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**Via Courier**

British Columbia Utilities Commission  
6 Fl., 900 Howe St.  
Vancouver, BC V6Z 2N3

**Attention: Rob Pellatt, Commission Secretary**

Dear Sirs/Mesdames:

**Re: TRAHVOL Application for Reconsideration of VITR Decision**

This letter provides BCTC's response to TRAHVOL's October 11 Reconsideration Application (the "Reconsideration Application," the "Application").

As indicated in the Commission's letter of October 12, the Commission generally applies the following criteria to determine whether or not a reasonable basis exists for allowing reconsideration:

- the Commission has made an error in fact or law;
- there has been a fundamental change in circumstances or facts since the decision;
- a basic principle had not been raised in the original proceeding; or
- a new principle has arisen as a result of the decision.

BCTC has found it difficult to clearly identify the specific grounds on which TRAHVOL applies for reconsideration, or the criteria that TRAHVOL says the Commission should apply to its request. BCTC has attempted to identify these grounds and criteria from TRAHVOL's materials; however, if TRAHVOL's Reply raises issues that have not been addressed in this submission, BCTC reserves the right to seek leave from the Commission to provide a further response to these additional issues.

TRAHVOL's grounds for reconsideration appear to be as follows:

- 1) the Commission did not give adequate consideration to the non-financial evidence on Option 3 (para. 2) and, in particular, the Commission erred in not providing residents and other stakeholders the opportunity to state their preference between Option 1 and Option 3 (para. 4);
- 2) the Commission erred by not directing BCTC to consider other possible routes for Option 3 stating that BCTC's proposed Option 3 route would expose a new set of residents to EMF and the Commission erred by accepting that EMF would impact these residents (para 14);
- 3) the Commission erred by accepting BCTC's submission that Option 5 was infeasible (para. 18);
- 4) the Commission erred by not applying the precautionary principle with regards to the potential negative health effects of EMF (para. 40);
- 5) the Commission erred in giving little or no weight to concerns arising from EMFs (para. 40); and
- 6) the Commission erred in not selecting the most cost-effective alternative and that an additional cost saving of between \$13 million and \$17 million as well as a significant number of non-financial benefits could be derived by removing 1L18 (para. 44).

In general, BCTC submits that TRAHVOL's Application does not identify potential errors in the Commission's Decision but simply disagrees with the Commission's findings of fact or the weight that it placed on various factors in reaching its consideration that Option 1 was in the public convenience and necessity. In other places, TRAHVOL simply misconstrues or mischaracterizes the Decision. None of the materials that TRAHVOL seeks to rely on in support of its Application are new materials that were not available prior to the time the Commission reached its Decision.

Each of the grounds identified above are addressed in turn below.

**1) The Commission did not give adequate consideration to the non-financial evidence on Option 3 (para. 2) and, in particular, the Commission erred in not providing residents and other stakeholders the opportunity to state their preference between Option 1 and Option 3 (para. 4)**

TRAHVOL submits that the Commission erred by not providing residents and other stakeholders the opportunity to state a preference between Option 1 and Option 3. It goes

on to submit that at no time did BCTC attempt to conduct any formal or informal survey of Tsawwassen residents. Finally, it attempts to introduce new evidence in the form of letters from the Municipal Solicitor of the Corporation of Delta and the Delta School District, and a petition conducted by TRAHVOL.

This ground appears to be based on an alleged error of fact or law in the Commission's Decision. To be clear, BCTC submits that the potential choice between Option 1 and Option 3 was an issue throughout the VITR proceedings; a new principle has not arisen since the Commission Decision; nor has there been a fundamental change in circumstances or facts since the Decision.

BCTC submits that the Commission did not err in either fact or law in its consideration of the non-financial evidence on Option 3. The Commission engaged in a detailed review of various non-financial aspects of the route options, including Option 3.<sup>1</sup> The Commission also considered evidence of stakeholder preferences where this was provided.

While evidence of stakeholders preferences may be of some value if it is provided, BCTC is not under any legal obligation to present evidence on the preferences of local stakeholders and, in particular, is not under any obligation, as TRAHVOL suggests, to present either formal or informal survey results on the preferences of these stakeholders between and amongst alternative route options.<sup>2</sup> There is also no legal requirement under section 45 or 46 of the *Utilities Commission Act* for the Commission to have this information; this lies wholly within the Commission's discretion.<sup>3</sup> BCTC does find TRAHVOL's submission on this ground somewhat ironic given that when BCTC asked approximately 60 members of TRAHVOL through IRs for their preference between Options 1 and 2, the individuals who responded refused to state a preference.<sup>4</sup> TRAHVOL witnesses (six members) also refused to state a preference during the hearing.<sup>5</sup>

BCTC did attempt to gather qualitative information on local preferences during its consultation process. The Commission did not accept some of BCTC's conclusions on this qualitative input.<sup>6</sup> However, the Commission went on to indicate that,

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<sup>1</sup> Decision, pp. 61 to 81 and 82 to 101.

<sup>2</sup> British Columbia Utilities Commission, *Certificates of Public Convenience and Necessity: CPCN Application Guidelines* (March 2004).

<sup>3</sup> *Utilities Commission Act*, R.S.B.C. 1996, Chap. 473.

<sup>4</sup> Ex. C3-27 (e.g. BCTC IR 1.10.1, 1.15.1, 1.23.1, 1.26.1, 1.31.1).

<sup>5</sup> Tr. 23, p. 4327, l. 16 to p. 4328, l.3, p. 4334, l. 16 to p. 4335, l. 5, p. 4367, l. 14 to p. 4368, l. 12, p. 4370, l. 19 to p. 4371, l.2, p. 4380, ll.2-26, and p. 4384, l.10 to p. 4385, l.14.

<sup>6</sup> Decision, p. 89.

notwithstanding this, it was in a position to make a determination on the appropriate route in the Tsawwassen area.<sup>7</sup> In doing so, the Commission clearly considered the preferences that had been expressed - and the preferences that had not been; notwithstanding that stakeholders were given the opportunity to do so. Ultimately, the Commission found that the cost-effectiveness of Option 1 versus Option 3 outweighed other public interest considerations regarding the various non-financial considerations of these options and that further evidence on non-financial considerations was not necessary. BCTC submits that the Commission has the full authority to make this judgment under section 45 of the *Utilities Commission Act* and, in exercising this judgment, it did not commit an error of either fact or law.

BCTC submits that the Commission should not rely on TRAHVOL's "new evidence" on this ground. The Corporation of Delta was expressly asked for its preference between Option 1 and 3 during the hearing process:

#### **BCTC 1.9.7**

- (Q) Please indicate whether, given the Corporation of Delta's concerns with underground construction in municipal streets, this means that if the British Columbia Utilities Commission ultimately believes the best two options for the VITR Project **are overhead construction on the existing right of way and underground construction in municipal streets, the Corporation of Delta would prefer that the project be constructed overhead on the existing right of way?**
- (A) It must be noted that The Corporation of Delta does not have a concern with typical underground utility construction in municipal streets, however, the proposal brought forward by BCTC in this application is not typical for municipal streets. The constraints placed upon any municipal roadway by the system and methods presented by BCTC (2 duct banks requiring 10 metres of separation due to the thermal heat created from the system) would be of concern, in my opinion, to most municipalities. **Having said that, there are currently a number of viable routing options available for consideration and I do not wish to comment on only two of the routes prior to the Commission having an opportunity to consider all the relevant facts.**"<sup>8</sup> (emphasis added)

There is no indication in this response that the Corporation of Delta's response was in any way hampered in stating a preference because of BCTC's consultation efforts or

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<sup>7</sup> Decision, pp. 40-41

<sup>8</sup> Ex. C5-10, BCTC 1.9.7

otherwise; it simply wanted to wait until the IR and hearing process were complete. Ultimately, Delta participated fully in the VITR proceeding and submitted in-depth submissions showing its detailed understanding of each of Options 1, 2, and 3. In Final Argument, Delta's expressed preference was for Option 4 and, failing that, perhaps Option 5. Given that Delta had full opportunity to express the desired preference, BCTC submits that the Commission cannot be faulted for not considering evidence that the Corporation of Delta refused to or chose not to provide.<sup>9</sup>

The Delta School District was clearly aware of and had adequate opportunity to participate in the Commission's proceedings.<sup>10</sup> On September 8, 2005, the Delta School District applied for and obtained intervenor status.<sup>11</sup> Following this, it continued to review the information generated by the Commission proceedings.<sup>12</sup> Notwithstanding this, it did not actively participate in the VITR process. Finally, on March 7, 2006, the Delta School District filed a submission asking that the existing 138 kV lines be removed from Tsawwassen.<sup>13</sup> At no time did the Delta School District express any inability to understand the materials that it had been provided with; it merely indicated that it did not consider it to be its role to form a conclusion on the questions in issue.<sup>14</sup>

Finally, BCTC submits that there was more than adequate opportunity for anyone in the Tsawwassen area, including residents off the existing ROW, to participate in the Commission's proceedings, and to express whatever preference they may have had. The Commission held a Town Hall session in Tsawwassen to allow residents to express their views. Twenty-seven people chose to do so, of whom eight lived off the ROW. None of these speakers expressed a preference for Option 3.<sup>15</sup> Twenty-two individuals from Tsawwassen registered as Intervenors and over sixty registered as Interested Parties in the VITR proceeding itself. To the extent that any of these parties expressed their "preference", the Commission had this information before it.<sup>16</sup> TRAHVOL obtained

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<sup>9</sup> Corporation of Delta Final Argument, para. 48 to 223

<sup>10</sup> Ex. B1-41, TRAHVOL 1.93.1.

<sup>11</sup> C45-8.

<sup>12</sup> Exhibit C45-4, p.1.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> Tr. Vol. 5.

<sup>16</sup> Intervenor Registrations of Tsawwassen Residents (Exhibits C1-1, C4-1, C8-1, C9-1, C11-1, C14-1, C15-1, C16-1, C19-1, C21-1, C23-1, C24-1, C36-1, C37-1, C38-1, C40-1, C42-1, C43-1, C44-1, C47-1, C51-1, C55-1); Interested Party Registrations of Tsawwassen Residents (Exhibits D-2, D-3, D-4, D-5, D-6, D-7, D-9, D-10, D-11, D12, D14, D-15, D-16, D-17, D-18, D-19, D-20, D-21, D-22, D-23, D-24, D-25, D-26, D-27, D-28, D-29, D-30, D-31, D-32, D-33, D-34, D-35, D-36, D-37, D-38, D-39, D-40, D-41, D-42, D-43, D-44, D-45, D-46, D-47, D-48, D-49, D-50, D-51, D-52, D-53, D-54, D-55, D-56, D-57, D-58, D-59, D-60, D-61, D-62, D-63, D-64, D-65, D-66, D-67).

approximately sixty affidavits from Tsawwassen residents and filed these as part of its Intervenor Evidence.<sup>17</sup> TRAHVOL clearly could have sought affidavits or other forms of input from other residents and chose not to do so. Ultimately, no resident off the ROW has sought leave to appeal the Decision on the basis that they did not get adequate notice or were not given the opportunity to be heard. Accordingly, again, BCTC submits that the Commission cannot be faulted for not compelling witnesses, including TRAHVOL's witnesses; to express preferences they either did not have or chose not to give.

In summary, BCTC submits that the Commission did not err in fact or law in not requiring further evidence on stakeholders' preferences between Option 1 and Option 3. Further, even if these preferences had been given, there is no indication that these would have been material, particularly given the Corporation of Delta's strong opposition to Option 3. In BCTC's submission, stakeholder preferences were only one of a myriad of issues and the Commission would still have had to consider the other non-financial impacts and relative cost-effectiveness of each of Options 1, 2 and 3. Ultimately, the Commission's Decision was not based on preference.

**2) The Commission erred by not directing BCTC to consider other possible routes for Option 3 stating that BCTC's proposed Option 3 route would expose a new set of residents to EMF and the Commission erred by accepting that EMF would impact these residents (para 14).**

BCTC submits that this ground misconstrues or mischaracterizes the Commission's Decision. The Commission did not choose Option 1 over Option 3 on the basis of EMF concerns. To the contrary, the Commission held that the science does not support the fears expressed regarding EMF and the Commission expressly stated that health concerns regarding EMF was not a factor in choosing Option 1.<sup>18</sup>

The Commission's comments regarding exposing new residents to EMFs were not made in the context of choosing between Option 1 and 3 but in the context of responding to TRAHVOL's suggestion that one way to mitigate EMFs was to relocate the lines:

Regarding TRAHVOL's suggestion that a different VITR route through Tsawwassen streets would mitigate EMF exposure, the Commission Panel notes that an ac transmission line will create EMF regardless of its location so any impact will simply be transferred to a different location. In the case of Option 3 a different, and possibly larger group of Tsawwassen residents would experience increased EMF exposure. Further, the Commission Panel notes residents along a new ROW would have purchased their properties prior to the new lines and

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<sup>17</sup> Ex. C3-19A, Appendix A; Ex. C3-19B.

<sup>18</sup> Decision, p. 71; Decision p. 92.

would therefore not have benefited from the combinations of lower prices and larger lot sizes experienced by the majority of homeowners along the current ROW.<sup>19</sup>

Ultimately, the Commission determined that no further mitigation was necessary.<sup>20</sup>

Further, BCTC submits that the Commission was well aware of the general non-financial and financial considerations regarding Option 3 regardless of where it might be located and expressly determined that it did not require any further refinements of Option 3 to address the choice between construction in city streets versus overhead construction on the existing ROW. Again, this determination is wholly within the exercise of Commission's discretion and is not an error of fact or law.

**3) The Commission erred by accepting BCTC's submission that Option 5 was infeasible.**

TRAHVOL makes various references to support its submission that the Commission erred by accepting BCTC's submission that Option 5 was infeasible (para. 19-23). The majority of these considerations were before the Commission when it made its Decision and BCTC submits that TRAHVOL is simply attempting to reargue this issue. The only new evidence that was not available at the time of the VITR proceeding is the issuance of an Environmental Assessment Certificate for the Deltaport Project. BCTC submits that this is irrelevant. BCTC never argued that the environmental considerations regarding Option 5 were insurmountable, only that these were more significant than those associated with Options 1, 2, 3 and 7.<sup>21</sup> This was only one of many considerations regarding Option 5. An award of an EAC for the Deltaport Project is meaningless in this context; Deltaport did not have other alternatives available to it with less impact. Accordingly, BCTC submits that TRAHVOL has not established a reasonable basis for suggesting that the Commission erred in fact or law in accepting BCTC's submission that Option 5 was infeasible.

TRAHVOL then goes on to attempt to introduce new evidence regarding a new "Option 5B". None of this evidence is new evidence that either was not available at the time of the Commission's proceedings or has arisen since the Commission's proceedings. TRAHVOL had the full opportunity to both ask IRs and cross-examine BCTC on alternative proposals just as Mr. Holmsen did for Option 5A, Mr. Cross did for his version of Option 5, and the Corporation of Delta did for Option 4A. TRAHVOL also had the full opportunity to lead evidence on this Option if they had chosen to do so.

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<sup>19</sup> Decision, p. 72.

<sup>20</sup> Decision, p. 71.

<sup>21</sup> BCTC Final Argument, paras. 172-181.

BCTC submits that TRAHVOL should not be given the opportunity to now bring forward alternatives that could have been fully explored during the Commission process.

Notwithstanding the above, and without attempting to comment in full on TRAHVOL's Option 5B, BCTC's brief response to this option is as follows:

1. TRAHVOL's suggestion to build overhead lines out from shore would require a new cable terminal station. This would require Deltaport to provide sufficient space (100m x 60m at a minimum) within their offshore facility for the cable terminal including a control building and cable pressurizing equipment. Alternately, a new separate marine platform would have to be constructed which would involve additional environmental impacts. The offshore transmission lines themselves would require large cassion or pile foundations and protection from wave action and salt spray.
2. The proposed route raises environmental concerns in both the marine and uplands locations near the shore. While construction of large structures near shore and over water rather than underwater may reduce the temporary effects on eelgrass habitat from submarine cable installation, there would be serious concerns about the potential effects of the wires and structures on birds and aesthetics. Construction of large foundations and a cable terminal station over water would also introduce permanent habitat losses not present in the approved project.
3. The seismic performances of the proposed route would be comparable to Option 5, including geophysical instability on the Fraser delta in both the submarine and near shore upland locations, especially on the steep slopes in the marine locations west and north of the B.C. Ferries terminal. Ground stabilization would not be proposed as it is considered impractical. BCTC would still consider this route to be seismically unacceptable from a reliability perspective. The consequences of a major seismic event are expected to be significantly more severe than the approved Option 1. This would include the offshore overhead structures and cable terminal station.
4. Easements on B.C. Rail property and marine right-of-way would be acquired.
5. A full new EA process would likely have to be undertaken, including First Nations consultation.
6. The proposed route passes over the Pole 1 cables. This practice is highly undesirable since it introduces additional operating risks from cable abrasion and makes it very difficult to repair a faulted cable. It may also reduce the cable rating due to mutual heating effects. It would also lead to environmental issues

when the underlying cables are to be removed since a long portion of the cable would have to remain in place. To avoid crossing the Pole 1 cables would require the construction of a new terminal at the Cook Cove HVDC terminal and expansion of the existing HVDC ROW on Galiano Island.

7. The routing of submarine cables directly within an active port and berthing facility is unacceptable from a reliability perspective due to the risk of damage from future dredging, anchor incident or dropped cargo. This location would also limit future expansion of Deltaport.
8. In BCTC's assessment, Option 5B as proposed by TRAHVOL would cost more to construct than Options 1, 2 or 3. Among the costs that TRAHVOL has failed to consider are costs for a Deltaport terminal station including property purchase, the cost of a new terminal station on Galiano Island, costs for new terrestrial and marine right-of way, the extra cost for building along the Deltaport road allowance and B.C. Rail property, and various non-construction related costs.

Based on these considerations, BCTC believes that the proposed Option 5B is, in fact, worse than the proposed Option 5 and the modified Option 5A that were explored during the Commission process.

**4) The Commission erred by not applying the precautionary principle with regards to the potential negative health effects of EMF.**

This ground appears to be argued solely as an error of fact or law.

BCTC submits that there is no legal requirement in the *Utilities Commission Act* for the Commission to apply either the "precautionary principle" or "prudent avoidance", regardless of the specific meaning of these terms. However, if either of these "principles" does need to be taken into account in considering the public convenience and necessity, the Commission did so:

The Commission Panel finds that terms such as "the precautionary principle" and "prudent avoidance" are open to a range of interpretations, and is therefore not adopting either term in its determinations. Consistent with previous Commission decisions, the Commission Panel supports efforts to reduce EMF levels where mitigation costs are not significant or where the benefits clearly exceed the cost of mitigation measures. In this proceeding, the evidence does not show that the additional reductions attainable through shielding, deeper burial or taller poles would have positive health impacts and therefore the Commission Panel concludes that the costs of additional mitigation measures to further reduce EMF

exposure along the existing ROW are not justified. Mitigation measures may reduce the level of concern and worry experienced by nearby residents. However, while this benefit is not insignificant, **the Commission Panel concludes that it does not warrant actions beyond the very low cost measures that BCTC has included in its VITR design.** [Emphasis in original.]

Notwithstanding this, the Commission directed BCTC to file a public report with the Commission every two years, or sooner if there are major developments in the field, that summarizes the latest results of EMF risk assessments, etc.<sup>22</sup>

Accordingly, the Commission did not ignore whether further steps should be undertaken to reduce EMF. Rather, it simply refused to adopt either of two terms that had been subject to vastly different interpretations. Ultimately, the Commission's approach is consistent with the World Health Organization's approach that only very low-cost measures are justified to reduce EMF.<sup>23</sup>

**5) The Commission erred in giving little or no weight to concerns arising from EMFs**

Again, this appears to be restricted to an argument that the Commission erred in fact or law. However, since TRAHVOL also attempts to rely on materials that were not part of the record before the Commission, BCTC will also address this evidence.

BCTC submits that the Commission did not err in fact or law in giving little or no weight to concerns arising from EMFs. The Commission heard detailed evidence on the health effects of EMF. On the basis of this evidence the Commission determined that:

The Commission Panel acknowledges that the EMF-related health concerns described by Intervenors living near the existing transmission line may be causing stress and anxiety in some residents, but concludes that the science does not support their fears. The Commission Panel finds Dr. Havas' evidence to be selective and her opinions unconvincing. Dr. Havas conducted one comprehensive study of the pre-2000 research but did not review the more recent scientific research and therefore could not support her position that recent scientific research indicated a need for lower exposure guidelines. **In the absence of convincing new evidence that indicates that change is warranted and/or**

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<sup>22</sup> Decision, p. 72.

<sup>23</sup> Ex. B1-109, WHO "Framework Guiding Public Health Policy, Options and Areas of Scientific Uncertainty Dealing with EMF", p. 15, Section 4.1.

**imminent, the Commission Panel concludes that it should not impose lower EMF exposure standards on VITR.** (emphasis in original) <sup>24</sup>

TRAHVOL does not suggest the Commission erred on the record in reaching this determination. Rather, it attempts to rely on new materials in support of its position.

BCTC submits that TRAVHOL misconstrues or has mischaracterized the Canadian Cancer Society's ("CCS") position. However, regardless of whether this is the case, there is nothing in the CCS's materials that the Commission has not already considered; there is nothing in TRAHVOL's materials that suggests that the CCS is an expert body whose view's should be preferred to the views of the numerous expert international and national bodies that the Commission already considered.<sup>25</sup> To the contrary, the CCS acknowledges that it is not.<sup>26</sup> Further, this is not new evidence, if TRAHVOL had wanted to put the views of the CCS forward during the VITR proceeding, it could have done so.

Similarly, there is no indication that the Benevento Resolution is based on any new evidence since the Decision or that the opinion of its signatories, which includes Dr. Havas, should be preferred to the detailed evidence heard by the Commission during the proceeding. To the contrary, the "International Commission for Electromagnetic Safety" expressly holds itself out as "promoting research to protect public health from electromagnetic fields."<sup>27</sup> BCTC submits that this selective approach is wholly inconsistent with the commonly accepted "weight of the evidence" approach which underlies independent scientific research efforts and analysis and which was the subject of detailed testimony during the proceeding. Further, the Benevento Resolution acknowledges on its face that it is simply an endorsement and extension of the "2002 Catalina Resolution" which was passed by a smaller group of many of the same individuals in September 2002. Again, TRAHVOL had every opportunity to put the Catalina Resolution before the Commission during the proceeding if it had wanted to do so.

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<sup>24</sup> Decision, p. 72.

<sup>25</sup> Ex. B1-37, Report of Dr. Erdreich, Section 3.

<sup>26</sup> TRAHVOL Reconsideration Application, Appendix G, Letter from Canadian Cancer Society dated September 8, 2006.

<sup>27</sup> ICEMS Mission Statement, <http://www.icems.ev/>

**6) The Commission erred in not selecting the most cost-effective alternative and that an additional cost saving of between \$13 million and \$17 million as well as a significant number of non-financial benefits could be derived by removing 1L18**

TRAHVOL's proposal, regardless of the specific configuration, to remove 1L18 in its entirety from ARN to SAL while retaining 1L18 in its entirety from VIT to SAL was explored during the VITR proceeding.<sup>28</sup> TRAHVOL does not make any new submissions on this issue other than reliance on the statements attributed to the CCS.<sup>29</sup> These have been fully addressed above. Parenthetically, TRAHVOL suggests that this alternative would provide significant reliability improvements to the Gulf Islands supply. This is not the case.<sup>30</sup>

**ALL OF WHICH IS RESPECTFULLY SUBMITTED**

Yours truly,

**FASKEN MARTINEAU DuMOULIN LLP**

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AWC/klh

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<sup>28</sup> Tr. 11, p. 1687, l. 24 to p. 1695, l. 14; Tr. 14, p. 2322, l.24 to p. 2324, l.5; Tr. 15, p. 2533, l.4 to p. 2536, l.6; and Tr. 16, p. 2650, l.26 to p. 2652, l.23, and Tr. 18, 3080-3090.

<sup>29</sup> TRAHVOL Final Argument, paras. 143-147; IRAHVOL Final Argument, pp. 53-55.

<sup>30</sup> Ex. B1-47, Sea Breeze IR 2.21.1 EENS Study for Vancouver Island Transmission Reinforcement Project (Part III: Reliability Analysis for Power Supply to the Gulf Islands).