

BRITISH COLUMBIA UTILITIES COMMISSION
IN THE MATTER OF THE UTILITIES COMMISSION ACT
S.B.C. 1996, CHAPTER 473

and

Re: British Columbia Transmission Corporation
("BCTC"} Project No. 3698395 /Order No. G-70-05
Certificate of Public Convenience and Necessity
("CPCN") Application Vancouver Island Transmission
Reinforcement Project ("VITR")

and

Sea Breeze Pacific Regional Transmission System, Inc.
for a Certificate of Public Convenience and Necessity for

Vancouver, B.C.
February 16, 2006

PROCEEDINGS AT HEARING

BEFORE:

R. Hobbs,	Chairperson
N. Nicholls ,	Commissioner
L. O'Hara,	Commissioner

VOLUME 16

APPEARANCES

G.A. FULTON	Commission Counsel
S. CARPENTER	British Columbia Transmission Corporation
J. LANDRY J. HERBERT	Sea Breeze Pacific Regional Transmission System Inc Sea Breeze Victoria Converter Corporation
C.W. SANDERSON C. GODSOE H.M. CANE	British Columbia Hydro and Power Authority
S. HANSEN R.B. WALLACE	Joint Industry Steering Committee
D. CRAIG	Commercial Energy Consumers
R. GATHERCOLE	B.C. Old Age Pensioners' Organization, Council Of Senior Citizens' Organizations, Federated Anti-Poverty Groups of British Columbia, End Legislated Poverty, B.C. Coalition Of People With Disabilities, Active Support Against Poverty, and Tenants' Rights Action Coalition
J. YARDLEY	Corporation of Delta
J. RISTOW B. KUDZIN	South Delta Secondary High School Parent Advisory Council
D. POLLACK	City of White Rock
S. JAMES R. HARDING	Islands Trust
C. BAZZARD	Owners of Strata Plan 905 and Shareholders of Maracaibo Estates Limited
J. ARVAY	Tsawwassen Residents Against Higher Voltage Overhead Lines
D. AUSTIN	Island Residents Against Higher Voltage Overhead Lines
K. HOLMSEN	On His Own Behalf
S. BOYCE	On Her Own Behalf
K.H. NAM	On His Own Behalf
B. CAMPBELL	On His Own Behalf

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CAARS

VANCOUVER, B.C.

February 16, 2006

(PROCEEDINGS RESUMED AT 9:01 A.M.)

THE CHAIRPERSON: Please be seated.

VITR Project Engineering and Costing Panel

DON GAMBLE, Resumed:

THOMAS WELLS, Resumed:

DAMIAN DUNN, Resumed:

BRUCE BARRETT, Resumed:

ROSS NELSON, Resumed:

ALLEN MacPHAIL, Resumed:

GARRY BARNETT, Resumed:

THE CHAIRPERSON: Mr. Fulton?

MR. FULTON: Good morning, Commissioners. Mr. Carpenter has some preliminary matters, and then the cross-examination will commence with Mr. Holmsen's cross-examination of this panel.

THE CHAIRPERSON: Thank you.

MR. CARPENTER: Good morning, Mr. Chair, Commissioners.

I have two undertakings that we have responses to.

The first was found -- the exchange was found in

Volume 14 of the transcript at page 2321, and at that

reference, Mr. Fulton was asking, I believe Mr.

Choudhury, with the answer to Exhibit B1-18, TRAHVOL

1.7.1, which addressed the issue of the operating and

1 maintenance costs for the existing 138 circuits was
2 intended to include the overhead circuits.

3 **Proceeding Time 9:02 a.m. T2**

4 I am advised based on Mr. Choudhury's
5 discussions with people that the answer to that is
6 yes, and we appreciate that there may have been some
7 confusion in that because the answer referred to
8 cables but in fact probably should have referred to
9 circuits. So it was for both the overhead and
10 submarine circuits.

11 And there was a further discussion with
12 respect to BCUC 3.171.3 of that and a series of
13 questions. That was based on TRAHVOL 1.7.1 and simply
14 assumes that the unit costs for overhead and submarine
15 maintenance are the same. And in the context of I
16 think the relatively minor amounts that were referred
17 to there, I think that our folks thought that that was
18 an appropriate estimate, plus those costs aren't
19 broken out in the records that are kept.

20 And Volume 9 of the transcript, there was
21 an undertaking -- I'm not sure whether that reference
22 is actually right because I think that this was given
23 yesterday. But the transcript reference is 2568 at
24 lines 1 to 9. I think people will remember the
25 exchange. There was a request for a P90 estimate, and
26 I think that was by Mr. Hansen yesterday, for Option 1

1 IR 4.203.2. That was February 1st. Have you got that?

2 Upon my Information Request C1-31, 4.56.1,
3 BCTC has provided me with Excel file for the
4 spreadsheets presented in BCTC's response to BCUC IR
5 4.203.2. I've had the opportunity to review this, and
6 believe the details of the Stage 2 costs which are not
7 included in BCTC's response is so important, and
8 should be included in Exhibit B1-54.

9 I respectfully ask you, Mr. Chairman, that
10 it be filed as an amendment to Exhibit B1-54, or a new
11 exhibit, whichever is appropriate.

12 THE CHAIRPERSON: Mr. Holmsen, you don't necessarily need
13 to include me in your request for an undertaking. If
14 this panel accepts the undertaking, then that's going
15 to be sufficient. If they decline to accept the
16 undertaking, then you may wish to ask me to rule on
17 it.

18 MR. HOLMSEN: Thank you, Mr. Chair.

19 **Proceeding Time 9:07 a.m. T4**

20 THE CHAIRPERSON: So I would suggest that you first make
21 it clear to this panel what you're asking for, and see
22 if they'll accept the undertaking.

23 MR. HOLMSEN: I would like to include that spreadsheet,
24 the second page of that spreadsheet as the exhibit.
25 We agree to that?

26 MR. CARPENTER: If I understand Mr. Holmsen's request,

1 the response to BCUC 4.203.2 is a roll-up of costs
2 that are contained in a spreadsheet, and Mr. Holmsen
3 is asking for that spreadsheet to be filed on the
4 record as well. I believe a copy of that detail has
5 been provided to Mr. Holmsen.

6 MR. HOLMSEN: Thank you.

7 MR. CARPENTER: Is that your request?

8 MR. HOLMSEN: Well, I'd just like to elaborate a little
9 bit on that because the spreadsheet is really the
10 second stage details. The one we've been provided
11 with is the first stage plus the summary of the two.
12 And I'd like to get back into this second stage
13 showing some of the items which more or less are
14 duplicated in the first one. But I think that's
15 important to have a look at that.

16 MR. CARPENTER: I'm sorry, I'm not understanding what you
17 mean by Stage 1. Maybe Mr. Barrett can respond and
18 we'll see if we can --

19 MR. BARRETT: A: I believe what you're speaking about
20 is that the spreadsheet that we provided to you, while
21 the application is just a paper version and a PDF
22 file, we provided the spreadsheet for this cost
23 estimate to Mr. Holmsen. And at the bottom of the
24 spreadsheet or the information in the application,
25 there was a summary of the Stage 2 capital costs, but
26 there was no detailed breakdown in our application.

1 this Stage 2, so I'd like to point them out again.

2 It brings additional question -- sorry,
3 some that are left over from BCTC's Panel 1. There
4 may be some necessary expansion questions I already
5 cross-examined witness Panel 1 on. Who should I
6 address the questions on this -- this spreadsheet to,
7 Mr. Barrett?

8 MR. BARRETT: A: One or the other of us. Why don't you
9 ask your question?

10 MR. HOLMSEN: Q: Okay. Maybe I should try -- try Mr.
11 Nelson this time, since I was working on you last
12 time.

13 Mr. Nelson, are you responsible for the
14 preparation of the Comparison of Suggested Route
15 Alternatives at Tsawwassen, referred to as Exhibit B1-
16 54, BCUC 4.203.3 -- .2?

17 MR. NELSON: A: Yes, I was.

18 MR. HOLMSEN: Q: Thank you.

19 MR. NELSON: A: In conjunction with Mr. Barrett.

20 MR. HOLMSEN: Q: Okay, thank you. Please confirm that
21 the route alternatives presented in these spreadsheets
22 are comparable in terms, so having the same reference
23 points?

24 MR. NELSON: A: Yes, that's the attempt.

25 MR. HOLMSEN: Q: They are?

26 MR. NELSON: A: Yes.

1 MR. HOLMSEN: Q: Okay. Looking at the location
2 headings of these alternatives, do you see any
3 differences in the commencement and termination
4 points?

5 MR. NELSON: A: From what point of view? From --

6 MR. HOLMSEN: Q: From where they -- in this comparison
7 table, they all have a term -- a commencement point
8 and a termination point. Do you see any difference
9 between Route 1, 2, 3 and Route 4, Corporation of
10 Delta, between the Option 4 modified?

11 MR. BARRETT: A: One thing I'd like to point out is
12 that this was a back-up worksheet, and we did not
13 necessarily update the descriptions on the back-up
14 worksheets to make sure -- for presentation purposes,
15 if you will. They were calculation assistance. So I
16 think any questions regarding the language in the
17 headings or the line items, I would just say that
18 those were not reviewed, because we weren't using
19 those for presentation purposes. These were
20 evolutionary worksheets.

21 So that it's highly probable that there are
22 discrepancies between the -- the descriptive
23 information. Because it was never edited for purposes
24 of presentation at this proceeding.

25 MR. HOLMSEN: Q: So, Mr. Barrett or Mr. Nelson, it's
26 only in descriptive, it's not in the costs?

1 **Proceeding Time 9:15 a.m. T6**

2 MR. BARRETT: A: The intent is that the spreadsheet is
3 an accurate calculation tool. What I'm saying is that
4 the actual wording and descriptive information may not
5 be correct because we did not anticipate having to
6 present this to anyone.

7 MR. HOLMSEN: Q: Thank you, but the numbers are
8 correct.

9 MR. NELSON: A: Yes.

10 MR. HOLMSEN: Q: Are you certain?

11 MR. NELSON: A: Find out.

12 MR. HOLMSEN: Q: Well, if you take a look at the Option
13 4 Modified, which is -- it starts at Arnott and it
14 ends at a point about 2 kilometres up the hill on
15 Galiano Island, while all the other alternatives end
16 at Taylor Bay terminal, which means how much
17 difference in cable construction, 2 kilometres?

18 MR. NELSON: A: I think we have to -- that's not my
19 understanding of Modified Route 4, that it would still
20 end at -- go to Taylor Bay.

21 MR. HOLMSEN: Q: Well, I understand that the request
22 from the Commission was to assess or compare the cost
23 of Option 4 Modified against the other, on the same
24 basis.

25 MR. BARRETT: A: We were looking at the changes in the
26 Tsawwassen area. It's still our position that it's

1 not feasible to terminate the cable at the existing DC
2 cable terminal location on Galiano Island.

3 MR. HOLMSEN: Q: I understand and appreciate the point.
4 However, for comparison basis, I think that the
5 distances should be equal or at least from the same
6 commencement and termination points, don't you? Don't
7 you agree?

8 MR. NELSON: A: I think -- when I was looking at the
9 Modified Option 4, the only differences that I saw
10 were in the Tsawwassen area out onto Roberts Bank. My
11 understanding was that you'd still go through Taylor
12 Bay and not cross up to Cook Cove and Galiano
13 terminal. That was my understanding. When I looked
14 at it when it first came in several months ago, when
15 we were asked to prepare this table, that's the basis
16 that it was made on, that in fact the submarine cables
17 would still go from Roberts Bank to Taylor Bay.

18 MR. HOLMSEN: Q: No, I appreciate that you may not have
19 looked at my C1-13 intervention document, because it's
20 very clearly explained where these two routes will go.
21 I think you are mixing Routes 5 with Option 4 here,
22 and Option 4 very definitely described the route that
23 would come from the Tsawwassen terminal over to Taylor
24 Bay, going on your own proposed type of system with
25 single steel pole from Taylor Bay over towards Salt
26 Spring Island. However, because I had also Option 5

1 Modified in there, which would come in at Cook's Cove
2 and go through the GNO terminal, it would follow the
3 existing DC-1 or Pole 1 right of way and up to the
4 point of intersection. So there is a difference here
5 of 2 kilometres of overhead line which had not been
6 calculated into the other options.

7 And my question is then: How much or what
8 the value or the cost of building 2 kilometres of
9 overhead line?

10 MR. BARNETT: A: Just as a rough sort of high-level
11 cost, it would be roughly 1.5 to 2 million dollars.

12 MR. HOLMSEN: Q: Yeah, in your earlier estimates it's
13 one and a quarter million a kilometre, so we're
14 talking about 2 and half million.

15 MR. BARNETT: A: It depends on the details of the area.

16 MR. HOLMSEN: Q: Right, but on the average from your
17 earlier estimates, it's shown as one and a quarter per
18 kilometre.

19 MR. BARNETT: A: It could be with IDC and overheads and
20 the other costs there too.

21 MR. HOLMSEN: Q: Okay, so you agree then that the 2 and
22 a half million would be about the right number?

23 MR. BARNETT: A: If it's an average number, yes.

24 MR. HOLMSEN: Q: Thank you. So you'll be starting out
25 with 2 and a half million dollars that has not been
26 counted into the other options in these comparison.

1 Do you agree?

2 MR. NELSON: A: Again that's still only if you are
3 going to -- for option -- the Modified Option 4 that
4 you are going to terminate at Galiano terminal.

5 **Proceeding Time 9:20 a.m. T07**

6 MR. BARRETT: A: I think what -- I think I know where
7 you're trying to go. Perhaps I'm wrong, but I think
8 Mr. Holmsen has suggested that we -- by terminating
9 the overhead line closer to the beach, that we could
10 save money by building overhead rather than
11 underground line on Highway 17. And that is true. We
12 -- in this cost estimate, I think we still believed,
13 or we still were comparing the same terminal points
14 for the cable.

15 So if in fact we were able to move the
16 cable terminal point on Option 4 closer to the beach,
17 we would be able to save money. We think there's
18 problems with that, but -- there's environmental
19 issues about putting new overhead structures close to
20 the beach. There's also issues regarding the
21 archaeological resources. As you get closer to the
22 beach, the risk is higher.

23 MR. HOLMSEN: Q: Mr. Barrett, we're not talking about
24 that issue at all.

25 MR. BARRETT: A: Oh, we're not? I'm misunderstanding,
26 I apologize.

1 MR. HOLMSEN: Q: No, not at all, we're talking about
2 the distance from the Taylor Bay terminal up to the
3 top of the hill where the other option has come in.
4 So it was basically the same --

5 MR. BARRETT: A: Oh.

6 MR. HOLMSEN: Q: -- principle that you used for
7 termination point three kilometers out in the ocean
8 for your original proposal, to get all of this on the
9 same distance base. And in this case, you're really
10 terminating -- use 1, 2, 3 and we -- and the
11 Corporation of Delta route at Taylor Bay, not on the
12 same distance basis as the Option 4 modified is used,
13 which is two kilometers more overhead cable.

14 You are not -- you're not talking about the
15 termination as -- *per se*, you're just talking about
16 the reference point.

17 MR. BARRETT: A: That wasn't our intent on Option 4. I
18 think --

19 MR. NELSON: A: I think there's still some confusion.
20 This table is for the whole project now. So the
21 reference points -- I'm not sure what relevance
22 they'll have. This table in Option 4 modifies the
23 cable lengths and the overhead lengths in the
24 Tsawwassen area to a point offshore of Roberts Bank
25 and then goes to Taylor Bay, and from Taylor Bay the
26 costs are all the same.

1 MR. HOLMSEN: Q: Thank you, I think that explains it.
2 MR. NELSON: A: Yes, and it was clear that proposal --
3 modified proposal -- Option 4 modified does terminate
4 at Taylor Bay.
5 MR. HOLMSEN: Q: No. No, it -- in the original
6 calculation it terminated -- or for the calculation
7 purpose it would terminate at the intersection of Pole
8 1 and 138 kV lines on Galiano. Just for a reference
9 point.
10 MR. NELSON: A: Okay. Thank you.
11 MR. HOLMSEN: Q: I will go on. Under Option 4, as well
12 as the Corporation of Delta, Option 4, there are a
13 number of items in the Stage 1 project definition,
14 including contingency and overhead amounting to almost
15 \$2 million for Routes 1, 2 and 3. This was discussed
16 with Panel 1, and attributed to TFN issues. Now
17 please explain to me the justification for repeating
18 exactly the same costs again for Stage 2.

19 **Proceeding Time 9:25 a.m. T8**

20 MR. NELSON: A: The costs would be repeated for Stage 2
21 in terms of the archaeological studies, because you
22 will be going through similar types of disturbances to
23 the area when you put in the second set of cables. So
24 the intent would be in Stage 1 to just study the areas
25 that -- and provide, prepare reports that would lead
26 to the -- I think it's referred to as archaeological

1 data recovery assessments and processes. Those would
2 still have to be done, it's assumed, in both stages.

3 MR. HOLMSEN: Q: Thank you. However, wouldn't you
4 think that would be a benefit since this proposal
5 would mean one duct on each side of the highway, that
6 all these studies be done in the first stage?

7 MR. NELSON: A: Not necessarily.

8 MR. BARRETT: A: Also it's not necessarily the case
9 where you put one duct on either side of the highway.
10 It could be that there would be both ducts on the
11 north side, especially because of the archaeological
12 artifacts and probabilities on the south side of
13 Highway 17.

14 MR. HOLMSEN: Q: Okay, I thought you wanted to have
15 them fairly widely separated for the heat effect of
16 the cables.

17 MR. BARRETT: A: Yes, we would like to have them 10
18 metres apart if we can.

19 MR. HOLMSEN: Q: Now, in those items we're talking
20 about \$2 million for each stage, for each -- yeah, for
21 Stage 1 and Stage 2. Each of them would be \$2
22 million.

23 MR. BARRETT: A: Yes, it is possible that if this route
24 were chosen and we entered into negotiations with the
25 Tsawwassen First Nations, in fact I am certain that we
26 would attempt to negotiate a one-time right of way

1 agreement, but we don't know how that would transpire.
2 If they were resisting us using this route, it's
3 unlikely that -- well, we don't know if it's likely or
4 not, whether we could actually get the right of way
5 for both routes initially. There's a high degree of
6 risk on any right of way acquisition through the
7 Tsawwassen First Nation.

8 So we recognize and have it shown in our
9 spreadsheet that these are speculative numbers and
10 they could be different.

11 MR. HOLMSEN: Q: Would you not agree that it appears
12 unjust to consider \$3 million in accommodation and
13 compensation in Option 4, and nothing in Routes 1, 2,
14 3 where the lives of 140 families are directly
15 affected?

16 MR. BARRETT: A: I've tried to express before the
17 profound differences between obtaining rights of way
18 on regular -- I hesitate to use the word "ordinary"
19 but private property versus a First Nation reserve
20 land. It's an entirely different issue. As far as
21 the equity of the situation or fairness, I wouldn't
22 comment on that.

23 MR. HOLMSEN: Q: We're not all equal, are we?

24 Do you not agree that it would be prudent
25 and less costly for BC to make all necessary right of
26 way accommodation compensation agreements if required

1 during Stage 1 of the project?

2 MR. BARRETT: A: As I said, if we went on Route 4 we
3 would attempt to do that, yes.

4 MR. HOLMSEN: Q: Right.

5 There are three different line entries for
6 right of way costs in Stage 1. Please explain what
7 each refers to. Mr. Nelson?

8 MR. NELSON: A: Under Phase 2 Project Implementation,
9 additional right of way costs, and that's regarding to
10 submarine cables, so this is -- we have existing right
11 of ways for the submarine cables, and this would be
12 the additional cost where rights do not presently
13 exist.

14 **Proceeding Time 9:30 a.m. T09**

15 MR. HOLMSEN: Q: Okay, so your right of way -- your
16 marine right of way or submarine right of way does not
17 cover the whole cable, the area that's shown on the
18 marine charts as the cable area, does not cover the
19 whole thing?

20 MR. NELSON: A: It -- I'm not sure what's shown on the
21 marine charts, so I'd -- what I was basing this on is
22 the various charts that are shown, for example, in the
23 -- in Appendix F, the Golder report on geohazards.
24 Where our rights are fairly narrow, as you approach
25 English Bluff terminal.

26 MR. HOLMSEN: Q: Okay. Now, because on the marine

1 chart shows the whole -- whole Tsawwassen bay as part
2 of the cable area, on the chart, so I -- if you have a
3 different area for the right of way for the -- I
4 understand that.

5 MR. BARRETT: A: We put in a fairly small number here,
6 but we do believe that we would have to get additional
7 rights. If nothing else, on the beach area in the
8 Tsawwassen First Nation. I think we tried to estimate
9 where we were going to make the transition from our
10 submarine cable to our land-based cable, because
11 they're two different types of cable.

12 MR. HOLMSEN: Q: On that sector, how wide would you
13 expect you need the right of way or the submarine
14 right of way?

15 MR. NELSON: A: I've estimated it would be 100 metres
16 wide --

17 MR. HOLMSEN: Q: How wide?

18 MR. NELSON: A: 100 metres.

19 MR. HOLMSEN: Q: 100. For the three cables or the six
20 cables?

21 MR. NELSON: A: That would be for six cables.

22 MR. HOLMSEN: Q: I see. 100 metres. Okay.

23 MR. NELSON: A: And where these costs on -- for most of
24 the submarine right of ways I've assumed we would get
25 all of the right of ways in the first stage.

26 MR. HOLMSEN: Q: Yes. Do you agree that the earlier

1 number we have I was supplied with for under water
2 right of way would be 23 cents a square metre?

3 MR. NELSON: A: That's what I used.

4 MR. HOLMSEN: Q: Thank you.

5 MR. NELSON: A: Now, in -- there's a lot of numbers on
6 this table that had to be modified to try and match
7 the -- one of the originating tables, which would be
8 4. -- I think Table 4.3 that showed the Tsawwassen
9 alternatives. And so what I did is, I used those
10 numbers as the base, and then I had to do some
11 manipulations to account for contingencies, overhead,
12 IDC and the like. So that's why in some cases you'll
13 have a number that at one time was a million dollars
14 and it's now showing up as \$860,000, because by the
15 time you add contingency, overhead, IDC, you'll come
16 up with a million dollars.

17 So that there are some modifying factors
18 that have been incorporated into this spreadsheet to
19 come up with the comparable numbers. There will be
20 some arithmetical differences in how those numbers are
21 arrived.

22 MR. HOLMSEN: Q: Yes. I can understand that you may
23 have included IDC in it, but since you have a
24 contingency on the bottom here, why would contingency
25 be included in that particular number?

26 MR. NELSON: A: No, what I'm saying is that in the

1 earlier tables, that were a final cost type numbers,
2 they already included contingency, overhead and IDC.
3 So I've tried to extract those -- so I didn't add them
4 in twice.

5 MR. HOLMSEN: Q: Thank you.

6 So that took care of one of them. There
7 are two other ones in here that -- listed as the right
8 of way.

9 MR. NELSON: A: I'll also point out on the submarine
10 right of way for Route 4, Corporation of Delta, that
11 portion is closer to the shoreline, and we narrowed
12 that up to a 60 metre width.

13 **Proceeding Time 9:35 a.m. T10**

14 MR. HOLMSEN: Q: Okay, I understand, thanks.

15 Further down they have an additional right
16 of way acquisition cost of 1.55 million.

17 MR. NELSON: A: Yes.

18 MR. HOLMSEN: Q: Which area does that apply to?

19 MR. NELSON: A: That would apply to the area that would
20 parallel Highway 17, and for Option 4 Modified that
21 was 1550 metres.

22 MR. HOLMSEN: Q: That's correct. So you use that for
23 each individual stage, 1.55 million. You didn't
24 acquire that right of way as one package.

25 MR. NELSON: A: Yes I did.

26 MR. HOLMSEN: Q: So 1.5 million for each stage.

1 MR. NELSON: A: Yes.

2 MR. HOLMSEN: Q: Now, that goes -- my suggestion, of
3 course, and I've been corrected I guess by Mr.
4 Barrett, that you cannot build on the provincial
5 highway right of way, is that correct? You have to be
6 outside the right of way?

7 MR. NELSON: A: That is the proposal for this project
8 and then under these conditions.

9 MR. HOLMSEN: Q: I'll get back to that.

10 Now I'll get to the point term "seismic
11 upgrading ducts" which was used in a cost summary
12 originally. And now I see an item in there that says
13 "additional HDD along Highway 17". Are these the same
14 things?

15 MR. NELSON: A: No, the additional HDD along Highway
16 17, and I guess they're related, and I think Mr.
17 Barrett did describe the original cost estimates were
18 based on a stabilization method which we called stone
19 columns. And when we looked at that method and taking
20 into account the archaeological site along Highway 17
21 and tried to rationalize how we would in fact do that,
22 it looks -- to do basically a remains recovery or
23 archaeological data recovery through that, that area
24 was judged to basically require a sheet piling and
25 excavation and dewatering, and really not a practical
26 solution.

1 As an alternative, and we've used the
2 concept to do horizontal directional drilling
3 underneath, to go below the remains. The assumption
4 here is that the remains don't go deeper than
5 approximately 10 metres or 15 metres. The horizontal
6 directional drilling will have a minimum depth that it
7 can really operate properly at. So the assumption for
8 the additional HDD along Highway 17 is that in those
9 areas, where these significant archaeological sites
10 have been identified, that we would horizontal
11 directional drilling. The estimates are based on
12 approximate lengths, and assuming that we would put in
13 four approximately 10-inch conduits using horizontal
14 directional drilling at a cost of \$1500 a metre, and
15 for the modified on the south side of Highway 17 we've
16 estimated that that distance is 500 metres for a cost
17 of \$3 million.

18 MR. HOLMSEN: Q: Yeah, I was going to come to the
19 directional drilling later but you explained it to me.
20 Thanks.

21 MR. NELSON: A: Now, and in that as well, where we have
22 500 metres of horizontal directional drilling, we took
23 that out of the stone column methodology.

24 MR. HOLMSEN: Q: Okay. Now, initially on your numbers
25 there for seismic upgrading of ducts along the
26 highway, it was shown that \$640,000 per kilometer,

1 MR. HOLMSEN: Q: Well, I saw a plan for that area, and
2 I'm sorry, I haven't got the reference number in front
3 of me, but it -- on the map, on -- it works out to 240
4 metres.

5 MR. BARRETT: A: I would also point out it's not just a
6 matter of the length either. The depth of the
7 liquefiable soils near Tsawwassen substation is much
8 shallower, and so the ability to do the upgrades is
9 easier.

10 MR. HOLMSEN: Q: So it would not be comparable to the
11 640,000 kilometres (sic) it was in the original plans.

12 MR. BARRETT: A: Not necessarily.

13 MR. HOLMSEN: Q: Okay, thank you.

14 Now, there is no item for additional
15 seismic support for Option 4, 280 -- I'll say \$290,000
16 in Stage 1, and \$427,000 in Stage 2. Please explain
17 that -- please explain the difference here.

18 MR. NELSON: A: Would you repeat the question, please?

19 The two numbers should be the same.

20 MR. HOLMSEN: Q: They should be the same?

21 MR. NELSON: A: Yes.

22 MR. HOLMSEN: Q: Which one is correct?

23 MR. NELSON: A: 288,960.

24 MR. HOLMSEN: Q: Okay, thank you.

25 Now, we talked about additional right of
26 way acquisition costs. I don't see anything for that

1 item on Route 2. You don't expect to -- I understand
2 from Mr. Barrett that you don't expect to have to pay
3 any right of way costs for going underground through
4 Tsawwassen.

5 MR. NELSON: A: That is the assumption of the
6 spreadsheet.

7 MR. HOLMSEN: Q: Do you believe that is correct? To
8 make that assumption, I mean.

9 MR. NELSON: A: Yes.

10 MR. HOLMSEN: Q: Can you explain that, please?

11 THE CHAIRPERSON: Mr. Holmsen, we've heard considerable
12 evidence on this issue.

13 MR. HOLMSEN: Okay. I'll drop that, pass on.

14 **Proceeding Time 9:45 a.m. T12**

15 MR. HOLMSEN: Q: So, I'm looking at the restoration
16 cost, we have also mentioned something about that
17 before, but for you to estimate the cost of only \$1.3
18 million for Stage 1 and \$100,000 for Stage 2. We
19 don't particularly agree that 1.3 million is adequate
20 to do the restoration in the first stage. But why
21 only \$100,000 for Stage 2? Maybe this is the rest.

22 MR. WELLS: A: Well, my understanding is that having
23 put the ducts in in Stage 1, that we're just feeding
24 the cable from road manholes and therefore would be
25 doing very little disturbance on the private
26 properties in Stage 2. We won't be going back into

1 all of those back yards in the second stage, assuming
2 that we went with that route, and redistributing those
3 properties. So all that disturbance is accounted for
4 in the first project.

5 MR. HOLMSEN: Q: I appreciate that, Mr. Wells, but you
6 still have to go through parks, school grounds,
7 streets, parking lots and possibly 13 homes.

8 MR. BARRETT: A: I would say that the base cost
9 estimates assume that we would be backfilling,
10 restoring, re-sodding the areas under normal
11 circumstances. So our baseline cost estimates
12 normally include that kind of restoration.

13 The special restoration we're talking about
14 in terms of landscaping and so on is another issue.
15 All the fences and hedges and that kind of thing.

16 MR. HOLMSEN: Q: Thank you.

17 THE CHAIRPERSON: Mr. Holmsen, did you get an answer to
18 your question?

19 MR. HOLMSEN: Well, not more than I expected, I have to
20 admit.

21 THE CHAIRPERSON: I'd like you to ask the question again.

22 MR. NELSON: A: If I could maybe make a clarification,
23 in fact the dollars per metre that were included in
24 the estimates for restoration for the original
25 proposals are the same for the first and the second
26 stages. If there's -- so the actual dollar value and

1 we'd talked about the \$5,000 per property or roughly
2 \$200 a metre, those costs are in Stage 2. What we had
3 to do is to take some costs out, and I picked a
4 nominal number of \$100,000. But in fact the cost
5 estimate base for Stage 1 and Stage 2 is the same.

6 THE CHAIRPERSON: Thank you.

7 Mr. Holmsen, I had understood your question
8 to this panel to be, for those areas where you are not
9 putting in the second duct as part of the first stage,
10 what are the costs?

11 MR. BARRETT: A: After thinking about this a bit, I
12 believe that when -- there will be a few properties
13 later on, and those costs will be higher.

14 MR. WELLS: A: Yes, sorry, Mr. Holmsen, I misunderstood
15 your question. You're right. There are about 13
16 properties in Stage 2 that we would add duct bank
17 into, and based on the Enviro Consulting report that I
18 had done in December, we calculated the costs for
19 those 13 properties to be \$185,000.

20 MR. HOLMSEN: Q: So \$185,000 plus whatever you have to
21 do for restoration through parks, school grounds and
22 streets, parking lots?

23 **Proceeding Time 9:50 a.m. T13**

24 MR. WELLS: A: Yes, that's correct. There would be
25 additional costs through the parks. But that's mostly
26 re-sodding, so those are fairly nominal restoration

1 costs for us, as opposed to the landscaping costs that
2 we would incur on those 13 private properties, where
3 there's a lot more hard-scaping and trees and shrubs
4 and that sort of thing that would have to be replaced.

5 MR. HOLMSEN: Q: Okay, thanks. But what about the
6 paving of the streets again? And the parking lots?
7 There's a big parking lot you would go through at the
8 school yard.

9 MR. WELLS: A: Maybe Mr. Nelson -- I believe those kind
10 of costs for the pavement would be in the construction
11 cost itself, not in the restoration costs. If I'm not
12 mistaken.

13 MR. NELSON: A: That's correct, and that's what I was
14 trying to -- to explain, that those costs are already
15 built into the base estimate. The \$100,000 was a --
16 if you want to describe it as a "take-out" estimate as
17 to what those restoration costs would be.

18 MR. HOLMSEN: Q: Okay, thanks.

19 THE CHAIRPERSON: Mr. Holmsen, you don't have -- to my
20 understanding of the answer, you don't have
21 restoration costs for numbers in the second stage for
22 the parks and schools. Am I correct?

23 MR. NELSON: A: It would be -- in terms of the
24 estimate, we've got 1.1 kilometres of cable, or 1.4,
25 depending on how much of the duct was going to be
26 done. Actually we should say 1.5 kilometres at \$200 a

1 metre is \$300,000. The restoration and -- in total
2 restoration costs available to restore those areas,
3 that's the amount that would be available in Stage 2,
4 that's included in the estimate.

5 THE CHAIRPERSON: When you prepared the estimate, did you
6 give consideration to the costs for the 13 homes, the
7 parks and the schools?

8 MR. NELSON: A: No I didn't.

9 MR. HOLMSEN: Q: Thank you.

10 MR. NELSON: A: Thank you.

11 MR. HOLMSEN: Q: Then we have an item here, new TSN
12 cable terminal station. Please explain why the cost
13 for this facility for Option 4 is estimated at twice
14 the cost of Option 2.

15 MR. NELSON: A: In Route 2, the terminal station sits
16 adjacent to Tsawwassen substation. Available at that
17 substation is an existing ground grid, access,
18 telecommunications facilities, for the existing
19 substation. The extension under the right of way
20 takes advantage of those facilities and that
21 situation. Where you've got a new site, you have no
22 station service, you have no telecommunication
23 facilities, you have no access provided, you will no
24 doubt need a larger ground grid to get the station
25 ground resistance down to where it's required.

26 So there are additional costs in developing

1 a new site compared to an existing site. The -- and
2 the estimate there was an additional half a million
3 dollars.

4 MR. HOLMSEN: Q: Yes.

5 MR. NELSON: A: And that's -- and this is assuming that
6 you have some good conditions which would be available
7 in the area. They're -- they are sites that are
8 suitable for easy access and the like.

9 MR. HOLMSEN: Q: Yes. They both would, of course, have
10 very easy access, they're right next to roads. And I
11 presume you also will have to do the same, or some
12 seismic upgrading, both at the one close to Tsawwassen
13 substation and any new station.

14 MR. NELSON: A: Yes, and we've included the same costs
15 in all -- in all areas. A new site may require a
16 larger area for seismic stabilization, but we have not
17 included that in these estimates.

18 MR. HOLMSEN: Q: Okay, thank you.

19 And we have an item for new site
20 acquisition. Please explain why 3,000 square metres,
21 or .3 hectares -- or a .3 hectare site of ALR land is
22 priced at \$430,000 for Option 4?

23 **Proceeding Time 9:55 a.m. T14**

24 MR. NELSON: A: We've assumed that there could in fact
25 be properties on the site, and the costs go up from
26 base ARL lands.

1 MR. HOLMSEN: Q: Yeah, it's unoccupied land.

2 MR. NELSON: A: Not necessarily.

3 MR. HOLMSEN: Q: Well, it's private land but it's only
4 ALR?

5 MR. NELSON: A: But no, some of the sites that we were
6 looking at would have properties on them.

7 MR. HOLMSEN: Q: Yeah, the one Option 4 Modified is
8 clearly marked in the Exhibit C, C1-13 on the proposed
9 site?

10 MR. NELSON: A: With the basis of these estimates, I've
11 tended to use unit-type costs, so we've applied the
12 same cost at different locations.

13 MR. HOLMSEN: Q: Okay, thanks. Now please refer to
14 Exhibit 1-19 and it's Karsten Holmsen IR 3.54.1 Part
15 3. Have you got that?

16 MR. BARRETT: A: Is it 3.5 -- again?

17 MR. HOLMSEN: Q: 3.54.1. It's the engineering plan for
18 the present tunnel at English Bluff.

19 MR. BARRETT: A: Is this a Karsten Holmsen IR or is it
20 someone else's?

21 MR. HOLMSEN: Q: Karsten Holmsen IR.

22 MR. NELSON: A: 3.54.1?

23 MR. HOLMSEN: Q: 3.54.1 Part 3. That's the whole
24 profile, but what I'm going to get is this cross-
25 section. It's in the plastic enclosure.

26 Now, the attached is in the engineering

1 plan for the 138 kV tunnel, chaseway west to English
2 Bluff terminal. You'll see a cross-section of the
3 tunnel in the left, bottom left corner, which is 7 by
4 6 and a half feet. Do you see what I'm referring to?
5 MR. NELSON: A: Yes.
6 MR. HOLMSEN: Q: I understand there are presently two
7 3-phase 138 kV circuits plus one spare cable installed
8 in this tunnel, is that correct?
9 MR. NELSON: A: That's correct.
10 MR. MacPHAIL: A: Yes, that's correct.
11 MR. HOLMSEN: Q: You agree that this tunnel cannot
12 accommodate two 3-phase 230 kV cable systems?
13 MR. MacPHAIL: A: No, I don't agree. There -- room for
14 two 230 kV circuits in the tunnel.
15 MR. HOLMSEN: Q: Okay. Would you have to make some
16 extra installation or how would you deal with the 230
17 cables going through there?
18 MR. MacPHAIL: A: For the first stage?
19 MR. HOLMSEN: Q: For both stages. I'm talking about
20 two stages now, first and second stage.
21 MR. MacPHAIL: A: I'll explain the first stage first.
22 MR. HOLMSEN: Q: Okay.
23 MR. MacPHAIL: A: One of the cables has been abandoned
24 between English Bluff Terminal and Taylor Bay. So
25 that'll free up space on one wall for three new
26 cables.

1 MR. HOLMSEN: Q: Okay.

2 MR. MacPHAIL: A: And they will be racked vertically
3 against the wall.

4 MR. HOLMSEN: Q: As presently.

5 MR. MacPHAIL: A: As presently. And then for the
6 second stage, all the remaining 138 kV cables on the
7 opposite wall will come out and be replaced with three
8 230 kV cables, also racked vertically on the wall.

9 MR. HOLMSEN: Q: Thank you. Would you not have
10 problems with heat between the cables on such close
11 proximity?

12 MR. MacPHAIL: A: That problem has been anticipated and
13 we expect that there could be a requirement for
14 supplemental cooling in the tunnel. That could take
15 the form of some forced ventilation fans or perhaps
16 some cooling pipes along the ceiling or the walls of
17 the tunnel.

18 MR. HOLMSEN: Q: You would not have to have heavier
19 cables for that section?

20 **Proceeding Time 10:00 a.m. T15**

21 MR. MacPHAIL: A: The plan is to possibly have heavier
22 cables for that section. The tender documents that
23 were prepared, and which we're out for tender on right
24 now, describe a preference for one cable size all the
25 way through from Taylor Bay terminations to English
26 Bluff terminal -- terminations. But we've left the

1 door open for contractors or tenderers to suggest
2 alternatives that they consider more economical and
3 technically superior.

4 So there's a number of options that they
5 can explore, some of which I described, but some of
6 which would also have larger land cables from the mid-
7 intertidal zone up to the terminals. And in that
8 case, if they were big enough, I suppose they might --
9 there might not be a need for force cooling or
10 ventilation in the tunnel.

11 MR. HOLMSEN: Q: Thank you, Mr. MacPhail. No, I was
12 curious about it because we've been so concerned about
13 the distance between the cables in the underground
14 otherwise, so I thought you might have needed a new or
15 an extra chaseway or tunnel for the new cables. Thank
16 you.

17 Now, in summary what we've been talking
18 about, don't you think there could be some potential
19 savings on the -- in the -- by considering these two
20 stages together? Rather than duplicating all the
21 values in the second stage that we've already seen in
22 the first stage.

23 MR. BARRETT: A: Are you suggesting there would be
24 potential savings in -- overall by doing both at once?

25 MR. HOLMSEN: Q: Yes I do.

26 MR. BARRETT: A: There would be some potential savings.

1 In terms of contract administration, construction,
2 inspection and those kinds of things. There -- it
3 would be modest, but there would most likely be
4 savings, if you're talking about two separate
5 contracts versus one.

6 MR. HOLMSEN: Q: Yes, in addition to not having to come
7 back the second around to do the -- okay, thank you.

8 But it's possible, in that Option 4, to
9 modify -- could rate differently in the cost
10 comparison of these adjustments.

11 MR. BARRETT: A: I doubt that it would materially
12 change the decision criteria, but you're correct, it
13 could change the degree of cost difference between
14 them.

15 MR. HOLMSEN: Q: Thank you. Now, how much do you think
16 really should add to Route 2 for potential upgrade --
17 expropriating right of way? Plus accommodation
18 expenses. Or if you should call it "injurious
19 affection" for Route number 2.

20 THE CHAIRPERSON: Mr. Holmsen, this is the same question
21 I think that I interrupted you on earlier.

22 MR. HOLMSEN: Okay.

23 THE CHAIRPERSON: It goes to the issue of compensation.
24 It has been well-canvassed in the evidence.

25 MR. HOLMSEN: Thank you. I'll go on. Thank you.

26 MR. HOLMSEN: Q: Do you agree that using the whole

1 concept proposed in Option 4 modified would render the
2 Tsawwassen right of way redundant?

3 MR. BARRETT: A: I think we've talked about that
4 before. Ultimately, if a different route was chosen,
5 such as Option 4, it wouldn't immediately leave the
6 Tsawwassen right of way redundant, because we'd still
7 have one 138 kV circuit. But eventually, if -- if
8 Stages 1 and Stage 2 were built, we -- they -- we
9 could remove the existing lines.

10 **Proceeding Time 10:05 a.m. T16**

11 MR. HOLMSEN: Q: Now, my question was, using the whole
12 concept proposed in Option 4.

13 MR. BARRETT: A: Including two circuits.

14 MR. HOLMSEN: Q: Including the facilities at Salt
15 Spring Island, either 25 kV, 230, new station in
16 there, or using that supply from VIT.

17 MR. BARRETT: A: This is another issue we haven't
18 really talked about yet, and that was the suggestion
19 by some of the IRs, that simply by installing one 230
20 kV line and then converting the stations in Galiano
21 and Salt Spring to 230 kV at this time would eliminate
22 the need for the 138 kV lines. And while if you
23 accept that proposition, that's true. If we did
24 convert the stations at Galiano and Salt Spring to 230
25 kV, we wouldn't need the 138 any more and the lines
26 could be removed.

1 However, the transmission and distribution
2 planning criteria would not favour and wouldn't --
3 ordinarily we wouldn't even contemplate doing this.
4 The reliability issues that would become significant,
5 we would also have to design or redesign the two
6 substations on Galiano and Salt Spring to allow
7 circuit breaker installations there.

8 The least expensive way of doing it would
9 just be to convert the stations and have what we call
10 a four terminal line, and that's something that
11 wouldn't do, especially for high capacity transmission
12 circuits for Vancouver Island. It would expose that
13 circuit to any problems on the distribution sections
14 or the substations on the islands. Also it would
15 require sectionalizing that line in certain events,
16 and we don't want to do that. We want a reliable,
17 high capacity connection to Vancouver Island. And we
18 did look at this option and we did actually in our IRs
19 provide some costs for potentially doing this, but we
20 would not recommend it and we actually believe that
21 it's not a proper solution.

22 But if you accept the proposition, that can
23 be done, yes.

24 MR. HOLMSEN: Q: I was not saying anything different
25 than what BCTC and B.C. Hydro has suggested in the
26 past as several options to work on that solution. So

1 I just took a couple of those items and said, "What
2 about if you advance them?"

3 MR. BARRETT: A: Yes, and I attempted to explain that
4 because we hadn't talked about this in this proceeding
5 yet. It's in the IRs but we hadn't spoken about it.

6 MR. HOLMSEN: Q: Now it could be a big topic. Thank
7 you.

8 Now, here's another issue which I guess we
9 have talked about in the past. Don't you agree that
10 Option 4 Modified, abandoning the Tsawwassen right of
11 way, would release the valuable B.C. Hydro owned lands
12 at the English Bluff for higher and better use, such
13 as potential redevelopment? Do you agree?

14 MR. BARRETT: A: B.C. Hydro does own a piece of
15 property near English Bluff. And we have actually
16 granted some easements on that property for some
17 houses that are there. If there was no need for that
18 property, it could be potentially redeveloped.

19 Under the underground option that we've
20 proposed, it's also possible that that plan could be
21 redeveloped sometime in the future. I know that
22 TRAHVOL has even provided us with a suggested
23 subdivision plan for that land. And if you accept
24 that proposition, we could actually locate the cables
25 where the proposed street would be.

26 So if you want to do that, we can. I

1 the number.

2 MR. HOLMSEN: Q: Okay, now, of course if you did
3 construct underground ducts through the main portion
4 of that property, the tennis court and the one
5 building that is on the property now could still be
6 used, but you couldn't really subdivide the area where
7 the underground ducts are. You'd only be able to
8 subdivide the northern portion of that. And there'd
9 be rather difficult access to those properties.

10 MR. BARRETT: A: Well, it is true, where we're
11 proposing to put the ducts right now, that would
12 preclude using this development plan. What I was
13 saying is, if we really did want to consider the
14 future redevelopment of this property, we could
15 relocate those ducts, such that they would be under
16 your proposed street.

17 MR. HOLMSEN: Q: Yes.

18 MR. BARRETT: A: Such that in the future, we could
19 potentially redevelop that land.

20 MR. HOLMSEN: Q: If there were -- if the ducts went in
21 the streets, you could develop the whole thing.

22 MR. BARRETT: A: Correct.

23 MR. HOLMSEN: Q: Yes. Don't you also agree that if
24 Option 5 with a modified concept was chosen, lands at
25 the Taylor Bay on Galiano Island could also be
26 released for potentially higher, better use?

1 MR. BARRETT: A: On Galiano Island, that's not really
2 the case, because we still have our Galiano substation
3 that's right directly adjacent to Taylor Bay terminal.
4 There -- if we were to remove Taylor Bay terminal,
5 there would be some land made available for
6 redevelopment, correct. There'd be perhaps two or
7 three residential lots.

8 MR. HOLMSEN: Q: Yes. But they're very valuable, it's
9 a nice bay.

10 MR. BARRETT: A: That's -- that's --

11 MR. HOLMSEN: Q: And I'll say exactly what I'm getting
12 to here, if you were going for the proposed new
13 substation in Salt Spring and the whole system below
14 -- fed by a 25 kV system anyway. So you wouldn't need
15 the terminal at Taylor Bay. Or Galiano, I should say.

16 MR. BARRETT: A: Well, our planning criteria says that
17 we still want the Galiano substation, which is
18 directly adjacent to Taylor Bay,

19 MR. HOLMSEN: Q: For the 230.

20 MR. BARRETT: A: For a 138 kV service.

21 MR. HOLMSEN: Q: Yes, for 138.

22 MR. BARRETT: A: But it is true that if we took the
23 Taylor Bay terminal there's -- there's -- I would
24 think that that property would be very valuable.

25 MR. HOLMSEN: Q: I think so too. And that would
26 improve the B.C. Hydro balance sheet, wouldn't it?

1 MR. BARRETT: A: If it was sold, perhaps.

2 MR. HOLMSEN: Q: And it could be a benefit to the
3 ratepayers, too.

4 Now, I directly refer to Exhibit B1-17,
5 that's Karsten Holmsen IR 1.31.11. Have you got that?

6 **Proceeding Time 10:15 a.m. T18**

7 MR. BARRETT: A: Yes.

8 MR. HOLMSEN: Q: The question was the land cable can be
9 located entirely within Highway 17 right of way. Why
10 is it the requirement by additional land right of way
11 indicated? And the response to that from BCT was
12 Highway 17 is either on First Nation Reserve or land
13 claimed by the Tsawwassen First Nation. BC have to
14 acquire right of way because the highway corridor is
15 not land within provincial jurisdiction. See BCTC's
16 response to TRAHVOL IR 179 and a few other references.

17 Now, are you -- you know that jurisdiction,
18 Mr. Barrett?

19 MR. BARRETT: A: I think this is a legal opinion. I
20 wouldn't be qualified to count --

21 MR. HOLMSEN: Q: But you didn't check on it?

22 MR. BARRETT: A: No, the advice was given to me that
23 this is a correct answer.

24 MR. HOLMSEN: Q: Okay. No, I inquired with the B.C.
25 government in Victoria through our MLA, Ms. Val
26 Roddick. She's the MLA for Delta South. And she

1 confirmed that the province owns Highway 17. If the
2 Commission Panel wishes to -- I have a copy of the e-
3 mail that I received from Ms. Val -- or Ms. Roddick,
4 and if the Commission wishes to mark that as the
5 exhibit, I have a number of copies available.

6 THE CHAIRPERSON: Any objections?

7 MR. CARPENTER: I haven't seen it, Mr. Chair.

8 MR. HOLMSEN: Oh, sorry.

9 THE HEARING OFFICER: Marked Exhibit C1-34.

10 THE CHAIRPERSON: Not yet. Mr. Bemister, not yet. I
11 don't want to see it yet.

12 MR. CARPENTER: I don't have any objection to this going
13 in, Mr. Chair.

14 THE CHAIRPERSON: Thank you. Mr. Bemister.

15 THE HEARING OFFICER: Marked C1-34.

16 (E-MAIL FROM MS. VAL RODDICK, MLA, DATED DECEMBER 5,
17 2005, MARKED EXHIBIT C1-34)

18 MR. HOLMSEN: Q: Did you have any comments on that, Mr.
19 Barrett?

20 MR. BARRETT: A: Well, I wouldn't comment on whether
21 Highway 17 is owned by the Crown or not or the
22 province or not. What we did state previously, that
23 the assumption in this question that the land cable be
24 located within the highway right of way is not true.
25 Based on our studies, we would not locate the cables
26 on the highway embankment because of seismic concerns

1 and our ability to be able to reinforce the duct banks
2 and other facilities. I think you can ask the seismic
3 panel on precise criteria, but it's always been our
4 assumption, and we believe a requirement, that any
5 lines would be located off the highway embankment and
6 on Tsawwassen First Nation property.

7 MR. HOLMSEN: Q: But it states right here in the
8 response that because the Highway 17 corridor is not
9 land within provincial jurisdiction?

10 MR. BARRETT: A: Like, I don't -- I wasn't a part of
11 the answer of this question and I don't know the
12 precise implications of it. But what I do know is
13 that it's our opinion that we could not use. Even if
14 the province owns the highway, it wouldn't make any
15 difference.

16 **Proceeding Time 10:20 a.m. T19**

17 Is that we need to construct that line
18 outside of the highway boundary. And that it would
19 not be technically feasible to put it there, and we
20 believe that the Ministry of Transportation would
21 prevent us from putting it there, but we wouldn't want
22 to put it there anyway.

23 MR. HOLMSEN: Q: Okay, thank you. Now, Exhibit C1-13
24 will be my main reference for many of my questions --
25 the following questions, all the references will be
26 quoted as we progress.

1 Some of my questions are related to Option
2 5, the modified, as proposed in Exhibit C1-13 Section
3 5. And I -- in BCUC -- oh, sorry, I'll wait.

4 MR. BARRETT: A: Could you give us the reference again,
5 Mr. Holmsen?

6 MR. HOLMSEN: Q: It's Exhibit C1-13, Section 5. It's
7 just a general reference to start with.

8 MR. BARRETT: A: Just a moment.

9 MR. HOLMSEN: Q: BCUC in Exhibit A-56, IR 4.302.2
10 requested the following.

11 MR. BARRETT: A: I'm in C1-13.

12 MR. HOLMSEN: Q: 4.302.2, in BCUC request, Exhibit A-
13 56. A-56.

14 MR. NELSON: A: Would you repeat that reference?

15 MR. HOLMSEN: Q: BCUC Information Request 4.302 --
16 maybe it should be 203.2. Just a second, I'll recheck
17 that.

18 MR. NELSON: A: Okay.

19 MR. BARRETT: A: I think we have what the reference is
20 now.

21 MR. HOLMSEN: Q: Okay, thank you.

22 THE CHAIRPERSON: Just for the purposes of the record,
23 then, I think you're in B1-54, 4.203.2.

24 MR. HOLMSEN: Q: Right. I stand corrected, thank you.
25 It says:
26 "Please extend the updated Table 4.3 from

1 the foregoing question to include Route
2 Option 4 modified by Mr. Holmsen, and Route
3 Option 5 modified by Mr. Holmsen, and the
4 Delta Option C, Option A alternative, or
5 explain why it's not reasonable to do so at
6 this time."

7 BCTC response in B1-54, to BCUCR, is summarily
8 dismissed and your response was:

9 "The modification to Option 5 proposed by
10 Karsten Holmsen is infeasible. BCTC is
11 unable to make a reasonable estimate of
12 these costs."

13 Do you agree that that's correct?

14 MR. BARRETT: A: That's what it says, yes.

15 MR. HOLMSEN: Q: Do you agree with me that the time
16 constraint on providing a reasonable estimate of cost
17 may have been a factor in the summary dismissal of
18 this part?

19 MR. BARRETT: A: No I don't. The reason is that we
20 believe that's not a suitable route, and we couldn't
21 meet our design criteria and our objectives if we
22 chose that route. Therefore, we are unable to provide
23 a cost estimate for what -- for a solution that we'd
24 be willing to build.

25 Oh, there's another situation that -- you
26 made an assumption that Pole 1 was going to be

1 removed, and that's not the case.

2 **Proceeding Time 10:25 a.m. T20**

3 MR. HOLMSEN: Q: No, if that was part of the concept, I
4 agree. Thank you. But the Canoe Pass terminal, one
5 of the -- or two of the main reasons initially given
6 for that, the rejection of that route I understand
7 were seismic and possible anchor damage from
8 Deltaport.

9 MR. BARRETT: A: If the cable was routed nearer to the
10 Deltaport or to the anchorage area used by the
11 Deltaport.

12 MR. HOLMSEN: Q: Right. The Canoe Pass terminal to
13 Cook's Cove was feasible 30 years ago. Do you not
14 agree that with the improved cable and cable laying
15 technologies available today, construction in this
16 area will be more feasible than it was 30 years ago?

17 MR. BARRETT: A: I don't believe there'd be any
18 difference based on the changes in cable technology or
19 construction technology that would change our
20 conclusions. When it was built 30 years ago the
21 knowledge that we've used to base our current
22 recommendation on was not available and was not
23 considered.

24 MR. HOLMSEN: Q: I'm not entirely convinced that the
25 option is infeasible, so I'd like to explore it a bit
26 further on the technical side.

1 Firstly I'd refer you to B1-1, section 4.1,
2 page 88, line 14.

3 MR. BARRETT: A: We have that reference.

4 MR. HOLMSEN: Q: Yeah, where it states that the HVDC
5 system connection to Vancouver Island is aging,
6 technically obsolete, and cannot be relied on to
7 provide firm transmission capacity of the 2007, and
8 both Pole 1 and Pole 2 will be derated to zero for
9 planning purposes in 2007. Is that correct?

10 MR. BARRETT: A: Yes, in fact Pole 1 has already been
11 rated zero for planning purposes.

12 MR. HOLMSEN: Q: Also in Exhibit B1-6, the last part of
13 BCUC IR No. 1.34.1, that is a big reference and
14 there's so many documents in there that it's very hard
15 to find your way around, but I believe it's towards
16 the first third of the report.

17 MR. BARRETT: A: What's the name of the report?

18 MR. HOLMSEN: Q: It's B1-6, 1.34.1.

19 MR. BARRETT: A: I've got the reference, yes. Which
20 report?

21 MR. HOLMSEN: Q: And it's a technical justification
22 report dated June 2004 for the Vancouver Island 230 kV
23 AC supply project.

24 MR. BARRETT: A: Which number on the list?

25 MR. HOLMSEN: Q: I haven't got another number on that.

26 MR. BARRETT: A: Yes, I've found it.

1 MR. HOLMSEN: Q: Is that far back there?

2 MR. BARRETT: A: Well, I have one. I have a technical
3 justification.

4 MR. HOLMSEN: Q: Yeah, it's dated June 2004.

5 MR. BARRETT: A: Yes.

6 THE CHAIRPERSON: Mr. Barrett, can you help us then find
7 it?

8 MR. BARRETT: A: It's at the very back of mine, the
9 last study.

10 THE CHAIRPERSON: Thank you.

11 **Proceeding Time 10:30 a.m. T21**

12 MR. HOLMSEN: Q: On page 2, the last bullet, at the
13 bottom of the page, and I quote:

14 "A bipole HVDC system, Pole 1 is stand-by
15 and has no dependable capacity, and Pole 2
16 has 240 megawatts dependable capacity until
17 2007. HVDC is assumed to provide no firm
18 capacity transfer capability in 2007 from a
19 planning perspective."

20 Do you not agree that these two references
21 whereby BCTC firmly confirm that Pole 1 is no longer
22 any practical use?

23 MR. BARRETT: A: No. We say that it is a practical
24 use. In fact, it's an important part of our bridging
25 measures to get us to 2008. In fact, it's an
26 essential part. And even beyond then, what we've said

1 is that Pole 1 and Pole 2 will be evaluated after the
2 proposed project's completed, but it's very important
3 that these facilities remain in service until we have
4 a completed project.

5 I'd also point out that while Pole 1 and
6 Pole 2 are operated separately and were put in in
7 separate facilities, the -- we do require some of the
8 cables on the Pole 1 corridor to operate Pole 2.

9 So, Pole 1 is anything but surplus at this
10 point in time.

11 MR. HOLMSEN: Mr. Chairman --

12 THE CHAIRPERSON: Yes, we can take 15 minutes now, thank
13 you.

14 MR. HOLMSEN: Thank you.

15 **(PROCEEDINGS ADJOURNED AT 10:31 A.M.)**

16 **(PROCEEDINGS RESUMED AT 10:46 A.M.)** **T22**

17 THE CHAIRPERSON: Please be seated.

18 Mr. Holmsen, you may proceed.

19 MR. HOLMSEN: Thank you.

20 MR. HOLMSEN: Q: Mr. MacPhail, if Pole 1 was
21 decommissioned, it would not really have any impact on
22 transmission capacity to Vancouver Island, would it?

23 MR. MacPHAIL: A: I don't think I'm qualified to
24 comment on that. That's a BCTC system planning area.

25 MR. HOLMSEN: Q: Okay, I'd better pose it to Mr.
26 Barrett. I thought I was going to say him a little

1 bit.

2 MR. BARRETT: A: Could you repeat the question?

3 MR. HOLMSEN: Q: Yeah, if Pole 1 was decommissioned, it
4 would not have any impact on transmission capacity to
5 Vancouver Island?

6 MR. BARRETT: A: No, it would, especially in this
7 bridging period. What we're saying is Pole 1 is rated
8 zero for planning purposes but it's still available
9 for use. And so if we were to decommission it prior
10 to installation of a new circuit, we would have
11 potentially serious problems because we're relying on
12 that for part of our bridging measures.

13 MR. HOLMSEN: Q: Yeah, but you wouldn't really need it
14 during -- even during construction, will you?

15 MR. BARRETT: A: Yes we would. It's a critical part of
16 our bridging strategy.

17 MR. HOLMSEN: Q: Okay, thanks. Will you agree that the
18 decommission and removal of Pole 1 overhead cables and
19 Tsawwassen Beach terminal on TFN land with an
20 abandonment of the B.C. Hydro -- through the TFN lands
21 would be of very significant economic benefits to the
22 Tsawwassen First Nation, the removal of Pole 1?

23 **Proceeding Time 10:48 a.m. T23**

24 MR. BARRETT: A: I believe so, yes.

25 MR. HOLMSEN: Q: Thank you. So it could be a
26 negotiation point? With the TFN?

1 MR. BARRETT: A: I don't know. I wouldn't have
2 authority for negotiations.

3 MR. HOLMSEN: Q: Thank you. Do you agree that removal
4 of Pole 1 towers and lines along Highway 17 will have
5 a very positive visual impact for tourists and other
6 travelers along this road from -- to and from B.C.
7 Ferries?

8 MR. BARNETT: A: It would be an improvement of the
9 visual experience you would receive driving toward the
10 ferry.

11 MR. HOLMSEN: Q: Thank you. Would you not also agree
12 that the presence of the three submarine Pole 1 cables
13 in the vicinity of both the B.C. Ferries terminal and
14 the Roberts Bank facilities is an impediment to marine
15 traffic and anchorage?

16 MR. BARRETT: A: I don't think I would agree it's an
17 impediment to marine traffic.

18 MR. HOLMSEN: Q: By removing those cables in front of
19 Deltaport or Roberts Bank terminal, wouldn't that
20 improve their anchorage facilities?

21 MR. BARRETT: A: I don't think it would have any
22 impact. There -- we don't have any cables in the
23 immediate vicinity of the Deltaport. We do have
24 existing cables that go out on the B.C. Ferries
25 causeway, or adjacent to it, but I -- while the cables
26 are subject to some risk for damage from anchors, and

1 marine traffic issues, I don't believe the cables pose
2 any hazard to the ships.

3 **Proceeding Time 8:35 a.m. T24**

4 MR. HOLMSEN: Q: No, I didn't suggest that they posed a
5 hazard, but if they needed to drop an anchor and they
6 knew there were high tension cables underneath, they'd
7 have a little bit of a decision to make, I would
8 suggest.

9 Anyway, do you also agree that
10 decommissioning of the Pole 1 facilities would
11 significantly reduce the HVDC operating and
12 maintenance cost?

13 MR. BARRETT: A: It would eliminate the costs for
14 operating and maintaining that portion of the system.

15 MR. HOLMSEN: Q: Right. In the event of
16 decommissioning either DC Pole 1 or Pole 2, can Pole 1
17 or Pole 2 operating independently of each other?

18 MR. BARRETT: A: No they can't. Pole 2 was originally
19 installed with the C return and it needs to have the
20 metallic return to operate, and the metallic return
21 follows the Pole 1 corridor.

22 MR. HOLMSEN: Q: If required can Pole 2 be reconfigured
23 to operate independently?

24 MR. BARRETT: A: No.

25 MR. HOLMSEN: Q: It cannot use the --

26 MR. BARRETT: A: Well, we would have to install a new

1 metallic return or reconfigure it somehow.

2 MR. HOLMSEN: Q: It cannot use the C return.

3 MR. BARRETT: A: No.

4 MR. HOLMSEN: Q: Exhibit B1-6, part of BCUC IR 1.34.1,
5 document number 2, Appendix K deals with submarine
6 cable hazards. So it's BCUC IR 1.34.1 which is that
7 big monstrous document again.

8 MR. BARRETT: A: Yes, I have it. Which report?

9 MR. HOLMSEN: Q: Yeah, pages 3, 4 and 5 identify
10 specific locations of known or potential hazards. You
11 see those?

12 MR. BARRETT: A: I'm looking at 1.34.1 but what's the
13 title of the report you're referring to? There are
14 several reports.

15 **Proceeding Time 10:53 a.m. T25**

16 MR. CARPENTER: It appears that Mr. Holmsen is referring
17 to the second document in the response to BCUC 1.34.1,
18 Vancouver Island supply HVDC reinforcement project
19 planning report, dated February, 1997, which is about
20 half an inch back or so. And then, within that
21 report, he's referring to Appendix K of it, which
22 consists of a series of fold-out sheets, although
23 there's more than one set of fold-out sheets in that
24 document.

25 MR. BARRETT: A: I believe I've found it. Appendix K.
26 Which fold-out sheet are we looking at?

1 MR. HOLMSEN: Q: I'm looking at Figures 3, 4 and 5.

2 MR. BARRETT: A: I think we have the reference.

3 MR. HOLMSEN: Q: These figures identify specific
4 locations of known or potential hazards, followed by a
5 number of profiles identifying catenaries and other
6 problems at Galiano Reach, Arthur Island and
7 Trincomali Channel.

8 MR. BARRETT: A: Yes, that's --

9 MR. HOLMSEN: Q: Thank you. So with the modern cable
10 laying techniques using GPS and ROV, to what extent
11 can catenaries and other hazardous obstacles be
12 avoided during the placing and positioning of the new
13 cables?

14 MR. MacPHAIL: A: Could you please repeat the question?

15 MR. HOLMSEN: Q: I said, with the modern cable laying
16 techniques using GPS and ROV, to what extent can
17 catenaries and other hazardous obstacles be avoided
18 during the placing and positioning of these cables?

19 **Proceeding Time 10:56 a.m. T26**

20 MR. MacPHAIL: A: Well, based on my experience, they
21 can -- they're very effective in avoiding catenaries
22 and other hazards as you described. Provided the
23 geography is not too rugged, a cliff -- going over a
24 cliff underwater is much like on land, if it's there
25 and it can't be avoided, it's -- ROV won't help you.
26 But it will help you to find perhaps a better route

1 around it.

2 MR. HOLMSEN: Q: Yeah. No, I've seen other reference
3 to the problems of cable abrasion and so on.

4 MR. MacPHAIL: A: Yes.

5 MR. HOLMSEN: Q: Around the Galiano Reach area, so I
6 was curious, and these are cables that were laid 50
7 years ago, and when they didn't have these techniques,
8 so can you avoid a lot of these risks with the new
9 technologies?

10 MR. MacPHAIL: A: Specifically at Galiano Ridge?

11 MR. HOLMSEN: Q: Yes.

12 MR. MacPHAIL: A: Yes, we believe you can. We were --
13 the existing cables were laid without the benefit of
14 modern technology, and all but one of them have lasted
15 50 years -- 49 years.

16 MR. HOLMSEN: Q: But we know we have problems.

17 MR. MacPHAIL: A: Yes, but --

18 MR. HOLMSEN: Q: And my question was, then, that we
19 have seen these profiles which show quite large or
20 long catenaries on some of these cables, and with the
21 new technologies can you avoid some of these problems?

22 MR. MacPHAIL: A: Yes, we can.

23 MR. HOLMSEN: Q: But you will still lay them across
24 basically the same areas, same locations?

25 MR. MacPHAIL: A: No, we wouldn't. No, we wouldn't lay
26 them in the same area, we would look for better routes

1 across the ridge.

2 MR. HOLMSEN: Q: Okay.

3 MR. MacPHAIL: A: We have -- we have improved
4 bathometric information, and better technologies that
5 help us to find the best spots, and then the proposal
6 is to do an ROV survey to fine-tune those routes
7 before the actual laying process. And then during the
8 laying process, they would use the ROV to ensure that
9 the cables go down in an optimum location.

10 Modern laying -- cable laying ships can
11 also stop and recover cable. So if they see it's
12 going down in a bad spot, they can do what I've
13 described, pick it up again, move over to a better
14 location and lay it in a good spot. So we have a high
15 degree of confidence that they can be laid in a better
16 way than they were in 1956 and 1958.

17 MR. HOLMSEN: Q: And these cables would be better
18 reinforced than the ones that are in the past?

19 MR. MacPHAIL: A: I'm not sure what you mean by "better
20 reinforced". They will have a single layer of armour
21 wires --

22 MR. HOLMSEN: Q: Right.

23 MR. MacPHAIL: A: -- is the proposal, so in that sense
24 they'll be similar to the original ones.

25 MR. HOLMSEN: Q: Thank you.

26 MR. MacPHAIL: A: There is also an inter-office memo

1 dated 14th March 1996, to Mr. Gillespie from you, Mr.
2 MacPhail. This memo identifies various causes of
3 failure over the life of the cables, up to, I presume,
4 the date of the memo.

5 Mr. MacPhail, can you identify any
6 significant submarine cable failures on any of the 12
7 southern cables in the Strait of Georgia since the
8 date of that memo, aside from the -- from cable two,
9 which is out of service?

10 MR. MacPHAIL: A: Oh, I'll try to recall the ones that
11 I'm aware of. Were you referring just to the 138 or
12 to the DC cables?

13 MR. HOLMSEN: Q: To all -- all 11, I guess -- or 12. I
14 guess, 11 is still in service.

15 MR. MacPHAIL: A: Okay. Well, my memory might not be
16 perfect on this. I believe since that report there
17 was a failure in the mud flats at Roberts Bank on one
18 of the 1L17/18 cables. So it isn't third-party
19 damage, it was kind of an inherent failure in the
20 cable itself. And the cause was a loose armour wire
21 connection at English Bluff terminal. It's a bit of
22 an obscure cause for something to happen, but it
23 forced -- it forced heating into the -- a transition
24 joint in the intertidal zone, and there was a failure.

25 That's the only one I know of on 1L17/18.
26 There has been no failures on DC-1 that I know of

1 since 1996.

2 **Proceeding Time 11:01 a.m. T27**

3 And on DC-2, there was a -- I suppose it
4 depends how you call a failure. We did have a fluid
5 leak on one of the DC-2 cables in Trincomali Channel,
6 Cable 9, that was taken out of service in 2001 and
7 replaced in 2003. There was no electrical breakdown.
8 It was just a fluid leak that had to be addressed.

9 Then in, I think around 1998, maybe 2000,
10 there was a dig-in failure on one of the DC-2 cables
11 near Canoe Pass terminal, and I believe it was an
12 excavator expanding the size of irrigation ditches
13 that contacted one of the cables and caused a failure.

14 MR. HOLMSEN: Q: Has there been any anchor damage?

15 MR. MacPHAIL: A: No, there hasn't.

16 MR. HOLMSEN: Q: Thank you. Now, please refer to B1-1,
17 Appendix F, Figure 1-1.

18 MR. BARRETT: A: Which figure was it, Mr. Holmsen?

19 MR. HOLMSEN: Q: Pardon?

20 MR. BARRETT: A: Which figure in the report?

21 MR. HOLMSEN: Q: Figure 1-1. I assume that the cables
22 on this map are reasonably accurately positioned, and
23 all Pole 1 submarine cables are crossing within 800
24 metres directly offshore in the front of Deltaport
25 container facilities. A length of over 7500 metres of
26 Pole 1 submarine cables are located within a distance

1 of 4,000 metres of the Deltaport container and coal
2 facilities.

3 In contrast the submarine cable of the
4 proposed Option 5, the modified option, would enter
5 the deeper offshore waters to the north, a minimum
6 distance of 4,000 metres away from any part of the
7 present or proposed Deltaport facilities. All three
8 Pole 1 DC and all seven IL circuit -- 1L17 and 1L18,
9 and 138 kV AC lines are in front and enclosed vicinity
10 of the B.C. Ferries terminal.

11 In your opinion, which of these routes
12 would be of the greatest exposure to anchor damage,
13 the current Pole 1 route or the modified route Option
14 5?

15 MR. BARRETT: A: This might be a question better --

16 Mr. MacPHAIL: Q: I would have to do a detailed
17 analysis before I formed an opinion on this. The
18 subject is more complex than just anchor damage.
19 There is an anchoring point there, what they call
20 Romeo, in that vicinity, and I understand that the
21 container ships anchor there sometimes, so that's a
22 spot to be avoided.

23 MR. HOLMSEN: Q: Yeah, no, the question arose, of
24 course, from the statement from BCTC that Option 5
25 would have a greater anchorage risk, and from that
26 point it was not acceptable. And here we're talking

1 But in fact, the Deltaport itself is not
2 where they anchor. They anchor in the anchorage area,
3 so that's -- in terms of assessing that risk, that's
4 what you would have to look at. So the 4,000 metres
5 is not really the appropriate measure. You'd have to
6 look at the distance that you are away from the
7 anchorage point.

8 MR. HOLMSEN: Q: I am aware of that, of course. I was
9 referring to Option 5, not Option 4, that you
10 mentioned. So I hope that isn't --

11 MR. NELSON: A: No, I was thinking your modified Option
12 5.

13 MR. HOLMSEN: Q: Five, okay, thank you. Now, they --
14 my point here was that by removing Pole 1, the area
15 for anchorage could be actually expanded southwards,
16 rather than northwards.

17 MR. BARRETT: A: I'd have no idea what the -- what the
18 marine people would say, how they allow and determine
19 where they anchor ships. I wouldn't think that they
20 would anchor ships any closer to the B.C. Ferries
21 routes than they do now, but I wouldn't know, I'm not
22 an expert.

23 MR. HOLMSEN: Q: I'm not suggesting that. Just
24 suggesting that by removing the Pole 1 area for the --
25 the anchorage could be expanded. But we've exhausted
26 that.

1 I'd like you to refer you to Exhibit C1-13
2 again, Figure 5-19, page 5.21. It's page 5.21, it's
3 Figure 5-19.

4 MR. BARRETT: A: Yes.

5 MR. HOLMSEN: Q: Presently this picture shows the entry
6 point of Pole 1 and Pole 2 submarine cables at Cook's
7 Cove on Galiano Island. Currently there are five DC
8 cables entering at this point, three for Pole 1, and
9 two for Pole 2. I understand these are not in
10 chaseways but in trenches. Am I correct?

11 MR. MacPHAIL: A: They're not what?

12 MR. HOLMSEN: Q: They're not in chaseways, they're in
13 trenches.

14 MR. MacPHAIL: A: They're -- yes, that's right.

15 MR. HOLMSEN: Q: Thank you. Please explain to me then,
16 Mr. MacPhail, in the event Pole 1 was decommissioned,
17 and the three Pole 1 cables removed, could the
18 chaseway be constructed to accommodate the entry point
19 for the three submarine 230 kV cables in this place?

20 **Proceeding Time 11:11 a.m. T29**

21 MR. MacPHAIL: A: Yes, it appears they could be.

22 MR. HOLMSEN: Q: Thank you.

23 Now please turn to the next page, Figure 5-
24 20, page 5-22 of Exhibit C-113. This page shows a
25 three conductor lattice steel tower used for Pole 1 DC
26 on Galiano Island. For your information because of

1 the height of the pitch of the towers appears squatter
2 than actually is. If Pole 1 were decommissioned,
3 please tell me, could this tower be used for the three
4 conductor 230 kV proposed VITR system?

5 MR. MacPHAIL: A: Yes, it could.

6 MR. HOLMSEN: Q: Good. Thank you. Do you agree that
7 if the existing lattice steel towers with Pole 1
8 conductors removed could not be used temporarily for
9 Stage 1 of the VITR, there could be more than ample
10 space on the 89 metre wide right of way for the new
11 single steel pole 230 kV?

12 MR. MacPHAIL: A: We haven't looked at that in detail.

13 MR. HOLMSEN: Q: No, but you could those existing
14 towers for the new light.

15 MR. MacPHAIL: A: Yes, we could, provided they were --
16 you needed to continue operation of Pole 2.

17 MR. HOLMSEN: Q: Yeah. Thank you. In the background
18 of this picture you can see the GNO DC terminal
19 installation. Again if Pole 1 were decommissioned and
20 the related equipment removed from the terminal
21 facilities, could the basic facility accommodate the
22 new 230 kV terminal together with existing remaining
23 Pole 2 facilities?

24 MR. MacPHAIL: A: It appears as if it could. There may
25 be some geotechnical studies that would be necessary
26 just to make sure that the site is up to modern

1 standards. It appears as if there's enough room.

2 MR. HOLMSEN: Q: That will not be major.

3 MR. MacPHAIL: A: No.

4 MR. HOLMSEN: Q: Thank you. Well, let's jump across
5 the pond and take a look at the Delta side of the
6 concept. Still with C-113 as the reference, please
7 move forward to page 5.18, Figure 5-17. Have you got
8 those? Do you agree that these towers could be
9 modified, for example, by adding three David arms on
10 the left side to accommodate a three conductor 230 kV
11 AC line on the same structure as HVDC Pole 2?

12 MR. BARNETT: A: It would require detailed analysis of
13 those towers to see whether they could support the
14 additional weight of the new cables. So I cannot
15 comment on that right now.

16 MR. HOLMSEN: Q: No, but it's a possibility. Now, if
17 you cannot --

18 MR. BARNETT: A: I don't know. It would have to be
19 analyzed.

20 MR. HOLMSEN: Q: Thank you. Now, if the sag of all
21 this longer spans would be too great for the
22 horizontal placing of the conductors on the 230 kV,
23 could you put intermediate poles in as has been
24 proposed by the VITR project for Delta?

25 MR. BARNETT: A: In the picture it appears that it
26 would be feasible.

1 MR. HOLMSEN: Q: Thank you. Could not what I suggested
2 for both the Galiano and on the Delta side constitute
3 a considerable capital cost saving for the project,
4 Mr. Barnett?

5 MR. BARNETT: A: It would depend. I wouldn't want to
6 just say that right off the top of the my head. I'd
7 want to take a look at it.

8 MR. HOLMSEN: Q: Of course what I'm alluding to here is
9 that it could be a potential cost saving in Stage 1,
10 which of course when Stage 2 comes in you would have
11 to put the new towers in where required.

12 MR. BARNETT: A: Your analysis of it is correct. Yes,
13 in the second stage we would have to install another
14 set of towers and --

15 MR. HOLMSEN: Q: Yeah.

16 MR. BARNETT: A: So that would have to be figured into
17 the whole plan.

18 MR. HOLMSEN: Q: That's right. I tried to cover that
19 in my estimate, so --

20 **Proceeding Time 11:16 a.m. T30**

21 MR. BARRETT: A: Well, what I think we need to point
22 out is, while some of the aspects we're talking about,
23 making overhead line modifications, would be feasible
24 if we were to be able to take the entire HVDC system
25 out of service while we build this project, that's
26 true. The other issue that doesn't go away from this

1 alternative, and the primary one that makes these
2 infeasible, is the geophysical issues with respect to
3 the cable. And those don't change.

4 MR. HOLMSEN: Q: Mr. Barrett, my suggestion here, is it
5 feasible to do so and if you do it this way, as I'm
6 suggesting, you wouldn't have to take the 138 kV out
7 until you had built most of this -- or constructed
8 most of these lines.

9 MR. BARRETT: A: No, I'm talking about the HVDCs. The
10 existing HVDC system, under this proposal, would have
11 to be completely decommissioned while we built this
12 project.

13 MR. HOLMSEN: Q: Pole 2 only temporarily, correct?

14 MR. BARRETT: A: I thought you were suggesting to using
15 the Pole 2 tower for an overhead line.

16 MR. HOLMSEN: Q: What I suggested was using the Pole 2
17 on the one side as it is now, and putting the first
18 stage of the 230 kV on the opposite side with new
19 arms.

20 MR. BARRETT: A: Oh, okay.

21 MR. HOLMSEN: Q: It's possible, isn't it?

22 MR. BARRETT: A: So you're proposing to add three new
23 sets of conductors on this tower?

24 MR. HOLMSEN: Q: On the one side. David arms,
25 whatever.

26 MR. BARRETT: A: It may be possible. I seriously doubt

1 it. That would raise the loads in this tower by a
2 factor of four.

3 MR. HOLMSEN: Q: Okay. So, well, I just wanted to --

4 MR. BARRETT: A: Okay.

5 MR. HOLMSEN: Q: -- to point that out. If you can't
6 use it that way, you could put the new tower -- the
7 new pole, and you would -- single steel pole's up, and
8 then put the Pole 2 on that same pole, on the one
9 side.

10 MR. BARRETT: A: That's certainly a possibility, yes.

11 MR. HOLMSEN: Q: Okay, thank you.

12 I'm referring to transcript 10, page 1589,
13 line 24, it's -- it's a response by Mr. Barrett. Line
14 1589 -- no, line 24, page 1589. Where, Mr. Barrett,
15 you comment that, in the event of a serious structural
16 failure of the Arnott facilities, such as a disastrous
17 earthquake, the arm to VITR 230 kV line could be
18 quickly reconnected with one or more of the current
19 230 kV lines, bypassing the Arnott substation.

20 You mentioned, such a connection could
21 quickly be arranged at a low cost of approximately
22 \$100,000 to \$150,000. Do you agree on that?

23 MR. BARRETT: A: Don't hold me to that number. It
24 would be a relatively low number, but it would -- at
25 that point I was speculating.

26 MR. HOLMSEN: Q: Yes, no. But it is a relatively low

1 figure, low cost.

2 MR. BARRETT: A: Yes.

3 MR. HOLMSEN: Q: No, recently a \$3 billion road and
4 bridge infrastructure was announced for the Greater
5 Vancouver area. This included \$8 million for all this
6 -- the South Fraser Perimeter Road. This road would
7 be an extension of the current industrial transfer
8 corridor from the Roberts Bank, the port superport.
9 One of the two roads proposed would follow parallel to
10 the present railroad track, and run north by bypassing
11 the residential area of east Ladner, and cross Highway
12 10 just to the east of Arnott substation.

13 Please refer to the sketch map, Exhibit C1-
14 13, Figure 5-23 on page 5.27.

15 MR. BARRETT: A: Yes, we have it.

16 MR. HOLMSEN: Q: In view of what was just said and
17 agreed upon, about the direct and rather inexpensive
18 connection being by bypassing ARN, would you not agree
19 that such a connection could just as easily be done at
20 a point where the new proposed transport corridor will
21 cross into ARN line to the east of Ladner, from one of
22 the four existing 230 kV lines?

23 MR. BARRETT: A: I know it would not be as easy,
24 because you're talking about an entirely new right of
25 way corridor and a considerable length of line. What
26 we're proposing is just a couple of -- it's just a

1 very few structures on our existing property at
2 Arnott.

3 **Proceeding Time 11:21 a.m. T31**

4 MR. HOLMSEN: Q: No, I'm suggesting here that it is a
5 major new transport corridor and would be expanded
6 from the present one from Deltaport. And this will
7 be, in my opinion, an appropriate location for an
8 industrial power line that's being proposed. And the
9 possibility is there, is it not, to connect these at
10 that location that I suggested east of ARN?

11 MR. BARRETT: A: Yes, physically that's a possibility.

12 MR. HOLMSEN: Q: Thank you. Mr. Nelson, I think maybe
13 this is another question for you. I would like to ask
14 a few questions related to underground duct
15 construction. Exhibit B1-1, section 3.3.3.1. It's
16 Figure 3.3-23, page 55. This illustrates a
17 configuration of the proposed buried cable system in
18 Tsawwassen. A cross-section of the proposed duct
19 shows that the duct is about one and a half metre
20 wide, .8 metre deep, and will be buried one metre.
21 Exhibit B1-1, section 3.3.3.2, page 57, line 6
22 indicates an excavation depth of each duct bank to be
23 2 to 3 metres. Do you agree, Mr. Nelson?

24 MR. NELSON: A: That's what it says.

25 MR. HOLMSEN: Q: Thank you. In Mr. Yardley's cross-
26 examination, I'm going to refer you to Transcript 9,

1 page 1277, line 18. Transcript 9, page 1277.

2 MR. BARRETT: A: I have that reference.

3 MR. HOLMSEN: Q: Thank you. And Mr. Barrett, you
4 indicated that the excavation would be about 2 metres
5 deep. No, about 2 metres, I guess it could be 2 to 3
6 metres, could it not?

7 MR. BARRETT: A: Well, when we set a 2 to 3 metre
8 range, there will be some places, especially in
9 streets, where we'll have to dig deeper to avoid
10 utilities. But generally if we don't need to do that,
11 we'd be about 2 metres deep.

12 MR. HOLMSEN: Q: Yeah, I understand. Of course there
13 are utilities in the streets that have to be
14 accommodated as well, so -- but it would generally be
15 2 to -- a duct will be only one metre from the
16 surface.

17 MR. BARRETT: A: Well, that's the minimum coverage we'd
18 have. Generally it would more than that, but that's
19 what we -- we were trying to represent the minimum
20 depth.

21 MR. HOLMSEN: Q: Right. Excavating down an additional
22 metre would translate into at least 50 percent more
23 material to excavate, haul off site and bring back in,
24 would it not?

25 MR. BARRETT: A: If you go from 2 to 3 metres the
26 volume increases by 50 percent, yes.

1 MR. HOLMSEN: Q: That's right. And presumably the
2 excavation would be a bit wider if you go down even
3 deeper, say 4 metres deep, how much wider?

4 MR. BARRETT: A: It wouldn't necessarily be any wider.
5 We've had to do a shoring, I'm sure, at that depth to
6 construct a duct bank that deep.

7 MR. HOLMSEN: Q: Okay, you would not have to shore it
8 for 2 metres?

9 MR. BARRETT: A: Well, we may have to, but it would be
10 certainly much more challenging at a 4 metre depth.

11 MR. HOLMSEN: Q: Commissioner O'Hara has, in Transcript
12 15, page 2454, line 16, already requested a cost
13 estimate for 1 metre deeper trench, so I won't request
14 that from you. But could you also give a cost
15 estimate of magnitude for a 4 metre deep trench?

16 MR. BARRETT: A: I think to do that with any bit of
17 reliability, we would have to do some more engineering
18 study, because that would be an engineer type of
19 excavation, that wouldn't be a normal type of
20 excavation that we'd do. And while we could
21 conceivably do a cost estimate, the degree of
22 reliability would be much less.

23 MR. HOLMSEN: Q: Yeah.

24 **Proceeding Time 11:26 a.m. T32**

25 MR. BARRETT: A: And we'll also point out, at that
26 depth there are thermal issues with the cable. Is

1 that the cooling of the cable is less efficient at
2 that depth because most of the cooling comes through
3 the surface of the ground and we would have to put in
4 bigger cables in order to accommodate that derating at
5 that depth.

6 MR. HOLMSEN: Q: Yes, I'm coming to that a little later
7 actually.

8 MR. BARRETT: A: Okay, okay.

9 MR. HOLMSEN: Q: The trenches will be 10 metres apart,
10 center to center, is that correct?

11 MR. NELSON: A: That's correct.

12 MR. HOLMSEN: Q: In your opinion from a practical
13 construction practice -- or perspective, I should say,
14 considering that the work is scheduled during the wet
15 winter months, how close to the edge of the ducts do
16 you believe you could safely operate the machinery
17 without collapsing the edges of the excavation,
18 assuming a 3-metre deep trench?

19 MR. NELSON: A: Will you repeat the question, please.

20 MR. HOLMSEN: Q: Yeah, I'm asking how close to the
21 trench do you think you can operate the heavy
22 machinery without collapsing the edges, assuming a 3-
23 metre deep trench.

24 MR. NELSON: A: I think two issues to cover. In the
25 areas, I assume you're talking about the areas in back
26 yards where there is no roadway?

1 MR. HOLMSEN: Q: Yes, I do.

2 MR. NELSON: A: Okay, in those areas we see no need to
3 go to 3 metres depth. We would be looking at 1.8 or 2
4 metres in depth. In that case you would basically go,
5 you'd be able to go within 2 metres of the edge of the
6 duct bank.

7 MR. HOLMSEN: Q: Two metres?

8 MR. NELSON: A: Yes.

9 MR. HOLMSEN: Q: I appreciate that, but what if you're
10 going down 3 metres, as I was asking?

11 MR. NELSON: A: I think what you would have to is have
12 a civil engineer with construction experience
13 determine that particular separation. We do have 10
14 metres between the ducts. So that is, provides quite
15 a large separation, but I'm not qualified to determine
16 how close those vehicles would go. It would depend on
17 the type of vehicle, the loading, shoring that's
18 provided.

19 MR. HOLMSEN: Q: No, but you suggested 2 metres, for 2-
20 metre deep. Okay, now then, the 10 metres center to
21 center on the ducts, correct? Am I correct?

22 MR. NELSON: A: That is correct.

23 MR. HOLMSEN: Q: So will we lose about 5 metres out of
24 the separation here to operate the heavy machinery. I
25 presume you're talking about working between the
26 ducts, correct?

1 MR. NELSON: A: That is correct.

2 MR. HOLMSEN: Q: So 5 metres doesn't give you very much
3 to manoeuver big trucks and backhoes, et cetera.

4 MR. NELSON: A: The backhoes would not necessarily be
5 working in that area because they straddle the duct
6 area or they're working ahead of the duct area.

7 MR. HOLMSEN: Q: Okay, thank you. But the trucks will
8 have to work in between?

9 MR. NELSON: A: Yes, and that's really equivalent to
10 the type of area and in many cases a greater area than
11 when we're working in the streets.

12 MR. HOLMSEN: Q: Mr. Nelson, the distance between 16th
13 -- excuse me.

14 Mr. Nelson, the distance between 16th Avenue
15 and 12th Avenue is over 800 metres. Since there will
16 be no space wide enough to turn around and no lateral
17 access. How do you expect to operate under those
18 circumstances? What logistics -- what would be the
19 logistics with the dump trucks and so on, to operate
20 in an area like that?

21 **Proceeding Time 11:31 a.m. T33**

22 MR. NELSON: A: In specifically which areas were you
23 talking about?

24 MR. HOLMSEN: Q: Between 16th Avenue and 12th Avenue.
25 There's no lateral access along there. It's 800
26 metres between these two avenues.

1 MR. NELSON: A: Sorry, I still don't quite understand
2 the question.

3 MR. HOLMSEN: Q: If you have a backhoe that's
4 straddling the duct, would you have room to pass the
5 trucks by -- on one side, or do you have to back them
6 up for maybe 400 metres or more?

7 MR. NELSON: A: I think I have to look at the specific
8 area. So 12th Avenue?

9 MR. HOLMSEN: Q: Between 12th and 16th. That's the
10 longest distance. There are other similar type of
11 situations, but they're not as far as to -- as far
12 between the areas that can have access.

13 MR. NELSON: A: That's the longest section.

14 MR. HOLMSEN: Q: Yes.

15 MR. NELSON: A: Yes. The -- if I'm understanding the
16 question properly, in the areas between 12th and 16th
17 Avenue, which is probably the longest section that
18 would require work in the back yards, how would we --
19 how would the machinery pass each other?

20 In fact, the machinery wouldn't. It would
21 be like a one-way street, so to speak, where basically
22 the trucks would be operating down the centre corridor
23 between the two ducts, and the excavators would be
24 working over top of the duct.

25 MR. HOLMSEN: Q: Yes, I understand. Is there room
26 enough to go by the excavator, when they have only got

1 about six, seven metres? And I presume you have a
2 fairly wide backhoe.

3 MR. NELSON: A: The size of the machines will be
4 determined by the contractors, and the conditions that
5 we put on them, but there is -- there is ample room
6 with that -- the space that's provided. It's
7 equivalent to a roadway. Our -- roughly, we've talked
8 about 20 metres, but in fact we are looking at working
9 areas that vary between realistically 15 and 20
10 metres, and that's the width of a road allowance,
11 which is the typical working area that we have for
12 virtually all of the construction that we work in.
13 And we normally leave half of the roadway open. So
14 there is adequate space.

15 MR. HOLMSEN: Q: May I suggest to you, if you're going
16 to work in between these ducts, you have only five
17 metres, and that the backhoe is going to take up some
18 of that room.

19 MR. NELSON: A: No, the backhoe does not take up any of
20 that five metres.

21 MR. HOLMSEN: Q: So it's not going to straddle -- I
22 thought you said it was going to straddle the duct.

23 MR. NELSON: A: It'll straddle the duct, and then you
24 have the working area for the dump trucks and cement
25 trucks, is between the -- between the ducts.

26 MR. HOLMSEN: Q: And I can bypass -- you'll have enough

1 room without collapsing the ducts?

2 MR. NELSON: A: Yes.

3 MR. HOLMSEN: Q: So, but it will be a busy street there
4 for a while, won't it?

5 MR. NELSON: A: Yes it will.

6 MR. HOLMSEN: Q: Thank you. Now, Mr. Nelson, if Mr.
7 Barrett's statement is correct, under those
8 circumstances, where we have one property which -- or
9 two properties are divided by a fence, where 1L17 is
10 presently on one side and 1L18 on the other, you only
11 have ten metre strip to conduct your excavation and
12 construction within that -- the duct will be in the
13 middle, 5 metres to the centre from the fence. Please
14 tell me how you would solve that construction
15 challenge.

16 **Proceeding Time 11:36 a.m. T34**

17 MR. NELSON: A: In that section of the right of way, we
18 would only work on the one side -- in the one
19 property. We would be required to have the access
20 ways on the outside of the ducts, if you will, and it
21 would be the same principles. The excavator, be it a
22 backhoe or a larger track hoe, would effectively
23 straddle the duct area, and the support vehicles would
24 have access on the outside area.

25 MR. HOLMSEN: Q: Yeah, so you can't get away with 10
26 metres. I'm sure you agree on that, don't you?

1 MR. NELSON: A: It would be slightly larger than 10
2 metres. I forget what the exact --

3 MR. HOLMSEN: Q: Yeah, so you would get close to the
4 walls of those houses on those --

5 MR. NELSON: A: We are not close to the walls of the
6 houses.

7 MR. HOLMSEN: Q: Okay. Thank you. I would make
8 reference to Exhibit B1-11, TRAHVOL IR 1.159.2.

9 MR. NELSON: A: Could you repeat that reference?

10 MR. HOLMSEN: Q: It's 1.159.2. It's a diagram.

11 MR. BARRETT: A: I believe we have the diagram you're
12 referring to.

13 MR. HOLMSEN: Q: Yeah. Now you see there really aren't
14 that much waste, that much room between the walls and
15 the right of way edge, so all this equipment will be
16 working very close to the homes, won't it?

17 MR. NELSON: A: When we looked at this area, if you're
18 assuming you're working on just one of the property
19 lines only -- I assume that's the question, Mr.
20 Holmsen?

21 Then we would again be straddling the duct
22 bank with the excavator. We'll have access with dump
23 trucks, and you could go to -- I believe we were
24 looking at approximately 8 metres from the centre
25 line, so that you have roughly a 5 metre or 6 metre
26 access area, and that would still leave more than 10

1 metres to the property lines.

2 MR. HOLMSEN: Q: You get a lot of traffic next to the
3 houses through there too, don't they?

4 MR. NELSON: A: There will be traffic next to the
5 houses.

6 MR. HOLMSEN: Q: Now, in Transcript 9, page 1301, line
7 7, Mr. Yardley was cross-examining Mr. Barrett and Mr.
8 Yardley says:

9 " Okay. Are you able to advise how close,
10 and I'm thinking with reference to the
11 cross-section, using this as a witness aide
12 basically, how close construction equipment
13 would come to the houses in connection with
14 the VITR Option 2 work?"

15 And Mr. Barrett's response:

16 "Well, this sketch..."

17 Presumably referring to the TRAHVOL 1.1592.

18 "... indicates that the construction zone
19 would be at least 20 metres away from the
20 edge of the right of way so it would be 20
21 metres or more from the house."

22 Do you agree on that, Mr. Barrett, your statement?

23 **Proceeding Time 11:41 a.m. T35**

24 MR. BARRETT: A: We were talking about the -- we
25 weren't talking about the sections where the right of
26 way is split between two properties. We were talking

1 about the sections of right of way where the -- where
2 both lines are on the -- on the property.

3 MR. HOLMSEN: Q: Yes, I realize that. But that was not
4 my question.

5 MR. BARRETT: A: Okay.

6 MR. HOLMSEN: Q: I asked, do you agree on this
7 statement that was made in the transcript? That to be
8 at least 20 metres away from the edge of the right of
9 way? So it would be 20 metres or more from the house?

10 MR. BARRETT: A: Well, looking at the diagram, that's
11 what it appears, because the --

12 MR. HOLMSEN: Q: No, I'm just asking if you agree on
13 that statement, that you confirm that statement that
14 you made.

15 MR. BARRETT: A: It's approximately accurate, yes.

16 MR. HOLMSEN: Q: That it will be 20 metres or more from
17 the house, or 20 metres from the right of way.

18 MR. BARRETT: A: It's -- in this case, yes.

19 MR. HOLMSEN: Q: Okay. I think we -- we didn't have
20 the same math teacher, Mr. Barrett. The right of way
21 is 53.34 metres wide, not 60 metres, which means that
22 the centre line is less than 27 metres from the edge
23 of the right of way, do you agree?

24 MR. BARRETT: A: Yes, the diagram is -- shows that.

25 MR. HOLMSEN: Q: Yeah. But, so, how can you be 20
26 metres or more from the house, or from the edge of the

1 right of way? If you're going to have a 20 metre
2 construction zone in the middle?

3 MR. BARRETT: A: If you took the full 20 metres, it
4 would be slightly less than 20 metres, yes.

5 MR. HOLMSEN: Q: It would be 17 metres, wouldn't it?

6 MR. BARRETT: A: Yes, it would.

7 MR. HOLMSEN: Q: Thank you. So you were not correct in
8 that statement.

9 MR. BARRETT: A: Apparently not.

10 MR. HOLMSEN: Q: No -- thank you.

11 Mr. Austin, in his cross-examination of
12 Panel 1, referenced transcript 10, page 1507, line 11.
13 Mr. Austin asked Mr. Barrett why it would be more
14 difficult construction in a street than it would be in
15 back yards. Mr. Barrett, your response was:
16 "There's a 175-foot right of way in these
17 back yards."
18 Do you recall that response to Mr. Austin, Mr.
19 Barrett?

20 MR. BARRETT: A: Yes.

21 MR. HOLMSEN: Q: Good. We have already heard several
22 references to the required width of construction of
23 the two underground duct banks being 20 metres or
24 possibly a little less in some places. Do I
25 understand that right, Mr. Barrett?

26 MR. BARRETT: A: Yes.

1 MR. HOLMSEN: Q: Now, in your response to Mr. Austin,
2 you infer you really have 175 feet, or 53.34 metres,
3 of right of way to work within, don't you?

4 MR. BARRETT: A: Would you repeat the question?

5 MR. HOLMSEN: Q: Well, I said, in your response to Mr.
6 Austin, you infer you really have 175 feet of -- or
7 53.34 metres of right of way to work within, do you
8 agree?

9 MR. BARRETT: A: Well, I'm -- it's not our intention to
10 do it that way. And we -- we would intend to do it as
11 we've described. There's no need for us to disturb
12 the full width of the right-of-way.

13 MR. HOLMSEN: Q: No, we hope not. But you made that,
14 when he asked about more difficult construction, this
15 reads would be in back yards, your response was "There
16 is a 175-foot right of way in these back yards." I
17 read that as being -- you have the right -- 175-foot
18 right of-way, you can do whatever you like with that.
19 You can use the whole thing for construction.

20 We understand that you would not
21 deliberately do that, but I read it this way, that you
22 feel you have the right to do that.

23 MR. BARRETT: A: I didn't intend it that way at all,
24 Mr. Karsten -- Mr. Holmsen. I --

25 MR. HOLMSEN: Q: No, I just wanted to make a point,
26 thank you.

1 Well, anyway, if that happened, you know,
2 you wouldn't have much a tennis court in the back
3 yard.

4 Now, you're saying you didn't mean it that
5 way, but should -- is B.C. going to ask the property
6 owners to take its word for it?

7 **Proceeding Time 11:46 a.m. T36**

8 MR. BARRETT: A: We will actually include in our
9 construction tendering documents the requirements on
10 the contractor, and the requirements will include
11 limiting the impact, erecting fences, and conducting
12 all of their activity between those fences.

13 MR. HOLMSEN: Q: Thank you. I think it's required
14 because you realize, of course, that BCTC doesn't
15 carry a very high degree of credibility with the right
16 of way homeowners. Don't you agree?

17 MR. BARRETT: A: I wouldn't comment on that.

18 MR. HOLMSEN: Q: Thank you.

19 Back to you, Mr. Nelson. Even though BCTC
20 believes it has the right to operate heavy equipment
21 within the entire way, there would still be an
22 operation problem in such tight quarters, as --that
23 specific segments. We have talked about that.

24 MR. NELSON: A: I think we want to clarify that -- and
25 as I've stated before, this space available is typical
26 to what we would have in streets, in roadways. And so

1 it's not what I would call tight quarters. It's
2 restricted in terms of the number of entrances and
3 exits that you have.

4 MR. HOLMSEN: Q: Thank you. Now, I don't suggest that
5 you would deliberately knock a person's house down
6 with a backhoe, but it is going to be -- I should use
7 the term "inconvenience", my word for the people
8 that's living along the right of way during the
9 construction.

10 MR. NELSON: A: Yes, there will be.

11 MR. HOLMSEN: Q: Now back to you, Mr. Barrett. B.C.
12 stated, and I refer to Exhibit B-1, section 3.3.3,
13 page 52. BCTC states that:

14 "In selected areas of segment 2, a second
15 set of underground conduits will also be
16 installed to facilitate the potential
17 installation of a second 230 kV underground
18 cable circuit in the future, and to limit
19 repeated impacts to private properties."

20 And also on the next page, page 53 of the same
21 exhibit, line 24 it stated:

22 "In openly accessible areas for properties
23 not requiring excavation for the first duct
24 bank, future duct banks and access manholes
25 for the potential second circuit will not be
26 installed at this time."

1 On the same page, line 13, it says:

2 "Sheets 5, 6 and 7 of Appendix A show a
3 conceptual layout of the new concrete duct
4 banks and underground manholes in comparison
5 to the existing overhead lines and the right
6 of way boundaries."

7 Can you confirm these quotes are correct, Mr. Barrett?

8 MR. BARRETT: A: Yes they are.

9 MR. HOLMSEN: Q: Thank you. Now please refer to
10 Exhibit B1-1, Appendix A, Plates 06 and 07. Mr.
11 Barrett, you are familiar with this sort of photos,
12 are you not?

13 MR. BARRETT: A: Yes, I am.

14 MR. HOLMSEN: Q: Now, unless you have extremely sharp
15 eyesight you will have difficulties distinguishing the
16 two fine blue lines running along the right of way on
17 these sort of photos. Anyone here with access to a
18 computer, we'll be able to magnify this picture so the
19 blue lines can be clearly defined. Does anyone see
20 what I'm pointing out?

21 MR. BARRETT: A: I see it, yes.

22 MR. HOLMSEN: Q: Yeah, the rest of you will have to
23 take my word for it. The legend in the bottom left
24 corner tells us that the solid fine blue line
25 indicates where BCTC proposes to bury a duct in the
26 first stage of the project.

1 **Proceeding Time 11:51 a.m. T37**

2 A dotted fine blue line indicates that
3 excavation and construction will be delayed until the
4 second stage, presumably the year 2017. You can see
5 these dotted lines across the parks, school parking
6 lot, street crossings, and on the B.C. Hydro property
7 at English Bluff.

8 So do you agree with me, Mr. Barrett, that
9 this section shown of areas with one dotted blue line
10 and one solid blue line will only one duct installed
11 during the first stage?

12 MR. BARRETT: A: Yes, I testified to that before. I
13 also pointed out that there is an inconsistency on
14 these drawings. It's difficult to see, but this one
15 does show a solid blue line on both properties where
16 the centre line is between the properties. If you
17 look at the report that was done for the restoration,
18 it's more correctly represented.

19 MR. HOLMSEN: Q: Well, do you agree that the whole
20 areas, the solid fine blue lines with have both ducts
21 installed during the first stage?

22 MR. BARRETT: A: With the exception of the
23 clarification I just gave you, yes.

24 MR. HOLMSEN: Q: So the plans are not correct?

25 MR. BARRETT: A: Yes, there is an inconsistency for the
26 -- and I'm not sure there's the street and its names,

1 but it's between Nielsen and 6th Avenue.

2 MR. HOLMSEN: Q: Okay, so along 6th Avenue?

3 MR. BARRETT: A: Yes.

4 MR. HOLMSEN: Q: I did examine this and a question was
5 raised in my Exhibit B1-17, IR No. 1.12.1.

6 MR. BARRETT: A: Would you repeat the IR number again?

7 MR. HOLMSEN: Q: It's 1.12.1.

8 MR. BARRETT: A: Yes.

9 MR. HOLMSEN: Q: And I quote, please confirm if the
10 conduits constructed for Phase 2 of the VITR project
11 through the selected areas are the ones shown with the
12 solid blue line on the west side, this is the 1L17
13 side, of the right of way on the application order --
14 Appendix A sheets 6 and 7. What was BCTC's response
15 to that, Mr. Barrett?

16 MR. BARRETT: A: This response was confirmed, but this
17 response is incorrect; to the extent that I have just
18 clarified the one portion.

19 MR. HOLMSEN: Q: Yes, but you did confirm that, or BCTC
20 confirmed that in my Information Request and there was
21 no such corrections to that, was there?

22 MR. BARRETT: A: Other than this one I've just said.
23 That was incorrectly confirmed for the entire length
24 of those two sheets, there was an inconsistency in the
25 drafting.

26 MR. HOLMSEN: Q: So there are no doubt -- that there

1 will be on the one duct constructed between 6th Avenue
2 and --

3 MR. BARRETT: A: Correct.

4 MR. HOLMSEN: Q: -- in the first stage?

5 MR. BARRETT: A: Correct.

6 MR. HOLMSEN: Q: Is there anywhere that you can point
7 out to me in the CPCN application where it's indicated
8 that this is the case?

9 MR. BARRETT: A: We did describe in words our intention
10 was to in those residential properties where both
11 lines existed that we would put the two ducts in.

12 MR. HOLMSEN: Q: Can you refer me to that section?

13 **Proceeding Time 11:56 a.m. T38**

14 MR. BARRETT: A: It's in Exhibit B1-1, page 52, the
15 last full paragraph.

16 MR. HOLMSEN: Q: It's line 23, starting on line 23?

17 MR. BARRETT: A: Yes.

18 MR. HOLMSEN: Q: Could you read that out to me, please?

19 MR. BARRETT: A: Well, the intent here is indicated,
20 but the specifics perhaps are not.

21 MR. HOLMSEN: Q: I didn't ask for the intent, I asked
22 you to read it out.

23 MR. BARNETT: A: It says:

24 "In selected areas of segment 2, a second
25 set of underground conduits will also be
26 installed to facilitate the potential

1 installation of a second 230 kV underground
2 cable circuit in the future, and to limit
3 repeated impacts to private properties."
4 And the attempt there was that we would not impact one
5 property twice. So that's why we suggested doing
6 that.

7 MR. HOLMSEN: Q: So I should read this particular line
8 that you didn't intend to construct -- or between 6th
9 Avenue and Nielson?

10 MR. BARRETT: A: That was our -- yes. We did not
11 intend to.

12 MR. HOLMSEN: Q: No, but it doesn't say that, does it?

13 MR. CARPENTER: Mr. Chair, there was a number of
14 Information Requests asking specifically where a
15 second set of duct banks would be installed and where
16 not. I don't have the reference to those right now,
17 but we'll provide the reference to those to Mr.
18 Holmsen as soon as we can locate it.

19 MR. HOLMSEN: Thank you, Mr. Carpenter.

20 MR. HOLMSEN: Q: Now, it's another exhibit, B1-6 BCUC
21 IR 1.105.5. Page 294.

22 MR. BARRETT: A: We have those references.

23 MR. HOLMSEN: Q: You got that -- that diagram? Second
24 page of the diagram?

25 MR. BARRETT: A: Yes.

26 MR. HOLMSEN: Q: You have that. Now, please tell me

1 what the diagram for the section between 8A Avenue and
2 English Bluff indicates for the construction ducts and
3 overhead lines?

4 MR. BARRETT: A: It -- your question?

5 MR. HOLMSEN: Q: I said -- I asked you, please tell me
6 what the diagram for the section between 8A Avenue and
7 English Bluff indicates for the construction of ducts
8 and overhead lines.

9 MR. BARRETT: A: It shows which overhead line will be
10 removed, and it shows the potential locations of the
11 two ducts.

12 MR. HOLMSEN: Q: Does it say the potential location? I
13 don't see that. I see it says "Duct for future 130 kV
14 cable." Not "future duct for 230 kV cable." Doesn't
15 it, Mr. Barrett.

16 MR. BARRETT: A: I can see how you could interpret it
17 that way, but our intent and our clarification in our
18 IRs, I tried to make it clear that we would not
19 impact, unnecessarily impact any properties. And
20 that's why we said that we wouldn't install that
21 second duct if it wasn't necessary.

22 MR. HOLMSEN: Q: Well, I really couldn't read your mind
23 and the intent of it. These are all the evidence we
24 have here, that points out that both ducts were going
25 to be put into this -- I really couldn't believe
26 anything else, could I, Mr. Barrett?

1 MR. BARRETT: A: As Mr. Carpenter said, I believe that
2 we clarified this in IRs and we will provide a
3 reference at a later time.

4 MR. HOLMSEN: Q: Thank you.

5 We going -- I'm sorry I'm taking so long,
6 Mr. Chairman.

7 THE CHAIRPERSON: That's fine, Mr. Holmsen. This is a
8 good time for our break.

9 MR. HOLMSEN: I still have some -- a little bit to go and
10 I understand Ms. Peverett will be on after lunch, I
11 presume.

12 THE CHAIRPERSON: That's correct. So we will break now,
13 until 1:30.

14 MR. HOLMSEN: Thank you very much. Thank you.

15 (PANEL STOOD DOWN)

16 (PROCEEDINGS ADJOURNED AT 12:01 P.M.)

17 (PROCEEDINGS RESUMED AT 1:29 P.M.) T39

18 THE CHAIRPERSON: Please be seated.

19 Mr. Carpenter?

20 MR. CARPENTER: Mr. Chair, Ms. Peverett is here as
21 requested. I know that you've had the opportunity to
22 have her appear in front of you before, I believe.
23 I'm not sure whether the other panel members have.
24 Ms. Peverett is president and CEO of BCTC. I'll let
25 her do any introductions that would go on for longer
26 than that if she chooses. But I think it's just as

1 easy, just to ask the Hearing Officer to have her
2 sworn, please.

3 **JANE PEVERETT, Affirmed:**

4 THE HEARING OFFICER: Be seated, please.

5 MS. PEVERETT: A: Thank you.

6 MR. CARPENTER: We have no preliminary matters, Mr.
7 Chair.

8 THE CHAIRPERSON: Thank you. Ms. Peverett, has your
9 counsel, Mr. Carpenter, told you a little bit about
10 the format for this afternoon?

11 MS. PEVERETT: A: Yes, and I have read the transcripts
12 of the points in time where you were just speaking
13 about it.

14 THE CHAIRPERSON: Good. Okay. There are -- there's one
15 additional comment that I would like to make before we
16 begin, and that is to recognize that you're here
17 because we asked you to be here. That, in fact, that
18 changes your circumstances as a witness considerably.
19 And then I think it's going to be very appropriate for
20 you from time to time to say, "I just don't know."

21 I think the other comment I'd make that may
22 be helpful to you is that if there are questions that
23 you would like to answer, but before you answer those
24 questions you'd like to consult with your team, then
25 I'll give you that opportunity as well.

26 **Proceeding Time 1:31 p.m. T40**

1 And I think in that regard, should that
2 happen, what I'll do is I'll adjourn after everyone
3 has completed their questions, including the panel the
4 second time if we have any, and then you may speak to
5 those issues that -- those questions that you
6 deferred, or Mr. Carpenter can assist you and lead you
7 through those, back to those questions that you
8 deferred.

9 So in either case you can either say, "I
10 don't know," or "I'd like to consider that but I need
11 to consult with my team before I do it."

12 MS. PEVERETT: A: Thank you, Mr. Chairman.

13 THE CHAIRPERSON: Okay.

14 I am going to try to limit the number of
15 documents that I'd like to refer you to, but there are
16 three references. One of them is one you've already
17 mentioned, yesterday's transcript. It'll be helpful
18 if you have a copy of yesterday's transcript. Good.

19 MS. PEVERETT: A: I have that.

20 THE CHAIRPERSON: Thank you.

21 MS. PEVERETT: A: At least I had the morning.

22 THE CHAIRPERSON: Yes, that's all you're going to need.

23 The letter of March the 17th, 2005, from Mr.
24 Costello, which made the commitment with respect to
25 Option 2, and for the record that's B1-1, Appendix C
26 -- Appendix D; and this will be no surprise either,

1 the third reference for you is B2-52.

2 MS. PEVERETT: A: I have a copy of the letter now.

3 THE CHAIRPERSON: Good.

4 MS. PEVERETT: A: And I have B2-52.

5 **Proceeding Time 1:33 p.m. T41**

6 THE CHAIRPERSON: Good. I'm hoping that you have seen
7 those three documents before.

8 MS. PEVERETT: A: I'm not sure that I've seen B2-52.

9 THE CHAIRPERSON: The section of it that I want to take
10 you to is one that you will have seen before. You
11 just may not remember it. But I'll give you an
12 opportunity should we go to that and you'd like an
13 opportunity to read it. I'll give you that
14 opportunity.

15 MS. PEVERETT: A: Thank you.

16 THE CHAIRPERSON: Let's begin with some comments I think
17 I'll make with respect to the letter of March the 17th,
18 2005. I'm not nearly as interested in why you made
19 the commitment that's made in that letter as to the
20 implications for your internal decision making and for
21 this process. The letter was obviously written in
22 March and it was sometime, we understand from the
23 evidence that we've heard, it was sometime into May
24 before the decision was made to stay on the existing
25 right of way through Tsawwassen, but underground the
26 new line.

1 MS. PEVERETT: A: That's correct. Yes, we made that
2 decision in late May.

3 THE CHAIRPERSON: Right. And as I said, my concern
4 arises from the implications of that commitment for
5 your internal decision making and for this process.
6 And I think what I'd like to do is begin by seeing if
7 we can establish a principle. If we can do that, then
8 it will I think assist our discussion, but I'm not
9 endeavouring to lead you to a point where you get
10 ambushed. That's not my intention.

11 But I would like to talk to you generally
12 about commitments that utilities make in the context
13 of CPCNs. Would you agree with me that the utility's
14 recommendation to us is first one that we need to be
15 confident that you're committed to, and in fact you're
16 asking and seeking approval for something that you
17 truly want approved.

18 **Proceeding Time 1:36 p.m. T42**

19 And I don't mean to be facetious in
20 suggesting that that's not the case. But as a first
21 principle, I want to see if you can support that.

22 And then, secondly, if that's true, does
23 that not suggest that any time through the process,
24 either for your own internal decision-making or for
25 the regulatory process, that you need to be in a
26 position to change your recommendation, should you

1 hear things that suggest that your first decision
2 should be reviewed and revised?

3 MS. PEVERETT: A: I would agree with you on both
4 counts.

5 THE CHAIRPERSON: Thank you. Then that brings me to the
6 question with respect to this commitment. Are you in
7 fact in a position to change your recommendation
8 that's made in this letter of March the 17th, 2005?

9 MS. PEVERETT: A: We have made what we believe is a
10 serious commitment not to recommend going overhead.
11 And to go back on a commitment like that for us would
12 be something that we would do very, very reluctantly,
13 after great consideration, and it would have to be for
14 reasons that we found highly persuasive. And so for
15 that reason, we have, as we continued to consider what
16 it is we should be asking this Commission to
17 recommend, we have put a very high hurdle against
18 going back on that commitment. But we have not taken
19 it off the table totally. It has remained in front of
20 us.

21 THE CHAIRPERSON: Okay. You've just answered many of my
22 questions. That is very helpful. I want to talk
23 about that in the context of the decision that you
24 made between March, the letter, and the end of May.

25 My impression is that during that time you
26 reviewed a number of options.

1 MS. PEVERETT: A: We did.

2 THE CHAIRPERSON: And that those options included -- I
3 won't get into the details of the evidence, but
4 included options that were completely off the existing
5 right of way.

6 MS. PEVERETT: A: We're speaking now through Tsawwassen
7 and, yes, that's the case.

8 THE CHAIRPERSON: Right, thank you. During that time
9 between March and May, did you feel that you were able
10 to go back to Option 1 after considering the other
11 alternatives? When I say "Option 1," I mean double
12 circuit through Tsawwassen.

13 MS. PEVERETT: A: Yes. I want to be careful in
14 answering this, because I know there are a lot of
15 people who are interested for various reasons in this
16 response. We felt we were able to, but we understood
17 that we'd made a serious commitment to the town of
18 Tsawwassen and that is an area and municipality that
19 we intend to do business with for a long, long time.
20 So it would -- it would not have done lightly.

21 We did not take it off the table. It
22 continues to be on the table. But having said all of
23 that, I continue to believe that Option 2 is the right
24 recommendation to be making to you.

25 **Proceeding Time 1:39 p.m. T43**

26 THE CHAIRPERSON: Okay. Well, let's talk about that, and

1 I think we can best do that by turning to the
2 transcript of yesterday, and this is the section that
3 I asked Mr. Carpenter to identify for you. And let's
4 begin, because I think it's a good summary of the
5 evidence, let's begin at page 2487, twenty-four
6 eighty-seven.

7 MS. PEVERETT: A: I have that.

8 THE CHAIRPERSON: Thank you. Read if you will and just
9 to yourself, lines 13 through probably to 22.

10 MS. PEVERETT: A: Thank you, I've read it.

11 THE CHAIRPERSON: Okay. My impression of the evidence
12 from yesterday was that if not the only consideration,
13 the most significant consideration by significant
14 margin with respect to your choice between Option 1
15 and Option 2 at the very least, were the visual
16 impacts of Option 2.

17 MS. PEVERETT: A: There were three reasons and I think
18 you've highlighted probably the most important one:
19 the visual aspects, our own concerns about access, and
20 our belief that this appropriately balanced off the
21 concerns of the people on the right of way, off the
22 right of way, and in the rest of the province.

23 THE CHAIRPERSON: Right. In making that decision, did
24 you feel that you were being responsive to the
25 community?

26 MS. PEVERETT: A: We did feel that we were responding

1 to some of the community's concerns. We understood
2 that this would not satisfy all the members of the
3 community and wouldn't satisfy all the members of the
4 community completely.

5 THE CHAIRPERSON: Is it your impression that the
6 community would attribute the same significance to
7 visual impacts as you are?

8 MS. PEVERETT: A: Well certainly based on the feedback
9 we received from people in the open house and in
10 various meetings, a number of them suggested to us
11 that visual impacts were a concern to them. This
12 would be primarily, I believe, people who are off the
13 right of way, who said to us, "You know, today when
14 those poles are so many feet high, I can't see them
15 when I walk down the street and I can't see them from
16 my front yard. But when you make them twice as high,
17 I can see them and I believe they'll be unsightly."
18 And so certainly it was those people's concerns that
19 we knew or at least believed we were responding to,
20 and it's our belief at least that fewer people are
21 showing up now expressing concerns about the siting.
22 And so we believe that we have addressed at least some
23 people's concerns.

24 THE CHAIRPERSON: Right. How did you weigh into your
25 decision the additional cost that was going to be
26 borne by the other customers?

1 MS. PEVERETT: A: There's no science here. It was a
2 sense that \$14 million was an acceptable premium to
3 put on a project of this magnitude. We of course
4 faced the same sort of decision when we looked at the
5 siting across the Gulf Islands, and in that case it
6 was closer to 70 million. And we decided that that
7 was too much and the tradeoff wasn't sufficient.

8 So it wasn't scientific but we did have a
9 feeling for magnitude.

10 THE CHAIRPERSON: When you say you had a feeling for
11 magnitude, was it close? When you were weighing
12 Option 1 versus Option 2, was it a close call for you?

13 **Proceeding Time 1:44 p.m. T44**

14 MS. PEVERETT: A: A close call. I guess the best --
15 the way I can best answer that is we didn't believe we
16 could justify to the Commission Option 3, which is a
17 further 4 or 5 million dollars, depending on the time
18 at which you're looking at those numbers. So I would
19 say based on that it is close.

20 THE CHAIRPERSON: It's close because when you're weighing
21 the additional cost versus the visual impacts, that's
22 close, or because Option 3 wasn't something that you
23 were going to recommend. That left you with two
24 options, and those options were close?

25 MS. PEVERETT: A: No, I guess what I'm saying is, in
26 terms of costs, we couldn't -- we didn't feel we could

1 justify the extra \$5 million that Option 3 represents
2 for the benefit gained.

3 THE CHAIRPERSON: Right. So if you will, your threshold
4 was somewhere between 14 and 19 million dollars, in
5 terms of the visual impacts.

6 MS. PEVERETT: A: I would -- I think I have to relate
7 that in terms of what we thought we would be getting
8 for the \$14 million, versus what we would get for the
9 additional costs of Option 3. So I may -- I may not
10 be responding exactly to the premise you were putting
11 to me.

12 THE CHAIRPERSON: Yes. But that's fair enough.

13 MS. PEVERETT: A: Had it been \$50 million, I think it
14 would have been a much more difficult decision for us
15 to recommend.

16 THE CHAIRPERSON: Right. That's helpful, because one of
17 the things I did want to get a sense from you about
18 was in fact how significant that was in your decision,
19 the number of dollars.

20 What I didn't do at the beginning of this
21 discussion was to let you know that one of the reasons
22 you're here is because we've been told that you were
23 the only person in the decision -- in a decision-
24 making role with respect to this decision, that we
25 weren't going to hear from anyone else who was in fact
26 a decision-maker, with respect to Option 1 and Option

1 2, and so we felt that it was important that you be
2 here.

3 I want now to go to Exhibit B2-52, and if
4 you'll turn to page 14 of that exhibit, you'll see an
5 e-mail that circled internally at BCTC that was also
6 sent to you, and then you forwarded it on to Mr.
7 Lusztig.

8 MS. PEVERETT: A: Yes, I have that.

9 THE CHAIRPERSON: My guess is, you didn't expect this to
10 become a public document, but it is now.

11 MS. PEVERETT: A: Mm-hmm.

12 THE CHAIRPERSON: Can you confirm for me Mr. Lusztig's
13 role when he received this e-mail, and your role when
14 you sent it?

15 MS. PEVERETT: A: I believe -- I know that I was the
16 CFO. I believe he was still the Director of
17 Regulatory Affairs.

18 THE CHAIRPERSON: Okay. My concern about this e-mail is
19 that it's -- that we may conclude that it's dismissive
20 of Sea Breeze and it's dismissive of the Utilities
21 Commission. And that you forwarding it on to Mr.
22 Lusztig with the comments that -- with the comment
23 that you made, suggests endorsement of it. And I --
24 this may not be obvious to you, but it's within five
25 days of you receiving the Commission's decision with
26 respect to your 2005 Capital Plan. And so, you're --

1 I'm hesitating to have you provide
2 testimony with respect to BCTC's views of Juan de
3 Fuca, because I anticipated that was going to be
4 beyond what you would feel comfortable speaking to.
5 But I will give you that opportunity if that's
6 something that you'd like to comment on.

7 Before I do that, when I read that last
8 paragraph, the one that is in reference to our
9 decision and the Commission, and the reference to due
10 diligence, due diligence suggests to me, when you're
11 attributing that to the Commission, that a decision
12 has been made and that all that remains to be done is
13 to ensure that there is adequate -- to put it into the
14 regulatory vernacular, adequate evidence to support
15 the decision. And Mr. Woronuk's comments concern me
16 in that regard, as you might expect, for a whole
17 variety of reasons.

18 And also in the first paragraph, his
19 comments about Sea Breeze suggest that he's not taking
20 Sea Breeze very seriously. It also suggests that --
21 the overall tone of the e-mail also suggests that the
22 directions that were given to BCTC in that decision
23 were not going to be taken with the level of
24 commitment on BCTC's part that I would expect, given
25 the decision that we wrote, from BCTC.

26 And so I'd like you to comment specifically

1 if you can. I mean, at the time that you passed this
2 on, it may not have suggested endorsement. It may
3 have been in the context of 100, 150 e-mails that you
4 may have responded to that day. But I'm now giving
5 you an opportunity to comment on whether or not,
6 first, if it's dismissive, is it unfortunate that it's
7 dismissive with respect to the Commission? What is
8 your view and what is BCTC's view with respect to the
9 kind of culture that you'd like to establish at BCTC
10 in response to Commission decisions?

11 MS. PEVERETT: A: The wording here, I can see how you
12 might -- how you as the Commission could read it as
13 dismissive. I know Mr. Woronuik. I don't believe he
14 meant it that way, certainly not dismissive of the
15 Commission. That was not his view of the Commission.
16 It's not my view of the Commission.

17 When we received your capital decision --
18 your decision rather on our 2005 capital plan, we took
19 it and all the directives in it very seriously. And
20 in particular, this directive asked us to file a
21 document that would answer -- I believe this is
22 referring to answering the eight questions that you
23 had asked us about HVDC Light. And in particular
24 question number 5 in there asked us to look at the
25 Juan de Fuca project and to see whether or not it
26 could defer the Vancouver -- our Vancouver Island

1 project.

2 We took that as a serious question and I
3 believe that we gave a serious answer, a well
4 considered answer. In fact the specific answer was
5 referenced in cross-examination earlier where we said
6 it is theoretically possible. In other words, we did
7 not want to dismiss, as a theoretical possibility at
8 least, the Juan de Fuca project as a replacement to
9 Vancouver Island --

10 **Proceeding Time 1:54 p.m. T46**

11 THE CHAIRPERSON: I'm hesitating to --

12 MS. PEVERETT: A: I beg your pardon, our Vancouver
13 Island project. However, in other areas of that same
14 response, we pointed out the commercial and
15 jurisdictional issues that we believed that Juan de
16 Fuca faced in terms of being a replacement for this
17 Vancouver Island project. In other words, a line that
18 had an in-service date of October, 2008. My -- I
19 assume, because it was a long time ago, that my
20 forwarding this on to Mr. Lusztig would have been in
21 regards to, you know, "this is a piece of information
22 that someone's done some thinking about in BCTC, with
23 respect I would suggest to you only about the
24 financial capabilities, that we need to look into in
25 the future."

26 We have continued to work on the Juan de

1 Fuca project. I have met with the people from Sea
2 Breeze as recently as December. There's been another
3 follow-up meeting to that in January, and we have
4 continued to work to try and understand what benefits
5 the Juan de Fuca project might have to the British
6 Columbia transmission system, and what use we might
7 make of it, and how it's progressing in terms of -- of
8 its advancement through the National Energy Board
9 process, and also we have done all the studies that
10 Sea Breeze has asked of us, that they need in terms of
11 advancing their project.

12 So we are trying very hard to (a)
13 understand the project, and (b) assist Sea Breeze in
14 their advancement of it.

15 THE CHAIRPERSON: Okay, thank you. I have one last area
16 that I would like you to comment on, and it's with
17 respect to the organization for this project. And
18 it's an IR -- pardon me, it's a reference that I
19 haven't given you yet. You're going to need a copy of
20 the application. So, B1-1, and page 20.

21 MS. PEVERETT: A: Page 20?

22 THE CHAIRPERSON: Yes.

23 MS. PEVERETT: A: This would be the organization chart?

24 THE CHAIRPERSON: Yes.

25 MS. PEVERETT: A: Yes, thank you. I have it.

26 THE CHAIRPERSON: Let me register a complaint with you,

1 Ms. Peverett. It wasn't until we had started this
2 proceeding that we were told that you have appointed a
3 new executive sponsor.

4 MS. PEVERETT: A: The exec --

5 THE CHAIRPERSON: That surprised me.

6 MS. PEVERETT: A: I apologize for that.

7 THE CHAIRPERSON: Okay. Who is the executive sponsor
8 now?

9 MS. PEVERETT: A: The executive sponsor is in the
10 process of transitioning from the man who was -- from
11 Mr. -- I'm sorry, from Julius Pataki to Bruce Barrett.
12 Bruce has been the program manager, he continues to be
13 the program manager but I have very recently appointed
14 Bruce to the executive of the company, and in that new
15 role he'll have responsibility for overseeing the
16 completion of all major projects. So these would be
17 projects that require CPCNs, and it would include this
18 project.

19 So Bruce is in the process of getting on
20 board a new program manager, and at that point he'll
21 transition to the role of executive sponsor, with
22 still a lot of involvement day to day in this project,
23 because he has been so involved in it.

24 THE CHAIRPERSON: Is this very recent?

25 MS. PEVERETT: A: Yes, our Board would have approved
26 that at their last meeting, the date of which was

1 there's been significant turnover at the executive
2 level of the company. It hasn't been delivered on our
3 part to rotate people in and out of this project by
4 any means. But Mr. Costello retired, Mr. Yakout was
5 hired by California, and Mr. Maniago had to retire for
6 health reasons. So as every one of those changes
7 happened, none of them my choice, we immediately acted
8 to put somebody as executive sponsor into this
9 project.

10 And I will add that while Mr. Costello
11 stepped down as president and CEO in April, he did
12 continue on with BCTC on a full-time basis until the
13 end of June and he spent a lot of his time on this
14 project.

15 THE CHAIRPERSON: I'll ask you one more question. Are
16 you confident that with all those changes that you
17 have the organization that you need in order to
18 deliver on the project?

19 MS. PEVERETT: A: Yes I am.

20 THE CHAIRPERSON: Thank you.

21 That's the end of my questions for now.
22 The process that we established we will follow now,
23 and that brings us then to Mr. Holmsen. Mr. Holmsen,
24 did you have any questions for Ms. Peverett?

25 **CROSS-EXAMINATION BY MR. HOLMSEN:**

26 MR. HOLMSEN: Q: Ms. Peverett, I'm glad to see you

1 here.

2 Mr. Chairman, I'll try to follow the right
3 procedure. I have -- or Mr. Carpenter. I have an
4 appendix or an exhibit I would like to present here.
5 This is the original Table 4-3 on page 103 of BCTC's
6 CPCN application dated July 7th, 2005.

7 MS. PEVERETT: A: Thank you, I have a copy of that.

8 THE CHAIRPERSON: Mr. Holmsen, it might be helpful to Ms.
9 Peverett if you identified yourself.

10 MR. HOLMSEN: Q: Sorry. Karsten Holmsen. Sorry, Ms.
11 Peverett.

12 THE CHAIRPERSON: But if you could take that one step
13 further, Mr. Holmsen, and -- maybe you've already met.

14 MR. HOLMSEN: Yes, we have.

15 MS. PEVERETT: A: I have met Mr. Holmsen before.

16 MR. HOLMSEN: Q: Yes, you have.

17 MS. PEVERETT: A: Thank you, Mr. Chair, I know who he
18 is.

19 THE CHAIRPERSON: Okay.

20 MR. CARPENTER: Just for the purposes of the record, Mr.
21 Chair, this is the original Table 4-3 that was filed
22 with Exhibit B-1 and then subsequently replaced on the
23 31st of August.

24 THE CHAIRPERSON: Thank you.

25 MR. HOLMSEN: Can it be filed?

26 THE CHAIRPERSON: Well, it is already in the record.

1 It's helpful that you provided it to Ms. Peverett, but
2 this was filed, as Mr. Carpenter has just said, in the
3 original application. Unless you very much want it in
4 because you have put notes on it.

5 MR. HOLMSEN: Yeah, there are --

6 THE CHAIRPERSON: Otherwise I don't think that's
7 necessary.

8 MR. HOLMSEN: -- just a couple of references to it which
9 are important.

10 THE CHAIRPERSON: Right, but you're going to be able to
11 identify those for the record so I don't think that's
12 necessary, Mr. Holmsen.

13 MR. HOLMSEN: No, okay, very well, thanks.

14 MR. HOLMSEN: Q: Ms. Peverett, there have been various
15 editions of this table over the period, but the
16 original one, I presume you are familiar with that?

17 MS. PEVERETT: A: I have seen this before, yes.

18 MR. HOLMSEN: Q: The other exhibit I will be referring
19 to is also the revised August 31, 2005 table,
20 which is the replacement of the original one. It's
21 page 103. And I also will refer to Exhibit B1-7,
22 amendment showing the corrections and revisions made
23 to Table 4-2 of the application dated August 31, 2005.
24 I refer to Exhibit C1-24 filed on January 24th, 2006,
25 and this exhibit, of course.

26 MS. PEVERETT: A: I believe I'm still in the process of

1 getting one of the exhibits, Mr. Holmsen.

2 **Proceeding Time 2:04 p.m. T48**

3 MR. HOLMSEN: Q: Oh, you have only got one. Well, you
4 should have the current Exhibit B1-7 -- no, B1-1,
5 which is August 21st, 2005, page 103. Table 4-3.

6 MS. PEVERETT: A: And so the third reference you had
7 given me was C1-20 --

8 MR. HOLMSEN: Q: B1-7, which is the corrected one.
9 It's -- the original table that was showing the
10 correction from the previous one, which --

11 MS. PEVERETT: A: I'm sorry for the delay. Is it only
12 copies of two separate tables that I need?

13 MR. HOLMSEN: Q: No, you need also the letter --

14 MS. PEVERETT: A: A letter?

15 MR. HOLMSEN: Q: -- of correction, yeah, that resulted
16 in a division to 4.3 -- 4-3, for August 31.

17 This, Mr. Carpenter, it's this one.

18 MS. PEVERETT: A: I think we're just having trouble
19 finding a copy of the letter. Can we try this without
20 the letter?

21 MR. HOLMSEN: Q: I think you should see the numbers.

22 MS. PEVERETT: A: Okay, I have the letter now, thank
23 you.

24 MR. HOLMSEN: Q: Okay, and the last exhibit will be C1-
25 24.

26 MS. PEVERETT: A: Is this the letter -- cover letter

1 with witness panels?

2 MR. HOLMSEN: Q: It was a letter from me, to --

3 MS. PEVERETT: A: Yes, thank you, I have that.

4 MR. HOLMSEN: Q: Letter from me to Mr. Neufeld, I
5 believe.

6 MS. PEVERETT: A: Thank you, I have it.

7 THE CHAIRPERSON: Mr. Holmsen, I do intend to hold you to
8 the 20 minutes that I spoke to --

9 MR. HOLMSEN: Yeah.

10 THE CHAIRPERSON: -- several days ago.

11 MR. HOLMSEN: Q: It will be very difficult.

12 THE CHAIRPERSON: I will still bring your questions to an
13 end.

14 MR. HOLMSEN: Okay, I'll try --

15 THE CHAIRPERSON: In 20 minutes.

16 MR. HOLMSEN: I'll try to be quick, Mr. Chair.

17 MR. HOLMSEN: Q: Referring to Table 4-3 of the July,
18 the original -- original submission, I'd like you to
19 pay attention to the two number I had circled there,
20 for the present worth of total costs.

21 MS. PEVERETT: A: Yes.

22 MR. HOLMSEN: Q: You got that?

23 MS. PEVERETT: A: Mm-hmm.

24 MR. HOLMSEN: Q: And these -- these two numbers, the
25 difference between two number, you can confirm if I'm
26 correct, it's less than a million dollar, actually,

1 six hundred seven -- \$67,000.

2 MS. PEVERETT: A: Yes, I can confirm that.

3 MR. HOLMSEN: Q: Great. Now, in the revised version
4 for August 31st, 2005, corresponding figures, do you
5 confirm that these are less than one million, or
6 actually \$869,030 according to the position.

7 MS. PEVERETT: A: This is the -- the cost difference
8 between Option 2 and Option 4?

9 MR. HOLMSEN: Q: That's correct. It's the
10 corresponding --

11 MS. PEVERETT: A: It's approximately a million, and I
12 would take from you --

13 MR. HOLMSEN: Q: Yeah.

14 MS. PEVERETT: A: -- less than that.

15 MR. HOLMSEN: Q: Both of them less than a million
16 dollars. Would you agree, Ms. Peverett, that one
17 million dollar, or .4 percent difference in a 245
18 million dollar project, is not highly significant?

19 MS. PEVERETT: A: If that were the case, I would
20 certainly agree with you, but as we've I think already
21 explained, with these costs --

22 MR. HOLMSEN: Q: I'll come to that.

23 MS. PEVERETT: A: -- the cost difference was always in
24 my understanding 6 and a half million dollars and now
25 I believe has been revised to \$9 million.

26 MR. HOLMSEN: Q: Well, it'll come to that. My question

1 was, you think it's highly significant, that million
2 dollar difference?

3 MS. PEVERETT: A: A million dollar difference on a
4 project of

5 **Proceeding Time 2:09 p.m. T1A**

6 MS. PEVERETT: A: A million dollar difference on a
7 project of \$245 million would not be very significant.

8 MR. HOLMSEN: Q: Thank you. Now, whether it was
9 deliberate or not, an error was introduced by BCTC in
10 the original July 7th number on Table 4-2, which is the
11 top line of the second document, B1-7.

12 MS. PEVERETT: A: It's disappeared off my screen.

13 MR. HOLMSEN: Q: Yeah.

14 MS. PEVERETT: A: I have it again.

15 MR. HOLMSEN: Q: You have that. Now, in the line there
16 it says 2 on the top, another -- it's Option 2, it
17 said plus 24 million, correct?

18 MS. PEVERETT: A: Yes.

19 MR. HOLMSEN: Q: And another one is plus 30.5 million.

20 MS. PEVERETT: A: Correct.

21 MR. HOLMSEN: Q: Which indicates a cost to Option 4 is
22 6 and a half million dollars higher than Option 2,
23 correct?

24 MS. PEVERETT: A: Yes it does.

25 MR. HOLMSEN: Q: But you agreed a few minutes ago that
26 the difference really was one million.

1 MS. PEVERETT: A: No, actually the difference at this
2 point in time was 6 and a half million dollars, not a
3 million dollars.

4 MR. HOLMSEN: Q: Okay.

5 MS. PEVERETT: A: The difference is that when we had
6 put those tables in place, we had left out certain of
7 the cost components that we were not as competent in
8 our estimates of.

9 MR. HOLMSEN: Q: Fair enough. My question then is,
10 when you reviewed the July 7th application and there
11 was a difference of 5.5 million in -- it should be --
12 you should have 5.5 million somewhere in the document
13 which were not shown up. Can you explain that?
14 Except for what you say about we realized we had some
15 costs we didn't add into it? I haven't found any
16 calculations that show that 5 and a half million
17 dollars allotted to certain items.

18 MS. PEVERETT: A: What happened in the regulatory
19 filing was we had filed two tables, one that included
20 all of the costs and one that excluded certain of the
21 costs. The costs that were excluded were things like
22 some of the seismic work, some environmental work and
23 some right of way acquisition costs. When we noticed
24 that we had two different numbers, we updated one of
25 the tables. Unfortunately we updated the table that
26 excluded -- or we updated a table to exclude costs.

1 And so the resulting two tables excluded some of the
2 cost.

3 All I can say is that the reason that we
4 didn't catch that or the reason that the regulatory
5 staff didn't catch that is because our reason for not
6 recommending Option 4 has not been predominantly cost.
7 It has been because of the difficulty in getting the
8 right of way specifically through the Tsawwassen First
9 Nation, and it's been our concerns about its
10 geophysical instability and our concern about its
11 cost.

12 MR. HOLMSEN: Q: Yeah, I have heard that explanation,
13 but what I'm trying to get at is that there were no
14 calculations presented in the CPCN which indicated
15 these numbers or detailed these numbers to tie these
16 two tables together, and neither also in the division.
17 All they had was this one little footnote that they
18 made some mention of what you're saying.

19 Did you ever have a memo or just a little
20 note from the project management that specified this
21 additional cost that suddenly appeared?

22 MS. PEVERETT: A: Yes I did. I looked into the
23 difference between these -- the costs in the
24 regulatory filing and the costs that I had been seeing
25 for months, and I had Mr. Barrett provide me with the
26 explanation of the difference.

1 MR. HOLMSEN: Q: Yeah, but this information was not
2 provided in any amendment to the application or for
3 the public to see where the numbers came from?
4 MS. PEVERETT: A: I'm sure we'd be happy to explain the
5 difference between the numbers if we haven't done so
6 already.
7 MR. HOLMSEN: Q: Okay, no, I understand what you're
8 saying, but I would expect that there would have been
9 some actual numbers shown, calculated numbers shown in
10 these documents and I could not find that.
11 MS. PEVERETT: A: What we did was provide the corrected
12 numbers. If we haven't fully explained the difference
13 between the two sets of numbers, I know we'd be happy
14 to do that.
15 MR. HOLMSEN: Q: Yeah, but no, back to that point, it's
16 not shown in the application. However, it's been
17 publicly announced with no further explanation that we
18 did the calculation and here are the numbers and the
19 reason for those. And I think it's in some way misled
20 the public by announcement of 3 and -- or 6 and a half
21 million dollars higher cost when these costs were not
22 really calculation, and neither were a similar type of
23 items indicated for some of the other options.
24 MS. PEVERETT: A: I think we've been consistent in our
25 evaluations. I think that we did actually share the
26 cost difference of approximately 6 and a half million

1 dollars in the open house. The regulatory application
2 was the application which excluded those costs. And
3 we'd be happy to explain them, and --

4 **Proceeding Time 2:14 p.m. T02A**

5 MR. HOLMSEN: Q: Yeah, I appreciate that. I think they
6 should have been explained early in this stage, as
7 soon as -- as soon as the elevation correction was
8 made in -- in August 31st that the public should have
9 known exactly what -- what were the numbers came from.
10 Because I know that many people, particularly in our
11 area, that say, well, here it's six and a half million
12 dollars, and people around the province, now
13 especially after the radio interview you had with Mr.
14 -- Mr. --

15 MS. PEVERETT: A: Mr. Good?

16 MR. HOLMSEN: Q: Good, yeah, on his show, this number
17 kept coming up, and we even heard people from Prince
18 Rupert complaining about we were -- Tsawwassen was
19 asking for six and a half million dollars for re-
20 routing, which really had no -- not been any
21 accounting made for.

22 MS. PEVERETT: A: If we have confused you, then I
23 apologize. If we confuse you in the future, I hope
24 you'll call us and ask us to explain.

25 MR. HOLMSEN: Q: Well, I appreciate that. I tried to
26 get on the -- just on the -- talk show but I couldn't

1 get on the lines.

2 Now, there was another little thing on the
3 show too that I'd like to ask you about. Mr. Good
4 asked you -- he says are you -- are they -- do you
5 consider those health concern to be bogus? And your
6 response was, I believe that people may be concerned,
7 there is absolutely no -- there is no evidence in
8 their own that should indicate that they should be
9 concerned. And Mr. Good asked you would you live
10 there? And you said, I beg your pardon. Good says,
11 would you live there? And Peverett -- Bill, I live
12 closer to work than that. Good, ask you again, no,
13 but would you live under the power line? And your
14 response to that was, I would have -- I wouldn't have
15 concerned about living under the power line. It's --
16 is this a correct --

17 MS. PEVERETT: A: That is what I said, yes.

18 MR. HOLMSEN: Q: But you seemed very reluctant to give
19 Mr. Good a direct answer.

20 MS. PEVERETT: A: No, I wasn't reluctant. He -- I must
21 say, when you're on a radio show on a telephone, it's
22 -- you can be caught surprised by questions. I think
23 I interpreted the first question as, "Would you live
24 on the right-of-way in Tsawwassen?" And no, that's a
25 50-minute commute for me. Which was the purpose --
26 which was my sort of reflective -- or reflexive,

1 rather, answer. I've got a very short drive to work
2 now. But when I was given the opportunity to say,
3 "Would you have any concerns about living under 'a'
4 power line?", the answer is "No."

5 MR. HOLMSEN: Q: Fine. I'd like to rephrase Mr. Good's
6 question a little bit. If you had small children,
7 would you feel comfortable with, and not be concerned
8 about them growing up in a home constantly exposed to
9 EMF level above 20 milligauss, and having your
10 children and their friends, and possibly your grand --
11 eventually visiting grandchildren, playing in the back
12 yard exposed to over 530 milligauss?

13 MS. PEVERETT: A: The question that I've been asked is,
14 "Would I have any concerns?" And in answering this, I
15 want to make absolutely clear that I'm not speaking
16 for whether other people have concerns, and whether or
17 not their concerns are genuine. But I have read
18 enough of the EMF material that I would not have
19 concerns. Now, that may be easy for me to say because
20 I don't have grandchildren. I understand that people
21 are concerned. We rely, however, on all of the work
22 of the experts, all the combined thinking of the
23 studies that have gone on for over 25 years, and
24 that's the basis of my answer.

25 MR. HOLMSEN: Q: No, the reason I asked, of course, is
26 that many people in Tsawwassen are very concerned

1 about that issue. And with children, some -- even
2 grandchildren, we don't want them to come and visit
3 us, because of that. Now, maybe we're overly
4 concerned, but that's why I asked you the question,
5 whether you would be concerned about your children
6 growing up in those circumstances.

7 MS. PEVERETT: A: I have read the affidavits of the
8 people filed in this application, and I understand
9 that they are concerned.

10 MR. HOLMSEN: Q: Yeah.

11 MS. PEVERETT: A: All I can say is that I hope that
12 they will take some time to read about the studies,
13 and I hope they'll take some comfort from the experts
14 who do a lot of thinking about this.

15 MR. HOLMSEN: Q: Thank you. I think -- I think people
16 there have read a lot, and maybe they're reading some
17 different reports than what you have, but thank you
18 very much for your answer. Thanks.

19 Thanks, Mr. Chairman. Thank you.

20 MS. PEVERETT: A: Thank you.

21 **Proceeding Time 2:19 p.m. T3A**

22 THE CHAIRPERSON: Mr. Arvay, did you have any questions
23 for Ms. Peverett?

24 **CROSS-EXAMINATION BY MR. ARVAY:**

25 MR. ARVAY: Q: Ms. Peverett, my name is Joseph Arvay.
26 I act for TRAHVOL.

1 MS. PEVERETT: A: How do you do. We've met before.

2 MR. ARVAY: Q: I was worried you'd say that. I don't
3 recall, but I'm sure the circumstances are different.

4 MS. PEVERETT: A: Yes, they are actually. You were my
5 counsel years and years ago for an application that
6 Westcoast Energy made.

7 MR. ARVAY: Q: I see. Well, you have a much better
8 memory than I do. And I'm counting on that good
9 memory today, Ms. Peverett.

10 Were you with BCTC prior to Mr. Costello's
11 retirement?

12 MS. PEVERETT: A: Yes, I was. I've been with BCTC
13 since May of 2003, I believe, or June.

14 MR. ARVAY: Q: So were you involved in a decision that
15 Ms. Costello made in deciding not to go the overhead
16 route in the back yards of my clients?

17 MS. PEVERETT: A: I was not directly involved in that
18 decision. Mr. Costello was the president, Mr. Mansour
19 was the executive sponsor, and the two of them were
20 the people predominantly involved in the decision.
21 However, I certainly had some conversation with them
22 because there was, as we knew, a regulatory aspect to
23 this. So I had some involvement, yes.

24 MR. ARVAY: Q: And the Minister wrote a letter, and I
25 don't know if there's a different exhibit number for
26 it. It's in one of my clients' affidavits and maybe

1 someone can assist me here. The letter March 31 from
2 Minister Neufeld to my clients Mr. Atchison and Mr.
3 Dunn.

4 MS. PEVERETT: A: I recall the letter.

5 MR. ARVAY: Q: Right. Did you have any role in that
6 letter?

7 MS. PEVERETT: A: No, the Minister wrote that letter.

8 MR. ARVAY: Q: Yeah. What role did Mr. Costello have
9 in that letter, if you know?

10 MS. PEVERETT: A: I don't know that Mr. Costello had
11 any role in that letter. Certainly we -- it's my
12 understanding that Mr. Costello had had some
13 conversations with the Minister about this topic.

14 MR. ARVAY: And for the record, Mr. Chairman, again,
15 there may be a more readily accessible exhibit. I
16 have it in Exhibit C3-19B, which is one of the
17 exhibits to the affidavit of Maureen Broadfoot. It
18 might be someplace else. Perhaps the witness could be
19 given that. So it's the first affidavit of Ms.
20 Broadfoot and it's Exhibit CC to her affidavit.

21 THE CHAIRPERSON: Mr. Arvay, last week we were challenged
22 by Mr. Underhill to find documents in this exhibit
23 which you've filed. We may have the same challenge
24 again. Can you give me the number for Ms. Broadfoot's
25 affidavit?

26 MR. ARVAY: First of all, the number, it's the first

1 affidavit.

2 THE CHAIRPERSON: It's the first affidavit --

3 MR. ARVAY: Yes.

4 THE CHAIRPERSON: -- of Ms. Broadfoot?

5 MR. ARVAY: And it's an exhibit to her affidavit, and the
6 exhibit is CC.

7 THE CHAIRPERSON: Thank you.

8 MS. PEVERETT: A: I have it now, thank you.

9 MR. ARVAY: Q: You do. Let's wait for the Panel to
10 have it, Ms. Peverett.

11 **Proceeding Time 2:24 p.m. T04A**

12 THE CHAIRPERSON: Thank you.

13 MR. ARVAY: Q: So this is a letter written by the
14 Minister, copy to Mr. Costello, to my clients,
15 TRAHVOL. Do you see that?

16 MS. PEVERETT: A: Yes, I do.

17 MR. ARVAY: Q: And you had nothing to do with the
18 drafting of that letter or any input in that letter,
19 am I correct?

20 MS. PEVERETT: A: I did not.

21 MR. ARVAY: Q: Okay. And indeed, up to that point in
22 time you had nothing to do with the decision that was
23 made by your predecessor, Mr. Costello, and/or the
24 Minister, correct?

25 MS. PEVERETT: A: No, I had -- I wouldn't agree with
26 that. I did have something to do with it. There were

1 general discussions. I wouldn't say I made the
2 decision, but I certainly was involved in the
3 discussions leading up to the decision, or at least
4 some of the discussions leading up to the decision.

5 MR. ARVAY: Q: And just so that I understand, why --
6 what role does the Minister have in making decisions
7 about what routes BCTC will take, with respect to the
8 construction of transmission lines?

9 MS. PEVERETT: A: If the process works the way it
10 should, and then I would say the Minister would not
11 have input into our routing. However, the government
12 is our shareholder, and the government does have the
13 ability to give us direction, and so the government
14 can direct us to do something, and I would assume they
15 could direct us to take a certain route.

16 MR. ARVAY: Q: And is it fair to say that in this
17 particular case the Minister directed BCTC not to
18 pursue the overhead -- overhead option which we
19 described as Option 1 here.

20 MS. PEVERETT: A: No, that wouldn't be the case at all.
21 Neither in any other document nor in this document is
22 the Minister giving us that direction. He did not
23 give us that direction. Is, at least, my
24 understanding. And I've heard this discussed by both
25 our president and our chair with our Board of
26 Directors. I've heard them explain that the Minister

1 was actively interested in our decision, in fact told
2 us he wanted us to look seriously at all routing
3 options, but did not direct us. This was a BCTC
4 decision.

5 MR. ARVAY: Q: So is it fair to say, then, the Minister
6 was actively involved and -- but the recommendation --
7 the ultimate recommendation that culminated in the
8 March 31, 2005 letter came from BCTC, is that what
9 you're saying?

10 MS. PEVERETT: A: I would say the Minister was actively
11 interested. He was receiving an awful lot of
12 communications from various parties, and he is a
13 responsible person, and therefore was engaged in
14 understanding the various issues. But it was a BCTC
15 decision to write the letter that Mr. Costello wrote
16 on March 17th, and commit not to recommend overhead.

17 MR. ARVAY: Q: Okay. So it was a BCTC decision, the
18 Minister had some input in that decision, is that
19 correct?

20 MS. PEVERETT: A: The Minister didn't have input, but
21 we had a lot of -- I believe, Michael had -- I'm
22 sorry, I believe Mr. Costello had discussions with the
23 Minister, because the Minister wanted to understand
24 why people were coming to him and making various
25 representations.

26 MR. ARVAY: Q: The Minister had some input in the

1 decision, Ms. Peverett?

2 MS. PEVERETT: A: I don't think that's accurate.

3 MR. ARVAY: Q: I see. And you -- although you weren't
4 -- you weren't the policymaker as of March 17 or March
5 31, 2005, it was Mr. Costello, correct?

6 MS. PEVERETT: A: That is correct.

7 MR. ARVAY: Q: Right. And so it's Mr. Costello, when
8 -- who is the one who can come here and tell us all
9 the factors that influenced his decision on behalf of
10 BCTC not to pursue Option 1, correct?

11 MS. PEVERETT: A: I would say that Mr. Costello would
12 be able to give you more insight as to the decision he
13 made and documented on March the 17th. I certainly had
14 conversations with both he and Mr. Mansour. I turned
15 my head to it both before that decision was made and
16 immediately thereafter, and have considered to think
17 -- and continued to think about whether Option 1 or
18 Option 2 is the -- or, indeed, any of the other
19 Options, are the way we should be going. So I feel
20 confident that I can explain to you why BCTC is
21 recommending Option 2.

22 MR. ARVAY: Q: Right. Well, you've told --

23 MS. PEVERETT: A: In fact --

24 MR. ARVAY: Q: -- the panel that the reason BCTC's
25 recommending Option 2 is solely because of the views
26 of the residents across the street from those

1 residents whose property is on the right of way. Is
2 that your evidence?

3 **Proceeding Time 2:29 p.m. T5A**

4 MS. PEVERETT: A: No, our evidence is that we believe
5 that this is the right way to go, balancing the needs
6 of the province for this line and the interests of the
7 community through which it runs. We believe that we
8 have satisfied many of the people who live in
9 Tsawwassen by reducing the visibility, or in fact
10 eliminating the visibility of the line. I don't know
11 whether we've satisfied any of the people who live
12 along the right of way.

13 MR. ARVAY: Q: Well, I think that's my point. I'm led
14 to believe from your testimony, Ms. Peverett, that
15 you're telling this Commission that the -- and correct
16 me if I'm wrong; I want to be fair with you but
17 correct me if I'm wrong, that the sole reason at the
18 end of the day for you to take Option 1 off the table
19 -- well, you said it's still on the table. I was
20 surprised to hear that, quite frankly. But for you to
21 recommend Option 2 rather than Option 1 is because of
22 the aesthetic concerns of the people across the
23 street. Is that correct?

24 MS. PEVERETT: A: We've talked about visibility in
25 general, so we believe that the visibility issue is an
26 issue. The accessibility, so our accessibility to do

1 the maintenance that's required on the right of way.
2 And also we hope and we're told by our property value
3 expert that over the long term the property value
4 impact of undergrounding this line will be neutral to
5 positive.

6 MR. ARVAY: Q: So let me get this right. One is
7 visibility. Two is accessibility to the construction?
8 Is that what you're talking about?

9 MS. PEVERETT: A: No, it's actually accessibility to
10 the line on an ongoing basis so that we can maintain
11 it.

12 MR. ARVAY: Q: And the third one was property values.

13 MS. PEVERETT: A: Yes. Now, I will say that this is --
14 I relied very heavily on the testimony that Mr.
15 Barrett has had throughout this proceeding, so I'm
16 paraphrasing or summarizing what he has said. But
17 that's my -- that is how I would describe it.

18 MR. ARVAY: Q: No, no, Ms. Peverett, I'm talking about
19 March, in March of 2005, not what Mr. Barrett says in
20 these proceedings.

21 MS. PEVERETT: A: I beg your pardon. In March of 2005,
22 what was on our minds was we had heard from a number
23 of people in Tsawwassen that they didn't like the
24 higher poles, the overhead poles, the overhead wires,
25 and it was on that basis that we committed not to
26 recommend overhead.

1 MR. ARVAY: Q: Okay, so I had it right the first time.
2 In March of 2005, the sole reason you are saying that
3 BCTC decided not to pursue Option 1 but rather to
4 pursue Option 2 was because of the issue of aesthetics
5 of the lines. Is that correct? Is that your
6 evidence?

7 MS. PEVERETT: A: In March, that decision was made on
8 the basis of visibility, access, because we were aware
9 even at that time that access was difficult, and also
10 -- if you can just give me a minute.

11 Thank you, I've reminded myself. We wanted
12 to test whether or not going underground or
13 recommending -- going underground in this area would
14 represent a precedent on our system that would be
15 significant across the whole system. In other words,
16 we wanted to make sure that this was, if not a unique
17 circumstance, then a highly unusual circumstance.

18 MR. ARVAY: Q: I'm sorry, you got me a little confused
19 there. Underground, that wasn't the decision made in
20 March of 2005. In March 17th, 2005, the decision was
21 to not proceed with the overhead lines, the high
22 voltage overhead lines, in the back yards of my
23 clients, right?

24 MS. PEVERETT: A: Right.

25 MR. ARVAY: Q: Right. And one reason, the first one
26 that you keep coming back but I think I understand, is

1 MS. PEVERETT: A: It's difficult to access the overhead
2 lines in the back yards.

3 MR. ARVAY: Q: Right. And it's difficult to access the
4 overhead lines in the back yards because they're in
5 people's back yards, right?

6 MS. PEVERETT: A: That's right.

7 MR. ARVAY: Q: Right. So one reason, two reasons then
8 to say we're not going with Option 1 is that the
9 higher towers present more visibility problems for
10 people who are along the right of way, as well as
11 people across the street, right?

12 MS. PEVERETT: A: Yes.

13 MR. ARVAY: Q: You were concerned about the people
14 along the right of way as well as the people across
15 the street, weren't you?

16 MS. PEVERETT: A: Yes, of course.

17 MR. ARVAY: Q: Right. And the issue of accessibility
18 you were concerned about, that only impacted people
19 along the right of way, not people across the street,
20 right?

21 MS. PEVERETT: A: Well, specifically it's relevant to
22 the area in the right of way through Tsawwassen, the
23 existing overhead lines.

24 MR. ARVAY: Q: Right. But the concern that BCTC had
25 with respect to accessibility was directed to the
26 people along the right of way, not across the street,

1 right?

2 MS. PEVERETT: A: I'm having trouble understanding how
3 it's directed at people. It was a concern about our
4 existing lines and whether or not we could get in to
5 repair them and maintain them.

6 MR. ARVAY: Q: So are you saying that the decision to
7 not pursue Option 1, when it comes to accessibility,
8 wasn't because of any concern for the residents, it
9 was only of concern for the corporation?

10 MS. PEVERETT: A: Certainly the accessibility issue is
11 our concern. It may also be an inconvenience for the
12 people who live on the right of way if we have to
13 access those things in their back yard. However, it
14 was primarily our concern with our ability to maintain
15 the lines.

16 MR. ARVAY: Q: Well, why did BCTC have any concern
17 about maintaining the lines when you had a right of
18 way to maintain the lines?

19 MS. PEVERETT: A: I think Mr. Barrett has testified to
20 fact that we had -- it was just challenging to get
21 into those back yards and get at the lines.

22 MR. ARVAY: Q: And it was challenging to get into the
23 back yards and get at the lines because it was an
24 inconvenience to the people who live there, right?

25 MS. PEVERETT: A: I assume it is an inconveniences,
26 yes.

1 MR. ARVAY: Q: Right. But as far as BCTC is concerned,
2 you have every right to go in there and maintain those
3 lines any time you want, right?

4 MS. PEVERETT: A: Yes, we do under the right of way.

5 MR. ARVAY: Q: Right. So I'm suggesting that if the
6 first factor of visibility was with respect to people
7 across the street but was also with respect to people
8 on the right of way, agreed with that. The second
9 factor with respect to accessibility was very much
10 with respect -- had to do with the concerns of the
11 people on the right of way as well as BCTC's own
12 corporate concerns, right?

13 MS. PEVERETT: A: My understanding is it was primarily
14 BCTC's concern with accessing the line.

15 MR. ARVAY: Q: Now, I'm not sure if this was in March
16 or later, but you mentioned property values. Was that
17 a concern in March of 2005?

18 MS. PEVERETT: A: I don't recall us talking about
19 property values in March. I believe that that was
20 something that is in our minds now. And when it came
21 into our minds I'm not sure.

22 MR. ARVAY: Q: And if you go to the Minster's letter of
23 March 31, 2005, you'll see that he says:

24 "Dear Messrs. Atchison and Dunn:
25 Thank you for the opportunity to meet with
26 the Tsawwassen Residents Against Higher

1 Voltage Overhead Lines on February 1. I
2 appreciate the opportunity to hear TRAHVOL's
3 point of view on the issue."

4 Were you aware of TRAHVOL's point of view in March of
5 2005?

6 **Proceeding Time 2:39 p.m. T07A**

7 MS. PEVERETT: A: I am reasonably sure that BCTC had
8 had more than one meeting with TRAHVOL at that point.

9 MR. ARVAY: Q: And I take it that you fully understood,
10 in March of 2005, as did Mr. Costello, as did the
11 Minister, that TRAHVOL's concerns with respect to the
12 overhead lines certainly wasn't BCTC's concerns about
13 access for the Corporation, right?

14 MS. PEVERETT: A: I think I can take your point on
15 that. I imagine, but don't know, that they wouldn't
16 have been concerned about our ability to access the
17 line.

18 MR. ARVAY: Q: Right. And you know full well that
19 their concerns about those lines were, first and
20 foremost, they were concerned about the EMF that --
21 that's emitted from those lines, right?

22 MS. PEVERETT: A: I know that they're very concerned
23 about EMF now, and have been for some time. It's my
24 impression or my understanding that when we first met
25 with TRAHVOL, their initial concerns expressed to us
26 were -- had more to do with overhead than EMF.

1 MR. ARVAY: Q: The reason that they were concerned
2 about the overhead, we can go that -- we can go down
3 the list, but one was clearly EMF, correct?
4 MS. PEVERETT: A: I don't know that.
5 MR. ARVAY: Q: You don't know that.
6 MS. PEVERETT: A: No. Not at that time.
7 MR. ARVAY: Q: And at that time. You know now, of
8 course.
9 MS. PEVERETT: A: Well, now I know they have concerns
10 about EMF. I believe they have concerns with EMF
11 whether it's overhead or underground.
12 MR. ARVAY: Q: Right.
13 MS. PEVERETT: A: And certainly I have -- I believe
14 I've read some testimony that says that they have some
15 concerns that when it's underground, the EMF levels
16 immediately over the cable are higher. Even though
17 they're lower at the rights of way.
18 MR. ARVAY: Q: But Ms. Peverett, you said that you
19 weren't aware, back in March of 2005, that if -- that
20 TRAHVOL's concerns, with respect to the overhead
21 lines, was EMF. Is that right -- is that your
22 evidence?
23 MS. PEVERETT: A: I wasn't aware of that, no.
24 MR. ARVAY: Q: So if you weren't aware of that, that
25 doesn't mean that Mr. Costello wasn't aware of that,
26 right?

1 MS. PEVERETT: A: That's true.

2 MR. ARVAY: Q: And that doesn't mean that's -- the
3 Minister wasn't aware of that, right?

4 MS. PEVERETT: A: That's also true.

5 MR. ARVAY: Q: Right.

6 MS. PEVERETT: A: However, I did talk to Mr. Costello
7 and Mr. Yakout -- Mr. Mansour at the time, and it was
8 -- it's my impression from those discussions that we
9 really believed that we would be addressing the
10 concerns of Tsawwassen, including TRAHVOL, by going
11 underground.

12 Now, we may not have been correct, but I
13 believe that's why we went -- why we made that
14 commitment.

15 MR. ARVAY: Q: Let's stay with March of 2005. We're
16 not underground yet. We're just taking off the
17 overhead in March 2005. You're telling this panel you
18 actually don't know all the reasons that Mr. Costello
19 had in March in 2005 of taking those lines off from
20 the overhead option, because you weren't privy to
21 everything Mr. Costello had, right?

22 MS. PEVERETT: A: I think that's fair.

23 MR. ARVAY: Q: Right. And if I suggest to you that Mr.
24 Costello was very privy to vehement concerns by the
25 members of TRAVHOL about the implications of EMF, both
26 from the point of view of health and from the point of

1 property, you can't disagree with me, can you?

2 MS. PEVERETT: A: No I can't.

3 MR. ARVAY: Q: And presumably when Mr. Costello made
4 the decision on behalf of BCTC not to pursue Option 1
5 in March of 2005, he did so because he regarded that
6 to be a decision that was in the public interest,
7 correct?

8 MS. PEVERETT: A: Yes.

9 MR. ARVAY: Q: Right. And for all the reasons he had,
10 he believed that Option 1 was not in the public
11 interest, or to use the jargon of these proceedings,
12 not in the public interest and convenience, correct?
13 Public convenience and necessity, right?

14 MS. PEVERETT: A: I guess to be absolutely accurate, I
15 believe that Mr. Costello thought that -- that it was
16 in the interests of -- well, yes, in the interests of
17 the public and getting this project done, which is
18 clearly in the interests of the public, in our view,
19 to make the commitment not to go overhead.

20 MR. ARVAY: Q: Right. In fact, he made a decision that
21 he considered to be so much in the public interest
22 that he was willing to spend \$20 million more, or --
23 give or take, I'm not sure if it was 14, 15 or 20,
24 I've heard different figures. In the vicinity of \$20
25 million more to go Option 2 rather than Option 1,
26 right?

1 MS. PEVERETT: A: Yes, I think that's fair.

2 MR. ARVAY: Q: And --

3 THE CHAIRPERSON: Mr. Arvay, I'm just going to give you a
4 couple more minutes.

5 MR. ARVAY: Q: I appreciate the time, Mr. Chair, but
6 I'm getting somewhere, I think. Trust me, I just need
7 a few more minutes here.

8 THE CHAIRPERSON: Yes, and I'm giving you two more
9 minutes.

10 MR. ARVAY: Q: Okay. And I think you mentioned a
11 moment ago that the reason you didn't want to go
12 Option 3, which is the streets, in front of the
13 streets of Tsawwassen, because that was \$3 million
14 more, right?

15 MS. PEVERETT: A: At the time we were thinking about
16 it, it was an additional \$5 million.

17 **Proceeding Time 2:44 p.m. T8A**

18 MR. ARVAY: Q: Okay. And Ms. Peverett, I guess I have
19 sort of two points I want to make and I'm going to try
20 to make them as quickly as I can, given Mr. Hobbs'
21 direction. Maybe it's more than a direction.

22 Wouldn't it be fair to say, Ms. Peverett,
23 if BCTC was presented today with all the same concerns
24 that BCTC had in March of two thousand -- let me break
25 that down again. If BCTC was presented today with all
26 the same concerns respecting Option 2 that BCTC had in

1 March of 2005 with respect to Option 1, then BCTC
2 shouldn't be recommending Option 2 any more than
3 Option 1. Is that a fair statement?

4 MS. PEVERETT: A: No. We have continued to think about
5 whether Option 2 is the correct recommendation and we
6 continue to believe that it is.

7 MR. ARVAY: Q: You misunderstood my question and it's
8 perhaps because I'm rushed, but --

9 THE CHAIRPERSON: I will hold you to it.

10 MR. ARVAY: I got that feeling.

11 MR. ARVAY: Q: If this panel, let's put it that way --
12 no, forget this panel. If BCTC was persuaded that the
13 concerns that the residents had about Option 1 in
14 March of 2005 were equally valid, equally valid, if
15 the concerns they had in March of 2005 about Option 1
16 were equally valid with respect to Option 2, then
17 presumably BCTC would not be advocating Option 2.
18 Isn't that fair?

19 MS. PEVERETT: A: I think that's highly hypothetical so
20 it's hard for me to even answer it. But if we're
21 speaking about EMF and whether or not the concerns
22 that the residents have around EMF, whether that
23 should take us off Option 2, then my answer would be
24 no.

25 THE CHAIRPERSON: Thank you, Mr. Arvay. Don't test me.

26 MR. ARVAY: Thank you, Mr. Chair.

1 THE CHAIRPERSON: Mr. Landry, did you have any questions?

2 **CROSS-EXAMINATION BY MR. LANDRY:**

3 MR. LANDRY: Q: Ms. Peverett, my name is John Landry
4 and I represent Sea Breeze, and I'm probably the
5 culprit or at least part of the culprit that got you
6 here today on this fine Thursday afternoon. I do have
7 a few questions and they arise out of primarily the
8 cross-examination that occurred the other day. And as
9 I understand it, Ms. Peverett, you've had a chance to
10 read that cross-examination?

11 MS. PEVERETT: A: I think so, yes.

12 MR. LANDRY: Q: Okay. Now, you mentioned, actually in
13 answer to a question from the Chairman, a meeting that
14 you had with Sea Breeze in December?

15 MS. PEVERETT: A: Yes, December the 5th.

16 MR. LANDRY: Q: Right, and that meeting was held at the
17 request of Sea Breeze, correct?

18 MS. PEVERETT: A: It was.

19 MR. LANDRY: Q: And Ms. Peverett, since you became the
20 president in -- I believe it was April 2005; do I have
21 that date right?

22 MS. PEVERETT: A: Yes.

23 MR. LANDRY: Q: You had not met with Sea Breeze after
24 that time prior to December 5th, is that a fair
25 statement?

26 MS. PEVERETT: A: I think that's correct. They hadn't

1 requested a meeting either.

2 MR. LANDRY: Q: Okay.

3 MS. PEVERETT: A: BCTC had had, of course, many
4 meetings with them during that period of time.

5 MR. LANDRY: Q: Yes, and we've heard some evidence
6 about that. But you yourself did not meet with Sea
7 Breeze until December, is that a fair statement?

8 MS. PEVERETT: A: That's right.

9 MR. LANDRY: Q: Now, just in terms of the cross-
10 examination, Ms. Peverett, obviously I'd like to talk
11 a little bit about the issue of the guidance and
12 directions that BCTC has received from the Commission.
13 You'll recall that that was the subject matter of the
14 cross-examination?

15 MS. PEVERETT: A: I do.

16 MR. LANDRY: Q: And I'm sure you can see that there --
17 at least on the cross-examination, you can understand
18 that there's a bit of frustration that Sea Breeze
19 seems to have in that they don't believe -- they and
20 their investors don't believe that BCTC has actively
21 engaged them in trying to come to a creative solution
22 to issues facing transmission needs in British
23 Columbia. That's their frustration, you understand
24 that?

25 MS. PEVERETT: A: I do understand that as a result of
26 having read the cross-examination. I can say that

1 that frustration wasn't expressed to me on December
2 5th.

3 MR. LANDRY: Q: Okay, well, we'll get to the December
4 5th meeting. But just in terms of the guidance and
5 direction that BCTC has received from the B.C.
6 Utilities Commission, I'm going to put a few general
7 propositions to you, similar to what I did with Panel
8 1 and see, just to get you to comment on them, Ms.
9 Peverett.

10 **Proceeding Time 2:49 p.m. T09A**

11 First of all, would you agree that, as a
12 result of the recent decisions that have come from the
13 Commission, that the Commission has given general
14 guidance or direction that BCTC should be more
15 transparent? And what I mean by that is, and when
16 coming forward with major capital projects they should
17 be more specific about how these projects are selected
18 amongst alternatives and the various priorities
19 between projects?

20 MS. PEVERETT: A: We understand the Commission would
21 like us to do that, yes.

22 MR. LANDRY: Q: And you're willing to accept that as
23 guidance?

24 MS. PEVERETT: A: Of course.

25 MR. LANDRY: Q: And would you also agree that the
26 Commission would like to see BCTC be more proactive in

1 transmission system planning?

2 MS. PEVERETT: A: There were a number of comments, both
3 comments and directions, that we got from the
4 Commission in terms of proactivity, and we do
5 understand the Commission would like us to be
6 proactive in terms of looking for trans --
7 alternatives to building our own transmission.
8 Certainly the Commission was quite explicit in wanting
9 us to look -- in the most recent 2006 Capital Plan,
10 wanting us to look at non-wires or customer-provided
11 solutions. And they did also in that -- in that
12 decision, talk about a number of other projects,
13 including the Juan de Fuca project.

14 MR. LANDRY: Q: You knew and you know that the
15 Commission was -- and again, I'm using a fairly soft
16 term here, giving some guidance to BCTC that they were
17 looking to BCTC to introduce, when they could,
18 innovative alternatives or solution to transmission
19 investment needs?

20 MS. PEVERETT: A: Yes, I do understand the Commission
21 is looking for us to be innovative and proactive.

22 MR. LANDRY: Q: Right. And, of course, as you've
23 mentioned, one of the -- one of those alternatives
24 that was specifically mentioned was the Juan de Fuca
25 line.

26 MS. PEVERETT: A: Yes. The Juan de Fuca line was

1 mentioned, certainly, in the whole discussion about
2 looking at other alternatives. But I must say that
3 BCTC did not interpret the Commission to be giving us
4 a directive to look at the Juan de Fuca line as a
5 replacement to this Vancouver Island application,
6 which was already two and a half months underway.

7 MR. LANDRY: Q: I see. But Ms. Peverett, you were
8 aware that the Commission had expressed an interest
9 for BCTC to look at Juan de Fuca and see whether or
10 not it could eliminate or defer the need for the VITR
11 project. You were aware of that?

12 MS. PEVERETT: A: The Commission gave us that direction
13 -- or rather, it wasn't a direction -- I'm sorry. It
14 was a question, one of eight questions that the
15 Commission asked us to look at as a result of the 2005
16 Capital Plan.

17 MR. LANDRY: Q: And you knew, Ms. Peverett, it was
18 because there was an interest there, to see whether or
19 not that in fact was an alternative, to defer or
20 eliminate what was a fairly substantial investment for
21 -- to satisfy the Vancouver Island transmission needs.
22 Fair statement?

23 MS. PEVERETT: A: I imagine that was what was behind
24 the Commission's decision, and we did look at that.
25 We spent some time thinking about the Juan de Fuca
26 project, even though I will say until very recently

1 we've never understood Sea Breeze to be proposing the
2 Juan de Fuca project as a replacement to this
3 Vancouver Island project.

4 MR. LANDRY: Q: Well, we'll -- I'm sure we'll have a
5 debate some time in argument with your counsel, but
6 you'll at least agree with me that you know that they
7 are now proposing that, because that's what's been
8 discussed here.

9 MS. PEVERETT: A: I do know that, yes.

10 MR. LANDRY: Q: I wonder if you could, Ms. Peverett,
11 have before you Volume 12 of the transcript, which was
12 the cross-examination that we talked about a couple of
13 minutes ago.

14 MS. PEVERETT: A: Yes, I have it.

15 MR. LANDRY: Q: And I wonder if you could take page --
16 sorry, page 1889, Ms. Peverett. Now, as I understand
17 the evidence, I believe it was from Mr. Gabel, he
18 indicated that you, as a senior executive in the
19 organization, were kept actively informed of the VITR
20 project. Is that a fair statement?

21 MS. PEVERETT: A: There are certain aspects of the VITR
22 project that I've followed very closely, and other
23 aspects less closely.

24 MR. LANDRY: Q: Okay. Well, let's try this one, and I
25 apologize, I didn't mean to specifically quote Mr.
26 Gabel. I was just trying to get a general sense of

1 for a number of reasons that it couldn't. There's --
2 MR. LANDRY: Q: Ms. Peverett, can I just stop you for a
3 second. I thought my question was relatively simple.
4 I just want to know, do you agree or not agree with
5 that statement? That's my question. The quote from
6 that.
7 MS. PEVERETT: A: We haven't done a comprehensive
8 analysis of the Juan de Fuca project but we have done
9 a lot of thinking about it and a lot of looking at it
10 and a lot of trying to understand it.
11 MR. LANDRY: Q: So is that a yes or a no?
12 MS. PEVERETT: A: We've done an analysis. It hasn't
13 been comprehensive.
14 MR. LANDRY: Q: Thank you.
15 MS. PEVERETT: A: I will say that we -- I don't believe
16 we've had something concrete, something really
17 concrete that we could analyze until reasonably
18 recently.
19 MR. LANDRY: Q: And when you say "reasonably recently",
20 when you talk about that, you mean in a sense of Sea
21 Breeze bringing forward to this Commission the concept
22 that Juan de Fuca might be an alternative to the VITR
23 project? Is that what you mean?
24 MS. PEVERETT: A: Yes.
25 MR. LANDRY: Q: Now, Ms. Peverett, you had your
26 December 5th meeting and it was with the senior

1 executives of the Sea Breeze group, and that included
2 Mr. Tompkins?

3 MS. PEVERETT: A: Yes.

4 MR. LANDRY: Q: Mr. Chernack?

5 MS. PEVERETT: A: Yes.

6 MR. LANDRY: Q: Mr. El-Ramly?

7 MS. PEVERETT: A: Yes.

8 MR. LANDRY: Q: And Mr. Manson?

9 MS. PEVERETT: A: Yes.

10 MR. LANDRY: Q: All of which you know are going to be
11 testifying here?

12 MS. PEVERETT: A: I didn't know that but I knew that
13 Sea Breeze was going to be testifying.

14 MR. LANDRY: Q: And at that meeting you would consider
15 it a constructive meeting?

16 MS. PEVERETT: A: It was -- actually it was a meeting
17 that was constructive in that it opened dialogue
18 between myself and the four men you've mentioned.

19 MR. LANDRY: Q: And dialogue which is continuing, as I
20 understand it?

21 MS. PEVERETT: A: Which is continuing, yes. But I will
22 say that the meeting itself was challenging because
23 the four gentlemen came in and actually -- I asked
24 them to talk to me about -- well, they intended to and
25 I asked them to talk to me about the benefits of Juan
26 de Fuca to British Columbia and what the business

1 model might be, et cetera, and they actually came
2 forward individually with different ideas during the
3 meeting. And so I was -- we were faced with listening
4 to at least three different ideas, and they actually
5 disagreed among themselves as to what the idea was
6 that would be -- that they were proposing.

7 MR. LANDRY: Q: Well, there were a number of areas of
8 concern that you raised in that meeting. Is that a
9 fair statement, Ms. Peverett?

10 MS. PEVERETT: A: Not so much areas of concern, but we
11 talked for almost an hour and a half, and for probably
12 45 minutes of that I was listening to the gentlemen
13 describe a number of different potential ways that
14 Juan de Fuca might work. Maybe it gets rolled into
15 Grid West. Maybe BCTC contracts for it all. Maybe
16 it's merchant. And through all of that discussion I
17 said, "Maybe it would be a good idea if you came back
18 to us and thought about these sorts of things and were
19 able to explain to us these sorts of things."

20 MR. LANDRY: Q: And Mr. Manson wrote you back and
21 thanked you for the meeting and also gave you some
22 ideas what he thought you had requested in terms of
23 bringing back information?

24 MS. PEVERETT: A: Yes he did.

25 MR. LANDRY: Q: Is that a fair statement?

26 MS. PEVERETT: A: Yes, absolutely.

1 MR. LANDRY: And I wonder, Mr. Chairman, if I may, I'd
2 like to introduce for the record a copy of that
3 letter.

4 MR. FULTON: B2-54.

5 THE HEARING OFFICER: Marked B2-54.

6 (COPY OF 2-PAGE LETTER FROM MR. MANSON TO MS.

7 PEVERETT, DATED JANUARY 5, 2006, MARKED EXHIBIT B2-54)

8 **Proceeding Time 2:59 p.m. T11A**

9 MR. LANDRY: Q: Do you see that document --

10 MS. PEVERETT: A: I have it.

11 MR. LANDRY: Q: B2-54, Ms. Peverett?

12 MS. PEVERETT: A: Yes, thank you, I have it.

13 MR. LANDRY: Q: And that's the letter we were just
14 talking about, correct?

15 MS. PEVERETT: A: Yes, it is.

16 MR. LANDRY: Q: And you did receive a copy of that?

17 MS. PEVERETT: A: I did.

18 MR. LANDRY: Q: And those were generally the areas that
19 you wanted to speak further about with Sea Breeze, is
20 that a fair statement?

21 MS. PEVERETT: A: These are the areas that I suggested
22 to them it would be useful for them to come back and
23 explore with us.

24 MR. LANDRY: Q: And they're an accurate description of
25 those areas?

26 MS. PEVERETT: A: I would say the areas are accurate.

1 I don't think these were the words that I used.

2 MR. LANDRY: Q: Okay.

3 MS. PEVERETT: A: But the areas are certainly accurate.

4 MR. LANDRY: Q: But you never get back to Sea Breeze
5 and said something different, is that a fair
6 statement?

7 MS. PEVERETT: A: No, because I -- I expected that the
8 result of this would be another useful meeting, not a
9 cross-examination.

10 MR. LANDRY: Q: And as a result of -- and part of
11 getting that letter, there was an e-mail exchange with
12 Mr. Manson, is that a fair statement?

13 MS. PEVERETT: A: Yes there was.

14 MR. LANDRY: Q: And I wonder if we may, Mr. Chairman,
15 introduce that for the record.

16 THE HEARING OFFICER: B2-55.

17 (E-MAIL BETWEEN MS. PEVERETT AND MR. MANSON, MARKED AS
18 EXHIBIT B2-55)

19 MR. LANDRY: Q: Ms. Peverett, can you confirm that this
20 is an e-mail exchange you had with Mr. Manson in
21 around January 10th and 11th of 2006?

22 MS. PEVERETT: A: Yes, it is.

23 MR. LANDRY: Q: And you say here -- he does mention the
24 letter that we've just talked about, correct?

25 MS. PEVERETT: A: He does.

26 MR. LANDRY: Q: And in addition to that, Ms. Peverett,

1 he's informed you that representatives of the
2 financial advisors to Juan de Fuca would be willing to
3 meet with BCTC?

4 MS. PEVERETT: A: He did make that offer.

5 MR. LANDRY: Q: And he made the offer that they would
6 bring representatives of EIF, Soc Gen and ABB, if BCTC
7 wanted to meet with them, correct?

8 MS. PEVERETT: A: I'm sorry, I'm just trying to figure
9 out if those were the three -- I honestly don't see
10 ABB here, but --

11 MR. LANDRY: Q: You knew that ABB was one of the -- one
12 of the parties that was involved in the Sea Breeze
13 team that was proposing the Juan de Fuca project?

14 MS. PEVERETT: A: Yes, I do.

15 MR. LANDRY: Q: And you knew that EIF was one of the --
16 one of the partners too?

17 MS. PEVERETT: A: Yes.

18 MR. LANDRY: Q: Yes. And they made it clear to you, as
19 I understand it, Ms. Peverett, that they'd be more
20 than willing to arrange meetings with those
21 individuals with you, if you would like to do that?

22 MS. PEVERETT: A: Yes. I'm not quibbling with that,
23 I'm just saying it's not contained in the e-mail.

24 MR. LANDRY: Q: Now, as I understand it, and Ms.
25 Peverett, notwithstanding the offer to have these
26 people meet with BCTC, BCTC has decided to first meet

1 with Sea Breeze, is that a fair statement?

2 MS. PEVERETT: A: Yes. Mr. Little met -- Mr. Little
3 and others met with Sea Breeze again.

4 MR. LANDRY: Q: Right. And they met with them
5 recently, in the last week or ten days.

6 MS. PEVERETT: A: I think that's right.

7 MR. LANDRY: Q: And would you agree with me, Ms.
8 Peverett, that Sea Breeze has been more than willing
9 to provide to you and to your organization any
10 information that they had to help satisfy any
11 questions or concerns that you had in relation to the
12 project? Would you agree with that?

13 MS. PEVERETT: A: Well, I've only had the one meeting
14 with them, and certainly I believe that Sea Breeze has
15 indicated a willingness to meet with us, and talk to
16 us. Our challenge continues to be to understand in
17 some depth what the project is all about and what the
18 potential benefits are to the system. But we continue
19 to work on that. And that was the objective in the
20 next meeting.

21 MR. LANDRY: Q: And that's an objective that you feel,
22 obviously, is necessary, as the president of the
23 organization, to follow up on?

24 MS. PEVERETT: A: Yes.

25 MR. LANDRY: Q: But, Ms. Peverett, you've had one
26 meeting with them yourself.

1 MS. PEVERETT: A: Yes.

2 MR. LANDRY: Q: Correct? And you never requested a
3 meeting before December 5th. You yourself never
4 requested a meeting, is that a fair statement?

5 MS. PEVERETT: A: I never requested a meeting, they
6 never requested a meeting with me, and I presume
7 that's because both parties were working
8 satisfactorily.

9 MR. LANDRY: Q: Ms. Peverett, you never requested a
10 meeting with them --

11 MS. PEVERETT: A: No, I didn't.

12 MR. LANDRY: Q: -- that's the question. Now, now that
13 you're trying to fully understand the possibilities of
14 the Juan de Fuca project, if this Commission decided
15 -- and I'll put an "if" on that, okay? I understand
16 that BCTC would like this Commission to give BCTC an
17 unconditional CPCN. I understand that. But let's
18 just make an assumption for a moment.

19 **Proceeding Time 3:04 p.m. T12A**

20 If the Commission decided, as opposed to an
21 unconditional CPCN, that they would like BCTC to sit
22 down with Sea Breeze -- and by the way, I might say to
23 you that my clients have told me they're more than
24 willing to do that. If this Commission directed BCTC
25 to sit down with Sea Breeze to see whether or not
26 there indeed was an alternative to the VITR project

1 using the Juan de Fuca line, and if that was the
2 direction, I assume that you would sit down with Sea
3 Breeze to see if that could be looked at as a
4 possibility?

5 MS. PEVERETT: A: If the Commission directed us to
6 that, of course we would do it. I would be very
7 concerned about that, though. The Juan de Fuca
8 project has a number of things which must happen
9 before it can be considered an alternative to the
10 Vancouver Island project, and they, I believe, would
11 not be able to -- they couldn't happen by October
12 2008. And we already know --

13 MR. LANDRY: Q: Well, Ms. --

14 MS. PEVERETT: A: -- that this project is required by
15 October 2008. And I just want to give the Commission
16 the tiniest bit of information about what we see as
17 some of the things that need to happen and that I
18 don't think could happen.

19 MR. LANDRY: Q: Well, Ms. Peverett, that wasn't the
20 question I asked. My question was simply would you be
21 willing to sit down with Sea Breeze? We know that --
22 we've heard a lot in the last week or ten days about
23 -- Mr. Barrett has told us time and time again the
24 difficulties with it. Okay, but my question to you is
25 simply this: If that was the direction, would you be
26 willing to sit down with Sea Breeze to see if you

1 could come up with something? Would you be willing to
2 do that? That's a simple question.

3 MS. PEVERETT: A: Of course we'd be wiling to do that.

4 MR. LANDRY: Okay. Those are all the questions I have,
5 Mr. Chair.

6 THE CHAIRPERSON: Thank you. Mr. Fulton.

7 MR. FULTON: I have no questions, Mr. Chair, but thank
8 you.

9 THE CHAIRPERSON: Thank you.

10 I have really just one question or one area
11 that I'd like to discuss with you before we're
12 finished here, and that's with respect to something
13 that I'm not usually concerned about and that is media
14 coverage.

15 Following your commitment, the letter was
16 delivered and a photo opportunity was provided to one
17 of the local papers, and this has been brought to our
18 attention through TRAHVOL's witnesses, but the
19 headlines may have been misleading. And I'm wondering
20 if in fact you're familiar enough with the press that
21 you got after the release of the March 17th letter to
22 say whether or not you think that they were
23 misleading. And if you do, then my next question
24 would be: Why didn't you do something about it?

25 MS. PEVERETT: A: I was certainly aware that some of
26 the press coverage was misleading, or shall I say

1 inaccurate, and that's been the case throughout this
2 proceeding. We have seen many instances where press
3 coverage has been inaccurate or perhaps slightly
4 sensationalized.

5 We've been learning through this whole
6 process, and we have spoken to a number of experts in
7 this area in terms of how we should handle
8 inaccuracies in the press, et cetera, and we have
9 adopted the practice of putting corrections on the
10 website. Sometimes we have written back to the
11 newspaper, but more often we'll just correct things on
12 our website and then direct people there.

13 The reason for that has been that I don't
14 like and we don't like to try and pursue these
15 discussions through the press I like to do it in the
16 regulatory proceeding. We did on occasion try and
17 correct or follow up on things in the press, and what
18 we found was it elicited another round of coverage
19 about either -- about the topic that we had commented
20 on and then any number of other things as well. And
21 our concern was not to alarm the general public in
22 Tsawwassen or in the province any more, or to
23 sensationalize this any further than it had been. And
24 so that is why we've taken the approach that we've
25 taken to the press.

26 THE CHAIRPERSON: Thank you.

1 I said at the outset that I would give you
2 an opportunity, if you elected to do this, to speak to
3 your team and return any questions that you might now
4 want to return to. Would you like to do that?

5 MS. PEVERETT: A: I don't think so, unless you advise
6 me there's any questions that I didn't do a very good
7 job on.

8 THE CHAIRPERSON: Well, I can't comment on that, but Mr.
9 Carpenter will have an opportunity for redirect and
10 I'll give you that opportunity now, Mr. Carpenter.

11 **Proceeding Time 3:09 p.m. T13A**

12 MR. CARPENTER: I do not have any re-direct, Mr. Chair.

13 THE CHAIRPERSON: Okay. Then thank you, and you're
14 excused.

15 MS. PEVERETT: Thank you, Mr. Chairman.

16 (WITNESS ASIDE)

17 THE CHAIRPERSON: Oh, sorry, we will take a 15-minute
18 break now.

19 **(PROCEEDINGS ADJOURNED AT 3:10 P.M.)**

20 **(PROCEEDINGS RESUMED AT 3:25 P.M.)**

21 THE CHAIRPERSON: Please be seated.

22 **VITR Project Engineering and Costing Panel**

23 **DON GAMBLE, Resumed:**

24 **THOMAS WELLS, Resumed:**

25 **DAMIAN DUNN, Resumed:**

26 **BRUCE BARRETT, Resumed:**

1 **ROSS NELSON, Resumed:**

2 **ALLEN MacPHAIL, Resumed:**

3 **GARRY BARNETT, Resumed:**

4 THE CHAIRPERSON: Mr. Holmsen, I have a question of Mr.
5 Barrett, so you can sit down for a minute, please.

6 Mr. Barrett, I'd like you -- to take you to
7 the organizational chart, which is B1-1, page 20.

8 MR. BARRETT: A: Yes.

9 THE CHAIRPERSON: Commissioner O'Hara took you to this,
10 on -- you don't need to turn to it, but in transcript
11 15, page 2464, and asked you about this organizational
12 chart, and it seems that from what we've just heard,
13 that there's yet been further changes to this
14 organizational chart. Would you like to tell us about
15 those?

16 MR. BARRETT: A: Well, I don't know if there have been
17 changes. There wasn't -- we recognized there had to
18 be an evolutionary process to this -- to the change.
19 You've -- I have to admit, you've caught me a little
20 bit when you asked that question. I had assumed that
21 Julius would be the executive sponsor simply because
22 he replaced Dennis Maniago, and we had been discussing
23 these things. I knew that there would be a transition
24 process to how we dealt with this.

25 It is true that Ms. Peverett has been more
26 or less the executive sponsor for the last two or

1 three months, since we found out that Dennis was
2 leaving. But I have been promoted. I'm now on the
3 executive leadership team, I am one of the senior
4 executives of BCTC, so is Julius. And I was -- that
5 was my understanding as -- just to my own
6 interpretation, because nothing else had been actually
7 changed other than that today. Ms. Peverett pointed
8 out to me that -- after she read the evidence, that
9 she would appoint me as executive sponsor, rather than
10 Julius.

11 THE CHAIRPERSON: Right. And I do remember somewhere in
12 the transcript that you quite eloquently commented on
13 the virtues of the executive sponsor, Mr. Pataki, and
14 you -- I was left with the impression that you were
15 looking forward to working with him, because he was an
16 engineer, and of like mind.

17 MR. BARRETT: A: That's actually true. I would be very
18 comfortable working with Julius, and I'm sure that we
19 will work together very closely. In fact, I'm using
20 -- the whole system planning department reports to
21 him, and several of the key subject-matter experts in
22 our organization report to him, and so we do work
23 together very closely. And Julius was the one that
24 handed me the project files when I showed up and took
25 this job.

26 So there is some continuity to this, and he

1 will be involved, because he's on the executive
2 leadership team, and because he is the director of
3 asset management and system planning. The intent is
4 to bring on more project managers to help direct the
5 implementation phases of major projects. And --

6 THE CHAIRPERSON: When you were describing him in that
7 context, did it not occur to you to tell us that he
8 was not going to be the executive sponsor?

9 MR. BARRETT: A: I didn't know that. I mean, I -- I
10 assumed that he would have a role as director of asset
11 management and system planning, and that could be the
12 way we would go.

13 THE CHAIRPERSON: You did not know that because you
14 didn't know then --

15 MR. BARRETT: A: I didn't know -- I didn't know yet
16 that I was actually the executive sponsor. And I
17 didn't want to just give myself that assignment
18 without speaking to my chief executive. And Julius
19 and I had talked about it, we've been -- but that
20 transition hasn't specifically been done, and I've
21 been working directly with Jane since Dennis -- well,
22 you know, pulled back from the -- just before
23 Christmas.

24 THE CHAIRPERSON: Are you looking for a program manager?

25 MR. BARRETT: A: I have several candidates I've
26 actually offers out for, yes. We're looking for more

1 than one senior project manager.

2 THE CHAIRPERSON: And how long ago did you send the
3 offers out?

4 MR. BARRETT: A: Excuse me?

5 THE CHAIRPERSON: When did you send the offers out? I
6 don't want to know to whom, I want to know --

7 MR. BARRETT: A: Oh, oh.

8 THE CHAIRPERSON: When did you send those offers out?

9 MR. BARRETT: A: Within the past couple of weeks.
10 We've been recruiting for -- it's -- but on this
11 particular project, I would be heavily involved. I
12 would need to have someone else come in and help back
13 me up.

14 THE CHAIRPERSON: But the offers went out prior to the
15 commencement of the hearing?

16 MR. BARRETT: A: Yes. Not for this particular project.

17 THE CHAIRPERSON: And so throughout this hearing, you
18 knew you weren't going to be the program, is that
19 correct?

20 MR. BARRETT: A: No.

21 THE CHAIRPERSON: No?

22 MR. BARRETT: A: I knew I would be responsible for the
23 job.

24 THE CHAIRPERSON: In one form or another.

25 MR. BARRETT: A: Yes, exactly.

26 THE CHAIRPERSON: But not -- but you knew that you

1 weren't going to be the program manager.

2 MR. BARRETT: A: That's -- I guess that's -- I would
3 assume that that's the case, yes.

4 THE CHAIRPERSON: You assume that that's the case, or you
5 knew that that's the case?

6 **Proceeding Time 3:30 p.m. T14A**

7 MR. BARRETT: A: Well no -- I am still the program
8 manager. No one has been appointed. We haven't found
9 someone who really would do it. But that is the plan
10 to my understanding. We're caught right in the middle
11 here, and I'm the one that brought it here. I am
12 currently the program manager. I'm directing all of
13 these activities. And until we have a suitable
14 replacement, I will continue to do this.

15 I don't know how to exactly -- it was a
16 surprise to me when I got promoted. I was notified
17 just before going for a holiday break, and Mr. Maniago
18 was officially here until January 13th, and I didn't
19 get the position until January 16th and I haven't
20 actually occupied my office yet. So it is in a matter
21 of transition.

22 THE CHAIRPERSON: Were there times during this proceeding
23 when you felt that you weren't being as transparent as
24 you should be?

25 MR. BARRETT: A: No, I don't think so. I would assume
26 that the project would work the way I described it

1 until and if we got somebody to replace me as program
2 manager.

3 THE CHAIRPERSON: All right.

4 MR. BARRETT: A: We don't have anyone now.

5 THE CHAIRPERSON: Do you feel any sense of obligation to
6 keep us information with respect to the organizational
7 chart?

8 MR. BARRETT: A: Yes I do. I certainly didn't intend
9 to, I guess, disassociate myself from the project in
10 any way or to -- I guess I'm searching for the word
11 but -- to be in some way not transparent. I'm sorry.

12 THE CHAIRPERSON: Mr. Holmsen?

13 **CROSS-EXAMINATION BY MR. HOLMSEN (Continued):**

14 MR. HOLMSEN: Q: I'll see if I can at least follow my
15 script here and it'll be a little easier for me.

16 MR. CARPENTER: Mr. Chair, just before Mr. Holmsen
17 starts, there was an exchange just before the lunch
18 break about BCTC's intentions and which properties it
19 would place underground conduits on and which ones it
20 would not. And I'd indicated that my recollection was
21 there was a number of information responses dealing
22 with that issue. I did find it just as we were
23 breaking and did advise Mr. Holmsen of that, but for
24 the purposes of the record it's in Exhibit -- one
25 response, I think this was the first one, it's in
26 Exhibit B1-6 and it is BCUC IR 1.3.1.

1 My recollection is that there were more of
2 these, but they may be ones that simply referred back
3 to this one. But I think this one certainly
4 adequately describes the proposal.

5 MR. HOLMSEN: Mr. Carpenter, may I ask you what date that
6 information request has?

7 MR. CARPENTER: August 5th, 2005. I'm sorry, response was
8 issued on August 28th, 2005.

9 MR. HOLMSEN: August 28th. Well, my information request
10 is dated 7th of September, so why wasn't I informed on
11 this or referenced to that response?

12 MR. CARPENTER: I'm sorry, I don't know which information
13 request you that you are. I believe this asks a
14 different question, I think, and you can explore this
15 with Mr. Barrett. As you indicated, it's difficult to
16 discern solid blue lines on that drawing. Certainly
17 it was not the intention. But if you wish to pursue
18 that issue further with Mr. Barrett, please feel free
19 to do so.

20 MR. HOLMSEN: Okay, thank you, thank you. I please may
21 proceed here?

22 MR. HOLMSEN: Q: In the calculation of the costs, Mr.
23 Barrett, of installing the second duct through part of
24 Tsawwassen, what distance or proportion of 3.7
25 kilometres was considered?

26 MR. BARRETT: A: In terms of the budget --

1 MR. HOLMSEN: Q: Yeah.

2 MR. BARRETT: A: -- 2.5 kilometres was included in the
3 budget.

4 MR. HOLMSEN: Q: 2.5 kilometres, thank you.

5 **Proceeding Time 3:35 p.m. T15A**

6 MR. NELSON: A: And that, if we exclude the properties,
7 so that budget number, the 2.5 kilometres, would
8 include the properties or the portion of the line
9 where there are two properties. Excluding that it
10 would 2.1 kilometres, and I think we covered that in
11 one of the IRs, but we can find that.

12 MR. HOLMSEN: Q: Yes, that's correct. I had 2.1
13 initially, so with the 400 metres through on that
14 section that would be 2.5 kilometres. Thank you.

15 Now, Mr. Barrett, in response to Mr.
16 Yardley's question about the backfill material being
17 sedimentatious, and I refer you to Transcript 9, page
18 1283, line 14.

19 THE CHAIRPERSON: Can you us give the page number again
20 please, Mr. Holmsen?

21 MR. HOLMSEN: Q: It was page 1283, one thousand two
22 hundred and -- oh, line number 14, page 1283.

23 MR. BARRETT: A: I have the reference.

24 MR. HOLMSEN: Q: Thank you. There you stated that the
25 backfill material brought in would be just clean soil,
26 is that correct?

1 MR. BARRETT: A: I believe what my testimony was, that
2 the conduits would be encased with concrete, and then
3 above the concrete there would be a select material
4 brought in to fill it in. I'm not the expert and
5 perhaps if you have a more detailed question about
6 sedimentatious soils, you need to ask someone else.

7 MR. HOLMSEN: Q: Yes I do. No, you're correct. You
8 said aside from the concrete duct, the backfill would
9 not be concrete or sedimentatious material.

10 MR. BARRETT: A: That's correct.

11 MR. HOLMSEN: Q: But just clean soil, correct?

12 MR. BARRETT: A: Yes.

13 MR. HOLMSEN: Q: Well, I'm confused. Could you please
14 explain to me what fluidized thermal backfill is?

15 MR. MacPHAIL: A: Fluidized thermal backfill is a weak
16 sand-cement mixture that has a small amount of
17 Portland cement and some fly ash. And it's called
18 fluidized because it's placed in the trench in a very
19 wet formulation so that it flows to fill in all the
20 voids. And when it dries and cures, it has excellent
21 thermal properties that are retained even when the
22 moisture is driven out by all the heat. There's some
23 of the heat that's developed by the cables.

24 MR. HOLMSEN: Q: Thank you, Mr. MacPhail. So it is
25 weak concrete, isn't it?

26 MR. MacPHAIL: A: You could think of that way, mm-hmm.

1 MR. HOLMSEN: Q: Thank you. Is this not the material
2 that BCTC -- they're proposing to backfill with that
3 material. Is it not the purpose of this fluidized
4 thermal backfill to -- which is a low thermal
5 resistivity or you could say high heat conductivity,
6 to improve the cooling of the underground electrical
7 cables?

8 MR. MacPHAIL: A: It has a high heat conductivity but
9 it's not certain it'll be used everywhere in the
10 trench.

11 MR. HOLMSEN: Q: No, but the purpose is to conduct the
12 heat away from the cables.

13 MR. MacPHAIL: A: Yes, that's the purpose. And it's
14 not always that thick, maybe 300 millimetres over the
15 top of the duct bank.

16 MR. HOLMSEN: Q: Thank you. I would like to refer you
17 to Exhibit B1-17 and BCTC's -- my Holmsen 1.15.1.
18 What does it tell you, Mr. Barrett? B1-17, 1.15.1.
19 Yes. What does that response tell us?

20 **Proceeding Time 3:40 p.m. T16A**

21 MR. MacPHAIL: A: What was the question?

22 MR. HOLMSEN: Q: Yeah, I was asking what the response
23 was to that Information Request.

24 MR. MacPHAIL: A: Would you like me to read it?

25 MR. HOLMSEN: Q: Yes, please. I would like Mr. Barrett
26 to read it, actually, because he had made a comment

1 earlier.

2 MR. BARRETT: A: Yes, it does say that there may be a
3 fluidized thermal backfill immediately over the duct
4 bank.

5 MR. HOLMSEN: Q: So it's not clean soil.

6 MR. BARRETT: A: For a -- if that's put in, it's --
7 yes, there is a small amount put over the duct bank.

8 MR. HOLMSEN: Q: Thank you.

9 Mr. Nelson, I would like to ask you some
10 questions about the duct -- or Mr. MacPhail, whichever
11 field is obligated to answer. The EMF experts will
12 know the most important issues of concern to the
13 Tsawwassen residents. It is obvious from the table in
14 the above exhibit, and I'm referring to Exhibit --
15 Exhibit B1-1, section 3.3.3.1, Figure 3-23, it's page
16 55. And Exhibit C1-38, section 1.

17 MR. BARRETT: A: Which page?

18 MR. HOLMSEN: Q: Page 1, and 3 to 4. At 1.3 and 1.4.
19 First I'd like to refer to the B1-17.

20 MR. BARRETT: A: Where's the B1-17?

21 MR. HOLMSEN: Q: Do you want that?

22 MR. BARRETT: A: Are you talking about two references?

23 MR. HOLMSEN: Q: B1-17 is the one I'm referring to
24 first.

25 MR. NELSON: A: And that's 1.5. --

26 MR. HOLMSEN: Q: 1.26.9. Do you have that? As I said,

1 it's obvious from the table in the above exhibit that
2 EMF level decreases significantly with the depth of
3 burial of the cables. It indicates that by burying
4 the cables one metre deeper, the EMF level on the
5 ground decreases from 530 to 171 milligauss. Can you
6 see that?

7 Although this is still at the level
8 unacceptable to the community, this illustrates that
9 burying the cables deeper is one of the mitigation
10 measures that can be implemented to reduce the EMF
11 exposure. By burying the ducts deeper, is this only a
12 matter of costs?

13 MR. BARRETT: A: It's primarily a matter of costs, yes.

14 MR. HOLMSEN: Q: I will -- go ahead.

15 MR. BARRETT: A: There's also some effect on, as I said
16 before, on the cable rating, in terms of the heat --
17 the heat --

18 MR. HOLMSEN: Q: No, they're all technical issues to --

19 MR. BARNETT: A: -- the deeper you go, the more
20 difficult it is.

21 MR. HOLMSEN: Q: Technical issues such as the heat
22 dissipation, right?

23 MR. BARRETT: A: Yes.

24 MR. HOLMSEN: Q: And the VCS which costs for
25 underground cable installation is based on the top of
26 the ducts being 1 metre from the surface, is that

1 correct?

2 MR. BARRETT: A: That's the minimum cover, yes.

3 MR. HOLMSEN: Q: Yeah. But is that what the costing is
4 based on? Or is it an average depth?

5 **Proceeding Time 3:45 p.m. T17A**

6 MR. NELSON: A: It's roughly one metre.

7 MR. HOLMSEN: Q: One metre?

8 MR. NELSON: A: Yes.

9 MR. HOLMSEN: Q: Now, I think this was asked by
10 Commissioner O'Hara also to get the costs of the
11 ducting one metre deeper, so I won't repeat that, but
12 would two metres deeper be directionally
13 proportionally more expensive?

14 MR. BARRETT: A: No, it wouldn't be --

15 MR. HOLMSEN: Q: A straight line relationship?

16 MR. BARRETT: A: It wouldn't be a straight line because
17 the deeper you go the more derating you have and more
18 difficult you have in terms of shoring the excavation.

19 MR. HOLMSEN: Q: That's what I was getting to, yes,
20 thanks. Referring to Exhibit B1-19, Karsten Holmsen,
21 IR No. 3.54.1 and 3.54.2.

22 MR. BARRETT: A: Would you give us the number again?

23 MR. HOLMSEN: Q: 3.54.1. It's in the back, in the
24 pockets. It shows -- it's in the plastic pockets in
25 the back. It shows profiles of some of the cables
26 buried in Vancouver, the 2N33 and Burnaby the 2L39 and

1 2L40. These cables are buried at depths of two metres
2 or more. Would you not agree that construction
3 problems are greater in Vancouver and Burnaby streets
4 with all the utilities than through the Tsawwassen
5 residential properties?

6 MR. BARRETT: A: Could you repeat the question?

7 MR. HOLMSEN: Q: Would you not agree that construction
8 problems are greater in Vancouver and Burnaby streets
9 with all the utilities they have in those streets than
10 through the Tsawwassen residential properties?

11 MR. NELSON: A: That is one aspect that will affect the
12 price.

13 MR. HOLMSEN: Q: Yes, but it would be easier, am I
14 correct and understand that easier to construct in
15 Tsawwassen than it would be in the streets in
16 Vancouver and Burnaby?

17 MR. NELSON: A: From a strictly construction
18 perspective, yes.

19 MR. HOLMSEN: Q: Yet in those areas if these ducts can
20 be installed at two metres or greater depth under
21 these streets, why does BC propose to bury the ducts
22 only one metre in Tsawwassen?

23 MR. MacPHAIL: A: Well, the burial depth on the 2L33
24 project, and I was involved in that project, are to a
25 large extent based on achieving high seismic
26 withstand. So they were buried deeper in a lot of

1 places so they could be keyed into the competent
2 glacial till materials. So they are deeper than
3 normal.

4 MR. HOLMSEN: Q: Thank you, yes. I seen that they're
5 going as deep as five metres in some places on the
6 plans.

7 MR. MacPHAIL: A: Yes.

8 MR. HOLMSEN: Q: So cost is the overriding issue, is
9 it?

10 MR. MacPHAIL: A: Well it's cost and transmission
11 capacity. The deeper we go the less transmission
12 capacity we have.

13 MR. HOLMSEN: Q: Because of poor heat dispersion?

14 MR. MacPHAIL: A: Yes.

15 MR. HOLMSEN: Q: Can you tell me, Mr. MacPhail, what
16 can technically be done to further reduce the exposure
17 level from buried cable, Ms. O'Hara mentioned the
18 shielding and there was going to be some costs
19 provided for that, is that correct?

20 MR. MacPHAIL: A: Yes, we're aware of the request to
21 provide additional information. We're working on
22 that. I hesitate to speculate on what the final
23 results will be, but we'll provide a description of
24 shielding methods and the shielding factors and an
25 estimate of costs.

26 MR. HOLMSEN: Q: Thank you.

1 MR. CARPENTER: Just to assist Mr. Holmsen, if he wishes
2 to discuss potential shielding methods with Mr.
3 MacPhail now that's perfectly appropriate. It's
4 primarily the cost issue that we're addressing in the
5 IR response.

6 MR. HOLMSEN: No, it's fine. That's pretty well all I
7 want to ask about that.

8 **Proceeding Time 3:50 p.m. T18A**

9 MR. HOLMSEN: Q: Is there anything else that can be
10 done to these cables or ducts to minimize the EMF
11 exposure?

12 MR. MacPHAIL: A: Well, there's quite a variety of
13 things that one could do to reduce magnetic fields,
14 and again, we'll describe them in the report that's
15 being prepared. But for example, one could short-
16 circuit the cable sheaths on these -- the cables that
17 are being installed. They're installed with what's
18 called a "single-point bonding" system. So the
19 sheaths are floating at one end and grounded at the
20 other, so no current flows in them. You could -- you
21 could short out the sheaths, so that you've forced
22 currents to flow in the sheaths, the currents being
23 induced from the conductor in the middle, of course,
24 but the neck -- and so the -- the current flowing in
25 the sheaths would counteract the current flowing in
26 the conductor and lower the magnetic fields.

1 But the net result would be a very
2 substantial reduction in transmission capacity, in the
3 range of 30 to 40 percent. So the solution would be,
4 put in a second circuit in parallel. So you can
5 imagine the cost increment would be very high. So
6 that's something that we wouldn't want to -- well,
7 that one has been discarded at the outset.

8 The other thing one could do is move the
9 phases a little bit closer together. They're already
10 in a delta configuration, in a triangular
11 configuration, and one could move the phases a bit
12 closer together. The only problem is, is there really
13 isn't much room to move them closer together and still
14 have a duct bank. The -- you need a certain amount of
15 space between the conduits for the concrete to flow
16 in.

17 After that, there are some systems called
18 -- I believe it's called "active shielding," where you
19 put circular loops of conductors over top of the duct
20 bank, and currents are introduced into these
21 conductors and create a field of their own that
22 cancels that in the phase conductors. But the
23 calculations are very complex, the costs are high, and
24 probably that's not something you would want to do at
25 the end of the day. It also creates heat, which
26 causes derating of the cable.

1 Another method you could do is -- another
2 method you can use is to put shielding plates around
3 the cable formation, the duct bank formation. And the
4 system that seems to be used fairly frequently -- oh,
5 I shouldn't say "frequently," the system that is used
6 in some places is steel plates or copper plates or
7 aluminum plates. They have their own attributes.
8 Steel tends to corrode, copper's expensive, and
9 aluminum seems to be the most practical way to go.
10 So, that's -- now the way the magnetic fields are
11 cancelled is by circulation of eddy currents in the
12 aluminum plates, and those currents cause heat, and
13 derating effects too.

14 So of all the systems I've mentioned, they
15 all result in a loss of transmission capacity. And
16 one can overcome that by putting in larger cables.
17 But that -- that increases costs, and this -- these
18 cables are already some of the largest we can buy
19 anyway, so there really isn't much more headroom and
20 the cost of cables increases exponentially as you get
21 close to the upper end of the range.

22 MR. HOLMSEN: Q: Thank you. Would that be part of the
23 cost information you are going to provide to
24 Commissioner O'Hara's request?

25 MR. MacPHAIL: A: Yes. I'm not sure we will be able to
26 provide costs for all of those options, but for some

1 of them that are judged to be the most practical and
2 feasible we will provide costs.

3 MR. HOLMSEN: Q: Thank you.

4 MR. MacPHAIL: A: One of the questions that comes up
5 is, how low a magnetic field is -- do you want?
6 Because you need to design to a -- certain limits.
7 So, as engineers, the question we face is what
8 magnetic field is -- level is acceptable. But I would
9 -- so I think what we will do is provide reduction
10 levels of, say, 50 percent, and 75 percent, a bit of a
11 sensitivity study.

12

13 **Proceeding Time 3:55 p.m. T19A**

14 MR. HOLMSEN: Q: Thank you. That would be helpful, I
15 think, and very educational.

16 MR. MacPHAIL: A: Thank you.

17 MR. HOLMSEN: Q: Now, in the numbers that were provided
18 to Commissioner O'Hara's request, I think it was
19 suggested that the cost addition, cost would be about
20 15 percent on \$14 million for a total of \$2.1 million,
21 that's my calculation, on the \$245 million project.
22 Would you consider this to be an unreasonable expense
23 for safety of the public?

24 MR. MacPHAIL: A: I don't think it's my position to
25 say.

26 MR. HOLMSEN: Q: Mr. Barrett.

1 MR. BARRETT: A: Well, I think we've covered this
2 before, is that it's BCTC's position, based on the
3 sources that we rely on, that this is not a safety
4 issue. This is a concern that some people have but
5 it's not a safety issue at this point in time.

6 MR. HOLMSEN: Q: I would refer then to your response to
7 Commissioner Nicholls at Transcript 15, page 2484,
8 line 22, where you say that yes, the reliability,
9 safety and public health are the highest weighing
10 factors. Do you agree with that, Mr. --

11 MR. BARRETT: A: Yes, I do.

12 MR. HOLMSEN: Q: Thank you.

13 Now I would like to refer you to Exhibit
14 C1-13, section 1, Figure 1-1 on page 1.1.4. The page
15 is Figure 1-1, page 1.4, first section.

16 MR. BARRETT: A: C1, which?

17 MR. HOLMSEN: Q: Yeah, I think you've got it right
18 there, the blue graph right there.

19 MR. BARRETT: A: Okay, all right. Page 1.4?

20 MR. HOLMSEN: Q: That's right. This graph shows the
21 heating effect generated between the two cable ducts
22 once you get both cables in actually. It also shows
23 an 8 degree Centigrade heat rise with the duct banks
24 2.5 metres apart. That's the top of the curve where
25 it goes out to infinity. Is that correct?

26 MR. MacPHAIL: A: I wasn't exactly sure what you were

1 explaining. On the vertical axis is temperature --
2 MR. HOLMSEN: Q: Yeah.
3 MR. MacPHAIL: A: -- and it runs from zero degrees to 8
4 degrees.
5 MR. HOLMSEN: Q: Yeah, if you'll explain why you need
6 to go 10 metres apart, because that's almost out to
7 the flat end of the curve, correct?
8 MR. MacPHAIL: A: Right, mm-hmm.
9 MR. HOLMSEN: Q: Now going towards the other end then,
10 which is -- it goes off the chart at 2 and a half
11 metres and that's about 8 degree heat rise. It
12 should, of course, cause a lot of power loss in your
13 cables, correct?
14 MR. MacPHAIL: A: Yes, correct.
15 MR. HOLMSEN: Q: Now, can you tell us, Mr. MacPhail,
16 what you will expect the temperature rise on the
17 ground immediately above the duct at one metre, and
18 it's buried one metre, and you have a full 600
19 megawatts load on the circuit compared to the
20 surrounding ambient soil surface temperature?
21 MR. MacPHAIL: A: I can't tell you right now but --
22 MR. HOLMSEN: Q: Can that be calculated?
23 MR. MacPHAIL: A: Yes, it can.
24 MR. HOLMSEN: Q: Can you provide that number for us
25 today? Mr. Carpenter, is that possible?
26 MR. CARPENTER: We can. I thought that we had already

1 provided that information in my IR response. And we
2 may not have provided it in exactly the context that
3 Mr. Holmsen is asking for in terms of the effect on
4 ground level, but I thought that we did provide
5 information on general heating effects around the
6 cable. But we will locate that, Mr. Chair.

7 **Information Request**

8 MR. MacPHAIL: A: Did you want like a temperature
9 distribution around the duct bank?

10 MR. HOLMSEN: Q: Really at the surface, on the surface
11 level, because I think this is critical.

12 MR. MacPHAIL: A: As well -- just to clarify, at the
13 surface it would be the ambient air temperature.

14 MR. HOLMSEN: Q: Ambient air temperature at the
15 surface?

16 MR. MacPHAIL: A: At the interface.

17 MR. HOLMSEN: Q: I thought it was heat conducting
18 backfill that would bring the heat up.

19 MR. MacPHAIL: A: Yes, but at the surface the heat
20 convects and radiates out into space.

21 MR. HOLMSEN: Q: So there will be no difference between
22 the surrounding areas and directly above the duct.

23 **Proceeding Time 4:00 p.m. T20A**

24 MR. MacPHAIL: A: Well, right at the interface, but
25 just a little below the interface, of course, there
26 would be a temperature rise and it would get higher as

1 you went closer to the duct bank.

2 MR. HOLMSEN: Q: So if you ever had snow in Tsawwassen,
3 you didn't see it, bare strip right down the yard.

4 MR. MacPHAIL: A: Well, maybe, but you know, I know
5 where our underground transmission lines are in
6 Vancouver and I often drive by them, sometimes when
7 there's snow, and there seems to be no effect at the
8 surface.

9 MR. HOLMSEN: Q: Okay, thank you, I was curious about
10 that because we have fairly dry climate in Tsawwassen
11 and in the summertime if there are additional heat
12 coming from these cables, of course, it could affect
13 whatever we can grow on top of it.

14 MR. MacPHAIL: A: But to clarify, and you know, I'm
15 trying to open and answer your question as openly as
16 possible, I've personally taken a digital thermometer
17 and put it in the ground over top of some of those
18 same lines and the temperature is about 2 to 3 degrees
19 higher than remotely.

20 MR. HOLMSEN: Q: It could make a difference, of course.

21 MR. MacPHAIL: A: Oh, yes.

22 MR. HOLMSEN: Q: Thank you. Then please explain to me,
23 Mr. Nelson or Mr. MacPhail, how the 2L33, I know the
24 cable is buried more than 2 metres below paved streets
25 in Vancouver and Burnaby, can get adequate cooling.

26 MR. MacPHAIL: A: Well, if I understand the question

1 correctly, when we design the system we design it for
2 that depth, and so the transmission capacity
3 calculations and the selection of the cable type and
4 conductor size are based on deep installation.

5 MR. HOLMSEN: Q: So could the Tsawwassen cables be --
6 be calculated the same way to accommodate the heat
7 conduction?

8 MR. MacPHAIL: A: Yes. Yes, they could, but I think,
9 as we explained earlier, there's a penalty for going
10 deeper. There's a derating effect. We're already
11 using very large cables and we're at the upper end of
12 the transmission capacity of this type of 230 kV
13 cable. So the net result, it might be very
14 uneconomical to go to a larger conductor size, and
15 conductors don't come in small incremental sizes. So
16 the base case that we've used is 2,000 square
17 millimeter conductor and the next largest size is 2500
18 square millimeters. So it's not common to order, say,
19 2100 or 2200 or something that would just compensate
20 for that.

21 The other side of the equation is that if
22 there's say a four percent loss in transaction
23 capacity, then that's 24 megawatts, and the capital
24 cost of the transmission capacity on this project, I
25 understand, is about \$400,000 a megawatt, so --

26 MR. HOLMSEN: Q: I can appreciate that.

1 MR. MacPHAIL: A: So there would be substantial
2 effective loss of the investment.

3 MR. HOLMSEN: Q: So the cables you have on 2L33, are
4 those the biggest you possibly could have?

5 MR. MacPHAIL: A: No they weren't.

6 MR. HOLMSEN: Q: I think I saw the cable size but I
7 can't recall --

8 MR. MacPHAIL: A: 1600 square millimeters.

9 MR. HOLMSEN: Q: So they were adequate for the heat --
10 the cooling in those depths that you are dealing with
11 in Vancouver and Burnaby?

12 MR. MacPHAIL: A: Yes, but they have a lower rating
13 that this circuit.

14 MR. HOLMSEN: Q: Okay, thank you. One of BCTC's major
15 concerns against seriously considering the Highway 17
16 option appears to be for ecological reasons. While I
17 intend go to into this in more detail with the
18 ecological panel and TFN panel, I would like to ask
19 this panel about the potential of using directional
20 drilling in this location. We touched on it a little
21 earlier.

22 Do you agree that the use of this
23 technology would mitigate some of the concerns for
24 Highway 17 location?

25 MR. BARRETT: A: Yes, and that's why we proposed it on
26 a portion of the Highway 17 when we did the

1 evaluation. Not only would it mitigate some of the
2 concerns but it was less expensive than perhaps doing
3 the kind of excavation we'd have to do as an
4 alternative.

5 MR. HOLMSEN: Q: What would the maximum distance be
6 between drilling positions or whatever terminology you
7 use, used in this process, so digging a hole and doing
8 the directional drilling?

9 MR. NELSON: A: For the short time we had available to
10 come up with those estimates, we haven't provided that
11 level of study. We would in fact have to look at the
12 thermal considerations and to come up with a suitable
13 separation between the drill holes.

14 **Proceeding Time 4:05 p.m. T21A**

15 For other -- the separation would be a
16 function of the rating of the cables, and so --- but
17 for the time that we had available, we could not
18 determine that.

19 MR. HOLMSEN: Q: Can you give me just a rough estimate
20 of how far you could drill? Between the holes?

21 MR. NELSON: A: Oh, how far you can drill?

22 MR. HOLMSEN: Q: Yes.

23 MR. NELSON: A: Oh, in length, or --

24 MR. HOLMSEN: Q: Yes, in length.

25 MR. NELSON: A: -- or separate -- I thought you were
26 talking separation.

1 MR. HOLMSEN: Q: I'm thinking in terms of length.

2 Sorry, I didn't make it clear.

3 MR. BARRETT: A: We've been doing some studies on
4 horizontal directional drilling, and the limitation is
5 really how far we can pull the cables, how long of
6 segments we can pull cables, and I believe we were
7 talking 600 metres.

8 600 metres is the -- about the limit that
9 we could install these sorts of large cables.

10 MR. MacPHAIL: A: That was for submarine cables, I
11 think.

12 MR. BARRETT: A: Okay.

13 MR. MacPHAIL: A: Just --

14 MR. BARRETT: A: Go ahead.

15 MR. MacPHAIL: A: Yeah, sorry. That was a study for
16 submarine cables, and the difficulty there, or at
17 least the issue is that the polypropylene serving on
18 the outside, it's kind of a yarn serving on the
19 outside of the cable, and has a possibility of fraying
20 and coming off during the pull, and bunching up inside
21 the pipe. And it's the last thing that you want to
22 happen while you have a cable ship standing by and
23 pulling the cable in ashore and it gets stuck.

24 So we're quite conservative in the
25 distances that we would commit to in pulling a cable,
26 a large cable like this ashore for a direction drill

1 landing. So, there's -- I believe 600 metre pulls
2 have been done on other projects, I think the Cross
3 Sound project, ABB's Cross Sound project, they pulled
4 around that range. And there's another one for the
5 Bass Link project from Victoria to Tasmania, that's
6 600 metres.

7 But we've been advised by one manufacturer
8 that 1,000 metres is too long. So, for the submarine,
9 600 is about our limit. For land cables, that's a bit
10 of a different story, because the -- it doesn't have
11 that polypropylene yarn on the outside. And we know
12 of some crossings that have been quite far, like I
13 think the Mississippi River in New Orleans.

14 But I don't think we want to commit to
15 distances right now.

16 MR. HOLMSEN: Q: No, I -- my question, of course,
17 referred to Highway 17 --

18 MR. MacPHAIL: A: Yes.

19 MR. HOLMSEN: Q: -- for the section.

20 MR. MacPHAIL: A: But it's interesting in the
21 technology, the -- you can drill very long distances
22 now.

23 MR. HOLMSEN: Q: Yeah. But --

24 MR. MacPHAIL: A: But it doesn't mean you can pull
25 cables in.

26 MR. HOLMSEN: Q: Just to be on the safe side, for --

1 for excavations -- for drilling would be adequate for
2 that distance, of 15m 1600 metres.

3 MR. MacPHAIL: A: Mm-hmm.

4 MR. HOLMSEN: Q: Now, how big would those excavations
5 be?

6 MR. MacPHAIL: A: You mean for the --

7 MR. HOLMSEN: Q: How large in size? How big an
8 excavation would you have to make to be able to access
9 the horizontal drilling? I presume you have to go
10 down, period. You can't come from the surface, can
11 you?

12 MR. MacPHAIL: A: Oh, no, you -- traditional horizontal
13 directional drilling is done from the surface, and the
14 entry angle, I think, is around 15 degrees from
15 horizontal.

16 But the radius of the curvature of the
17 pipes that you pull back is limited to some very large
18 numbers, and I'm guessing a bit here, but I -- it's in
19 the range of 500 to 1,000 times the diameter of the
20 pipe. So what that means is, if you're going in at 15
21 degree angle, and you do the geometry, you have to get
22 down quite deep before you can come back up again.

23 MR. HOLMSEN: Q: Okay. I see. So, you would really
24 have to make a big excavation in each location to
25 disturb -- you know, I'm thinking again about the
26 archaeological problem we're faced with on TFN.

1 MR. BARRETT: A: But we -- using this directional
2 drilling method, the only thing we'd have to excavate,
3 then, other than the drill hole itself, would be once
4 the drill hole is there to excavate down deep enough
5 for a splice chamber or manhole, to splice the cables.
6 So it would be a relatively small footprint.

7 MR. HOLMSEN: Q: Yeah. So you could actually control
8 the excavation there for any artifacts or human
9 remains that may be found, and control that better
10 than you do -- if you dug up the whole trench, of
11 course.

12 **Proceeding Time 4:10 p.m. T22A**

13 MR. BARRETT: A: Yes, and that's why we thought if we
14 were directed to go that way, that that would be a
15 better solution.

16 MR. CARPENTER: I don't know whether Mr. Holmsen is
17 planning on moving on, Mr. Chair, but he made a
18 comment that suggested that he might have questions on
19 the archaeological studies, I believe, to Mr. Fralick.
20 And Mr. Fralick is not being put up to speak to the
21 archaeological studies. He's speaking specifically to
22 the consultation which has taken place with First
23 Nations in response to the HTG evidence. So just that
24 Mr. Holmsen is not misled that he will have that
25 opportunity.

26 MR. HOLMSEN: Yeah, I didn't intend to continue on the

1 archaeological problem. I was looking at the
2 technical problem, looking at the cable --

3 MR. BARRETT: A: Well, I think what we're concerned
4 about is that there isn't going to be anyone past this
5 panel that can speak to the archaeological subjects.
6 Mr. Gamble has been overseeing the archaeological
7 overview assessments and has been in the
8 communications loop on that issue, so if you have
9 questions about the archeological information, you'd
10 better ask him now.

11 MR. CARPENTER: That was the flip side of my coin, so I
12 appreciate Mr. Barrett filling that in.

13 MR. HOLMSEN: Q: Well, I really wasn't prepared for
14 that. I looked at the panels list and I saw the TFN
15 archaeological part, so I intended to ask the question
16 at that time. I hope that can be acceptable.

17 MR. BARRETT: A: There won't be anyone on that panel
18 that has the information to answer the questions.

19 MR. HOLMSEN: Q: Okay. Now then, continue this part
20 anyway. Mr. Gamble, I would like to ask you a couple
21 of questions regarding the concern about the eelgrass
22 and the impact of this plant on the placing of
23 submarine cables in the intertidal area. I can refer
24 to Exhibits B1-11, my information request 1.31.48 and
25 1.31.49. Also a couple more there, B1-17, 1.31.50,
26 and C1-13. If disturbed by shallow burying of the

1 cables through eelgrass beds, how long would it
2 normally take for it to recover naturally?

3 MR. GAMBLE: A: Within a matter of a few years. It
4 depends on a lot of things. Tidal cycles, the wave
5 action, just the proximity to other natural
6 environmental factors, amount of sunlight.

7 MR. HOLMSEN: Q: And you're saying a few years. Five
8 or is it ten or --

9 MR. GAMBLE: A: If I was to give a range I would say
10 probably within a two to five year range.

11 MR. HOLMSEN: Q: Three to five.

12 MR. GAMBLE: A: But again, it's subject to a lot of
13 natural -- just natural occurring environmental
14 factors.

15 MR. HOLMSEN: Q: Okay, three to five years then would
16 be --

17 MR. GAMBLE: A: Typically, yes.

18 MR. HOLMSEN: Q: If you have to replant these areas,
19 have you got the approximate cost per cable metre for
20 artificial restoration?

21 MR. GAMBLE: A: I'm sorry, just to clarify your
22 question, do I have the appropriate costs --

23 MR. HOLMSEN: Q: Yeah.

24 MR. GAMBLE: A: -- of artificial --

25 MR. HOLMSEN: Q: Yeah, if you have to replant if it
26 doesn't come back properly in the acceptable time

1 limit.

2 **Proceeding Time 4:15 p.m. T23A**

3 MR. GAMBLE: A: I don't have cost estimates for that,
4 but typically the conditions of any regulatory permits
5 or approvals that would be issued for eelgrass
6 replanting would be provided by DFO, the Department of
7 Fisheries and Oceans Canada, and they usually require
8 five years of post-construction monitoring for the
9 proponent to annually inspect, or more often, annually
10 inspect and evaluate the success of the planted
11 habitat, in this case the eelgrass.

12 MR. HOLMSEN: Q: Now, have you got any idea about the
13 success rate of planting eelgrass? Success rate?

14 MR. GAMBLE: A: Again, as a condition of the project
15 approvals the success rate for any sort of
16 compensation, in this case eelgrass, would usually be
17 at a minimum of 80 percent success, and it could be
18 higher than that, and DFO would almost always require
19 habitat compensation in excess of a one-for-one
20 compensation. So in other words for every square
21 metre or every hundred square metres of disturbance
22 they would, DFO would likely require the replanted or
23 replaced habitat to be, to encompass a greater area
24 than that disturbed.

25 You know, typical habitat compensation
26 ratios are in the order of the two-to-one.

1 MR. HOLMSEN: Q: So I gather from the information it
2 would seem that the eelgrass aspect is very important
3 aspect as far as the environmental assessment.

4 MR. GAMBLE: A: Yes, it's very important. It provides
5 habitat for a number of aquatic species; herring, surf
6 smolts, juvenile Coho, sea-run cutthroat trout. Some
7 of these species are actually protected under the
8 *Federal Species at Risk Act* and then on the U.S. side
9 of the border under the *Endangered Species Act*. So
10 eelgrass is critical spawning and rearing habitat for
11 those fish species that I mentioned.

12 MR. HOLMSEN: Q: Thank you, so would you personally
13 consider it critical that a two or three to five years
14 delay to get the grass back wherever it's been
15 disturbed and the cable laying would be a serious
16 impact on that part of the environment? If you have a
17 delay of three to five years coming back naturally,
18 would that be a serious impact on that part of the
19 ecology?

20 MR. GAMBLE: A: You know, it depends how you define
21 serious but I mean, yes, there'd be the, you know,
22 loss in spawning and rearing capability within that
23 period, and that's usually one of the reasons why the
24 regulatory agencies require habitat compensation
25 ratios in the order of two-to-one, to sort of make up
26 for that time delay to reduce, I guess, the

1 MR. HOLMSEN: Q: I would like to refer you to Exhibit
2 C1-13, page 5.14.

3 MR. WELLS: A: Could you repeat the page number again,
4 Mr. Holmsen?

5 MR. HOLMSEN: Q: It's C1-13, page 5.14. Figure 5.14.
6 It's actually Figure 5-14, sorry.

7 MR. GAMBLE: A: Okay, I found it.

8 MR. HOLMSEN: Q: Yeah. You see it's a photograph
9 there. It's taken from the English Bluff area. If
10 you look to the very far right, you see the B.C.
11 Ferries causeway, and in the centre of the -- you
12 know, the picture, it's a deep channel, or I should
13 say deeper channel. This picture was taken at mine --
14 a very low tide, at minus .5 metres on the -- August
15 the 18th last year. And the proposal I had here was,
16 could you put the cables through that channel and
17 because it would not disturb any eelgrass in that
18 channel. Though there are other aspects of that, I
19 realize, but there are no eelgrass there. Any reason
20 why you could not put it through that channel as far
21 as -- because it would be a lot shorter distance
22 across the -- the intertidal area if it went that
23 route.

24 MR. GAMBLE: A: Yes, I think that that option will have
25 to be sort of evaluated in context of other
26 constraints with -- well, first of all, getting the

1 cables to that channel. But also it would be
2 important to understand the hydrological processes of
3 the channel itself, and understand, you know, why the
4 channel's there. If it's an eroding feature, it may
5 over the long term, expose the cables, in which case
6 they wouldn't be buried any more.

7 MR. HOLMSEN: Q: Yeah, I couldn't elaborate on that, I
8 don't know how that channel was caused, whether it was
9 during the construction of the causeway or not. But
10 it is there, and it's -- it's a deep channel that does
11 not -- not dry in low tide. So to me, it looked like
12 a good -- being deep water within a few hundred metres
13 of the causeway. And if it could be laid in that
14 location, I just want to get to your views on that.

15 MR. GAMBLE: A: Yes, I have to agree with you that -- I
16 mean, the channel does seem like a bit of an anomaly
17 compared to the otherwise sort of flat homogeneous
18 intertidal flats there, but I would think that there
19 was active fluvial processes there that may over time
20 cause any cables that would be buried there to become
21 exposed.

22 MR. HOLMSEN: Q: Thank you.

23 Mr. Chairman, I have some questions on the
24 right of way agreements. Are we going to deal with it
25 today or what is your decision on it?

26 THE CHAIRPERSON: Why don't you start those.

1 MR. HOLMSEN: Okay, thank you.

2 MR. HOLMSEN: Q: First, I have a question for Mr.
3 Barrett as a follow-up from yesterday's questioning by
4 Mr. Campbell. Otherwise, I presume your Mr. Dunn will
5 be the expert I should address most of these -- most
6 of my questions regarding the right of way. Is this
7 correct?

8 Mr. Barrett, in your response to one of Mr.
9 Campbell's questions, transcript 15, page 2607, line 3
10 and --

11 MR. BARRETT: A: Which line?

12 MR. HOLMSEN: Q: Line 3. Starting at line 3. And your
13 reply was,

14 "No, that we would not put the second
15 underground circuit there without removing
16 the other overhead line. See what I mean?"

17 MR. BARRETT: A: Yes, that's what it says.

18 **Proceeding Time 4:25 p.m. T25A**

19 MR. HOLMSEN: Q: Well, I don't see what you mean. The
20 second underground duct, it would already be there,
21 and one overhead line retained indefinitely. Just
22 because there are no conductors in the duct, which I
23 presume you've referred to as circuit in this case,
24 BCTC has already taken full occupational underground
25 rights without releasing the overhead rights. Do you
26 not agree, Mr. Barrett, that the issue of exchanging

1 overhead for underground rights needs to be more
2 clearly defined on the two-way street basis before
3 such negotiations can be entered into with the
4 property owners?

5 MR. BARRETT: A: Well, I think that would be a matter
6 for negotiations with the property owners. This is
7 what we propose. It's not necessarily -- and we
8 believe that by proposing this second duct we were
9 providing a benefit to the property owners and rather
10 than asking for an additional right or sacrifice from
11 them. So in fact what we actually are asking for is
12 one underground line in exchange for one overhead
13 line. We propose to put the ducts in there primarily
14 for the property owner's benefit, not for our benefit.

15 MR. HOLMSEN: Q: There must be certain benefits to put
16 it in at the same time you're doing the other
17 construction --

18 MR. BARRETT: A: There would be because we wouldn't
19 have to do the restoration again. But also, by
20 deferring that investment we would also save money.
21 So I don't know that it's a money-saving venture for
22 us overall, but it was primarily done in the belief
23 that it would reduce the impact on property owners in
24 the community.

25 MR. HOLMSEN: Q: It seems to be a poor deal to the
26 homeowners, I think, to give away their rights to your

1 underground when you still are going to be retaining
2 the overhead for an indefinite period.

3 MR. BARRETT: A: Well, like I said, we are exchanging
4 just one overhead for one underground. Mr. Nelson
5 just reminded me we did do analysis and it would be a
6 financial benefit for us to -- if you only looked at
7 the financial aspects, to defer installation of that
8 duct. It would be cheaper.

9 MR. HOLMSEN: Q: Yeah, thank you.

10 Mr. Dunn, the agreements for the right of
11 way easement through the non-residential area of
12 Tsawwassen that are made between the British Columbia
13 Electric Company Limited, and as far as I've been able
14 to establish record for about seven different parties
15 in 1955. Do you agree on that?

16 MR. DUNN: A: That's my recollection.

17 MR. HOLMSEN: Q: Thank you. I would like to read out
18 the relevant portion of Section 1(a) of the typical
19 right of way easement in Exhibit B1-6, BCUC
20 Information Request 1.3.2.

21 MR. DUNN: A: I have it.

22 MR. HOLMSEN: Q: I quote:

23 "To construct, erect, operate and maintain
24 towers and poles with anchors (cross arms),
25 insulator transformers and several
26 attachments, and string one or more lines of

1 wire for the transmission and distribution
2 of electrical energy and for the
3 communication purpose upon and assess a
4 right of way."

5 Do you see that, Mr. Dunn?

6 MR. DUNN: A: I do.

7 MR. HOLMSEN: Q: In Exhibit B1-1, section 3.2.2, it's
8 the application.

9 MR. DUNN: A: Of the application?

10 MR. HOLMSEN: Q: Page 32.

11 MR. DUNN: A: Thank you. I have it, thank you.

12 MR. HOLMSEN: Q: "BCTC states that the existing legal
13 right of way on the corridor through
14 Tsawwassen includes the ability to construct
15 and operate 230 kV overhead lines as an
16 upgrade and replacement of the existing 138
17 kV lines."

18 Do you see that?

19 MR. DUNN: A: I do.

20 **Proceeding Time 4:30 p.m. T26A**

21 MR. HOLMSEN: Q: Thank you. I'm not a lawyer, I did
22 not know "ability" necessarily has the same meaning as
23 "the right to". I have a limited vocabulary, but
24 "ability" in my dictionary means being physically able
25 to do something, or having the skill to do it. Do you
26 agree, Mr. Dunn?

1 MR. DUNN: A: All I understand is the rights under the
2 agreement are stated here. And under the agreement,
3 under the clause that you previously read, I believe
4 that we have the right to install the new line.

5 MR. HOLMSEN: Q: Well, that's not really what I asked.
6 I asked you to -- whether you agreed with me that the
7 "ability" doesn't necessarily have the meaning as
8 "right to." But ability is does -- in my dictionary
9 it means being physically able to do something or
10 having the skill to do it, not the right to do it.

11 MR. DUNN: A: I think there's probably various
12 definitions of the word "ability," and so I can't
13 really answer the question as to how it's -- how
14 you're interpreting it there.

15 MR. HOLMSEN: Q: No, I guess we need a dictionary,
16 don't we. Thank you.

17 And then the other thing -- where are they
18 in a reference in the typical Tsawwassen right-of-way
19 easement which states, "Construct and operate 230 kV
20 lines and upgrade." It doesn't say that in my
21 agreement.

22 MR. DUNN: A: It just says "line or lines", it doesn't
23 specify the voltage?

24 MR. HOLMSEN: Q: So it's implied, that it could be
25 upgraded.

26 MR. DUNN: A: It could be any size, yes.

1 MR. HOLMSEN: Q: But it doesn't say that. Okay.

2 MR. DUNN: A: It doesn't specify voltage.

3 MR. HOLMSEN: Q: Thank you. Is this an agreement
4 executed in 1955 for the purpose to construct, operate
5 and maintain the transmission line at that time?
6 There are no provisions spelled out to allow for
7 upgrade or higher voltage lines, are there, Mr. Dunn?

8 MR. DUNN: A: Well, I believe there are, in that it's
9 not specific as to any voltage of lines.

10 MR. HOLMSEN: Q: So that is in -- it's your
11 interpretation of the agreement.

12 MR. DUNN: A: That is my interpretation, yes.

13 MR. HOLMSEN: Q: But it doesn't specifically say so,
14 does it.

15 MR. DUNN: A: It doesn't mention a voltage, I agree.

16 MR. HOLMSEN: Q: Thank you. In other words, there
17 could be many other unspecified hidden meanings in
18 this agreement that could be subject to
19 interpretation.

20 MR. DUNN: A: I don't believe that the intent is to
21 have hidden meanings. I just believe that the
22 document has to be read and interpreted on its face.

23 MR. HOLMSEN: Q: Well, some of these unspecified
24 meanings and hidden meaning could even be to the
25 benefit of the property owner, couldn't they be?

26 MR. DUNN: A: I wouldn't want to speculate on that.

1 MR. HOLMSEN: Q: Thank you. Well, perhaps property
2 owners could interpret "perpetuity" to mean "fifty
3 years."
4 MR. DUNN: A: At that point, I guess it would become a
5 legal question.
6 MR. HOLMSEN: Q: Yeah, as I said, I'm not a lawyer, but
7 I hope somebody will take that up. Do you agree that
8 it's possible the owners of the properties with whom
9 these easements were signed in 1955 never considered
10 the details of these agreements and their long-term
11 consequences? Do you agree on that?
12 MR. DUNN: A: I don't know what would have gone through
13 the minds of those people at that time.
14 MR. HOLMSEN: Q: Do you agree that they may not really
15 have had the perception or understanding of what
16 "perpetuity" means?
17 MR. DUNN: A: Again, I couldn't comment on that, what
18 happened at the time.
19 MR. HOLMSEN: Q: Perhaps they interpreted it to be for
20 the life of the installation. Perhaps they were told
21 so by the negotiators.
22 MR. DUNN: A: And one comment I would make is that the
23 -- at least most of the owners that signed the
24 agreements were fairly large landowners, and so on
25 that basis I would have thought they'd be fairly well
26 informed.

1 MR. HOLMSEN: Q: Thank you. Do you not also agree that
2 B.C. Electric Company Limited would have had
3 professionally highly skilled negotiators dealing with
4 the owners at the time?

5 MR. DUNN: A: Again, I can't comment on who did the
6 negotiations at the time.

7 MR. HOLMSEN: Q: Do you think they would hire somebody
8 that didn't know what they were doing?

9 MR. DUNN: A: Again, I can't comment on that.

10 MR. HOLMSEN: Q: Do you not agree that it was these
11 negotiators' prime purpose on behalf of B.C. Electric
12 to get an agreement signed at the lowest cost?

13 MR. DUNN: A: I can't speculate on what their
14 instructions were.

15 MR. HOLMSEN: Q: Right, I didn't think you could
16 speculate on that. But isn't it possible?

17 MR. DUNN: A: Anything's possible, but again, I can't
18 speculate.

19 MR. HOLMSEN: Q: If you were a negotiator for BCTC,
20 wouldn't you try in the interest of your company to
21 try to negotiate the lowest cost and best terms in an
22 agreement?

23 THE CHAIRPERSON: Mr. Holmsen, do you really need an
24 answer to that question?

25 **Proceeding Time 4:35 p.m. T27A**

26 MR. HOLMSEN: I really should.

1 THE CHAIRPERSON: The way you phrased the question I
2 would have thought that you could assume that the
3 panel could reach a conclusion with respect to that
4 without the question being put to the panel.

5 MR. HOLMSEN: Thank you, Mr. Chairman, I'll go on.

6 THE CHAIRPERSON: Thank you.

7 MR. HOLMSEN: Q: These easements were made over 50
8 years ago. They were made for a specific purpose at
9 that time, to construct, operate and maintain the dual
10 circuit, 138 kV service to Vancouver Island. While
11 these agreements were granted in perpetuity, times and
12 conditions have changed.

13 MR. DUNN: A: I disagree on the purpose of the entry
14 into agreements. I can't speculate on what went
15 through the company's mind as far as a specific line,
16 but the agreements definitely provide the rights to
17 build additional lines.

18 MR. HOLMSEN: Q: Could you agree on this, then, that
19 the agreements as the lines are obsolete and they need
20 to be terminated?

21 MR. DUNN: A: Would you mind repeating the question?

22 MR. HOLMSEN: Q: Would you agree that these agreements,
23 as the lines are obsolete and need to be terminated,
24 or renegotiated.

25 MR. BARRETT: A: Well, I would say that any physical
26 facility eventually will need to be replaced, but the

1 thing that will not be replaced is the need for our
2 customers for electric service. I think I mentioned
3 before, corridors in perpetuity are critical. If we
4 had to get a new corridor every time a line wore out
5 it would be completely cost-prohibitive. It was fully
6 intended when these corridors were purchased to be in
7 perpetuity so that this utility and its predecessors
8 could serve the community in perpetuity.

9 MR. HOLMSEN: Q: Mr. Barrett, are you aware of any
10 other agreements which have been considered obsolete
11 or outdated because of age and conditions and
12 subsequently have been scrapped, changed or
13 renegotiated?

14 MR. BARRETT: A: I am aware of the cases, there are
15 cases like that, yes.

16 MR. HOLMSEN: Q: There are cases like that, that's
17 correct. Are you familiar with the Musqueam
18 Residential Land Lease Agreement, near U.B.C. at
19 Vancouver?

20 MR. BARRETT: A: No.

21 MR. HOLMSEN: Q: You haven't heard about it?

22 MR. BARRETT: A: No, I haven't.

23 MR. HOLMSEN: Q: Do you can't comment on that
24 situation? Well, that was renegotiated. I can
25 probably tell you, and many other can.

26 Do you agree that it was a long-term

1 agreement which was reopened -- well, you didn't know
2 about it so I guess -- but it was a long --
3 MR. BARRETT: A: I would have to say that I'm generally
4 aware that there was an issue there, but I'm not
5 familiar --
6 MR. HOLMSEN: Q: Well, it was really --
7 MR. BARRETT: A: -- with the issue.
8 MR. HOLMSEN: Q: Right. It was reopened and changed
9 because times had changed and the original agreement
10 had taken advantage of the owners and did not provide
11 the owners with reasonable compensation in the
12 present-day economic situations. B.C. Electric
13 Company Limited, B.C. Hydro's predecessor, paid
14 approximately \$6,000 for the right of way easements
15 through Tsawwassen in 1955. Do you agree, Mr. Dunn or
16 Mr. Barrett?
17 MR. DUNN: A: I don't have the actual figures of what
18 was paid.
19 MR. HOLMSEN: Q: It was about \$6,000, I can provide you
20 the information on that. You did renegotiate another
21 agreement with one of the owners in 1988 and paid them
22 another \$2100 or \$2200 for some other reason? I
23 presume B.C. Hydro had lots of money at the time so
24 they could do that.
25 MR. DUNN: A: The agreement in 1988, and just if I can
26 -- was that the one for 458 Shannon Way?

1 MR. HOLMSEN: Q: That's correct.

2 MR. DUNN: A: I can explain what happened there. The
3 Land Titles office had made an error in transferring
4 title and had dropped a charge off the property title.
5 There was subsequently additional changes of ownership
6 and when it was discovered by B.C. Hydro, they went
7 back to try to get it reinstated and as it was a new
8 owner the new owner refused to have it reinstated
9 without compensation so B.C. Hydro acquired the right,
10 reacquired the right -- or required a new right, I
11 should say.

12 MR. HOLMSEN: Q: Thank you, so it means that every
13 owner should hope that the Title office loses the
14 titles and have to renegotiate, right?

15 MR. DUNN: A: I can't comment on that.

16 MR. HOLMSEN: Q: Do you know how much that \$6,000 works
17 out to per property owner?

18 MR. DUNN: A: I have no idea.

19 **Proceeding Time 4:40 p.m. T28A**

20 MR. HOLMSEN: Q: Let's say it's 150 owners. So that
21 should be about \$40 per property in 1955? \$6,000 for
22 150 property?

23 MR. DUNN: A: I don't have my calculator.

24 MR. HOLMSEN: Q: Well, translated into monthly rental
25 for the right of an easement for each Tsawwassen
26 property. How much would you think this has cost B.C.

1 Electric, B.C. Hydro over the years to date, say at 5
2 percent interest rate on the monthly basis?
3 MR. DUNN: A: I have no idea.
4 MR. HOLMSEN: Q: Will you believe it's about 18 cents
5 per month concurrently per property?
6 MR. DUNN: A: Again, I don't know that.
7 MR. HOLMSEN: Q: Well, do you think that this is
8 reasonable compensation for occupation, use and the
9 inconvenience of two thirds of a person's property in
10 today's value, Mr. Dunn?
11 MR. DUNN: A: I can't comment on that.
12 MR. HOLMSEN: Q: The new lines, whether or over or
13 underground will be an improvement for B.C. Hydro and
14 BCTC, will it not?
15 MR. DUNN: A: Would you repeat the question please?
16 MR. HOLMSEN: Q: The new lines, whether over or
17 underground, will be an improvement for B.C. Hydro and
18 BCTC, will it not?
19 MR. BARRETT: A: It certainly has value to our
20 ratepayers and the residents of British Columbia in
21 that they are actually our owners, yes.
22 MR. HOLMSEN: Q: Please refer to Exhibit B1-61, BCUC
23 Information Request 5.205.1, fifth page.
24 MR. BARRETT: A: Could you repeat the reference again?
25 MR. HOLMSEN: Q: It's Exhibit B1-61, BCUC Information
26 Request 5.205.1.

1 MR. BARRETT: A: Okay, we have that reference.

2 MR. HOLMSEN: Q: It's on the fifth page and the table
3 is headed "Table 2 Assumptions"

4 MR. BARRETT: A: This panel is not prepared to answer
5 questions about rate impacts. I'll hear your
6 question, but perhaps we can answer it.

7 MR. HOLMSEN: Q: I hope you can answer, Mr. Dunn, I
8 presume. Can you tell me what the present assessment
9 values are for B.C. Hydro's 1L17 and 1L18 facilities
10 in Delta?

11 MR. DUNN: A: I don't know.

12 MR. HOLMSEN: Q: Can you find that out?

13 MR. CARPENTER: I'm sure that we can. I would appreciate
14 understanding better what the relevance of that would
15 be to this proceeding.

16 MR. HOLMSEN: Yes, I'll explain, Mr. Carpenter. The
17 reason for my question is that what taxes do these
18 lines or improvements in Delta provide to the
19 community of Delta as far as tax revenue?

20 MR. CARPENTER: I don't think I would get there by
21 providing the assessed value.

22 MR. HOLMSEN: Okay.

23 MR. CARPENTER: If Mr. Holmsen wants the amount of taxes
24 paid on those lines, again we can provide that.

25 MR. HOLMSEN: So there are no improvement assessments for
26 the lines in Delta?

1 MR. CARPENTER: When I asked what the relevance was, you
2 indicated that you wanted to know what taxes were paid
3 and what the Corporation of Delta received in terms of
4 those lines. So my response back was we could provide
5 those taxes. Determining what the assessed value is
6 is only a step in that calculation. I haven't heard
7 why the assessed value of themselves are of any
8 significance.

9 MR. HOLMSEN: No, in the table I refer to it has one
10 section just taxes and it gives a rate structure based
11 on assessed values in that tax. So if I got the
12 assessed values I would know what taxes would be
13 contributed from these lines, wouldn't I?

14 MR. CARPENTER: And all I'm suggesting is that we can
15 save you the trouble of the doing the calculation by
16 actually providing you with the amount of taxes that
17 are paid themselves.

18 MR. HOLMSEN: For these two specific lines?

19 MR. CARPENTER: Yeah --

20 MR. HOLMSEN: And other facilities like the terminal EBT
21 and whatever is related to 1L17 and 1L18.

22 **Proceeding Time 4:45 p.m. T29A**

23 MR. CARPENTER: Whatever is related to 1L17 and 1L18 in
24 Delta, we can provide you the taxes that are paid on
25 those. Yes, Mr. Holmsen?

26 MR. HOLMSEN: Q: That would be very good. Thank you.

1 MR. CARPENTER: Thank you.

2 **Information Request**

3 THE CHAIRPERSON: Mr. Holmsen, do you have very many more
4 questions?

5 MR. HOLMSEN: I have a few more.

6 THE CHAIRPERSON: With respect to -- you've moved off the
7 issue of rights of way --

8 MR. HOLMSEN: No, I still have a few more on that, that
9 particular issue.

10 THE CHAIRPERSON: Can you finish those up in five
11 minutes?

12 MR. HOLMSEN: I'll try. I won't promise, but I'll try.

13 THE CHAIRPERSON: Okay. Do your best, please.

14 MR. HOLMSEN: Q: Thank you.

15 If applicable, on what value base will B.C.
16 Hydro/BCTC be paying increased property improvement
17 taxes to the Corporation of Delta for the new
18 facilities? Will there be a new assessment on this?

19 MR. BARRETT: A: No one on this panel is prepared to
20 answer a question like that.

21 MR. HOLMSEN: Q: Okay. It would be at least a 20
22 million dollar improvement more or less for the
23 segment through Tsawwassen, will it not.

24 MR. BARRETT: A: The capital cost, yes.

25 MR. HOLMSEN: Q: Do you know if B.C. Hydro/BCTC pays
26 property improvement taxes for its facilities anywhere

1 else in British Columbia?

2 MR. BARRETT: A: I'm not intimately familiar with the
3 tax structure and the payments in lieu of taxes that
4 are made to provincial and local governments.

5 MR. CARPENTER: We have, Mr. Chair, put together a
6 description of that. As I indicated last week, we've
7 provided that to Sea Breeze for their input. On that,
8 we've not seen that back yet, but that does describe
9 the structure of the taxes and grants-in-lieu that
10 B.C. Hydro needs to pay on its assets.

11 MR. HOLMSEN: Q: Thank you. Mr. Barrett, would you
12 believe me when I say each property owner on the
13 right-of-way in Tsawwassen pays property taxes pro-
14 rated on the assessed land value for the proportion
15 occupied with B.C. Hydro right-of-way to the extent of
16 more than \$30 per month? Approximately.

17 MR. BARRETT: A: It wouldn't surprise me. I wouldn't
18 know.

19 MR. HOLMSEN: Q: It wouldn't surprise you. But you
20 consider 18 cents is a fair return for something that
21 costs \$30? It sounds like an annual investment,
22 doesn't it?

23 MR. BARRETT: A: I can't comment on the economics.

24 MR. HOLMSEN: Q: So, in effect, Tsawwassen right-of-way
25 residents have been subsidizing B.C. Electric and B.C.
26 Hydro for fifty years, have they not, Mr. Barrett?

1 MR. BARRETT: A: Well, I don't agree with that. BCTC
2 and our predecessors paid for property rights in
3 perpetuity through this corridor, and our property
4 rights are in perpetuity, just as the owners of those
5 properties.

6 MR. HOLMSEN: Q: At the current value, 18 cents a
7 month.

8 MR. BARRETT: A: Well --

9 MR. HOLMSEN: Q: Thank you. Would it not be fair to
10 say that B.C. Hydro owes something to these residents
11 in return?

12 MR. BARRETT: A: I would disagree.

13 MR. HOLMSEN: Q: Well, I'll leave it at that. Thank
14 you, Mr. Barrett. Thank you, panel. Thank you,
15 panel.

16 THE CHAIRPERSON: Good. Thank you, Mr. Holmsen.

17 Unless there is anything I need to deal
18 with before we close, we're adjourned until tomorrow
19 morning at 9:00.

20 (PROCEEDINGS ADJOURNED AT 4:49 P.M.)

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