review mandated by the Minister in his June 5<sup>th</sup> letter to undertake a detailed environmental review. The regulatory jurisdiction to undertake a detailed environmental assessment and review of any individual project is mandated under the YESAA.

However, that does not mean the YUB has no jurisdiction to consider certain overall environmental issues in its assessment of YEC's Resource Plan. For example, as stated in YEC's Aug. 23<sup>rd</sup> letter “. . . as part of the resource plan type of assessment, general comparative information on environmental impacts (as opposed to detail project specific impact assessment) is a useful consideration and is expected to be addressed as part of the hearing scope”.

YEC notes that there is past experience with the general issue as to how the YUB, or similar boards, should proceed on such matters when addressing an assessment of need and alternatives regarding major new generation or transmission projects. Attached to this letter are excerpts from the British Columbia Utilities Commission's Vancouver Island Generation Project Decision, September 8, 2003<sup>7</sup>, and Vancouver Island Transmission Reinforcement Decision, July 7, 2006<sup>8</sup>; YEC believes these decisions may be of assistance to the YUB in determining the extent to which environmental and socio-economic impacts should be considered in these proceedings.

Accordingly, in answer to the Board's specific question, although the YUB can consider overall environmental issues as part of its assessment of the resource plan, it cannot undertake an in-depth environmental review of any project.

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<sup>7</sup> Decision in the Matter of a Vancouver Island Generation Corporation Vancouver Island Generation Project Application for a Certificate of Public Convenience and Necessity (September 8, 2003) Order Number G-55-03 (B.C.U.C.), see pages 47 to 52.

<sup>8</sup> Decision in the Matter of a Certificate of Public Convenience and Necessity for the Vancouver Island Transmission Reinforcement Project (July 7, 2006) Order Number C-4-06 (B.C.U.C.), see pages 33 to 37.

If you have any further question regarding the above please call.

Yours truly,



*for*

Dave Morrison  
President & CEO

Attachment



IN THE MATTER OF

**VANCOUVER ISLAND ENERGY CORPORATION**

(A WHOLLY-OWNED SUBSIDIARY OF  
BRITISH COLUMBIA HYDRO AND POWER AUTHORITY)

**VANCOUVER ISLAND GENERATION PROJECT**

**Application for a  
CERTIFICATE OF PUBLIC CONVENIENCE  
AND NECESSITY**

**DECISION**

**September 8, 2003**

**Before:**

**Robert H. Hobbs, Chair  
Nadine F. Nicholls, Commissioner**

TGVI toll of \$1.20/GJ, this is a saving of \$20 million per year. That is, there would be approximately zero net change in BC Hydro payments to TGVI.

This alternative approach results in higher gas transportation costs. **The Commission Panel determines that 100 percent of GSX charges and zero net change in TGVI charges should be used as the higher cost scenario for VIGP.**

## 5.10 Environmental and Siting

### 5.10.1 B.C. Clean Electricity

The Commission Panel Chair at the beginning of the hearing stated:

While the Legislature has granted the Commission broad jurisdiction to consider CPCN and applications under the Utilities Commission Act, that jurisdiction is not in (sic) unlimited jurisdiction. Examples of the limits on the Commission's jurisdiction are found in the subject matter of the proceedings before the joint NEB/CEAA panel and before the Environmental Assessment Office. Accordingly, this hearing will avoid areas that are more properly the subject matter of these other reviews.

While the Commission can consider environmental and social impacts, its authority to do so is limited to costs that are likely to emerge as unavoidable costs for utilities and their customers. Therefore, the discussion of environmental and social costs and benefits in this hearing will concentrate on the financial impacts on BC Hydro and its ratepayers.

In a ruling during the hearing, the Commission Panel Chair reiterated that the Commission Panel is not prevented from considering environmental issues, but that its jurisdiction is limited to a consideration of costs that are likely to emerge as an unavoidable cost for BC Hydro ratepayers. Counsel for VIEC agreed that it would be acceptable to question whether VIGP and other projects are within the definition of BC Clean electricity as set out in the Energy Plan, and how VIGP fits within the BC Clean electricity policy (T3: 479, 480).

In Final Argument, BCOAPO referred to the statement of Mr. Justice Goldie where he commented:

It has been evident for some years now that environmental considerations are important in the formulation of the opinion represented by the phrase public convenience and necessity .

*British Columbia Hydro and Power Authority v. British Columbia Utilities Commission*, (1996) B.C.J. No.\*379 (B.C.C.A.) at paragraph 35 ( *BC Hydro Court of Appeal case* )

BCOAPO argued that the Commission Panel's consideration of environmental and social impacts needed to include environmental as well as financial costs, in order to comply with the ruling of the British Columbia Court of Appeal. The BCOAPO recognized that a hearing into a CPCN application should not deal in-depth with environmental considerations, and submitted that the BC Clean designation was an appropriate indicator or comparison tool for the broader range of environmental considerations in the VIGP hearing.

The Energy Plan gives the following definition of BC Clean electricity:

BC Clean electricity refers to alternative energy technologies that result in a net environmental improvement relative to existing energy production. Examples may include small/micro hydro, wind, solar, photovoltaic, geothermal, tidal, wave and biomass energy, as well as cogeneration of heat and power, energy from landfill gas and municipal solid waste, fuel cells and efficiency improvements at existing facilities. This broad definition will allow for the development of a diverse range of cost-effective and environmentally responsible resources across the province.

Policy Action #20 states Electricity distributors will pursue a voluntary goal to acquire 50 percent of new supply from BC Clean electricity over the next 10 years.

BCOAPO summarized the BC Clean status of VIGP and alternatives as follows:

- VIGP is not BC Clean (T2: 469-71);
- The Hillsborough proposal is not BC Clean (T12: 2746);
- The Maxim Power proposal is BC Clean (T13: 2927);
- The Green Island proposal is BC Clean (T13: 2962); and
- For the NorskeCanada proposal, 165 MW or 58 percent is BC Clean (Exhibit 10F).

Based on the BC Clean comparison, BCOAPO argued that VIGP is inferior to competing proposals.

In Final Argument, VIEC stated that BC Hydro plans to meet the 50 percent target through its Power Smart, Resource Smart, Green Energy and CBG programs. It calculated that the resource additions under Portfolios 1, 2 and 3 would be 64 percent, 64 percent and 78 percent BC Clean, respectively (Exhibit 40).

#### 5.10.2 Greenhouse Gas Emissions

Several intervenors raised the issue of greenhouse gas (GHG) emissions from VIGP, and the contingent liability that BC Hydro may face from possible future GHG emission regulations. VIEC included \$2 million in the total net present value costs of Portfolios 1 and 2, as the expected cost of meeting its voluntary



commitment to offset 50 percent of the GHG emissions from VIGP through 2010 (T3: 595).

In addition, BC Hydro has developed a \$3/MWh price adjustment for proposals with near-zero GHG emissions that are submitted in response to its Green Energy and CBG programs. VIEC stated that \$3/MWh equates to approximately \$10/tonne CO<sub>2</sub> equivalent, assuming a CCGT GHG emission factor of 0.36 tonnes/MWh. The federal government has stated that it will provide access to GHG offsets at less than \$15 per tonne CO<sub>2</sub> equivalent, and BC Hydro assumed a range of \$5 to \$15 per tonne for greenhouse gas liability (Exhibit 6, GSXCCC IR 8.2 and 8.6). During the hearing, VIEC indicated that its analysis of potential GHG liability for VIGP could be between effectively zero dollars and upwards of \$400 million (T7: 1432).

Dr. Bramley of the Pembina Institute appeared on behalf of GSXCCC. Dr. Bramley identified a plausible scenario of VIGP emission costs ranging from \$2 million per year during 2008-12 to \$64 million per year during 2023-31, with a present value liability over the life of VIGP of \$207 million. He recognized that there are too many policy uncertainties to calculate a precise financial liability to BC Hydro for GHG emissions from VIGP. Nevertheless, Dr. Bramley felt that the financial liability from GHG emissions is an important factor that should be included in any analysis of a full range of options for managing electricity supply (Exhibit 19B, pp. 10, 11). Dr. Bramley stated that the federal government and most experts are broadly in agreement that the most likely expected price of GHG emission offsets is \$10 per tonne (T7: 1380-82).

In Final Argument, GSXCCC suggested that the system-wide requirement for new generation could be met with zero and low GHG generation resources. GSXCCC disagreed with BC Hydro's claim that it is managing its GHG liability risk, particularly past 2010.

GSXCCC acknowledged that natural gas has a lower GHG intensity than other fossil fuels, and is a relatively preferred energy source. However, GSXCCC argued that the cost of VIGP cannot be adequately evaluated without explicit factors for its GHG liability. It acknowledged that the \$3/MWh price adjustment reflects GHG liabilities in relation to Green Energy and CBG projects, but noted that the adjustment had not been applied to VIGP.

The Society Promoting Environmental Conservation (SPEC), other intervenors and several Interested Parties expressed similar concerns about GHG emissions from VIGP.

VIEC argued that potential future GHG liabilities will not preclude the development of CCGT generation. In Reply Argument, it noted there is a range of plausible future scenarios and that it expects the magnitude of future GHG regulatory costs to be nothing like those suggested by Dr. Bramley. It also stated that BC

Hydro's purchases of Green Energy and CBG and associated emission reduction credits are intended to address its future GHG liability. It defended a portfolio approach to GHG risk management as being consistent with industry best practice.

### 5.10.3 Siting of VIGP

The Application described in some detail the site selection and screening process that VIEC used to select the Duke Point location for VIGP. The objective was to find a site that met engineering and business requirements and offered socio-economic benefits to the community, while minimizing or avoiding adverse impacts to the environment, public health and cultural-heritage values. A long list of potentially suitable candidate sites on Vancouver Island was ultimately narrowed to the selected site. The process included open houses regarding the selection process and identification of the Duke Point site as the preferred location in February 2002 in Cedar and Nanaimo and on Gabriola Island.

The Duke Point site near Pope & Talbot's Harmac Mill scored the highest in VIEC's evaluation of the short-listed sites in large part because of the reduced amount of development and lower environmental impacts that would result from the use of existing water supply and wastewater treatment infrastructure, the short pipeline connection to natural gas supply and the distance from residential areas. The site is located in an existing industrial area and further development of industrial operations at the site is consistent with the official community plan. VIEC has purchased the property, and has an agreement for the supply of water to VIGP and the treatment and discharge of effluent from VIGP (Exhibit 1, pp.'53-62).

A number of local residents submitted Letters of Comment that generally opposed VIGP (Exhibit 26). Several of the Letters of Comment expressed concern about the impact of VIGP on air quality, especially with regard to particulate emissions. Some letters noted the GHG produced by VIGP, and the contribution this would make to global climate change. Many Letters of Comment also were concerned about the cost of power from VIGP, and recommended alternatives that the writers felt would be lower cost, more sustainable and more green.

SPEC in Final Argument noted that VIEC had not included costs associated with re-location of people whose health was adversely affected by VIGP. The Islands Trust opposed VIGP on the basis that VIGP would run counter to its goal to discourage activities or projects that would reduce the natural and aesthetic values of the Local Trust Area.

#### 5.10.4 Commission Panel Determination

The Commission Panel has previously determined the scope of environmental and social matters that are to be considered within the context of the Application. The submissions on behalf of the BCOAPO have not persuaded the Commission Panel it was in error in its earlier determination.

The Commission Panel further observes that the *Environmental Assessment Act* SBC 2002 Chapter 43, (EAA, 2002) provides for an environmental assessment process for reviewable projects as defined by that Act. It prohibits, among other things, the construction of all or part of the facilities of a reviewable project unless the person first obtains an Environmental Assessment Certificate for the project or the executive director has determined that an Environmental Assessment Certificate is not required for the project.

The EAA, 2002 replaced the *Environmental Assessment Act* RSBC 1996 Chapter 119 (EAA, 1996). The latter Act (except for the waste management provisions) came into force on April 21, 1997, which was subsequent to the decision in the *BC Hydro Court of Appeal* case. The UCA does not specifically refer to environmental considerations. The enactment of the EAA, 1996 and its replacement by the EAA, 2002 have served to provide another provincial body with primary responsibility over environmental considerations (other than those that have financial impacts in the determination of public convenience and necessity), especially for reviewable projects.

In the context of the Application, the Commission Panel considers the BC Clean designation is a useful qualitative measure for comparing generation projects. From this comparison, it is evident that VIGP is less desirable from an environmental perspective than several alternative projects. Nevertheless, VIGP would not seem to impede BC Hydro's ability to acquire 50 percent of new supply from BC Clean electricity over the next ten years.

On a more quantitative basis, the Commission Panel considers that the financial analysis of VIGP and alternative projects needs to explicitly recognize potential GHG liability. At the same time, the concerns expressed by Dr. Bramley and VIEC about the uncertainties in calculating this liability appear to be well justified. Also, noting the possible range identified by VIEC, the Commission Panel is concerned that it not assign an unduly high liability figure without solid reasons indicating that such an outcome is likely.

The evidence indicates that a GHG emission offset cost of \$10 per tonne CO<sub>2</sub> equivalent is broadly supported at this time. This represents a cost of about \$3.60/MWh for VIGP (Exhibit 6, GSXCCC IR 8.6). It would

also indicate a zero cost for hydroelectric and wind, and a nominal cost for generation fueled with biomass. A typical coal-fired generation plant would have a cost of \$10/MWh. Treating potential GHG liability as a cost rather than as a credit for low GHG projects will simplify the comparison of alternatives from a least-cost or cost-effectiveness perspective. Including GHG liability costs in the comparison of alternatives will also address and give reasonable weight to the greenhouse gas emissions concern that several parties raised. **The Commission Panel determines that a GHG emission offset cost of \$3.60/MWh in real 2002 dollars should be used in the analysis of VIGP.**

The proposed site for VIGP was selected by a thorough process that included public consultation. The Environmental Assessment Office is responsible for identifying restrictions and mitigation requirements that will apply for the use of the site. **The Commission Panel concludes that, in the context of its review of the Application, the proposed site is suitable for the project.**

#### 5.11 VIGP Cost of Service

The Commission Panel recognizes that there remains considerable uncertainty in the costs of VIGP, especially gas costs, gas transportation tolls and capital costs. The utilization rate for VIGP is also uncertain. Therefore, the Commission Panel has developed two plausible scenarios that cover the likely range of the cost of electricity supply from VIGP. Table 5.4 shows costs for the two scenarios for 2010/11 that are taken from the 25-year cost of service schedules that are attached as Appendix A to the Decision.

Table 5.4

#### VIGP Cost of Service in 2010/11 (Millions of Nominal Dollars)

	<u>Lower Cost</u>	<u>Higher Cost</u>
Capital charges, Section 5.5	28	32
OMA cost, Section 5.6	17	17
Gas commodity, Section 5.7	72	90
Motor fuel tax, 7% gas commodity	5	6
GSX gas transportation, Section 5.9	23	46
TGVI gas transportation, Section 5.9	10	0
GHG offset cost, Section 5.10	8	7
<b>Total Cost of Service</b>	<b>163</b>	<b>199</b>
Annual Energy, GWh, Section 5.8	1,857	1,741
Unit Energy Cost, \$/MWh	88	114
Unit Energy Cost, 2002 \$/MWh	73	96
25-Year Average Cost, 2002 \$/MWh	<b>69</b>	<b>103</b>



**IN THE MATTER OF**

**BRITISH COLUMBIA TRANSMISSION CORPORATION**

**AN APPLICATION FOR A  
CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY  
FOR THE VANCOUVER ISLAND TRANSMISSION  
REINFORCEMENT PROJECT**

**DECISION**

**July 7, 2006**

**Before:**

**Robert H. Hobbs, Chair  
Nadine F. Nicholls, Commissioner  
Liisa A. O'Hara, Commissioner**

context and the full range of alternatives under consideration. Further, in the case of a project requiring regulatory approval, an applicant needs to continue to consider and compare other alternatives to the recommended alternative until the evidentiary phase of a regulatory proceeding closes, as such consideration might lead to a change in the applicant's recommended alternative.

The Commission Panel endorses the general approach to project alternatives and route options set forth by BCTC in Exhibit B1-11, IRAHVOL 1.13.1, and concludes that BCTC's investigation of alternatives, with the exception of route options through South Delta, was appropriate. The Commission Panel is concerned that BCTC's investigation of route options through South Delta was influenced by either undisclosed and untested preferences or commitments that were made for reasons that were not disclosed in this proceeding. For similar reasons, the Commission Panel is concerned that BCTC did not follow the evaluation approach in Exhibit B1-11, IRAHVOL 1.13.1 with respect to route options through South Delta. The Commission Panel is also of the view that Option 3 may not have received adequate advance evaluation due primarily to the lack of cooperation from Delta and not the investigation approach of BCTC. These limitations aside, the Commission Panel is able to make determinations regarding Option 3 based on the record in this proceeding. These issues are discussed further in the Commission Panel's detailed review of the VITR route options found in Section 6 of this Decision.

The Commission Panel accepts that the record in this proceeding is adequate to select a project and route option from the alternatives and to conclude that the selected project and route option is in the public interest.

### **3.2 Treatment of Socioeconomic and Other Non-Financial Considerations**

During the proceeding, there was some discussion of the appropriate treatment of socioeconomic and other non-financial impacts in BCTC's evaluation of alternatives, and in the Commission Panel's deliberations regarding whether VITR is in the public interest.

The Application contained several tables that ranked alternative technologies and route options using a suite of financial, non-financial and socioeconomic criteria, including cost, reliability, community impacts, environmental effects, First Nations impacts, implementation risk, and regulatory risk (e.g., Exhibit B1-1, Table 4-2, p. 102). For each criterion, BCTC used a seven-point scale and professional judgment to rate the relative performance of each alternative. An overall rating was also developed based on a general assessment of each alternative. In response to BCUC 4.204.0 (Exhibit B1-61), BCTC refined its evaluation framework and added comparisons of other route alternatives and VIC. At the request of the Commission, the revised evaluation framework included an overall ranking of alternatives based on an explicit weighting and aggregation of the ratings for individual evaluation criteria.

In its Application, BCTC indicated that it considered environmental and socioeconomic issues would be dealt with as part of the comprehensive environmental review and approval process that would be required, and indicated it did not intend to submit more detailed information on potential environmental effects as part of its CPCN Application. Specifically, BCTC noted:

“The VITR Project is subject to detailed environmental assessment and approval processes (including the review and approval of socioeconomic effects) under the British Columbia *Environmental Assessment Act* (BCEAA), the *Canadian Environmental Assessment Act* (CEAA), the US federal *National Environmental Policy Act* (NEPA), and the Washington State *Environmental Policy Act* (SEPA). BCTC has identified the environmental and socioeconomic issues raised as part of the public consultation process in this Application. However, given the comprehensive environmental review and approval processes that BCTC must satisfy, BCTC is not submitting detailed information on the potential environmental effects of the Project as part of this Application. BCTC anticipates that any CPCN for the VITR Project will be conditional upon receipt of the permits and regulatory approvals necessary to satisfy Canadian and US environmental assessment and protection requirements” (Exhibit B1-1, p. 75).

Part of IRAHVOL’s filed evidence contained a so-called multiple account evaluation of the alternatives (Exhibit C34-6). During the Pre-hearing Conference, IRAHVOL also noted the importance of a multiple account evaluation for the Commission process (T2:247-257). In Argument, IRAHVOL again submits that a multiple account evaluation should have been included in BCTC’s review of alternatives (IRAHVOL Argument, p. 5).

In the Pre-hearing Conference, Delta also suggested that environmental and socioeconomic matters are clearly of concern to parties in the proceeding, and there is concern amongst some parties about what is the most appropriate process for dealing with those. Delta suggested there should be an opportunity for evidence and cross-examination on environmental and socioeconomic impacts of the projects, regardless of the outcome, "...rather than relying solely on the somewhat less transparent process within the environmental review process in British Columbia, which deals more with consultation and where you don't have clear mechanisms for challenged cross-examination and things of that nature" (T2:284).

In the Pre-hearing Conference, counsel for Sea Breeze also suggested that "...to the extent that there are material differences between, say, the VIC and/or Juan de Fuca projects and the VITR project in terms of their environmental and/or socioeconomic impact, which I guess represent relative benefits or advantages of one project over the other, or others, from the perspective as we've heard of local residents or other stakeholders for that matter, Sea Breeze submits that the Commission can and should consider the effects of those material differences and take them into account in effectively globally assessing the relative merits of the competing proposals" (T2:290).

The Islands Trust and the Tsawwassen Homeowners Association both agreed with the comments of IRAHVOL and Sea Breeze. The HTG submitted "...whether or not we state that we are in favour of the Panel reviewing socioeconomic and environmental issues, we are in fact basically saying those are issues that the Panel is going to have to consider at least through the aboriginal lens" (T2:293).

In response, BCTC indicated it would strongly prefer that that the issue not be characterized as a matter of Commission jurisdiction, but rather as a determination of what is appropriate in terms of Commission practice and procedure in this particular instance given that there will be a detailed review of a full range of socioeconomic and environmental issues under the BC CEA process (T2:296).



**Commission Determination**

The Commission Panel concurs that socioeconomic and other non-financial considerations may be relevant issues in its determination of the public interest. The Revised Hearing Issues List (Exhibit A-71) included several questions related to the relative socioeconomic impacts of VITR, VIC and JdF, including safety, reliability, health, aesthetic, recreation, habitat, First Nations and construction impacts (e.g., Issues 4.2, 7.2, and 9.3).

Given the comprehensive environmental review and approval processes that BCTC must satisfy, the Commission Panel agrees with BCTC that a detailed examination of socioeconomic impacts is not necessary for the Commission's review, and is potentially duplicative of other regulatory processes. However, a high-level review of the relative socioeconomic impacts of project alternatives is still necessary for the Commission to determine whether a particular project is in the public interest. This review is required for four reasons. First, the Commission Panel must be satisfied that BCTC has reasonably considered other alternatives that may have similar financial costs for ratepayers but lower socioeconomic impacts or better non-financial performance. Second, the Commission Panel may be required to make determinations among projects with similar costs but different kinds of non-financial and socioeconomic impacts. For example, two projects may have similar costs, but one may perform better in terms of environmental impacts while the other performs better in terms of aesthetic impacts. Such considerations may be relevant to the Commission's determination of the overall public interest. Third, the Commission Panel must be assured that the recommended alternative is likely to receive environmental approvals in a timely fashion and that expected compensation or mitigation costs would not render the alternative more costly than another viable alternative. Finally, the Commission Panel could consider modest increases to the project costs in order to reduce socioeconomic impacts and provide other non-financial benefits that may reduce financial or schedule risks associated with the project.

In terms of the form of the evaluation, the Commission Panel agrees with IRAHVOL that some form of multiple account presentation of key socioeconomic and other non-financial impacts can be a useful tool, both during BCTC's selection and consultation process, as well as during the

review process before the Commission. The Commission Panel notes that a multiple account evaluation is simply a presentation of different kinds of impacts and the types of impacts and manner in which they are presented may reasonably vary depending upon the context and available information.

The Commission Panel does not consider a detailed examination of each account as necessary in all situations. Further, impacts may reasonably be evaluated using a combination of quantitative inputs and subjective assessments. Performance may also be characterized using summary scales for ease of presentation and comparison. This approach can be very useful for screening and for determining whether more detailed evaluation of certain impacts is required in order to make a final selection among alternatives. To that end, the Commission Panel accepts Table 4-2 found at page 102 of BCTC's Application is a type of multiple account evaluation. The Commission Panel also finds the refinements made in response to BCUC 4.204.0 (Exhibit B1-61) were useful in its deliberations.

The Commission Panel encourages BCTC to consider improvements to its evaluation process for future CPCN Applications. Specifically, as suggested in BCUC 4.204.0 (Exhibit B-61), the Commission Panel considers it important for BCTC to develop and use more explicit definitions of evaluation criteria, and to take special care to eliminate potential double counting among criteria. In addition, while the Commission Panel supports the use of summary scales or scores for representing individual impacts, the Commission Panel also notes the importance of clearly defining scales, whether these are based solely on subjective assessments or on underlying quantitative information. Finally, the Commission Panel considers the presentation of overall scores based on a formal weighting and aggregation of the performance on individual criteria is a useful input for decision making. The Commission Panel acknowledges that the weighting and aggregation of individual impacts may involve judgment and other methodological challenges but still finds this useful in order to understand the proponent's views of the relative importance of different impacts. The Commission Panel also notes that these evaluation techniques can be very useful in consultation processes. The Commission Panel is aware that there is extensive literature on these evaluation techniques and that many similar techniques have been employed by BC Hydro as part of its IEP and water use planning processes.