

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

and

British Columbia Hydro and Power Authority
Call for Tenders for Capacity on Vancouver Island
Review of Electricity Purchase Agreement

Vancouver, B.C.
January 21, 2005

PROCEEDINGS AT HEARING

BEFORE:

R. Hobbs, **Chairperson**

L. Boychuk, **Commissioner**

VOLUME 10

APPEARANCES

G.A. FULTON
P. MILLER

Commission Counsel

C.W. SANDERSON, Q.C.,
H. CANE
J.C. KLEEFELD

B. C. Hydro

L. KEOUGH

Duke Point Power Limited

C.B. LUSZTIG
A. CARPENTER

British Columbia Transmission Corporation

D. PERTTULA

Terasen Gas (Vancouver Island) Inc.

G. STAPLE

Westcoast Energy Inc.

R. B. WALLACE

Joint Industry Electricity Steering Committee

C. BOIS

Norske Canada

D. NEWLANDS

Elk Valley Coal

F. J. WEISBERG

Green Island Energy

D. LEWIS

Village of Gold River

D. CRAIG

Commercial Energy Consumers

J. QUAIL.
D. GATHERCOLE

BCOAPO
(B.C. Old Age Pensioners' Organization, Council Of
Senior Citizens Organizations Of B.C., End Legislated
Poverty Society, Federated Anti-Poverty Groups Of B.C.
Senior Citizens' Association Of B.C., And West End
Seniors' Network)

W. J. ANDREWS
T. HACKNEY

GSX Concerned Citizens Coalition
B.C. Sustainable Energy Association
Society Promoting Environmental Conservation

R. MCKECHNIE

Himself

R. YOUNG

Gabriola Ratepayers' Associations

K. STEEVES

Himself

1

CAARS

2

VANCOUVER, B.C.

3

January 21ST, 2005

4

(PROCEEDINGS RESUMED AT 8:30 A.M.)

5

THE CHAIRPERSON: Please be seated.

6

B.C. HYDRO PANEL 4 - COST EFFECTIVENESS

7

MARY HEMMINGSEN, Resumed:

8

FRANK LIN, Resumed:

9

BILL PETERSON, Resumed:

10

KEN TIEDEMANN, Resumed:

11

THE CHAIRPERSON: I would like to begin this morning by

12

-- unless there are some filings you'd like to make,

13

Mr. Sanderson -- but I'd like to begin by returning to

14

Mr. Lewis's request.

15

MR. SANDERSON: Mr. Chairman, why don't you do that. My

16

filings this morning, I'm going to handle mainly

17

orally. So I've talked to Mr. Fulton, I'm just going

18

to interrupt him for a minute, and lead the various

19

undertakings through the witnesses. But if you've got

20

something, why don't you go ahead and --

21

THE CHAIRPERSON: There was something left with you, that

22

you were going to speak to first, and I was hoping you

23

would, but I think even in the absence of that -- I

24

think the issue was whether or not it was simply a

25

matter of aggregating the levelized unit costs for the

26

two components of the two projects in Tier 2, to get

1 to a levelized unit cost for that without the
2 equalization. And Ms. Hemmingsen was concerned that
3 there may be some technical issues that made it
4 difficult -- well, inaccurate, to -- and simply
5 aggregate the two levelized unit costs.

6 And I also want to make sure that, for Mr.
7 Lewis's benefit, that I'm looking at the numbers that
8 he wants me to look at, and I had a -- I returned to
9 the tender sheets and the tender sheets -- on my read
10 of the tender sheets, the levelized unit costs are not
11 there, because you don't NPV the energy for -- because
12 of the nature of the QEM model.

13 **Proceeding Time 8:32 a.m. T2**

14 So I think we were a little bit misleading
15 yesterday with respect to that as well. And I think
16 the numbers are in the evidence, but I think we also
17 need to get there as well. So, and I'd like to give
18 Mr. Lewis some assurance that in fact the Panel is
19 looking at what he wants us to look at, so.

20 MS. HEMMINGSEN: A: And as you identified, we had
21 indicated a couple of technical issues. One issue is
22 that the QEM doesn't automatically assemble portfolios
23 under 150 megawatts, so we'd have to run a special
24 program to do that. And there's a couple of costs
25 that aren't included in it, one being the network
26 adder.

1 So, what we could do is run that analysis
2 for you and provide it to you in confidence in the
3 form that Mr. Lewis wants.

4 One challenge we have is we do require an
5 input from BCTC and we would just have to confirm with
6 them the timing to get that piece of information into
7 the model. But we could certainly run that analysis
8 for you and make sure it was correct.

9 THE CHAIRPERSON: Okay. Now, I'd like to just follow up
10 now with Mr. Lewis's -- and we have the benefit of
11 course of Mr. Lewis standing at the podium. But in
12 any case, I would like to go to the transcript to just
13 make this really abundantly clear.

14 On page 2124 of yesterday's transcript.
15 Mr. Lewis's request, although it seems to change as
16 the discussion goes on, but at lines 13 to 17 he's
17 asking for levelized unit charges for both capital and
18 variable costs of the Tier 1 and then of 122 megawatt
19 portfolio component of the Tier 2 bid. And if we look
20 to BCUC IR 2.73.1, in row 24 I think I see close to
21 what Mr. Lewis is looking for. But it does call for
22 you to do that run that you're speaking of.

23 **Proceeding Time 8:35 a.m. T03**

24 The reason why I'm adding this to our
25 discussion, Ms. Hemmingsen, is when you do that run
26 and get that additional information from BCTC, I think

1 Mr. Lewis wants me to be looking at not just, if you
2 will, the blended numbers, but he wants me to be
3 looking at the levelized unit cost for capital and
4 then the levelized unit cost for variable. And as far
5 as 2.73.1 go, I think we've blended them together.

6 So we're actually looking for additional
7 information than has been filed with the Commission to
8 date.

9 MS. HEMMINGSEN: A: Right.

10 THE CHAIRPERSON: Am I correct so far?

11 MS. HEMMINGSEN: A: You are.

12 THE CHAIRPERSON: All right.

13 MR. LEWIS: And I'm quite happy with that. I just want
14 to ensure that what we're looking at is a levelized
15 unit cost for capacity. And what this cost-
16 effectiveness analysis did was, it was sort of
17 levelized on generation. And, you know, I'll give a
18 little bit of context, a couple of the reasons that
19 I've put you through this is, when I asked for that
20 information and it was responded with 2.46.6, that
21 there was a table with that information. When I went
22 through that, and the value of energy and there was
23 that arbitrary number, you know, I thought, "Well,
24 that was sort of a roundabout way to find out, no, it
25 wasn't there."

26 And when there was the discussion about --

1 or the assumption was made in the cost-effectiveness
2 analysis about the Mainland generation being must-run,
3 I was thinking about that too, saying, "Well, you
4 know, we've got this on-Island generation that's been
5 taken on the gas risk, or the fuel price risk, and
6 there's a benefit that the bid will be lower, and it
7 will be a dispatchable plant." And when this cost-
8 effectiveness analysis was done, they took the same
9 costs from that and applied them to the Mainland, but
10 said, "Well, it's not dispatchable." And I was
11 thinking to myself, "Well, if the assumption is by
12 taking on that fuel price risk we're going to get a
13 lower bid", all of a sudden you have to say, "If we're
14 using the same cost on the Mainland, we're either not
15 getting any benefit for taking on that fuel price risk
16 or the Mainland generation has to be dispatchable as
17 well."

18 So I found two inconsistencies in the cost-
19 effectiveness analysis, and that's why I thought -- I
20 disregarded it, and I would like to see a levelized
21 cost, just on capacity.

22 So that's the direction, and I'm more than
23 happy if it's in the tender sheets and it's in IRs
24 that you have, I'm more than happy to leave it at
25 that.

26 THE CHAIRPERSON: Yeah. You're -- I'm going to -- you've

1 mentioned a levelized playing field at one stage in
2 this proceeding. If I have an unequal treatment of
3 people that appear before me, it's members of the
4 public. You're very quickly moving to becoming very
5 equal to everyone else in the room.

6 MR. LEWIS: Darn it.

7 THE CHAIRPERSON: You're now arguing, Mr. Lewis, and you
8 need to reserve that --

9 MR. LEWIS: Oh, okay.

10 THE CHAIRPERSON: -- for argument.

11 MR. LEWIS: Okay.

12 THE CHAIRPERSON: I do want to make sure that I have the
13 numbers that you want me to have before me, and I
14 would like to correct the record, and I think I've
15 just done that.

16 The numbers that you would like me to look
17 at are not in the tender sheets --

18 MR. LEWIS: Okay.

19 THE CHAIRPERSON: -- but we're going to get there.

20 MR. LEWIS: Okay. I very much appreciate that, and the
21 consideration that's been given, and as long as it's
22 on a capacity basis I'm more than happy.

23 THE CHAIRPERSON: Right.

24 MR. LEWIS: Thank you very much.

25 THE CHAIRPERSON: Well, Mr. Lewis, you just said
26 something that -- on a capacity basis --

1 MS. HEMMINGSEN: A: Yeah. It's different.

2 THE CHAIRPERSON: -- it's different. I do really want to
3 look at what you want me to look at.

4 MR. LEWIS: Sure. When the QEM was developed, it was
5 done so with a capacity call in mind. And what I
6 don't think, at this stage, what we've seen is the 122
7 -- or I didn't -- I was looking for clarification if
8 you had the 122 megawatt portfolio based solely on
9 capacity, not with --

10 **Proceeding Time 8:40 a.m. T4**

11 THE CHAIRPERSON: Okay.

12 MR. LEWIS: -- added costs in. And if those are
13 levelized based on capacity, I'm happy with that. But
14 I sought that, as I said, for those two reasons. And
15 my lack of confidence in the -- I sought that
16 clarification or that backup.

17 THE CHAIRPERSON: Thank you.

18 MR. LEWIS: Thank you.

19 MR. SANDERSON: Mr. Chairman, after that flying start,
20 there are some more IRs that I'll try and stumble
21 through. And I probably will be stumbling throughout,
22 but let me do my best.

23 The first, which I think I do understand
24 the response, is something that came up yesterday at
25 transcript 1949, and that was during the cross-
26 examination of Mr. Bois, who was asking -- no, I'm

1 sorry, Mr. Weisberg, Mr. Weisberg; who was asking for
2 confirmation that the IR was present when the matter
3 of tendered [sic] his qualification, qualified IR
4 reports or prospect of legal exposures from other
5 bidders were addressed at the PMO, and he was asking
6 if there was any written corroboration of that.

7 I'm producing now meeting minutes from the
8 meeting of August 17th. The heading is "VICFT Project
9 Management Office, Minutes of Meeting Number 19".

10 THE HEARING OFFICER: Marked B-74.

11 (EXTRACT OF "VI CFT PROJECT MANAGEMENT OFFICE, MINUTES
12 OF MEETING #19, AUGUST 17, 2004 - 3:45 TO 4:30 P.M.",
13 MARKED AS EXHIBIT B-74)

14 MR. SANDERSON: Mr. Chairman, the original document here
15 is two pages, but what has been done is all of the
16 information that relates to bidder CC5, which is the
17 code number for the one that was in question here, has
18 been reproduced. So under the heading "Tender
19 Completeness and Conformity", the remarks in the
20 minutes relating to that bidder are, as I say, fully
21 reproduced at the page.

22 MR. SANDERSON: Q: And Ms. Hemmingsen, perhaps you
23 could just briefly tell us what these minutes tell
24 you.

25 MS. HEMMINGSEN: A: The minutes or this extract of the
26 minutes identify the members who were present when the

1 completely and conformity team's results were
2 presented to the Project Management Office, and the
3 various team members are listed on the top in the
4 "Attendees" section, including the independent
5 reviewer. Both Mark Hodgson and Peter Sorenson were
6 there. And as you can see, the meeting purpose
7 outlines it is to review the findings of that team's
8 blind independent review and present them to the
9 Project Management Office.

10 It identifies bidder CC5 and the
11 unauthorized condition that was identified in their
12 submission. And then it concludes with the decision
13 that the PMO, with the independent reviewers in
14 attendance, determine that the conditions were
15 material and that the tender should be rejected. And
16 then that led to the unqualified report by the
17 independent reviewer.

18 MR. SANDERSON: Thank you.

19 Next, Mr. Chairman, is a response to a
20 question from Mr. Andrews, Volume 9, page 2077, and
21 this had to do with the current year distribution peak
22 forecast model as shown in Exhibit C20-33, if you make
23 that the next exhibit.

24 THE HEARING OFFICER: Marked B-75.

25 (RESPONSE TO QUESTION AT TRANSCRIPT VOLUME 9, PAGE
26 2077, MARKED AS EXHIBIT B-75)

1 MR. SANDERSON: Next, Mr. Chairman, Volume 9, page 2045,
2 another question from Mr. Andrews, this one asking
3 Hydro to confirm that the residential sample for the
4 ALM model, which was originally designed to provide 10
5 percent relative precision, the 90 percent confidence
6 level applies on a provincial-wide basis or only to
7 the Island, and that response is provided in the next
8 exhibit.

9 THE HEARING OFFICER: Marked B-76.

10 (RESPONSE TO QUESTION AT TRANSCRIPT VOLUME 9, PAGE
11 2045, MARKED AS EXHIBIT B-76)

12 **Proceeding Time 8:45 a.m. T05**

13 MR. SANDERSON: Mr. Chairman, next, again a response to
14 Mr. Andrews at Volume 9, page 2061. Volume 9, page
15 2061, the question was "Can Hydro provide the
16 equations that relate to the employment forecast..." --
17 oh, sorry, "...that relate the employment forecast to
18 the energy forecast, and the distribution peak model?
19 And how does that energy forecast contribute to the
20 peak forecasts?" And there's a response to that at
21 what I guess will be B-77.

22 THE HEARING OFFICER: B-77.

23 (RESPONSE TO QUESTION AT TRANSCRIPT VOLUME 9, PAGE
24 2061, MARKED AS EXHIBIT B-77)

25 MR. SANDERSON: Mr. Chairman, there's one more written
26 filing. I think this goes back a ways, to Volume 6,

1 page 1237, a response to Mr. Wallace. The question he
2 asked was, "Was an hourly load profile based on a
3 five-year history provided to potential peakers?" And
4 the response to that can be Exhibit B-78.

5 THE HEARING OFFICER: B-78.

6 (RESPONSE TO QUESTION AT TRANSCRIPT VOLUME 6, PAGE
7 1237, MARKED AS EXHIBIT B-78)

8 MR. SANDERSON: Mr. Chairman, there's a number of
9 questions, as I indicated, that probably can best be
10 dealt with by way of questions from -- questions to
11 this panel. The first is in response to an exchange
12 that this panel had yesterday with Mr. Wallace at
13 transcript 1915.

14 MR. SANDERSON: Q: I'll ask Ms. Hemmingsen if you'd
15 turn there.

16 MS. HEMMINGSEN: A: The request was for us to provide
17 the energy margin in the no award scenario, assuming
18 that the Mainland alternative was the CCGT, and Mr.
19 Peterson can speak to the status of that request.

20 MR. PETERSON: A: Thank you, Ms. Hemmingsen. The
21 energy margin in the no award case, assuming the
22 backfill was done by a CCGT, would be similar to the
23 energy margin in the Tier 1 case, with a couple of --
24 but there are a couple of impacts. One would be that
25 the -- in the no award case, the timing of the CCGT is
26 about two years after the timing in Tier 1. So you'd

1 lose the first couple of years of energy margin
2 contribution --

3 THE CHAIRPERSON: Right.

4 MR. PETERSON: A: -- that we would have seen in the
5 Tier 1 case. And that's worth approximately \$3
6 million. On -- then the second impact is that if a
7 CCGT is located on the lower -- in the Mainland, you
8 would avoid the compressor losses on the Terasen
9 system, which are approximately 5 percent. And that's
10 treated as a variable cost.

11 So on the Mainland side, the variable cost
12 of production is a little less for that CCGT,
13 therefore the dispatch pattern would be different, and
14 you'd have to re-run that project through a new tender
15 sheet, with that change in the assumption on the
16 compressor losses. And the dispatch pattern would be
17 different, presumably it would be higher dispatch, and
18 we didn't undertake to do that analysis, because
19 that's -- takes too much time.

20 MR. SANDERSON: Mr. Chairman, I wanted to get that on the
21 record. I hope that Mr. Peterson's directional
22 response provides Mr. Wallace with what he needs, but
23 if not, we'll have to have a debate, because the
24 determination was, it was not practical to do the
25 actual run in the time available.

26 The next one, Mr. Chairman, I might as well

1 finish my list here, is also to Mr. Wallace at 1917.

2 **Proceeding Time 8:50 a.m T6**

3 MR. SANDERSON: Q: Ms. Hemmingsen, at line 21 Mr.

4 Wallace asked you whether -- what the largest capacity
5 provided bid in either the customer base generation or
6 Green Energy call was. Are you able to answer that?

7 MS. HEMMINGSEN: A: Right. Yes, I am. So the two
8 largest bids in the customer base generation call were
9 a 20 megawatt facility and a 15 megawatt facility; and
10 in the Green Power generation call, the largest
11 project was a 120 megawatt facility.

12 MR. SANDERSON: Q: Thank you.

13 MS. HEMMINGSEN: A: So those both -- three provide
14 representative prices that are consistent with the
15 values we used in the cost-effectiveness analysis for
16 Mainland generation.

17 MR. SANDERSON: Q: Thank you. And then my final one is
18 a response to Mr. Bois at 1959. And at that page
19 towards the top, line 5, Mr. Bois asked:

20 "Could you endeavour to find out if there
21 was any letters back and forth, or e-mails,
22 or with respect only to the Norske proposal
23 and evaluation report -- I'm not asking for
24 a whole depth analysis here."

25 And ultimately I said we can look to see if there's
26 any such thing.

1 Have you had an opportunity to do that, Ms.
2 Hemmingsen, and is there any record of that?

3 MS. HEMMINGSEN: A: I have, and to the best of B.C.
4 Hydro's knowledge, there's no records of any B.C.
5 Hydro input into BCTC's December 23rd review of
6 Norske's demand management proposal that was filed
7 with BCTC capital plan.

8 However, as I did indicate yesterday, I did
9 have a number of conversations with Mr. Mansour of
10 BCTC, and those conversations were limited to
11 identifying the fact of a shortfall resulting from the
12 award of Duke Point in terms of the capacity deficit
13 in the order of 10 to 20 megawatts. And we had
14 discussed consideration of Norske and coordinating
15 efforts towards developing contingency plans to bridge
16 that remaining deficit. And I did follow up that
17 telephone conversation with a letter directed to Mr.
18 Mansour to that -- summarizing that conversation.

19 MR. SANDERSON: Q: Thank you, Ms. Hemmingsen.

20 Mr. Chairman, those are all my filings for
21 this morning. Hopefully by around lunch I'll give a
22 comprehensive -- or when we finish this morning, I'll
23 try and give a comprehensive report of whether there's
24 any outstanding ones still to come.

25 THE CHAIRPERSON: Have the responses to confidential
26 information requests from Mr. Fulton been prepared

1 yet?

2 MR. SANDERSON: No. I think I can safely say they have
3 not. There may be some that are close, but I haven't
4 certainly filed any and have not seen those. So I'll
5 report specifically on their status perhaps at the
6 break.

7 THE CHAIRPERSON: Earlier in the week I asked for an
8 evening to review those before this Panel was
9 dismissed for the final time.

10 MR. SANDERSON: Yes, you did.

11 THE CHAIRPERSON: I may not need it.

12 MR. SANDERSON: Well, Mr. Chairman, I mean, I can't
13 speculate on where we are because I just don't know.
14 So I should know but I don't. So I will find that out
15 the first opportunity I get to talk to this panel, and
16 then let you know where we should go from there, from
17 our end anyway.

18 THE CHAIRPERSON: Thank you.

19 MR. BOIS: Mr. Chairman, I just rise for a couple of
20 things. One is Ms. Hemmingsen just mentioned that she
21 wrote a letter to Mr. Mansour, and I think my request
22 asked that B.C. Hydro produce that correspondence, or
23 included a request that B.C. Hydro produced that
24 correspondence. And if it didn't, I would like to see
25 that letter or my client would like to see that
26 letter.

1 MR. SANDERSON: Mr. Chairman, we did not take Mr. Bois'
2 request to relate to the subject matter of that
3 letter, but I'm happy to produce it if he's now making
4 that request. It wasn't responsive to his question,
5 but if he wants the letter I'll produce it.

6 MR. BOIS: Thank you very much. The other aspect is I
7 just have one small correction the transcript on page
8 1973 in line 4. This was when I was reading and
9 quoting from the Rocky Mountain Institute Report. It
10 says, and I'll quote from line 4 as it currently
11 reads:

12 "...which are currently approximately
13 \$/kilowatt."

14 It should be \$20.00 per kilowatt or /kilowatt.

15 Thank you, Mr. Chairman.

16 **Proceeding Time 8:55 a.m. T07**

17 MR. ANDREWS: Mr. Chairman, Madam Commissioner, this is
18 regarding B-75 response to an undertaking. There may
19 be some technical questions that I need answered for
20 this to be responsive. What I'm going to suggest is
21 that between counsel we attempt to get that clarified
22 and I think we can do that. If not, I would ask that
23 I be able to come back and put the substance of the
24 issue to the panel.

25 THE CHAIRPERSON: I'll ask you to try to do that over the
26 morning break.

1 MR. ANDREWS: Thank you.

2 MR. FULTON: Mr. Chairman, before I continue my cross-
3 examination, I wanted to provide an update on the *In*
4 *Camera* transcript. It's taken a little longer than I
5 had hoped it would, but at this point there is a copy
6 that Mr. Sanderson and I need to check that has the
7 redacted portions in it. We just need to make sure
8 that all those portions that we had asked to be
9 redacted were redacted, and none -- and no portions
10 were redacted that we didn't want redacted.

11 So, depending on the time that Mr.
12 Sanderson has at the break, I'm hoping to be able to
13 come back to report to you, following the break. If
14 not, certainly when we resume this afternoon I expect
15 to be in a position to say that the redacted
16 transcript can be released, and I will speak to those
17 sections in the transcript that have been redacted in
18 a general way, so that parties will know the general
19 nature of the words that have been redacted.

20 THE CHAIRPERSON: Right. I should add, for the record,
21 that the panel has reviewed the recommendations of Mr.
22 Sanderson and Mr. Fulton with respect to the
23 redactions, and have made minor revisions to your
24 recommendations to us, and they will also need to be
25 included as part of the redactions. And so you're
26 going to need to bring it to the panel after counsel

1 has reviewed it.

2 If there are concerns that are shared
3 between Mr. Sanderson and Mr. Fulton, with respect to
4 the panel's redaction, then we can have that
5 discussion on the record.

6 MR. FULTON: Right. And then, as I understand it, Mr.
7 Chairman, the redactions that have been performed by
8 the Hearing Officer at this point are the redactions
9 that Mr. Sanderson and I have made.

10 THE CHAIRPERSON: No, that's not correct. It includes
11 the redactions that the panel have made.

12 MR. FULTON: Okay.

13 THE CHAIRPERSON: So when you review it, you will see
14 additional redactions to those that Mr. Sanderson and
15 Mr. Fulton, that you have made.

16 MR. FULTON: All right, thank you.

17 THE CHAIRPERSON: They're not very many, they're limited,
18 but there are additional redactions.

19 MR. FULTON: Okay.

20 **Proceeding Time 8:59 a.m. T08**

21 THE CHAIRPERSON: I guess I'll leave one comment to both
22 you and Mr. Sanderson. If it's necessary for the
23 purposes of the record to identify the redactions that
24 are in addition to those that Mr. Sanderson and Mr.
25 Fulton are recommending, then we'll need to take steps
26 now to ensure that there's a record of those

1 additional redactions.

2 I'm in your hands with respect to that one,
3 whether that -- needs to be a record of that or not.

4 MR. FULTON: Well, it would certainly be helpful for me,
5 Mr. Chairman, if the Hearing Officer in the redacted
6 transcript that he has now provided, to highlight the
7 ones that the Commission panel has redacted, because
8 I'll be working from my working copy of the redaction,
9 so if he could do that, and then any discussions that
10 Mr. Sanderson and I have will be expedited, because
11 we'll be able to focus on those.

12 THE CHAIRPERSON: Yeah. You will have that. My only
13 concern is the record of the proceeding. And if
14 that's necessary, then -- and I'll follow
15 recommendations of counsel on this one. If that's
16 necessary, then we'll need to take steps to ensure
17 that there's a proper record of the additional
18 redactions that the panel has made to those that are
19 being recommended by you and Mr. Sanderson.

20 MR. FULTON: Yes. Thank you.

21 THE CHAIRPERSON: So I need -- at some stage today, you
22 need to advise me as to whether that's necessary or
23 not.

24 MR. FULTON: Right. So from what I'm hearing, it's
25 likely that -- in any event, that the redacted
26 transcript will not be available until some time early

1 this afternoon.

2 THE CHAIRPERSON: Yes. And I don't think anybody's
3 disadvantaged by that.

4 MR. FULTON: No. Thank you.

5 **CROSS-EXAMINATION BY MR. FULTON (Continued):**

6 MR. FULTON: Q: I'd like to talk about load forecasts,
7 and if you could have before you Exhibit B-9, table
8 1.4.1(a) and (b), and table 1.3.2.

9 Again, the references are Exhibit B-9,
10 table 1.4.1(b) and (a), and table 1.3.2.

11 MS. HEMMINGSEN: A: Yes, we have those in front of us.

12 MR. FULTON: Q: Now, dealing first with table 1.4.1,
13 and having regard to Exhibit B-67 which was filed
14 yesterday, are the figures in the responses to IR
15 1.4.1 still valid?

16 MS. HEMMINGSEN: A: We'll have to get that filing.

17 MR. FULTON: Q: Thank you. I should have directed you
18 to that as well.

19 MR. TIEDEMANN: A: The responses in table IR 1.4.1(a)
20 refer to analysis based on the October, 2004 forecast.
21 So there would be some small changes, if the
22 information in the updated December load forecast
23 filed yesterday, or presented yesterday, were used
24 instead.

25 MR. FULTON: Q: Thank you.

26 MS. HEMMINGSEN: A: And you would see that impact in

1 the column that relates to change in design day
2 temperature. There's a footnote attached to this
3 table that says -- footnote 7?

4 MR. FULTON: Q: Yes.

5 MS. HEMMINGSEN: A: Reflects changes in forecasting
6 methodology and also includes rate impact, because the
7 only change made to the December forecast was to
8 reflect the final rate impact, and thereby increase
9 the load forecast.

10 MR. FULTON: Q: Thank you. If you turn to page 3 of
11 the response to IR 1.4.1, that response shows that the
12 expected demand for fiscal 2008 is 2,279 megawatts,
13 and the expected supply is 2,016 megawatts.

14 MS. HEMMINGSEN: A: Sorry, I'm not sure what table
15 you're on.

16 MR. FULTON: A: No, I'm looking at the text on page 3
17 of the response to IR 1.4.1.

18 MR. TIEDEMANN: A: Mm-hmm.

19 MS. HEMMINGSEN: A: In front of table (b)?

20 MR. FULTON: Q: Yes.

21 MS. HEMMINGSEN: A: Yes.

22 MR. FULTON: Q: And the text shows that the load --
23 that in the 2004 load forecast, expected demand for
24 fiscal 2008 is 2,279 megawatts and the expected supply
25 is 2,016 megawatts, for a resulting deficit of 262
26 megawatts, agreed?

1 MS. HEMMINGSEN: A: Correct.

2 MR. FULTON: Q: And the 262 megawatts is an increase
3 from the 77 megawatts from the 2003 load forecast,
4 which shows a deficit of 185 megawatts, correct?

5 MS. HEMMINGSEN: A: Correct.

6 **Proceeding Time 9:05 a.m. T9**

7 MR. FULTON: Q: Would you agree with me that the tables
8 at 1.4.1(a) and 1.4.1(b) reconciling the changes in
9 deficits for the 2002 and 2003 forecasts and the 2003
10 and 2004 forecasts, show that economic factors are one
11 of the predominant reasons for the changes?

12 MR. TIEDEMANN: A: Yes, that's correct.

13 MR. FULTON: Q: Okay.

14 MS. HEMMINGSEN: A: As well as the recalibration of the
15 coefficients based on the peak information from
16 January 2004.

17 MR. FULTON: Q: Yes. I said one of the major reasons,
18 Ms. Hemmingsen.

19 MS. HEMMINGSEN: A: Sorry. That one's just larger, the
20 recalibration.

21 MR. FULTON: Q: Right. And would you agree with me
22 subject to check that for the 2003-2004
23 reconciliation, the economic factors account for two-
24 thirds of the net change? And I arrived at that by
25 dividing the 51 megawatts by 77 megawatts.

26 MR. TIEDEMANN: A: Because of the fact that the net

1 change is a sum of positive factors and negative
2 factors, in making that comparison it might be useful
3 to look at some of the value of the absolute changes
4 and then compute a ratio with the numerator as you
5 suggested, but the denominator the sum of the absolute
6 value of changes.

7 MR. FULTON: Q: What would that result -- what number
8 would that result in on a percentage of net change
9 basis, then?

10 MS. HEMMINGSEN: A: There's about 300 megawatts of
11 absolute value change, so it would be 51 megawatts of
12 300. I can't do math in my head. In fact, there's
13 not 300, there's 200. 200 megawatts of absolute
14 change and 51 megawatts, that's 25 percent.

15 MR. TIEDEMANN: A: It's actually a little bit bigger
16 than that. If we add the 51 negative to the 77
17 overall, then unless I'm making a mistake it's 51 over
18 128.

19 MR. FULTON: Q: All right, can you then give us the
20 percentage --

21 MR. TIEDEMANN: A: So it's approximately 40 percent,
22 subject to check.

23 MR. FULTON: Q: Thank you. Could you provide us with
24 the ratio expressed in a percentage basis then as
25 well, Mr. Tiedemann, for 2002-2003, adopting the same
26 approach that you used for 2003-2004.

1 MR. TIEDEMANN: A: So in this case it's approximately
2 -- well, it's 47 divided by about 70, so it's about
3 five-sevenths. So it's about 70 percent.

4 And I believe I've made a mistake on the
5 previous one, sir.

6 MR. FULTON: Q: Yes.

7 MR. TIEDEMANN: A: I'm going to just add it again in my
8 head if I may.

9 MR. FULTON: Q: Would you like access to a calculator?

10 MR. TIEDEMANN: A: That might be useful. It's okay,
11 thank you. We've got three of them there.

12 MR. FULTON: Q: Your assistant has a bigger calculator
13 than I do, so --

14 MR. TIEDEMANN: A: So if we return, please, to the
15 previous table 1.4.1(b), --

16 MR. FULTON: Q: Yes.

17 MR. TIEDEMANN: A: -- it's 51 megawatts divided by 107
18 megawatts.

19 Okay. Please excuse me just for a second.

20 So I apologize, it's 51 divided by 179, and
21 that's 28.5 percent.

22 **Proceeding Time 9:10 a.m. T10**

23 MR. FULTON: Q: Even with those changes, would you
24 agree with me that the Hydro peak demand model for
25 Vancouver Island is very sensitive to projections of
26 economic factors?

1 MR. TIEDEMANN: A: Economic factors are a key driver
2 for the model, so the peak is indeed reflective of the
3 level of those drivers and sensitive to it, yes.

4 MR. FULTON: Q: So your answer to my question is "yes".

5 MR. TIEDEMANN: A: Yes.

6 MR. FULTON: Q: Thank you.

7 In the course of the cost effective
8 analysis for the CFT, did senior management request
9 that a special model be run to check the sensitivity
10 of load to different projections of economic factors?
11 And I'm not talking about the Monte Carlo method, I'm
12 talking about a more specialized method of checking
13 the effect of those economic factors.

14 MS. HEMMINGSEN: A: No.

15 MR. FULTON: Q: Did the load forecasting department do
16 a special run of sensitivities that employed a more
17 sensitive model than the Monte Carlo model?

18 MR. TIEDEMANN: A: No.

19 MR. FULTON: Q: Can you tell us, Mr. Tiedemann, why
20 such a model was not run? Or Ms. Hemmingsen can
21 answer.

22 MS. HEMMINGSEN: A: Because the Monte Carlo model
23 includes that economic driver and evaluates movements
24 off of the base forecast. So we thought that that was
25 appropriate to represent the combined impact of a
26 number of factors that affect the peak. And

1 furthermore, the overwhelming evidence and information
2 that we get from third-party consultants is that
3 B.C.'s economy has finally recovered, and it's on an
4 upswing, and we felt that it was important to
5 represent that, and that was further supported by the
6 actual peak numbers that we were receiving that
7 affirmed we needed to uplift that forecast to reflect
8 the growth that had been experienced over the past
9 year and to put us on a path that reflected a more
10 reasonable robust expectation than we had included
11 previously.

12 MR. FULTON: Q: Okay. Well, wouldn't that upswing also
13 indicate that a sensitivity -- a great -- a test that
14 had greater sensitivities for economic factors should
15 have been tried?

16 MS. HEMMINGSEN: A: Well, as I outlined, that economic
17 test is included in the Monte Carlo analysis, which
18 looks at a composite of factors, and there's many
19 drivers to load values, and the economic factor is
20 just one of the many drivers. And as you can see in
21 here, it is not even the most significant contributor
22 to the load changes.

23 MR. FULTON: Q: Now, you said that your advisors were
24 saying that there was an upswing in the British
25 Columbia economy. Did they also look at the regional
26 economy, such as Vancouver Island?

1 MS. HEMMINGSEN: A: That carried through to the
2 Vancouver Island in the employment numbers that we had
3 received. The information on the housing starts that
4 drive the peak forecast model were consistent with
5 that.

6 **Proceeding Time 9:15 a.m. T11**

7 MR. FULTON: Q: Okay. Then I do want to turn to the
8 issue of housing and the model. And if you could have
9 before you the response to BCUC IR 1.2.6 and also page
10 23 of the load forecast, Appendix F to Exhibit B-1.

11 MR. TIEDEMANN: A: I'm sorry, could you please repeat
12 the second table that you wish us to look at.

13 MR. FULTON: Q: Yes. Appendix F and Exhibit B-1, page
14 23.

15 MR. TIEDEMANN: A: Is that in the October forecast?

16 MR. FULTON: Q: It's in Exhibit B-1, yes, the October
17 forecast. And I believe Mr. Andrews touched on this
18 particular page with your earlier in his cross. Page
19 23.

20 MR. TIEDEMANN: A: The beginning of the comparison
21 between the 2003-4 and the 2004-5 forecasts?

22 MR. FULTON: Q: Perhaps I'll show you the pages I have,
23 so --

24 MR. TIEDEMANN: A: Thank you. Oh, I see, thank you.

25 MR. FULTON: Q: So are we there now?

26 MR. TIEDEMANN: A: Yes, thank you very much.

1 MS. HEMMINGSEN: A: For some reason it's page 9 in our
2 information.

3 MR. FULTON: Q: Thank you, okay. In the econometric
4 model, in order to determine the kilowatt contribution
5 by dwelling to the regional distribution peak, B.C.
6 Hydro uses four types of dwelling in the model,
7 correct?

8 MR. TIEDEMANN: A: That's correct.

9 MR. FULTON: Q: And those dwellings are referred to in
10 page 23 that I've referred you to.

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

12 MR. FULTON: Q: Okay. Can you tell us, Mr. Tiedemann,
13 what the current split is between electrically heated
14 homes for single family and multi-family homes in
15 Vancouver, in comparison to gas?

16 MS. HEMMINGSEN: A: In Vancouver or Vancouver Island?

17 MR. FULTON: Q: Oh, sorry, on Vancouver Island.

18 MS. HEMMINGSEN: A: We don't have that information
19 handy. Off the top of my head I know directionally
20 what it is, but I'd prefer to correct -- to give you
21 the correct answer.

22 MR. FULTON: Q: Thank you. And is B.C. --

23 MS. HEMMINGSEN: A: Sorry, Mr. Tiedemann has identified
24 the breakdown.

25 MR. TIEDEMANN: A: Okay, so I'm going to have to use
26 the calculator again, please.

1 MS. HEMMINGSEN: A: Sorry, you were asking for the
2 portion of --

3 MR. FULTON: Q: The split between -- the current split
4 between electrically heated homes for both single and
5 multiple family dwellings, and I said gas, but non-
6 electrical heated homes.

7 MR. TIEDEMANN: A: For all residential dwellings the
8 share of electrically heated is 40.1 percent. The
9 non-electrically heated share is 59.9 percent.

10 **Proceeding Time 9:20 a.m. T12**

11 MR. FULTON: Q: And is B.C. Hydro expecting those
12 splits to make -- to remain relatively constant?

13 MR. TIEDEMANN: A: Approximately constant, yes.

14 MR. FULTON: Q: Thank you.

15 Now, would you agree with me that TGVI is
16 the major alternative energy supplier to homes on
17 Vancouver Island?

18 MR. TIEDEMANN: A: Yes, I would agree with that.

19 MR. FULTON: Q: And if you could now turn to the
20 response to BCUC IR 1.2.6, reissued on December the
21 1st, 2004, and that response indicates that B.C. Hydro
22 did not consult with TGVI because the end use
23 econometric models used did not require inputs from
24 TGVI?

25 MR. TIEDEMANN: A: That's correct.

26 MR. FULTON: Q: Doesn't that response actually point

1 out a constraint in your model and the model's ability
2 to accurately predict the demand/supply balance? And
3 the reason why I say that is because it ignores what
4 TGVI might input into the model, in terms of its
5 information.

6 MR. TIEDEMANN: A: Okay. The peak model doesn't
7 explicitly deal with the issue of future shares of
8 electrically and gas-heated houses, but the energy
9 model does. On the residential side, the REAPS model
10 has comprehensive information on past fuel shares and
11 their future shares, so we can use that energy
12 forecast as a check against the peak model.

13 MR. FULTON: Q: Okay. So by that answer do I take it
14 that you do not consider it a constraint to the peak
15 model not to include the -- an input from TGVI?

16 MS. HEMMINGSEN: A: That's correct, and there's a
17 couple of compensating activities that take place.
18 One is the economics of gas heating relative to
19 electric heating, especially with the housing profile
20 on Vancouver Island, and the second is we have various
21 high-level conversations with Terasen that indicate
22 that their residential load is declining, bar growth
23 in housing. So their mix is not increasing. So we're
24 confident that what we've reflected is appropriate.

25 MR. FULTON: Q: Thank you. Now, if you could have
26 before you Appendix I, the 2004 load forecast, and

1 Exhibit C2-3, which is NorskeCanada's evidence. And
2 I'm also going to provide you a copy of the BTC 2004
3 Transmission System Capital Plan, which I don't
4 believe has been marked an exhibit yet, Mr. Chairman.

5 THE CHAIRPERSON: Yes, that's correct.

6 MR. FULTON: Q: Mr. Chairman, if this could be marked
7 Exhibit A-43.

8 THE HEARING OFFICER: A-43.

9 (BTC "EVALUATION OF NORSKECANADA'S DEMAND MANAGEMENT
10 PROPOSAL DATED SEPTEMBER 2, 2004" WITH COVERING LETTER
11 FROM C. LUSZTIG, MARKED AS EXHIBIT A-43)

12 MR. FULTON: Q: And just to expedite the references, in
13 terms of the electric load forecast, if you could turn
14 to page 72 --

15 MS. HEMMINGSEN: A: We might have the same problem with
16 page 9 and 23, so maybe you can outline what the
17 header is on it?

18 MR. FULTON: Q: Well, actually I have no header on my
19 page, so let me --

20 THE CHAIRPERSON: It's the second page beyond weather
21 normalization.

22 MR. FULTON: Thank you, Mr. Chairman.

23 **Proceeding Time 9:25 a.m. T13**

24 MR. FULTON: Q: Well, maybe I can expedite things
25 because I'm just going to summarize what the page
26 says, and then if it sounds right to you you can say

1 you agree subject to check.

2 MR. TIEDEMANN: A: Thank you.

3 MR. FULTON: Q: And then we'll move to the -- I'm going
4 to summarize the page reference that I had for you as
5 follows, and when you eventually get to it it's the
6 second and third full paragraphs on page 72.

7 "As part of the peak forecast methodology,
8 the regional transmission peak forecasts are
9 prepared for each transmission account on a
10 non-coincident basis."

11 Correct?

12 MR. TIEDEMANN: A: That's correct.

13 MR. FULTON: Q: "And coincident factors and
14 power factors are applied at the regional
15 total level to convert the total non-
16 coincident peak forecasts to total regional
17 coincident transmission peak forecasts."

18 Agree?

19 MR. TIEDEMANN: A: That's correct.

20 MR. FULTON: Q: Now, yesterday, counsel for Norske
21 referred to Commission Order G103-04 to BCTC, and BCTC
22 evaluated the Norske proposal. And would you agree
23 with me subject to check that -- and here you can turn
24 to page 5 of 8 of the BCTC capital plan, the third
25 paragraph beginning with the word "finally".

26 MR. TIEDEMANN: A: Mm-hmm, thank you.

1 MR. FULTON: Q: The conclusion was that
2 "...Vancouver Island historical power flow
3 data indicates that the NorskeCanada's daily
4 peak load is not coincident with the
5 Vancouver Island daily peak hour for most of
6 the year. This suggests a need for BCTC to
7 work closely with NorskeCanada and B.C.
8 Hydro to determine what has been
9 incorporated in the B.C. Hydro load
10 forecast."
11 Does B.C. Hydro -- or do you agree that there is a
12 need to revisit the regional coincidence factor in the
13 load forecast? Does the Load Forecasting Department
14 agree with that, Mr. Tiedemann?
15 MS. HEMMINGSEN: A: Subject to Mr. Tiedemann adding
16 some technical facts, the regional coincidence factors
17 are based on the transmission planning regions that we
18 use, and there's eight of them, I believe.
19 MR. TIEDEMANN: A: There's detail prepared at the eight
20 regional level from time to time, but the primary
21 disaggregation is to four regions.
22 MS. HEMMINGSEN: A: To four, so within Vancouver Island
23 that issue wouldn't impact how we calculate the
24 regional coincident factor.
25 MR. TIEDEMANN: A: So for transmission customers, the
26 coincidence factor we use is 0.8. Whether that refers

1 precisely, or whether that's accurately precisely for
2 Norske's three facilities, I can't answer that
3 question. It probably varies by account.

4 MR. FULTON: Q: So are you able then to amplify for us,
5 Mr. Tiedemann, what has been incorporated into the
6 load forecast from a regional coincidence factor
7 standpoint?

8 MR. TIEDEMANN: A: So for the transmission customers
9 it's a coincidence factor of 0.8, and that's used for
10 all transmission customers.

11 THE CHAIRPERSON: All transmission customers for the
12 system?

13 MS. HEMMINGSEN: A: Norske's load on Vancouver Island
14 and peak requirements are assembled on a facility by
15 facility basis. So there's estimates made of their
16 production in consultation with the key account
17 managers, and that's assembled for Vancouver Island.
18 These regional coincidence

19 **Proceeding Time 9:30 a.m. T14**

20 These regional coincidence factors are
21 applied at the broader level than that.

22 MR. FULTON: Q: Would you then propose, Ms. Hemmingsen,
23 to work with BCTC and Norske in the manner that's
24 suggested in --

25 MS. HEMMINGSEN: A: That would be very important in
26 realizing the volume that Norske has proposed, but as

1 we outlined yesterday, we have some other
2 considerations that would need to be addressed first,
3 in terms of the reliability for N minus 1 planning
4 criteria of that particular proposal.

5 MR. FULTON: If I might just have one minute, Mr.
6 Chairman, I'm just about finished.

7 **Proceeding Time 9:32 a.m. T15**

8 MR. FULTON: Q: Just on the issue of network upgrade
9 costs for portfolios, can you tell us how B.C. Hydro
10 decided on the aggregate net upgrade cost for the
11 portfolios?

12 MS. HEMMINGSEN: A: Are we speaking to the QEM or the
13 results of the cost-effectiveness analysis?

14 MR. FULTON: Q: The QEM.

15 MS. HEMMINGSEN: A: Okay. The QEM relied on
16 information provided by BCTC, and BCTC was requested
17 to provide that information on a project-specific
18 basis, as well as any and all combinations that could
19 be assembled. And then that information was input
20 into the QEM model.

21 MR. FULTON: Q: Thank you.

22 Thank you, panel, thank you, Mr. Chairman,
23 those are my questions.

24 MR. SANDERSON: Mr. Chairman, in light of your remarks at
25 the opening today, with respect to the list of
26 questions that were outstanding, I've been trying to

1 make sure that we are responsive to that before you
2 commence your questions. And I think I've made some
3 progress, but if we took the break now, then when we
4 come back from the break, perhaps I could confirm my
5 impression that we've made some progress.

6 THE CHAIRPERSON: Thank you. We'll take 15 minutes.

7 **(PROCEEDINGS ADJOURNED AT 9:33 A.M.)**

8 **(PROCEEDINGS RESUMED AT 9:52 A.M.)** **T16**

9 THE CHAIRPERSON: Please be seated.

10 MR. SANDERSON: Mr. Chairman, over the break I've made
11 some progress, I think, on outstanding IRs, and let me
12 run through what I can and file that. And then I want
13 to perhaps, with your indulgence, just ask whether
14 there are things specifically that are on your mind
15 that we haven't responded to because we're only --
16 we're aware of a few more that are outstanding, but
17 only one of which, or perhaps two, are confidential in
18 nature. But let me go through what we do have.

19 One is an outstanding request from January
20 18th. It arose at transcript 1596 in a discussion that
21 Mr. Quail and you were having with the panel, and what
22 was being sought was confirmation of figures presented
23 in Exhibit C3-12, and the creation of a document
24 showing the chronology of CFT bidders and projects.
25 And what I'd like to do is file a response which has
26 two pages. The first page will be distributed. The

1 second page attaches a table which we'd like to file
2 in confidence. If that could be the next exhibit, and
3 I guess the exhibit in the form with the table should
4 be marked confidential.

5 THE HEARING OFFICER: Marked B-79.

6 (RESPONSE TO UNDERTAKING AT TRANSCRIPT VOLUME 7, PAGE
7 1596 WITH ATTACHED CONFIDENTIAL TABLE, MARKED AS
8 EXHIBIT B-79)

9 MR. SANDERSON: Next, Mr. Chairman, is a response also
10 from Transcript Volume 7 on January 18th. This was in
11 response to a question from Mr. Andrews: "How long is
12 it likely to take to get regulatory approval for dual
13 fuel capability for the Duke Point Plant?" And
14 there's a written response to that, which I can
15 distribute.

16 THE HEARING OFFICER: Marked B-80.

17 (RESPONSE TO QUESTION AT TRANSCRIPT VOLUME 7, MARKED
18 AS EXHIBIT B-80)

19 MR. SANDERSON: Mr. Chairman, yesterday at the end of the
20 day, Mr. Fulton went through a list of questions which
21 had previously been provided by him to me indicating
22 questions that may require confidential responses of
23 this panel, and he did that at the end of the day.
24 And in response, the panel indicated that there was
25 only one of those questions which raised answers that
26 it would request be held in confidence, and that arose

1 at page 2155 of the transcript and related to a series
2 of questions with respect to some of the technical
3 information relating to temporary generators.

4 **Proceeding Time 9:55 a.m. T17**

5 We're almost ready to respond to that in
6 writing, not quite; but as far as I know, that's the
7 only outstanding confidential IR that this panel was
8 expecting to speak to, that you don't already have.
9 And so in response to your observation this morning
10 that you'd hoped to have the confidential IRs of this
11 panel overnight, that is the only one that I'm aware
12 of, at least, that's missing.

13 Now I have a feeling we're missing
14 something, but that's as far as I can take it right
15 now.

16 THE CHAIRPERSON: I had the impression, Mr. Sanderson,
17 that Mr. Fulton provided you with, if you will, a
18 second round of Information Requests that he
19 anticipated would call for confidential responses from
20 the panel. And it's not so much undertakings that
21 have arisen during the proceeding that I'm concerned
22 about, it's having an opportunity to review those, if
23 in fact Mr. Fulton has provided you with a second set
24 of Information -- my thinking about this is this.

25 The usual practice is that the panel has an
26 opportunity, after hearing all of the cross-

1 examination to ask questions. If, in this case, Mr.
2 Fulton, instead of asking the questions that he would
3 normally have asked in cross-examination, provided you
4 with a list in writing of those questions, and then
5 you are responding to those, that's something that
6 would happen in the normal practice, and in the normal
7 practice -- I mean, those are ones that would have
8 been addressed orally, we would have heard the
9 responses and then we would have had an opportunity to
10 ask questions. And so it's that that I'm concerned
11 about.

12 MR. SANDERSON: Yes.

13 THE CHAIRPERSON: So if he hasn't made those available to
14 you, or if your responses have already been filed, and
15 I don't think so, but if they've already been filed
16 then I've -- I think I'm foreclosed of that
17 opportunity.

18 MR. SANDERSON: Well, Mr. Chairman, he did make them
19 available. But the way that we handled it was
20 similarly to the way we handled some of the intervenor
21 -- what I'll call second-round IRs. He simply gave me
22 notice, these were questions he wanted this panel to
23 address. I think he took them through them in terms
24 of the questions -- will the response be confidential?
25 The answer, with the one exception I've just provided
26 to you --

1 THE CHAIRPERSON: Okay.

2 MR. SANDERSON: -- was "no," and then I think the panel
3 did respond, in fact, to at least most and perhaps all
4 of the other ones. So far as I know, the main one
5 outstanding is, as I say, the technical information
6 with respect to GE. And Mr. Fulton can help me if
7 there are other responses he's expecting out of that
8 line of questioning which I'm missing here.

9 MR. FULTON: All the questions that I gave Mr. Sanderson
10 in advance, with the exception of those that -- for
11 which confidentiality has been claimed, and we'll get
12 an answer in writing, have been answered.

13 THE CHAIRPERSON: Okay, thank you. Well, that's helpful.

14 MR. FULTON: And I'm speaking to the questions for this
15 panel.

16 THE CHAIRPERSON: Okay. That's -- this is arising from a
17 misunderstanding on my part. I had the impression
18 that there was yet, if you will, as I say, a second
19 round of Information Requests that were of a
20 confidential nature, and I wanted to review the
21 responses to those before this panel was dismissed.
22 But thank you. That addresses that issue for me.

23 MR. FULTON: And the source of the confusion may have
24 been, Mr. Chairman, that in Panel 2 we did provide
25 questions that were going to be responded in writing
26 on a confidential basis, the parties got the

1 questions, they just didn't get the answers.

2 With Panel 4, there wasn't the concern in
3 terms of asking the entire question and providing the
4 answers, except for that one series of questions for
5 which we're awaiting the response.

6 **Proceeding Time 10:00 a.m. T18**

7 THE CHAIRPERSON: Thank you.

8 I would like to take you to B-68, please.
9 On the second page, the first sentence under
10 "Implications", you mention that the cold weather
11 experienced in January 2005 is going to give you data
12 that you can use to calibrate the weather adjustment
13 factors. Has that been done?

14 MR. TIEDEMANN: A: No, it has not yet been done.

15 THE CHAIRPERSON: And the 280 megawatt deficiency then is
16 based on the December '04 load forecast?

17 MR. TIEDEMANN: A: That's correct.

18 THE CHAIRPERSON: I would like to ensure that the record
19 is established for the 280 megawatt deficiency, and
20 there are two items of the record that I'd like to
21 identify that I think need to be updated for the 280
22 megawatt deficiency, and one of them is in B-1, page
23 15 of the report itself, Table 5. I'd like you to
24 update that if you can for the new peak.

25 MS. HEMMINGSEN: A: Okay.

26 THE CHAIRPERSON: And I think Appendix J, Attachment A,

1 should include a scenario at the new peak. And I
2 would like to see Table IR 1.14.2.2.

3 MS. HEMMINGSEN: A: That was the BCUC request that --

4 THE CHAIRPERSON: Yes, sorry.

5 MS. HEMMINGSEN: A: -- Mr. Fulton was reviewing?

6 THE CHAIRPERSON: Right. Well, it's the one that shows
7 the supply components for the CFT, Norske and
8 temporary generators.

9 MS. HEMMINGSEN: A: Right, okay. 14.2.1 makeup
10 capacity and timing of resource additions.

11 THE CHAIRPERSON: Right. And then I'd like you, because
12 when you run the cost-effectiveness analysis on that
13 peak of 280 megawatts -- well, peak of 2,297 megawatts
14 but with a differential of the 280, I would like you
15 to provide the same level of detail that you have in
16 Table IR 1.14.2.3.

17 MS. HEMMINGSEN: A: 14.2.3, is that the reference?

18 THE CHAIRPERSON: Yes, it's the next one after that one I
19 just referred you to. In fact it's the next page on
20 my draft. It's the equivalent of BCUC 2.46.6 but with
21 more detail.

22 MS. HEMMINGSEN: A: Yeah.

23 THE CHAIRPERSON: And you should probably provide 2.46.6
24 as well while you're doing that.

25 MS. HEMMINGSEN: A: Okay.

26 THE CHAIRPERSON: And I think you need to -- one moment

1 please.

2 That is all that comes to mind now.

3 **Proceeding Time 10:05 a.m. T19**

4 MS. HEMMINGSEN: A: Okay.

5 THE CHAIRPERSON: Do you think I'm missing anything?

6 MS. HEMMINGSEN: A: Not that immediately leaps to mind.

7 Re-running and re-representing these will take some
8 time over the weekend.

9 THE CHAIRPERSON: Yeah, I'm not expecting it, you know --
10 I think mid-week next week is going to be
11 satisfactory.

12 MS. HEMMINGSEN: A: Okay. Okay. And if we do identify
13 other ones, we will undertake to update them, if
14 they're appropriate.

15 THE CHAIRPERSON: Thank you. How much work is required
16 to recalibrate around the January, '05 numbers for
17 weather adjustment?

18 MS. HEMMINGSEN: A: The January '05 numbers, the higher
19 peak values? So running a second set with those
20 values?

21 THE CHAIRPERSON: No, just recalibrating the weather
22 adjustment that --

23 MS. HEMMINGSEN: A: Oh, that's a significant exercise.

24 THE CHAIRPERSON: Yeah. I thought it was. Okay.

25 MS. HEMMINGSEN: A: It's about a month.

26 THE CHAIRPERSON: Okay. Those are my only questions for

1 is the vice-president engineering of Pristine Power.

2 The CVs for the witnesses were part of
3 Exhibit C17-13, the response to the BCUC IR 1.4.1.
4 And unless the Commission requires or would desire, I
5 wasn't planning on taking them through their CVs.
6 Timing has proven to be of the essence here, so I was
7 going to dispense with that.

8 If we could have the witnesses sworn.

9 **DUKE POINT POWER LIMITED PARTNERSHIP PANEL**

10 **JEFFRY MICHAEL MYERS, Affirmed:**

11 **HARVIE CAMPBELL, Affirmed:**

12 **KEN SPINNER, Affirmed:**

13 MR. KEOUGH: Mr. Chairman, when I'm taking the witnesses
14 through the evidence and having them adopted, there
15 will be one minor change that I will have them make to
16 the evidence, but there's a couple of typos I thought
17 I'd mention on the record just for clarity. I don't
18 think it's a big deal.

19 The first is in GSX CCC response 1.10.4.
20 The word "change" should read "charge", and I think
21 the text is obvious, that it's meant to be "capacity
22 charge".

23 Likewise in response to GSX 1.15.5, there's
24 a cross-reference to 1.15.1. It should be 1.14.1. I
25 think again that's obvious from the text.

26 So with that, Mr. Chairman, I will have the

1 witnesses adopt their evidence.

2 **EXMINATION IN CHIEF BY MR. KEOUGH:**

3 MR. KEOUGH: Q: First, Mr. Meyers, do you have before
4 you a copy of the three exhibits I have previously
5 referred to, being Exhibit C17-6, Exhibit C17-12 and
6 C17-13.

7 **Proceeding Time 10:13 a.m. T21**

8 MR. MYERS: A: I don't believe I do. Oh, in here?
9 Sorry.

10 MR. KEOUGH: Q: You have a miniature version, but I
11 haven't given --

12 MR. MYERS: A: I have it now, it's a shortened version.

13 MR. KEOUGH: Q: Okay. And so were those pieces of
14 evidence prepared by you or under your direction?

15 MR. MYERS: A: Yes, they were.

16 MR. KEOUGH: Q: And, sir, do you have any changes,
17 corrections or updates to make to the evidence?

18 MR. MYERS: A: Yes, there's a minor correction in DPP's
19 response to GSX CCC IR 1.4.3, the table in rows 2 and
20 3, last column, the word should -- the words "upon
21 execution of" should read "pursuant to".

22 MR. KEOUGH: Q: Thank you. And with those, or with
23 that change, do you adopt the evidence as your
24 testimony in these proceedings?

25 MR. MYERS: A: Yes I do.

26 MR. KEOUGH: Q: Thank you. Next, Mr. Campbell, and

1 hopefully you have the three exhibits I referred to in
2 front of you.

3 MR. CAMPBELL: A: Yes, in a larger version.

4 MR. KEOUGH: Q: Thank you. And, sir, were those
5 materials prepared by you or under your direction?

6 MR. CAMPBELL: A: Yes they were.

7 MR. KEOUGH: Q: And maybe I can get you to speak into
8 the mike a little bit more. And with the change made
9 by Mr. Myers, do you adopt those documents as your
10 testimony in these proceedings?

11 MR. CAMPBELL: A: I do.

12 MR. KEOUGH: Q: Thank you. Mr. Spinner.

13 MR. SPINNER: A: Yes, sir.

14 MR. KEOUGH: Q: The tests should get easier for you.
15 Do you have before you the same documents?

16 MR. SPINNER: A: Yes I do.

17 MR. KEOUGH: Q: And, sir, were those prepared by you or
18 under your direction?

19 MR. SPINNER: A: Yes they were.

20 MR. KEOUGH: Q: And with the change noted by Mr. Myers,
21 do you adopt them as your testimony in these
22 proceedings?

23 MR. SPINNER: A: Yes.

24 MR. KEOUGH: Q: Thank you.

25 Mr. Chairman, the formalities are complete.
26 I think, with the exception of one question I have of

1 clarification to put to Mr. Campbell, I think the
2 witnesses will then be ready.

3 Before turning them over, Mr. Campbell, I
4 just wanted to ask you to clarify a statement
5 contained in Duke Point Power's evidence, Exhibit C17-
6 6, at page four, concerning the amount of capacity
7 that is under contract to B.C. Hydro. Mr. Chairman,
8 we don't want there to be any confusion, and I'll ask
9 Mr. Campbell to clarify that at this point.

10 MR. CAMPBELL: A: Yes. Again, as Mr. Loyola indicated,
11 we wanted to make there was clarity on what was
12 contracted in the capacity of this plant.

13 So for clarity, the contract is for 252
14 megawatts. Under that contract, that capacity can go
15 up by a factor of 5 percent to 105 percent. That
16 would bring the capacity of the plant to 264.6
17 megawatts, or the contracted capacity available to
18 B.C. Hydro up to 264.6.

19 I would note that the plant, with its duct
20 firing capability of approximately 28 megawatts would
21 increase that number up to 292.6 as its capability.
22 And that capability, for clarity, is available to
23 Vancouver Island to meet the capacity shortfalls or
24 requirements on the Island, because that capacity will
25 be built in this plant.

26 So, just wanted clarity on that aspect of

1 the project.

2 MR. KEOUGH: Q: Thank you, sir.

3 Mr. Chairman, the witnesses are available
4 for questioning.

5 MR. FULTON: Mr. Chairman, Mr. Wallace will cross-examine
6 first. I have prepared an order of cross-examination.
7 I'll provide the panel with a copy of that order as
8 well, and just to note that B.C. Hydro and Power
9 Authority, which are listed as number 18 on the list,
10 will not be cross-examining.

11 **Proceeding Time 10:18 a.m. T22**

12 MR. WALLACE: Mr. Chairman, before I commence my cross-
13 examination I have a witness aid I'd like to pass up.

14 THE CHAIRPERSON: Thank you.

15 MR. WALLACE: Mr. Chairman, I understand this is Exhibit
16 19-23 -- C19-23.

17 THE HEARING OFFICER: Marked C19-23.

18 ("JIESC WITNESS AID - COST OF DUKE POINT POWER
19 GENERATION", MARKED AS EXHIBIT C19-23)

20 MR. WALLACE: Mr. Chairman, I provided a copy to DPP's
21 counsel yesterday of this.

22 **CROSS-EXAMINATION BY MR. WALLACE:**

23 MR. WALLACE: Q: And gentlemen, you've had a copy of
24 this exhibit and had a chance to take a look at it?

25 MR. CAMPBELL: A: Yes, we do.

26 MR. WALLACE: Q: Thank you. And what starts this is at

1 question 10 of your evidence, you're asked:

2 "Please explain how capacity cost is
3 measured versus energy cost."

4 And there you provide an answer stating:

5 "Capacity cost is generally measured in
6 dollars per megawatt month, whereas energy
7 cost is measured in dollars per megawatt
8 hour."

9 And you then go on to say:

10 "The DPP project provides capacity at a cost
11 of approximately \$11,600 per month, 2004
12 dollars, which at full load equates to
13 approximately [15-90] per megawatt hour.
14 The project also produces energy if required
15 at a cost of \$48.92 per megawatt, assuming a
16 \$7.00 MMBtu price, plus variable costs at
17 [2-73], bringing the total cost to less than
18 \$68.00."

19 And what I would like to do is explore that
20 calculation with you. And in Exhibit C-19-23, under
21 the title "Duke", do you see basically the calculation
22 you made?

23 MR. CAMPBELL: A: Yes I do, Mr. Wallace.

24 MR. WALLACE: Q: Okay. And let's then just go through
25 it step by step. Beside the "Duke" column there's an
26 "Adjusted" column, and those are figures that I wish

1 to explore with you.

2 MR. CAMPBELL: A: Sure.

3 MR. WALLACE: Q: Under the "Fixed Cost" section
4 "Capital Charge" you have a total cost at \$35,078,400
5 and that's based on the capacity cost of \$11,600
6 referred to in your evidence?

7 MR. CAMPBELL: A: Yes it is, Mr. Wallace.

8 MR. WALLACE: Q: Okay. And beside that you see the
9 figure of \$36,376,210.08, and that is based on the
10 capacity charge as found in Appendix 3? Can you
11 confirm that? It's approximately \$12,017.

12 MR. CAMPBELL: A: Yeah, I didn't audit back but I'm
13 willing to take that on faith.

14 MR. WALLACE: Q: Subject to check you accept it.

15 MR. CAMPBELL: A: Subject to check, yes.

16 MR. WALLACE: Q: Okay, and is the difference between
17 those two because you have brought the EPA amount back
18 to 2004?

19 MR. CAMPBELL: A: In part but not in whole. The 35-
20 078, what you've got listed under "Capital Charge", is
21 in fact both the capital charge and the fixed O&M
22 charge, which you have in the second row. So they are
23 not directly comparable. The numbers you have in your
24 "Adjusted 2006" column are a point in time number.
25 The numbers we have are average real costs over the
26 life of the project.

1 So if you think of how the capacity charge
2 works, the capacity charge does not escalate over
3 time. So when you do a real average of it and bring
4 it back to 2004 dollars, it's substantially lower on
5 average. The OMC charge does escalate, but when you
6 add the two together it comes out to the number of 35
7 million 078.

12 MR. WALLACE: Q: Okay. Well, then let me answer a
13 number of things.

15 MR. WALLACE: Q: Would you agree with me then that,
16 subject to check, the numbers in the "Adjusted" column
17 are the amounts for the EPA, Appendix 3, at the
18 commencement of the deliveries?

20 MR. CAMPBELL: A: Subject to check, yes.

25 MR. CAMPBELL: A: The gas cost mentioned in the
26 document, the \$7.00, is a full and delivered cost to

1 the plant gate. So it incorporates, if I can jump
2 ahead a little bit here, Mr. Wallace, it incorporates
3 the Terasen charge, the compressor gas and MFT of 7
4 percent -- all those are in the \$7.00.

5 So if we were -- if the ultimate objective
6 is to make these two columns apples to apples, those
7 adjustments will all have to be made to get to the
8 bottom line.

9 Now, I can take us through that at any time
10 you would like to, Mr. Wallace. It's your call.

11 MR. WALLACE: Q: Okay. Well, why don't you do that,
12 and then we'll come back to it. Sure, you seem ready
13 to do that.

14 MR. CAMPBELL: A: Okay. Yeah. And again, before I
15 start, I do appreciate your giving this to us in
16 advance, so that we can take a look at it.

17 MR. WALLACE: Q: Sure.

18 MR. CAMPBELL: A: The first step, again, if we go to a
19 fully comparable number to what is due 2004 dollars
20 here, would be to remove the 16-5 from the TVI charge
21 on the adjusted column. That would yield a total
22 fixed cost in the adjusted number to 44,158,867.

23 MR. WALLACE: Q: Okay. And they -- that removal is
24 because, in your gas price, you had included that?

25 MR. CAMPBELL: A: I had included it.

26 MR. WALLACE: Q: Okay.

1 MR. CAMPBELL: A: That's right.

2 MR. WALLACE: Q: You do recognize that Hydro in its
3 analysis treated the 16-5 as a fixed cost?

4 MR. CAMPBELL: A: They did, but they did it on a
5 process basis, Mr. Wallace. They did the analysis
6 first, as I understand it, and then the portfolio
7 adjustments second. But I'm happy to come back to
8 this as we get through the numbers, because I
9 understand a fixed cost, I understand TGV I is a fixed
10 cost, I'm not debating that, that aspect, Mr. Wallace.

11 So, let's -- if you'd like, I can continue
12 stepping through, get these apples to apples --

13 MR. WALLACE: Q: Sure. Well, I just want to get the
14 clarity as we go, rather than have to come back to
15 you, step by step.

16 MR. CAMPBELL: A: Great. Okay. So, to move to get to
17 apples to apples, 44,158,867 under total fixed cost,
18 the column, then, for the different load factors
19 becomes sequentially -- the 27.48 becomes \$20.00 even.
20 And if I can just keep stepping through, then \$25.00
21 even, \$33.34 even, and \$50.01 even -- or not even.
22 \$100.02 for the final number. So that makes those
23 adjustments there.

24 Moving down to the variable cost portion --
25 well, I'll do the numbers, and I'm going to step back
26 to this just to suggest a simplifying approach to this

1 aspect of things, because the goal was to try to
2 simplify the conceptual aspects of what we're talking
3 about.

4 So, first of all, compressor gas would come
5 out, MFT would come out. That would yield a total
6 exactly the same for both cases, 114,029,364-23, and a
7 per-megawatt hour cost of \$51.65. So there's no
8 difference any more between the two.

9 MR. WALLACE: Q: Now, what --

10 MR. CAMPBELL: A: Yeah.

11 MR. WALLACE: Q: -- if you can help me, what would your
12 net gas price be, then, after the TGVI and the
13 compressor gas and the MFT had been removed?

14 MR. CAMPBELL: A: I can step you through to that, but
15 to leap a little bit to that, I do have available the
16 variable cost, which is by my calculation 78 cents, so
17 the \$7.00 would drop to -- sorry, \$7.00 less 78 is 6-
18 22?

19 MR. WALLACE: Q: And then --

20 MR. CAMPBELL: A: 6-22. I have not backed out the 5
21 percent and the 6 percent, so --

22 MR. WALLACE: Q: Is that backing out the Terasen, then
23 but --

24 MR. CAMPBELL: A: Yeah.

25 MR. WALLACE: Q: -- not backing out the compressor gas
26 or the MFT?

1 MR. CAMPBELL: A: That's right.

2 MR. WALLACE: Q: Thank you.

3 MR. CAMPBELL: A: That's right.

4 **Proceeding Time 10:28 a.m. T24**

5 MR. CAMPBELL: A: That's right.

6 So to finish the sort of apples to apples,
7 the 100 percent load factor, which in this -- on your
8 table is eighty-five eighteen, becomes seventy-one
9 sixty-five. The 80 percent load factor, 92 would be
10 seventy-six sixty-five, then eighty-four ninety-nine,
11 a hundred and one sixty-six, a hundred and fifty-one
12 sixty-seven. And I apologize for not preparing this
13 on a sheet for everybody beforehand. We don't have
14 quite those facilities available to us.

15 So that brings the numbers to comparable.
16 If I can kind of play off of the discussion we had in
17 pieces, Mr. Wallace, I think the number you're looking
18 for is what is the TGVI number on a comparable basis
19 the way -- so I'm now going to take my column and
20 bring it back to the way you're analyzing things and
21 provide those numbers, with the caveat that I'm not
22 able to do the -- or I just didn't have the time,
23 frankly, to do the 5 and the 7 percent. And I thought
24 probably the more important one was to give you the
25 comparable TGVI.

26 Now the TGVI numbers, too, are not a nice

1 neat number escalating inflation over time. They are
2 a set of numbers over a period of years in the IR that
3 in fact Mr. Wallace has indicated, IR 1.23.5. So they
4 start low, they go up, and then they fall fairly
5 quickly and they stay low over time in nominal
6 dollars. And again when you adjust them to real 2004
7 dollars, they're quite a bit different than the early
8 year numbers you've got. That adjustment gives, by
9 our calculations, a number of 9,676,800.

10 So now what I'm doing is, the first step
11 was to bring Mr. Wallace's numbers to the way we were
12 presenting them, and now bring our numbers to more the
13 way Mr. Wallace was presenting them. So 35,078
14 becomes 44,755,200. The load factor number is the
15 fifteen eighty-nine --

16 MR. WALLACE: Q: Sorry, just before you go there --

17 MR. CAMPBELL: A: Sure.

18 MR. WALLACE: Q: For TGVI, instead of 16,500,000, you
19 use a figure of what? Nine million, I think you said,
20 six hundred thousand.

21 MR. CAMPBELL: A: Yeah, it's 9,676,800.

22 MR. WALLACE: Q: Okay. And you don't disagree that
23 B.C. Hydro and BCUC IR 123.5 use 16 and a half million
24 for --

25 MR. CAMPBELL: A: Well, by my read for the year 2008
26 they have a number of sixteen three sixty-nine. Is

1	that --
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2 MR. WALLACE: Q: Close enough, thank you.

3 MR. CAMPBELL: A: So to give a sense, for 2007 that
4 same number is 10,370,000, jumps to 16 million there,
5 seems to fall to about 15 million in the period 2009
6 to 2011 and then comes down to 12,000 by 2012 and
7 stays pretty much in that range for the remainder of
8 the period. I don't know if people want to get that
9 reference.

10 MR. WALLACE: Q: And again, you're present valuing back
11 to 2004.

12 MR. CAMPBELL: A: I'm not present valuating, just
13 turning it into real dollars. These are nominal.

14 MR. WALLACE: Q: Okay.

15 MR. CAMPBELL: A: So that, I mean, inflation sum is
16 just a straight 2 percent. We at Pristine Power are
17 fairly simple people.

18 MR. WALLACE: Q: Sure.

19 MR. CAMPBELL: A: So with that calculation, the 35
20 increases to 44 million 755.

21 Proceeding Time 10:32 a.m. T25

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22         To go and -- sorry, did I provide this
23         series on the load factor numbers? Okay, let me do
24         them again, just to make sure.

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25 So the 15-89 becomes \$20.27, the 80 percent
26 becomes 25-34, the 26-48 becomes 33-79, and if I just

1 keep going in series, 50-64, 101-37.

2 Now, since we've moved the TGV I charge to a
3 fixed charge, which is, I think, appropriate, we now
4 have to adjust the \$7.00 gas price to reflect that.
5 And my calculation of that number is the 78 cents that
6 I mentioned earlier. So the \$7.00 becomes the 6-22 I
7 think mentioned earlier.

8 This is probably an appropriate point to
9 try to put a little bit of a simplifying assumption on
10 this. The energy cost of this project -- first of
11 all, in my experience, the industry usually works in
12 MMBtu's, not gigajoules, so I apologize for this
13 shift. That was just purely habit. The cost -- the
14 fuel usage per megawatt in this plant is 6.98928. I
15 don't know how precise people want to take that. And
16 the fuel cost, then, is the fuel cost times 6.98928,
17 gives you the fuel cost. So that yields a cost of --
18 with the \$7.00 number it was 48-92, you add the 2-73
19 and you go to 51-65. With the 6-22, the fuel cost --
20 again, 6-22 times 6.989, 43-45, add the 2-73 and
21 you've got the 46-18.

22 So, with that adjustment, the 51-65 again
23 becomes 46-18, the final numbers now on our adjusted
24 column become 66-45 for 100 percent, 71-52 for 80
25 percent, 79-97 for 60 percent, 96-89, and then 147-55.

26 Now, so that's just ---

1 MR. WALLACE: Q: What did you do --

2 MR. CAMPBELL: A: -- putting some more math into the
3 whole equation.

4 MR. WALLACE: Q: As you threw those numbers out, what
5 did you do with compressor gas and motor fuel tax?

6 MR. CAMPBELL: A: They are in the 6-22, Mr. Wallace.

7 MR. WALLACE: Q: Well, I thought you said the 6-22 was
8 what it took when you backed out Terasen?

9 MR. CAMPBELL: A: Oh, sorry, the Terasen fixed charge
10 for precision, sorry.

11 MR. WALLACE: Q: Pardon?

12 MR. CAMPBELL: A: The Terasen fixed charge.

13 MR. WALLACE: Q: Right. When you backed out the
14 Terasen fixed charges, you came to 6-22.

15 MR. CAMPBELL: A: Yeah.

16 MR. WALLACE: Q: You still have to do something about
17 compressor gas and MFT.

18 MR. CAMPBELL: A: Yeah, I was not making a
19 misrepresentation, in our -- or a representation, in
20 our evidence, about what the Sumas price was, which is
21 I think where you're going to.

22 **Proceeding Time 10:35 a.m. T26**

23 MR. WALLACE: Q: No, I want to know what you dealt with
24 -- how you dealt with compressor gas and MFT.

25 MR. CAMPBELL: A: Ah, sorry --

26 MR. WALLACE: Q: If your price went to 6-22, you still

1 have to pay those costs.

2 MR. CAMPBELL: A: Yeah, and they're in the 6-22.

3 MR. WALLACE: Q: Well, then -- I thought you said, when

4 you moved from Terasen to the six-twenty -- when you

5 move from the \$7.00 to 6-22, that was Terasen. You're

6 telling me "No, that's Terasen and Motor Fuel Tax and

7 compressor tax."

8 MR. CAMPBELL: A: Sorry. The fixed charges from

9 Terasen are the 78 cents in the movement to the 6-22.

10 MR. WALLACE: Q: Okay.

11 MR. CAMPBELL: A: I did not make the adjustment to back

12 the motor fuel tax, or the compressor fuel, out of the

13 6-22. I --

14 MR. WALLACE: Q: No, they have to either be added to

15 your cost or taken out of the 6-22.

16 MR. CAMPBELL: A: No, they are in the 6-22 as they were

17 in the original \$7.00, Mr. Wallace. Again, my \$7.00

18 was --

19 MR. WALLACE: Q: So --

20 MR. CAMPBELL: A: -- landed cost of fuel at my plant

21 gate.

22 MR. WALLACE: Q: Okay. If you get to a fuel price,

23 then, net of Terasen, compressor gas and MFT, you're

24 at a price closer to \$5.80 I suggest to you.

25 MR. CAMPBELL: A: Sounds pretty close.

26 MR. WALLACE: Q: Okay, thank you. Now, I have one

1 question, I guess, left for you, then. After all of
2 that, would you agree that for a pure gas price, not
3 including Terasen, not including compressor gas, not
4 including MFT, of \$7.00, the adjusted column
5 recognizes the situation as it will be in 2007/2008
6 under the application?

7 MR. CAMPBELL: A: Could you repeat that?

8 MR. WALLACE: Q: Will you agree that using a pure gas
9 price of \$7.00 Canadian, the adjusted column -- using
10 a pure gas price of \$7.00, and that is a gas price
11 that does not include Terasen, does not include
12 compressor gas, does not include MFT, the adjusted
13 column represents the situation as it will be under
14 the EPA in 2007/2008?

15 MR. CAMPBELL: A: I want to directionally say yes, but
16 I have a caveat here. In looking at the table of
17 costs, the 16-5 you have in there, is a -- is here,
18 put down in 2008, the 2007 number is quite a bit
19 different. However, I'm willing to leave that kind of
20 different number out, as a question mark. I'm not
21 sure why that difference is, maybe it's because this
22 is Hydro year, or not calendar year, and there's some
23 difference there. So I just want to note that as a
24 bit of an anomaly to this, and with that, I will
25 accept your statement, Mr. Wallace.

26 MR. MYERS: A: Mr. Wallace, if I could just add -- I

1 believe your question was about the situation. The
2 chart, I think, in terms of the situation, represents
3 the costs of generating in a particular hour, based on
4 the inputs, and this discussion you had with Mr.
5 Campbell.

6 The situation, I think, that's been
7 described in this proceeding would include significant
8 variables not on this chart. And that would be the
9 credit, or the benefit, that Hydro would see by
10 running this plant, and not having to buy energy from
11 somewhere else. So in the overall cost of generation,
12 this situation would need to include that variable for
13 a complete analysis.

14 MR. WALLACE: Q: Well, that could either be a loser or
15 a winner. What I've tried to look at is the cost
16 under the EPA. And I think I have agreement, subject
17 to one potential qualification on Terasen, that this
18 adjusted column represents the costs in 2007/2008.

19 MR. CAMPBELL: A: Mr. Wallace, could I take this back a
20 little bit to the evidence that started the
21 discussion?

22 MR. WALLACE: Q: Well --

23 MR. CAMPBELL: A: This -- I mean, when you say it
24 reflects the costs, I've already agreed --

25 MR. WALLACE: Q: Okay.

26 MR. CAMPBELL: A: -- so you can take that for your

1 record.

2 MR. WALLACE: Q: Thank you.

3 MR. CAMPBELL: A: But it misses the point. And the
4 whole point of the evidence was, Mr. Wallace, that
5 when you try to look at this plant in this manner,
6 you're missing how it works. It's a capacity product,
7 not an energy product. And by trying to do this kind
8 of analysis, you just get misleading results.

9 To go to a blatant example, if you try to
10 work out the dollars per megawatt hour of a peaker,
11 you're going to be well into the tens of thousands of
12 dollars a megawatt hour. Is that an economic
13 proposal?

14 MR. WALLACE: Q: Mr. Campbell, that has nothing to do
15 with my question.

16 MR. CAMPBELL: A: It bears on the analysis --

17 MR. WALLACE: Q: If you can please confine your answer.

18 MR. CAMPBELL: A: Okay.

19 MR. WALLACE: Q: Thank you.

20 **Proceeding Time 10:40 a.m. T27**

21 MR. KEOUGH: Mr. Chairman, just to make sure that the
22 record is clear, because Mr. Wallace did say he had
23 gotten an agreement, and I think Mr. Campbell agreed
24 but only on the caveat that we went from the \$7.00
25 being an all-in charge to the \$7.00 not being an all-
26 in charge, which was the assumption that my friend

1 asked the witness to make. And I just want to make
2 sure that's clear.

3 MR. WALLACE: That's fine, I have no objection.

4 MR. WALLACE: Q: Gentlemen, you can put this out
5 between you. Would you agree that on the Terasen
6 charge that there are upside risks longer term, that
7 there has already been discussion of the costs going
8 up due to decontracting of the industrial customers?
9 Are you aware of that? If you're not, that's fine.

10 MR. CAMPBELL: A: I'm not aware of that.

11 MR. WALLACE: Q: Okay, thank you. And are you aware of
12 any potential for more decontracting by the Joint
13 Venture?

14 MR. CAMPBELL: A: I'm not.

15 MR. WALLACE: Q: Okay. There's been some talk of, I
16 guess a backup situation with respect to fuel of
17 converting the Duke Point Project to dual fuel. In
18 general terms, what would be involved in doing that?

19 MR. SPINNER: A: I can answer that question. The
20 present plant that we have right now does not include
21 dual fuel capabilities, and you'd have to convert
22 technically the equipment, the gas turbine, and
23 include facilities to store and transfer any kind of
24 distillate fuel on the site.

25 MR. WALLACE: Q: When would that decision have to be
26 made to convert, in order for you to meet the

1 deadlines that you're under?

2 MR. SPINNER: A: Well, our proposed plant right now is
3 a single natural gas-fuelled plant. And that's the
4 way we've proposed it, the EPA talks about it that
5 way, and right now that's what we're designing.

6 MR. WALLACE: Q: I understand that, but it has been
7 raised as a possibility that Hydro might approach you.
8 I'd just like to understand some of the restraints
9 around that. By what time would you have to be told
10 to make it dual-fired, or agree to make it dual-fired,
11 in order for that to be able to happen and maintain
12 what has been described as an extremely tight
13 schedule?

14 MR. SPINNER: A: I think, you know, we're willing to
15 sit down and talk to Hydro about after we get approval
16 of EPA, and we just haven't looked at it in detail
17 because of the newness of this topic.

18 MR. WALLACE: Q: Well, approximately. I mean is this
19 something you need to know within two weeks, six
20 months?

21 MR. SPINNER: A: It would be the sooner the better.

22 MR. WALLACE: Q: Does that mean within weeks?

23 MR. SPINNER: A: The sooner B.C. Hydro comes to us to
24 discuss that option, the better it would be.

25 MR. WALLACE: Q: Well, sir, as I recall Mr. Campbell's
26 -- or maybe it's Mr. Keough's submissions, I'm not

1 MR. SPINNER: A: Yes it would.

2 MR. WALLACE: Q: Okay. Can I push from very difficult
3 to impossible, or is that going too far?

4 MR. SPINNER: A: I never say anything's impossible, Mr.
5 Wallace, but right now, from our quick view, is it
6 would be difficult.

7 MR. WALLACE: Q: Okay. You have -- maybe somewhere in
8 between is, you have no confidence that it could be
9 done for the winter of 2007.

10 MR. SPINNER: A: Until we've looked at it further, we
11 think it's at risk.

12 MR. WALLACE: Q: Thank you. Can you give me any idea
13 of what it would cost to retrofit a plant like this
14 for dual fuelling?

15 MR. SPINNER: A: An exact number, no. Again, we have
16 not looked at it in detail. There's quite a bit of
17 engineering and estimation to do, and so I do not have
18 that number available today.

19 MR. WALLACE: Q: Would we be talking millions, or tens
20 of millions of dollars?

21 MR. SPINNER: A: It could be in the ten to -- ten
22 million dollar range.

23 MR. WALLACE: Q: Okay, thank you. And that, I take it,
24 would at least include a refit to the gas turbine?

25 MR. SPINNER: A: That's the main modification, yes.

26 MR. WALLACE: Q: And wouldn't another very expensive

1 item be cost of storage?

2 MR. SPINNER: A: That's -- in that number that I talked
3 about, includes a fuel tank on site. That's included.

4 MR. WALLACE: Q: How large a tank would it take for
5 five or ten days of capability to run on oil -- or on
6 distillate?

7 MR. SPINNER: A: Sorry, Mr. Wallace, but I haven't
8 calculated that in my head right about now --

9 MR. WALLACE: Q: No idea?

10 MR. SPINNER: A: -- but I can get back to you on it in
11 a little time, once I talk to my engineers.

12 MR. WALLACE: Q: Okay, and I think you agreed that
13 there would have to be permit changes.

14 MR. SPINNER: A: Yes.

15 MR. WALLACE: Q: Thank you.

16 MR. KEOUGH: For clarity, do you want an undertaking on
17 that, or are you just happy enough with the answer?

18 MR. WALLACE: Q: Actually, I would like an undertaking
19 on how much it would take for five days of running it.

20 **Information Request**

21 MR. WALLACE: Q: Thank you. Mr. Keough, I appreciate
22 that.

23 MR. KEOUGH: As long as there's not too many
24 hypotheticals, I'll humour you.

25 MR. WALLACE: Thank you.

26 MR. WALLACE: Q: At one point in your evidence, you

1 state the -- and I apologize for not having the
2 reference; the existing HVDC transmission
3 interconnection to the mainland is very near the end
4 of its life cycle, and needs to be decommissioned. Do
5 you recall saying that?

6 MR. CAMPBELL: A: Can you give me the reference, Mr.
7 Wallace?

8 MR. WALLACE: Q: Unfortunately, writing it down, or
9 pasting it in, I left the reference out.

10 MR. CAMPBELL: A: The evidence isn't that long, let me
11 just take a flip through here.

12 MR. WALLACE: Q: You're talking about the HVDC
13 interconnection.

14 THE CHAIRPERSON: Page 11, Exhibit 17 -- C17-6.

15 MR. WALLACE: Thank you, Mr. Chairman.

16 MR. CAMPBELL: A: Okay, if I can leap to the chase.

17 MR. WALLACE: Q: You're going to anticipate this
18 question also, huh?

19 MR. CAMPBELL: A: Sorry, that's wrong, we're not
20 talking about decommissioning, but zero-rating.
21 Sorry, I didn't read this carefully enough.

22 MR. WALLACE: Q: Okay. You recognize that it will
23 remain in operation, even after completion of the 230
24 kV lines?

25 MR. CAMPBELL: A: Yes we do.

26 MR. WALLACE: Q: Thank you. Mr. Chairman, that

1 completes my questions.

2 **Proceeding Time 10:50 a.m. T29**

3 MR. FULTON: Norske has no questions, Mr. Chairman.

4 Green Island Energy? Village of Gold River? Sea

5 Breeze Power? Commercial Energy Consumers?

6 THE CHAIRPERSON: Mr. Craig, let me -- I see Mr.

7 Carpenter is on his feet.

8 MR. CARPENTER: Just some information I need to share

9 with Mr. Fulton.

10 THE CHAIRPERSON: You need to share some information with

11 me, though. Is your panel available this afternoon?

12 MR. CARPENTER: No, they're not. That was the

13 information. Mr. Baird is on Vancouver Island right

14 now in other meetings.

15 THE CHAIRPERSON: Can you make an effort to get him here?

16 Is there any possibility?

17 MR. CARPENTER: I know that he's in the middle of those

18 meetings right now. They end at noon. I guess there

19 is a possibility, depending on flights, et cetera,

20 that he might be able to get back, but I don't know

21 when that would be. But we'll try to get in touch

22 with him.

23 THE CHAIRPERSON: Yes, pull him out of the meeting if you

24 can.

25 MR. CARPENTER: We'll look into that.

26 THE CHAIRPERSON: Tell him I said so.

1 MR. CARPENTER: Thank you.

2 THE CHAIRPERSON: Mr. Craig.

3 MR. CRAIG: Thank you, Mr. Chairman, Panel, good morning.

4 **CROSS-EXAMINATION BY MR. CRAIG:**

5 MR. CRAIG: Q: Good morning. I just have a couple of
6 questions. When you were looking at the tolling
7 option, did you look at the costs of not accepting the
8 Hydro tolling?

9 MR. CAMPBELL: A: Going non-tolling or partial tolling?

10 MR. CRAIG: Q: Right.

11 MR. CAMPBELL: A: No.

12 MR. CRAIG: Q: No?

13 MR. CAMPBELL: A: No.

14 MR. CRAIG: Q: Okay, thank you. In looking at the
15 election to take the VIGP assets, did you look at
16 doing the development without those?

17 MR. CAMPBELL: A: No.

18 MR. CRAIG: Q: No.

19 Those are my questions. Thank you, Mr.
20 Chair.

21 **CROSS-EXAMINATION BY MR. QUAIL:**

22 MR. QUAIL: Q: I take it from your answers to Mr.
23 Wallace's questions that B.C. Hydro has not approached
24 Duke Point Power to discuss the potential of
25 converting the plant to dual fuel?

26 MR. CAMPBELL: A: Yes. No they have not.

1 MR. QUAIL: Q: If Canada were to institute a tax on
2 fossil fuels as a mechanism to reduce greenhouse gas
3 emissions, in the form of a per unit tax on the price
4 of the fuels, in your view would the cost of that tax
5 be the responsibility of B.C. Hydro or Duke Point
6 Power under the Energy Purchase Agreement?

7 MR. CAMPBELL: A: You know, I think at best I'm going
8 to be -- I'll have to take this is as a -- under an
9 undertaking.

10 MR. QUAIL: Q: I wonder if you could speak up a little
11 bit and closer to the mike.

12 MR. CAMPBELL: A: Sure. I think I'm going to have to
13 take that as an undertaking. I've never thought about
14 that scenario before. It is very clear GHG liability
15 is a responsibility of the project.

16 **Information Request**

17 MR. QUAIL: Q: Okay, and I've got another one that I
18 assume you'll want to take on a similar basis. I'll
19 give it to you now.

20 MR. CAMPBELL: A: Okay.

21 MR. QUAIL: Q: If Canada were to implement regulations
22 to meet its Kyoto Accord commitments that resulted in
23 B.C. Hydro being required to reduce the total
24 greenhouse gas emissions produced by its entire energy
25 supply portfolio encompassing both contracted and
26 directly owned assets, what in your view would be the

1 liability of Duke Point Power to B.C. Hydro in meeting
2 the cost of that requirement? I know that's a long
3 question but it'll be in the transcript for you.

4 MR. CAMPBELL: A: Yeah, and I would prefer if it's okay
5 to take that as an undertaking as well.

6 MR. QUAIL: Q: I'm sorry?

7 MR. CAMPBELL: A: I'd prefer to take that as an
8 undertaking as well.

9 MR. QUAIL: Q: Yes, and that was my expectation.

10 MR. CAMPBELL: A: Yeah.

11 **Information Request**

12 MR. QUAIL: Those are all my questions.

13 **CROSS-EXAMINATION BY MR. ANDREWS:**

14 MR. ANDREWS: Q: Good morning, panel.

15 MR. CAMPBELL: A: Good morning.

16 **Proceeding Time 10:54 a.m. T30**

17 MR. ANDREWS: Q: My first questions concern the permits
18 and certificate under the *Environmental Assessment*
19 *Act*. I think it's fair to say that many of us only
20 recently realized that the structure of the
21 transaction is such, and I'll be asking you to confirm
22 this, that the permits and certificates held by VIEC
23 are not, at least initially, going to be changed.
24 They will pass as an asset of VIEC as VIEC's shares
25 are transferred to your partnership. Is that correct?

26 MR. SPINNER: A: That is correct.

1 MR. ANDREWS: Q: Speaking of the Environmental
2 Assessment certificate, do you understand there to be
3 a condition of that certificate that you notify the
4 B.C. Government of a material change in ownership of
5 VIEC?

6 MR. SPINNER: A: Yes we are.

7 MR. ANDREWS: Q: So you would anticipate that -- one
8 step at a time. You will do that, if this goes ahead?

9 MR. SPINNER: A: Yes we will.

10 MR. ANDREWS: Q: Is it your expectation that the
11 province would at that point review whether there are
12 any differences between the DPP project and the VIGP
13 project as described in the certificate?

14 MR. SPINNER: A: Yes, we would imagine that they'll
15 want assurances that the projects are not materially
16 different, yes.

17 MR. ANDREWS: Q: Do you have a time estimate for how
18 long that will -- you're expecting that to take.

19 MR. SPINNER: A: No, we expect it to be very quick,
20 because the projects are essentially identical to what
21 was proposed with VIGP.

22 MR. ANDREWS: Q: Is it your view that the change in
23 ownership between VIEC and Duke Point affects in any
24 way the dispatchability or the actual dispatch
25 decisions that would be made, between VIGP and DPP?

26 MR. SPINNER: A: I don't see how dispatchability would

1 have anything to do with that, no.

2 MR. MYERS: A: Our mandate in the contract is to have
3 operators on staff and B.C. Hydro would make the
4 decisions to run the plant. So there's no change in
5 the situation.

6 MR. ANDREWS: Q: Thank you. There was a question in
7 the IR as to who will pay for the spur gas line from
8 TGVI to DPP. And the answer at that point was that it
9 was not known. Is there an answer to that question at
10 this point?

11 MR. SPINNER: A: No, not at this point. We still do
12 not know.

13 MR. CAMPBELL: A: A very small component of our capital
14 costs, or the capital consideration here, as I recall.

15 **Proceeding Time 10:57 a.m. T31**

16 MR. ANDREWS: Q: In terms of dual fuel. I'm not going
17 to repeat the ground that's been covered already. But
18 as you probably know, there are a lot of people within
19 the Georgia Basin air shed who are following this
20 hearing via the transcript, and I'm sure that they're
21 very interested to know what DPP's official position
22 is, in terms of its intention regarding dual firing.
23 Because they are afraid that dual firing introduces
24 higher pollutant emissions.

25 Are you in a position to say that you will
26 not pursue dual firing? I'm offering you that

1 opportunity. Or are you saying you will simply wait
2 and see, based on your discussions with B.C. Hydro.

3 MR. CAMPBELL: A: I think we just have to, you know,
4 sit down with B.C. Hydro and discuss it with them, and
5 we're willing to do that at a later date. Other than
6 that, we don't have a position.

7 MR. ANDREWS: Q: Thank you. The suggestion has been
8 floated, as it were, that LNG could be an alternative
9 method of providing gas to DPP. Have you read the
10 transcript discussions of that, or have you been made
11 aware of that?

12 MR. MYERS: A: Our suggestion --

13 MR. CAMPBELL: A: Mr. Andrews, yeah, I took part and
14 listened to the conversations yesterday as they went
15 through, or over the course of the week. So I heard
16 the testimony yesterday.

17 MR. ANDREWS: Q: In your opinion, is that a feasible
18 approach to supplying gas to the facility?

19 MR. CAMPBELL: A: Well, technically, yes. I mean,
20 remember, the LNG facility is a storage facility for
21 peaking purposes, so -- but technically, yes, it's
22 been done before, and I don't see any technical
23 issues.

24 MR. MYERS: A: Actually, we've never looked at that,
25 and there's no need to look at it. We are worried
26 about natural gas getting to our plant gate. It's not

26 MR. KEOUGH: Mr. Chairman, I think what my friend is

1 asking is something of a different nature than the
2 confidential information that has been on the record
3 so far. I think what he is seeking is information
4 with respect to Duke Point Power's internal financial
5 situation and the cost they have put in. I think that
6 is confidential because this is a market bid, a
7 market-based process, and I think he's asking for
8 confidential information from the company that -- I'd
9 have to think about this, but my reaction is I don't
10 think that's the type of thing that should properly be
11 put on the record in this context, even if it is just
12 given to the board. I want to think about it, but my
13 initial reaction is that I would be suggesting that my
14 clients would not be prepared to do that.

15 MR. ANDREWS: Just in reply, I'm not disputing that the
16 information is confidential, and I didn't hear my
17 friend to dispute that it's material and relevant. I
18 would ask then if the Panel could rule on that
19 request.

20 THE CHAIRPERSON: Mr. Keough, this is one that you should
21 be able to speak to now. You've asked for an
22 opportunity to think about it, but that really goes to
23 this process being rather inefficient if we do that.

24 MR. KEOUGH: I was more thinking of speaking to my client
25 as it is their information. But Mr. Chairman, I think
26 this is confidential information. If my friend wants

1 to ask whether Duke Point has considered the issue of
2 greenhouse gas liability and we've acknowledged in the
3 information requests our responses that that is a
4 responsibility of the project, that's one thing. But
5 I'm not sure it's at all relevant to what this
6 Commission is doing, how Duke Point Power internally
7 manages its finances or its obligations.

8 And that's what he's getting to, and so I
9 think that's what it goes to. I do not think that's
10 relevant information at all for this Commission to
11 know. What is relevant is to know who has the
12 liability. And so my position is that we would not be
13 prepared to disclose that.

14 THE CHAIRPERSON: Would you prefer not to disclose it?

15 MR. MYERS: A: We would prefer not to.

16 THE CHAIRPERSON: And I think Mr. Keough is right, Mr.
17 Andrews.

18 MR. ANDREWS: Q: Thank you; and may I ask a somewhat
19 similar question and may go through a similar process.
20 In assessing your financial exposure to greenhouse gas
21 liability, did you quantify the result of your
22 assessment?

23 MR. CAMPBELL: A: For clarity and certainty, the
24 investors in Duke Point Power spent a great deal of
25 time on this issue. We had hired two separate
26 consulting firms to advise what is already a fairly

1 capable in-house group to arrive at our view of Kyoto,
2 the GHG liability, the emissions liability that goes
3 under this contract. No investor can take a liability
4 like that lightly.

5 Based on that analysis, and I think you --
6 everyone in this room is probably familiar with the
7 huge range that Kyoto liability numbers can go in.
8 Based on those, our assessment and discussions with
9 both the federal and provincial level, we arrived at
10 we felt was an appropriate allocation.

11 **Proceeding Time 11:05 a.m. T33**

12 And our extremely conservative investors agreed with
13 that assessment.

14 I would concur with what Mr. Keough has
15 said. The -- what is relevant here, I think, is what
16 funds are available to stand behind that liability.
17 And Mr. Eckert, yesterday, pointed to what I think is
18 the right answer, and that is the capacity charge.
19 Because that's what really stands behind that,
20 supporting that liability, which we bear. And that's
21 35, 36 million dollars. And that's a substantial
22 amount of money.

23 MR. MYERS: A: If I could add to Mr. Campbell's
24 response, I just -- I think again, factually, the
25 current convention, the current considerations by the
26 federal government go out to 2012, at this point in

1 time. I think what happens beyond 2012 is uncertain.
2 The -- I would also add that our review of this
3 includes direct participation in consultation meetings
4 with senior Natural Resources Canada officials, and
5 includes participation on the large final emitters
6 group of the electricity industry in this country.

7 MR. ANDREWS: Q: Did you -- I assume the answer is
8 "yes," but just to get on the record; did you review
9 the greenhouse gas liability treatment in the VIGP
10 benchmark?

11 MR. CAMPBELL: A: No.

12 MR. ANDREWS: Q: You did not?

13 MR. CAMPBELL: A: No, we did not.

14 MR. ANDREWS: Q: Did you review the Commission's
15 decision on the VIGP CPCN application, where it
16 discussed the greenhouse gas liability requirements
17 that ought to be put into the VIGP benchmark?

18 MR. CAMPBELL: A: Mr. Andrews, I guess just for
19 absolute clarity, the VIGP benchmark is not something
20 we've spent any time reviewing. It was something that
21 I know is very relevant to this Commission, but Duke
22 Point Power is a private company, it's not a utility,
23 and that set of analyses that determined what one cost
24 would be, one cost wouldn't be, in the context of B.C.
25 Hydro a regulated utility is not relevant to how we as
26 a private company act. What is relevant is, who bears

1 the risk? And it is Duke Point Power.

2 MR. MYERS: A: And to do that, there are really three
3 legs on the stool. One is the contract, okay? You
4 start with the contract and a thorough review of
5 what's required under the contract. Two is where the
6 legislation is heading in Canada, and I think Mr.
7 Campbell and I have noted what we've done in that
8 regard. And the third is whether this project is
9 indeed financable. And from our perspective, we
10 passed all three tests.

11 MR. CAMPBELL: A: This doesn't quite mean that over the
12 last five days, I haven't heard the numbers going
13 around. I'm just being very clear, Mr. Andrews, that
14 I am not in a position to answer to the VIGP
15 benchmark, all the analysis and discussions that went
16 on around that.

17 MR. ANDREWS: Q: Well, maybe I can ask you to clarify.
18 It would seem anomalous if you have done an extensive
19 examination of your greenhouse gas liability, that you
20 did not examine among the myriad of pieces of
21 information the Commission's own ruling in the VIGP
22 application regarding greenhouse gas liability.

23 MR. CAMPBELL: A: We went to what we felt were the best
24 professional sources in Canada to understand the issue
25 of greenhouse gases. It is entirely possible that
26 they, in their deliberations, did review the VIGP

1 benchmark but, if they did, they never explicitly
2 brought forward any of the discussions from that to
3 us. Nor did that bear on our final decision.

4 Our decision was based on a thorough review
5 of what those liabilities could look like, what the
6 legislation under consideration, the processes under
7 consideration, were. We started from Ground Zero on
8 that and went all the way up. And that was the basis
9 that we made our determination.

10 **Proceeding Time 11:10 a.m. T34**

11 MR. ANDREWS: Q: I'm going to ask you a question that
12 -- please don't answer until your counsel has had a
13 chance to consider it. This is a request that you
14 provide in confidence to the Commission an answer on a
15 directional basis, whether the cost of GHG liability
16 that you used in your bid is higher or lower than the
17 GHG financial liability that the Commission ruled
18 ought to be put into the VIGP benchmark.

19 MR. KEOUGH: Thank you, Mr. Andrews, for giving me the
20 opportunity not to have to leap to my feet.

21 Mr. Chairman, my objection to that is the
22 same as my objection to the other one. It goes
23 directly to the same place in terms of trying to get
24 an understanding of the detail internal financial
25 decision-making within Duke Point Power, and that is
26 commercially confidential to that company. I think

1 the witnesses have been more than forthcoming in
2 explaining the manner in which they approach this
3 subject and why they think they've made an adequate
4 provision in the financing for this. And I would
5 submit that that's fair enough, and I would resist the
6 same information, or the information is now requested
7 even if it's going to the board in confidence, for the
8 same reason.

9 MR. ANDREWS: Briefly, this EPA review raises a very
10 substantial public policy issue about the treatment of
11 greenhouse gas liability, in that it has gone from
12 being officially in the public realm through B.C.
13 Hydro, to being in a private realm in the hands of
14 Duke Point Power. And the Commission by directing an
15 appropriate greenhouse gas liability cost in the VIGP
16 benchmark has entered the field of the appropriate
17 financial treatment of that issue.

18 And my suggestion is that on a public
19 policy basis the Commission will have to grapple with
20 the consequence of developing this physical project
21 through an EPA approach as distinct from an in-house
22 or subsidiary VIEC approach, and that in doing that,
23 the consequences for greenhouse gas liability are
24 relevant to the Commission's broad mandate, and that
25 it is therefore relevant for the Commission to know in
26 confidence, and not to do with any specific numbers

1 but on a directional basis, what the impact of the
2 shift from a CPCN to an EPA has made on dealing with
3 greenhouse gas and its financial consequences.

4 MR. KEOUGH: Mr. Chairman, again I find myself in the
5 position of thanking Mr. Andres for his argument in
6 advance. But I would submit to you that the witnesses
7 have been more than forthcoming on this matter. The
8 commercial agreement puts the obligation with respect
9 to greenhouse gases on the project proponent. I think
10 we could have sort of left it at that and said we have
11 the responsibility and that's the end of it. And
12 that's not the approach that the witnesses have taken.
13 They've been open and forthcoming to explain what's
14 been done. Mr. Campbell has also referred to the
15 magnitude of the financial recourse that will be
16 available if there were such an issue.

17 And I think, Mr. Chairman, whether or not
18 this Commission ventured into the realm of providing
19 direction or advice or whatever you want to call it in
20 the context of a regulated utility, and the
21 responsibilities that utility may have to you, is one
22 thing. But it is quite a different thing for the
23 Commission when you're dealing with a private company
24 that is not regulated by you. And so I think that
25 that has to be factored in, and what you may or may
26 not have done in the context of a public utility

1 regulation, I'm not sure bears much on what you can or
2 should do in the context of a private company
3 developing a project.

4 The commercial arrangements have indeed
5 provided the responsibility for this issue transfers
6 to the project developer, and they've taken that risk
7 and they've explained how they've factored it into
8 their thinking. And Mr. Chairman, I think that's -- I
9 hope been helpful to the record, but I think that's as
10 far as it should go.

11 **Proceeding Time 11:15 a.m. T35**

12 THE CHAIRPERSON: There may be a public policy issue
13 here, Mr. Andrews, but I agree with Mr. Keough, DPP
14 should not be required to provide it even on a
15 directional basis.

16 MR. ANDREWS: Thank you. Thank you, panel, those are my
17 questions.

18 MR. FULTON: Mr. Hague? Okay then, Mr. Hill.

19 **CROSS-EXAMINATION BY MR. HILL:**

20 MR. HILL: Q: A couple of questions around the social
21 responsibility issue. What and how will the local
22 economy benefit from the project in terms of
23 mitigation of the costs in terms of downrange
24 emissions. You're right next door to an island
25 paradise here, and Mudge Island will undoubtedly be
26 detrimentally affected by it, because you really are

1 their next-door neighbours. So, how have you
2 mitigated the costs of property value degradation and
3 that sort of thing?

4 MR. MYERS: A: This project is part of a large
5 industrial park, and the project has gone through the
6 necessary approval processes for construction and
7 operation.

8 MR. HILL: Q: So you don't see any responsibility for
9 the next-door neighbours of that park?

10 MR. SPINNER: A: Oh, we've also included the best
11 available technology on emissions, with SCR, and the
12 emissions from this plant have been evaluated and the
13 result, they're all in the EAC application, and from
14 that there is no net impact. So we've done everything
15 in the plant design to mitigate emissions from this
16 plant.

17 MR. CAMPBELL: A: Yeah, I -- just to be clear. We
18 understand the EAC process that went on for this
19 project was one of the most extensive that's ever been
20 conducted in this province. The amount of
21 consultation and review, further than almost any other
22 project that has been reviewed, to make sure all
23 stakeholders' interests were heard, understood, and
24 where possible, factored into how that project is
25 built.

26 Mr. Spinner noted that the project has

1 selected catalytic reduction on the emissions. I know
2 it also has dry low NOx burners before it ever even
3 gets to that point, all specifically focused on trying
4 to make sure that this has the minimum impact. My
5 visit to this site, it almost sits in a valley where
6 it's hard to see -- a depression, I think would
7 probably be a better description. Right beside, you
8 know, what is an industrial park, a large industrial
9 facility. The noise guidelines are amongst, if not
10 the most stringent, that we are familiar with. And we
11 have a fair background in putting together such
12 facilities.

13 So every effort has been made to recognize
14 the stakeholders' interests and concerns about the
15 plant.

16 MR. HILL: Q: Okay, my impression of that EPA was that
17 the standards were changed during the process, and
18 were in fact reduced during the process of that EPA.
19 But that's for a --

20 MR. SPINNER: A: Which standards are you referring to?

21 MR. HILL: Q: The environmental protection standards.

22 MR. SPINNER: A: No, I don't believe they were. The
23 AAC that was issued to B.C. Hydro is identical --

24 MR. HILL: Q: Well, that's for argument, anyway. As
25 you proceed through the project, there would be
26 contracts let. Have you had any consideration as to

Proceeding Time 11:20 a.m. T36

25 The construction contract involves -- I
26 think we've stated approximately peaking 200 jobs at

1 the peak of construction. We've already stated
2 publicly that there is millions of dollars of benefit
3 locally to Nanaimo and the region as far as jobs go,
4 and ongoing and operational labour that we plan to
5 have 16 to 18 people at the site, permanent jobs. And
6 that's also substantial millions of dollars for the
7 next 25 years. So, and then there's property taxes
8 that we will owe to the City of Nanaimo ongoing, which
9 I think are estimated at \$2 million a year minimum
10 over 25 years.

11 So the financial benefit to the community
12 and the region is substantial.

13 MR. MYER: A: And I think we've always -- this is a
14 major industrial project with specialized components
15 that are manufactured elsewhere. That's just the
16 nature of what we do. So the manufacturing would
17 occur in different places in the world. But it's not
18 all that feasible to prefabricate this project. The
19 major components arrive on site and are built on site.

20 So our prime contractor will be making a
21 significant draw from the skilled construction
22 workforce on the Island, and also from local
23 subcontractors. It just simply makes sense. We'll
24 always find that local subcontractors will be more
25 competitive as we go through our process.

26 MR. SPINNER: A: And just to answer your first comment

1 about Calgary type project, there's -- other than us
2 there's no other parties that are from Alberta, so --
3 MR. MYERS: A: Well, if I can add to Mr. Spinner's
4 comment because it struck a chord with me as well.
5 This group was responsible for the development
6 construction, early stage of operation for Island Co-
7 generation Campbell River. We've been affiliated with
8 companies in British Columbia for a very long time.
9 Mr. Campbell here has been involved in a number of
10 other facilities in British Columbia when he was with
11 Westcoast Energy. So the fact that we live in Calgary
12 I think is a mere detail.
13 MR. HILL: Q: Okay. Subject to price risk on the fuel,
14 you did extensive studies around the greenhouse gas
15 risk. If you were to take on the price risk on fuel,
16 how much of a premium would you add to the fuel costs?
17 MR. CAMPBELL: A: Before you can even get there, sorry
18 -- before you can even get there, as a dispatchable
19 plant you don't know what your volumes are. So you've
20 got to know what your volume is before you purchase or
21 even contemplated a fixed-price long-term contract.
22 Maybe I skipped ahead there. You would have to, as a
23 private company, would have to buy the gas ahead at a
24 fixed price to even contemplate this, and you can't do
25 that if you don't know your volumes.
26 MR. MYERS: A: If I could add a point relating to the

1 operation of this project, if I understand B.C.
2 Hydro's intentions on how they operate this project,
3 you never have gas price risk. You only operate the
4 project if Hydro's experts and their experts of their
5 affiliate Powerex say that it makes economic sense to
6 run the project. And then the beauty of this thing is
7 that then you go out and only buy the amount of fuel
8 you need.

9 MR. HILL: Q: Well, they say they're operating at 80
10 percent of the time.

11 MR. MYERS: A: Well, I think that's based on a forecast
12 and when Hydro would need it to offset other
13 purchases, again to offset a situation where they need
14 to spend more money on generation.

15 **Proceeding Time 11:20 a.m. T37-39**

16 MR. HILL: Q: So you figure their price is pretty good,
17 that there is no price risk. If you were going to
18 take on the fuel costs of this project, then you'd
19 charge about what -- you'd figure they've just about
20 hit the nail here.

21 MR. SPINNER: A: If I have a group of professionals
22 doing their job on a daily basis, there is no price
23 risk. They're always avoiding a megawatt hour
24 somewhere else that would have cost more.

25 MR. HILL: Q: And that's going to occur 80 percent of
26 the time.

1 MR. SPINNER: A: According to B.C. Hydro's forecast.

2 MR. HILL: That's all my questions, thank you.

3 MR. FULTON: Mr. Steeves.

4 MR. STEEVES: Good morning, Mr. Chairman. I did it once
5 more to myself. I left my respective IR at home and I
6 have to do this from memory.

7 **CROSS-EXAMINATION BY MR. STEEVES:**

8 MR. STEEVES: Q: In the documentation, the notation
9 that B.C. Hydro gives, I believe my submission under
10 their filing would be C-1.2, and this would be the
11 second question that I submitted, and with regards to
12 this question, the reply that I received from B.C.
13 Hydro was just a short, very terse paragraph, and they
14 referred me to two sources. And in the second source,
15 from what I recall in my memory, is there is a page in
16 the documentation listing out the requirements of the
17 equipment, and in the requirements they use the
18 expression "proven technology", and I believe the
19 definition they stated was three examples of equipment
20 installation in operation for three years, if I
21 remember correctly.

22 And the question I have to the panel today
23 is, your definition of proven technology, what would
24 that be?

25 **Proceeding Time 11:27 a.m. T40**

26 MR. SPINNER: A: I can answer that question. Part of

1 the pre-qualification for the CFT, we were asked by
2 the Call For Tenders to provide reference plants, and
3 those are the plants you're referring to. All three
4 of those plants had gas turbines which were similar,
5 if not identical, to the gas turbine that we're
6 proposing here. The plants have been running, they're
7 fairly new plants, but they have been running for at
8 least three years.

9 This type of gas turbine technology that
10 we're proposing has been around for approximately 10
11 to 12 years. It's the most populated gas turbine in
12 the world, as far as number of units. And we consider
13 it, because of those facts, a proven technology.

14 MR. STEEVES: Q: Okay. Two questions. One would be,
15 first of all, going back to the original VIGP study,
16 and second question is related to the concept or
17 possibility of this change to the dual fuel system.

18 Going back to the original -- first of all,
19 going back to the original Vancouver Island Generation
20 Project, in the environmental assessment report, in
21 the very first page, they stated the equipment would
22 be "state of the art". And now we have, in the
23 description that has just been given, technology that
24 has been in place for ten years, as proven technology.
25 That's been a sort of a very drastic depreciation from
26 the description of this equipment. And I'm thinking,

1 well, is this really adequate for our situation here?
2 Can we not get by with a 230 kV cable, which would be
3 proven technology as well? And a 230 kV cable as has
4 been stated by Mrs. Mary Hermensing [ph. sp.] She was
5 saying that this technology has been in place for 50
6 years. Now, 50 years ago, I'm sure the cable would
7 have been proven -- or, not proven technology, but
8 state of the art. And today, it would be proven
9 technology.

10 So is there any advantage, really, of
11 having a combined cycle tech -- gas turbine
12 technology, if it's this proven technology, vis-à-vis
13 a 230 kV line? They're both proven technology. So
14 there's no real advantage to having either one, in
15 that sense. So that's my point there.

16 And then secondly, with regards to the dual
17 fuel system, my question to the panel would be, is
18 this a proven technology? What examples do you have
19 of a dual fuel system? Are those in place? And have
20 they been running for three years?

21 MR. SPINNER: A: In fact, those three plants that you
22 referenced, I believe at least one if not two of them
23 were dual fuel plants, and they have been running for
24 three years, so I would say, yeah, dual fuel is a
25 proven technology.

26 MR. STEEVES: Q: And if you do go this route, the

1 retro-fit requirement involved here, who would you be
2 having doing this job?

3 MR. SPINNER: A: That would have to be done by the gas
4 turbine vendor on the gas turbine itself. And the
5 auxiliary systems involved would be done by a
6 construction contractor and equipment vendor.

7 MR. STEEVES: Q: And how long would this take?

8 **Proceeding Time 11:31 a.m. T41**

9 MR. SPINNER: A: The actual retrofit on site? It could
10 take up to two to three weeks and would require a
11 shutdown of the plant.

12 MR. STEEVES: Q: And all engineering specifications
13 would be available to you to get it done within the
14 time period?

15 MR. SPINNER: A: Well, you'd have to do a lot of
16 engineering time ahead of time. That would only be
17 the actual work on site once you had all the parts and
18 the design and the equipment ready. That's the way
19 you work on the gas turbine.

20 MR. STEEVES: Q: When you say "ahead of time", how much
21 time? We have a deadline here now of two years, and
22 if you have to do engineering requirements for the
23 natural gas-fired gas turbine, will it not take a
24 considerable amount of time?

25 MR. CAMPBELL: A: I'd like to make very, very clear,
26 Duke Point Power has not discussed dual firing with

1 B.C. Hydro or anyone else, right now has no plans,
2 intent, has not discussed, has not reviewed, as Ken
3 has pointed out. So really all we were is reacting to
4 evidence earlier in the week. Right now we are
5 building a natural gas-fired only facility at Duke
6 Point.

7 MR. STEEVES: Q: All right.

8 MR. CAMPBELL: A: Yeah.

9 MR. STEEVES: Q: All right, then that's all I have.
10 Thank you very much.

11 MR. FULTON: That concludes the questions other than the
12 staff questions, Mr. Chairman, and the staff questions
13 have been covered by the people in front of me.

14 THE CHAIRPERSON: Thank you.

15 COMMISSIONER BOYCHUK: Good morning, panel. Just one
16 follow-up question with respect to the transfer of the
17 material permits. Mr. Williams raised that with you a
18 little earlier this morning.

19 I understand the evidence on the record so
20 far, B.C. Hydro has indicated that either it or you
21 have had discussions with the appropriate authority or
22 ministry that issues these permits?

23 MR. SPINNER: A: Yeah, we've had preliminaries --

24 COMMISSIONER BOYCHUK: I'm talking about the
25 environmental assessment certificate, to be specific.

26 MR. SPINNER: A: Right. Yeah, we've had preliminary

1 discussions with the assessment office about -- and
2 we've obviously reviewed the EAC quite in detail.

3 COMMISSIONER BOYCHUK: And in terms of the discussions
4 you've had, you're confident that the approach that
5 has been taken, and that is that on the completion of
6 this deal that if the certificates will be transferred
7 to Duke Point Power, you're satisfied that that will
8 go through, there was no concerns raised?

9 MR. SPINNER: A: We don't have any concerns. Maybe I
10 should detail how from our side, once that transfer
11 happens, what we believe our advisors are telling us
12 have to happen.

13 COMMISSIONER BOYCHUK: That might be helpful, thank you.

14 MR. SPINNER: A: I think it's already been indicated
15 that the VIEC shares will be transferred to Bastion
16 Island Power, and once that happens we will amalgamate
17 VIEC into Bastion Island Power, and we don't consider
18 that a transfer. That's just an amalgamation that
19 happens in the business sense.

20 The EAC will reside as part of the assets
21 in Bastion Island Power, but it's also viewed that
22 it's a beneficial interest in that entity. And as per
23 the EAC requirements, when we have a beneficial
24 interest like that we are pretty well confirmed that
25 we need a consent of the Minister's on that. And so
26 that's the next step that happens after the VIEC

1 transfer into Bastion Island Power.

2 **Proceeding Time 11:35 a.m. T42**

3 COMMISSIONER BOYCHUK: Thank you.

4 Just a quick question and follow-up to one
5 of the Commission Information Requests. It was asked
6 -- I'm having trouble to find the request. The
7 question had to do with your view of what we should be
8 looking at in terms of this process, and the question
9 went along the lines of whether the actual terms and
10 conditions of the CFT were irrelevant. And you had
11 answered that no, that wasn't the case. But it's
12 suggested that we could use this process to provide
13 further commentary on bids going forward.

14 And Mr. Campbell, you may recall, you and I
15 had a little bit of a similar conversation during the
16 revenue requirements proceeding.

17 MR. CAMPBELL: A: Yes. Guilty.

18 COMMISSIONER BOYCHUK: And I'm just wondering -- what did
19 you say?

20 MR. CAMPBELL: A: Guilty.

21 COMMISSIONER BOYCHUK: Guilty. I'm just wondering -- I
22 raised this with B.C. Hydro before that -- and I think
23 it was with respect to Panel 2; the question of, if
24 the Commission were to, at the end of this process,
25 find that the terms, for instance, that there was
26 resource option bias in the design of the CFT and want

1 to approve the -- not to approve, we weren't to accept
2 the contract as filed, we could use a process to
3 provide direction to B.C. Hydro on a going-forward
4 basis. And I understand your position would be that
5 we should be honouring the market-based approach. I
6 think that's through the -- through your evidence.

7 Where I'm going with this, Mr. Campbell, is
8 do you -- I appreciate that you are here as a
9 successful winner in the CFT process. But do you see
10 as well that there could be some -- even if we were
11 not to accept the contract as filed, some benefit
12 going forward in terms of what we might rule on or
13 say, and provide direction with respect to B.C.
14 Hydro's future bidding processes?

15 MR. CAMPBELL: A: Without question, there's a learning
16 experience here. The comment wasn't conditioned on a
17 decision one way or another. In my experience, the
18 whole issue of having BCUC oversight of B.C. Hydro is
19 an evolving, relatively-new phenomenon, and we all
20 have to learn very -- as quickly as we can how to get
21 the most out of that. And so again, more commentary,
22 more dialogue, however that can occur between the
23 Commission and B.C. Hydro, to minimize the
24 uncertainties of process, is going to get more
25 competitive bids and more action from the North
26 American IPP community in providing power supply.

1 I don't think I'm speaking out of context
2 to note that B.C. is coming from a position of a
3 somewhat tarnished reputation within the North
4 American community. I think this -- the steps over
5 the last few years have gone a long way towards
6 improving that, but we always have a lot to learn. So
7 again, the comment was not one premised on a decision
8 one way or another, it's just a note, something that
9 needs -- that should occur. On an ongoing basis, and
10 I'm sure everybody accepts that.

11 COMMISSIONER BOYCHUK: Okay, thank you, Mr. Campbell.

12 Yes, that's helpful. I know it was sort of a
13 difficult question to raise to you, I appreciate that
14 you were the successful proponent in this CFT outcome,
15 but I did want to discuss that with you.

16 MR. CAMPBELL: A: I appreciate your asking the
17 question. I mean, I'm part of the successful
18 proponent in this process, but I've also been part of
19 this community for a long time, and have a certain
20 interest in seeing this process work much broader than
21 what we're doing here. And I remain committed to the
22 fact that it's dialogue that's going to get it there.
23 And --

24 MR. MYERS: A: May I add something? I haven't spent a
25 lot of time with processes in British Columbia, and I
26 always state things from the perspective of our

1 investors, because we went -- had to go out and build
2 an investment group for this project.

3 **Proceeding Time 11:40 a.m. T43**

4 And I think what we saw was a very clear -- out of the
5 VIGP decision; was a very clear statement of need and
6 a very clear mandate to run a market-based process.

7 So, but those are the kinds of things that
8 we signed off on at the outset. And if I understand
9 some of the testimony from Ms. Hemmingsen, it would
10 appear in hindsight we weren't that close to things,
11 but it would appear that perhaps that hadn't been
12 fully signed off on going forward.

13 So we looked at a clear definition of need,
14 said this is a tight market-based process and we
15 should move forward on this basis. And I think what
16 we're seeing in this proceeding is something that is
17 broader than the scope that we had anticipated.

18 COMMISSIONER BOYCHUK: Yes, that seems to be quite clear.

19 Thank you.

20 THE CHAIRPERSON: I have no questions. Any re-
21 examination, Mr. Keough?

22 MR. KEOUGH: No, thank you, Mr. Chairman.

23 THE CHAIRPERSON: Thank you. You're excused. Thank you.

24 (PANEL ASIDE)

25 MR. KLEEFELD: Good morning, Mr. Chair and Commissioner
26 Boychuk. I have a procedural suggestion here that may

1 end up using about 15 minutes today but will hopefully
2 result in some more efficiency either today or
3 tomorrow.

4 While I've been relaxing here listening to
5 the discussion, Mr. Sanderson is furiously working
6 away in another room trying to finalize some more
7 filings. In addition to that, I believe that B.C.
8 Hydro and Commission Counsel have either reached an
9 agreement or are within millimetres of reaching
10 agreement on the issue raised this morning about your
11 additional redactions to the transcript, and will
12 probably be able to speak to that. And then of course
13 we're still waiting to hear from Mr. Carpenter. I had
14 a sidebar with him a few minutes ago. He hadn't heard
15 anything yet, although he can update you himself as to
16 what's going on with BCTC.

17 I'd like to suggest that we take 15 to 20
18 minutes' adjournment and then come back and deal with
19 all these things.

20 THE CHAIRPERSON: Yes, I'm prepared to do that. I would
21 like to -- no, I'll return to it. Let's take 15
22 minutes.

23 **(PROCEEDINGS ADJOURNED AT 11:42 A.M.)**

24 **(PROCEEDINGS RESUMED AT 12:00 P.M.)**

T44

25 THE CHAIRPERSON: Please be seated.

26 Mr. Fulton.

1 MR. FULTON: Yes. In terms of the transcript of the *In*
2 *Camera* session, Mr. Chairman, we have reached an
3 agreement on the terms of that transcript in the sense
4 that Mr. Sanderson and I had already reached
5 agreement. You had mentioned that you had a couple of
6 additional deletions. In fact, when I looked back at
7 my working copy of the transcript, your deletions had
8 already been made by Mr. Sanderson and I, and it was
9 my note that was causing some confusion. So the
10 transcript -- the working copy of the transcript that
11 we've had contains yellow highlighting. All that
12 yellow highlighting was done by myself and Mr. -- in
13 agreement with Mr. Sanderson.

14 There was, however, one add-back to the
15 transcript as redacted by the Hearing Officer, and
16 that was Commissioner Boychuk picked up a reference to
17 Ms. Hemmingsen as the responsible person for the
18 answer had been deleted, and so we've added that back.
19 So the Hearing Officer now has the necessary
20 instructions to finalize the redacted transcript so it
21 can be made available to everyone.

22 THE CHAIRPERSON: Thank you, Mr. Fulton.

23 MR. FULTON: And I probably should say the areas of
24 redaction, Mr. Chairman, so people will know the type
25 of information that was redacted. And the information
26 that was redacted related either to the disclosure of

1 the names of parties or projects or rankings in one
2 category, and the second category was information that
3 might affect the negotiating -- the future negotiating
4 positions of any parties in the event that there were
5 future negotiations.

6 **Proceeding Time 12:02 p.m. T45**

7 THE CHAIRPERSON: Thank you. I might add that the *In*
8 *Camera* session -- this is for everyone's benefit. The
9 *In Camera* session was dealing with one of many issues
10 that are before this proceeding. I think that's all I
11 really need to say.

12 Mr. Sanderson.

13 MR. SANDERSON: Mr. Chairman, I'm assuming that we're
14 moving on to procedural issues other than that.

15 THE CHAIRPERSON: Yes.

16 MR. SANDERSON: And in that connection, Mr. Chairman,
17 I've got one more filing to make. This is one asked
18 by Commission Staff and I think it occupied a
19 significant number of pages of the transcript, and
20 those occur at Volume 8, pages 1659 to 1663. At the
21 end of the discussion that was going on between Mr.
22 Fulton and Mr. O'Riley, there was acknowledgement it
23 would be useful for the witnesses to speak with
24 Commission Staff directly to make sure that we got
25 this in the form that was required.

26 I hope that we have succeeded in doing

1 that, and it's basically a request for market heat
2 rate plots for select B.C. Hydro forecast and market
3 data as requested by staff. And if that could be
4 Exhibit B-81, and I believe Mr. Bemister has
5 circulated that to the Commission.

6 THE HEARING OFFICER: Marked B-81.

7 (RESPONSE TO INFORMATION REQUEST AT TRANSCRIPT VOLUME
8 8, PAGES 1659 TO 1663, MARKED AS EXHIBIT B-81)

9 **Proceeding Time 12:05 p.m. T46**

10 MR. SANDERSON: Mr. Chairman, the only other things I
11 have is that we're having a list made, which we'll
12 have available later today, maybe I'll distribute it
13 first thing in the morning, of our log of outstanding
14 IRs and the status of any that remain. So I'll either
15 have them to file -- what I've done is sort of stopped
16 piecemeal filing beyond this one, and I'll try and
17 file a number first thing tomorrow morning and, as I
18 say, give a final report on what, if anything, is
19 outstanding at that point.

20 **Proceeding Time 12:05 p.m. T47**

21 The only other thing is, on the schedule
22 there is a day for rebuttal testimony of B.C. Hydro.
23 I do anticipate that there may be rebuttal, and
24 normally I might wait until the relevant cross-
25 examinations had occurred to confirm that, but because
26 of the time involved, and I want to make sure people

1 have a chance to review it, I'm going to circulate it,
2 I hope tonight, electronically to the parties. I'm
3 going to reserve the right not to call it, if in fact
4 after cross-examination it proves unnecessary. But
5 nevertheless, I do want parties to have as much time
6 as possible to see it, and if they have cross-
7 examination on it, should I call it, then I want them
8 to have preparation time.

9 So, I will be endeavouring -- I will not be
10 filing as an exhibit until much later, but I want to
11 circulate it to the parties. So, hopefully that will
12 occur tonight.

13 THE CHAIRPERSON: Are there any objections? I wonder,
14 Mr. Sanderson, if it isn't -- and maybe your comment
15 that it not be filed as an exhibit in fact is the same
16 as this, that it not be made available to the panel.

17 MR. SANDERSON: Mr. Chairman, I was not intending to do
18 this, to make it available to the panel. I think it
19 would be inappropriate. The only -- no. In fact, I
20 may very put parts of it to witnesses, but if I do
21 that, in cross-examination, I won't rely on the
22 document, I'll simply put the propositions inherent in
23 the document to the witnesses, they'll all be on the
24 record, and make the decision as to whether it needs
25 to be filed thereafter.

26 THE CHAIRPERSON: Thank you. And then the only

1 additional comment I will make, and it's really to
2 seek advice as to whether or not there's a threshold
3 that needs -- that you need to meet in order to in
4 fact call rebuttal evidence.

5 Is it a matter of right for you to call
6 rebuttal evidence, or is there a test that's
7 applicable to whether or not you have that
8 opportunity?

9 MR. SANDERSON: My respectful submission will be that it
10 is a matter of right, provided that it is properly
11 rebuttal. And that the issue that arises from time to
12 time is, is this rebuttal? And it will be my
13 responsibility to demonstrate that it is. But if it
14 is proper rebuttal, then my position would be that,
15 yes, we ought to have a right to file it. Just to --
16 you know, in the structure of this proceeding, where
17 it's the report that Hydro has put in which has been
18 the focus and the subject matter, there have been
19 certain criticisms made of that, and if rebuttal
20 testimony will help contextualize those criticisms,
21 then that's a legitimate thing for us to be doing.

22 THE CHAIRPERSON: Is there anyone who disagrees with Mr.
23 Sanderson? Thank you.

24 Mr. Carpenter?

25 **Proceeding Time 12:08 p.m. T48**

26 MR. CARPENTER: Mr. Chair, we were able, after

1 significant effort, to get in touch with Mr. Barrett.
2 He has now advised us that he has been able to make
3 arrangements to get back here. Currently he expects
4 to be able to be here for 2 o'clock. Given,
5 obviously, uncertainties with flights, that may not
6 happen exactly at 2 o'clock, but that's the
7 expectation based on the scheduled flight coming back.
8 And that's all the information that we have.

9 So I would suggest that we plan on
10 proceeding at 2:00 but recognize that there may be
11 some slight flexibility at that point that's
12 necessary, just in terms if there's a short delay.

13 THE CHAIRPERSON: Thank you. Mr. Carpenter, I appreciate
14 you making that effort. We did change panels so that
15 your panel could appear tomorrow morning. I also
16 said, following that comment, that if we were ahead of
17 schedule that the panels should be ready to appear
18 earlier. But I do have some sympathy with your
19 circumstances, because in part we changed the order of
20 the panel so your panel could appear tomorrow, and
21 it's going to be called earlier than that. So I
22 appreciate the effort that you've made to have your
23 panel here.

24 MR. CARPENTER: Thank you, Mr. Chair.

25 MR. WEISBERG: Mr. Chairman, could I just ask for you to
26 clarify your intentions regarding the appearance of

1 Green Island's panel, in terms of the timing?

2 THE CHAIRPERSON: I'll -- because I have it handy, I will
3 read to you my comment in Volume 6, page 1055, line 5.
4 I'll read it to you, you don't need to get it. It
5 will be clear enough.

6 "I guess I should also add, if we are ahead
7 of schedule, that will be to my surprise and
8 to everyone's else's surprise, but if we are
9 ahead of schedule, then the panels will be
10 expected to appear when we are ready to hear
11 from them."

12 And I intend to proceed without any down time, as best
13 I can, even on Saturday.

14 So I'm glad you're raising the issue --

15 MR. WEISBERG: Mr. Chairman, I don't want to cut you off,
16 but I think you may be anticipating an issue that I'm
17 not raising. Earlier in this proceeding, I indicated
18 that there was a witness, that's Mr. Peter Sager, that
19 he simply will not be able to attend, whether it's
20 today or tomorrow. We will try to accommodate cross-
21 examination with the panel, that we're able to field.

22 What I did want to say was that this
23 morning, when it became apparent that things were
24 moving much faster than anticipated, I stepped out of
25 the room and had calls placed to Mr. Ed Net, who's in
26 Bellingham. He's on his way. Mr. Morrow is in

1 Edmonton. I'm not sure of his status, he's moved up
2 his flight, he had a flight to arrive at 3 o'clock but
3 he got an earlier flight. I believe he's in Vancouver
4 but I don't know where at this moment. We're trying
5 to get him here.

6 I just wanted an indication from you, if we
7 would proceed with the Green Island panel this
8 afternoon, if BCTC completes at a given stage, I think
9 it's clear that you do want to. I want to assure you
10 I've done everything I can to have my panel in place
11 here.

12 THE CHAIRPERSON: So you're --

13 **Proceeding Time 12:12 p.m. T01A**

14 MR. WEISBERG: Are you intending to close the proceedings
15 at a given hour or -- my panel will be ready to
16 proceed this afternoon. It's helpful if you give me
17 some direction if you intend to sit late, to
18 accommodate their appearance, or if it's still your
19 intention to sit tomorrow.

20 THE CHAIRPERSON: Mr. Sanderson?

21 MR. SANDERSON: Mr. Chairman, I don't -- before we
22 resolve that, I don't know if this helps, but it does
23 seem to me that we are ahead of schedule, and looking
24 at what's coming up, we've got Norske and JIESC for
25 Monday and Tuesday, we have the best part of a day for
26 Norske and a full day for JIESC.

1 On the assumption that the only parties
2 that will be cross-examining those panels are likely
3 Duke Power and B.C. Hydro, in addition of course to
4 the Commission and its staff, I think I can say, at
5 least from my conversation with Mr. Keough, that the
6 time allotments there are more than adequate. And so
7 that that being the case, if we're on schedule, that
8 is, through GIE or whenever we break tomorrow, we
9 should be fine, at least from my understanding of the
10 schedule.

11 And for that reason, I guess from my
12 perspective there isn't a reason to sit late tonight.
13 And there isn't a reason to bring in panels once we're
14 through GIE tomorrow. If that works. And if on the
15 other hand GIE would rather go tonight, that's also
16 fine, I'm not taking a position on that one way or the
17 other. But I guess I am saying that I don't see a
18 need to accelerate the schedule beyond what we'd
19 planned to get done this week. I think that's the
20 bottom line of what I'm saying.

21 MR. WALLACE: From my point of view, Mr. Chair, I simply
22 need direction, because we're clearly -- we've leaped
23 ahead a full day in terms of the potential appearance
24 of my panel. I need to know how to allocate time
25 between the hearing room and meeting with them.

26 THE CHAIRPERSON: So you have a preference?

1 MR. WALLACE: I think it depends on how long the BTC
2 panel goes. If it went to 4 o'clock, or close, then
3 my preference would be tomorrow.

4 THE CHAIRPERSON: Okay. Let's then start your panel
5 tomorrow morning at 8:30. Mr. Sanderson, if we're
6 ahead of schedule, I think the time is well spent
7 during the argument phase, and so if it -- if we're
8 finished earlier than next Friday, I think there's
9 significant benefit for everyone, but particularly the
10 Commission panel, in terms of the length of time that
11 you have for your argument.

12 So, I would like to start Norske tomorrow
13 afternoon, assuming that we're going to get through
14 Green Island tomorrow. So I think Norske should be
15 ready to appear tomorrow, and I think unless there are
16 any objections to this, we can commit to JIESC that
17 they won't be on until Monday morning.

18 MR. WEISBERG: Thank you. Mr. Chairman, thank you for
19 that clarification.

20 THE CHAIRPERSON: Okay.

21 MR. FULTON: It would help me, Mr. Chairman, in terms of
22 scheduling for the other intervenors who are presently
23 scheduled for the 27th, if those other intervenors who
24 are not specifically named in the schedule could tell
25 me whether or not they wish to come and give evidence,
26 and then I will be able to canvass the other

1 participants to see whether or not there's any desire
2 for cross-examination of those other intervenors, in
3 which case, if there is not, then we would presumably
4 save some more time on the schedule as well.

5 **Proceeding Time 12:16 p.m. T2A**

6 THE CHAIRPERSON: Thank you, Mr. Fulton, and I will add
7 to that. Advise Mr. Fulton as soon as you are able
8 to, if you intend to present a panel, but no later
9 than the end of the day on Monday. If you're later
10 than the end of the day on Monday, you will be
11 forfeiting your opportunity to appear as part of the
12 other intervenors that are shown for June 27th --
13 January the 27th.

14 With that, we are adjourned until 2
15 o'clock.

16 **(PROCEEDINGS ADJOURNED AT 12:15 P.M.)**

17 **(PROCEEDINGS RESUMED AT 2:03 P.M.)**

T3A

18 THE CHAIRPERSON: Please be seated.

19 Mr. Fulton.

20 MR. FULTON: Thank you, Mr. Chairman. I have two items
21 -- actually, three.

22 First of all, the redacted transcript for
23 the *In Camera* proceedings has now been distributed.

24 Secondly, I received an e-mail this morning
25 from Mary McLennan to the effect that she was going to
26 attend tomorrow to enter an appearance and to formally

1 adopt her evidence and filings with the Commission.
2 From my perspective, unless there is someone who is
3 interested in cross-examining her on her answers or
4 her evidence, I would propose to call her and tell her
5 that it's not necessary for her to come from Gabriola
6 tomorrow for that purpose.

7 THE CHAIRPERSON: Is there anyone who wishes to cross-
8 examine Ms. McLennan? Thank you, then you should
9 phone her.

10 MR. FULTON: Thank you, I'll do that at the break, Mr.
11 Chairman.

12 The final item is -- and anticipating the
13 next panel, I have distributed an order of cross-
14 examination. There is one correction to that order
15 and that is that Duke Point Power Limited Partnership
16 will drop from the first position to the seventeenth
17 position.

18 And I'll now turn the mike over to Mr.
19 Carpenter.

20 MR. CARPENTER: Mr. Chair, Commissioner Boychuk, we do
21 have a witness panel. That wasn't necessarily certain
22 five minutes ago, but we do, and they appear to be in
23 a relative state of dress.

24 Closest to you is Mr. Mansour. He's
25 familiar to the Commission. Seated beside Mr. Mansour
26 is Mr. Barrett.

1 Could I get the witnesses sworn or
2 affirmed?

3 **BRITISH COLUMBIA TRANSMISSION CORPORATION PANEL**

4 **YAKOUT MANSOUR, Affirmed:**

5 **BRUCE BARRETT, Affirmed:**

6 **Proceeding Time 2:06 p.m. T04A**

7 MR. CARPENTER: Mr. Chair, I don't propose that this take
8 very long, but I think for the record perhaps it would
9 be helpful if each of the witnesses did a brief
10 introduction of themselves and their position at BCTC,
11 and perhaps we can start with Mr. Mansour.

12 **EXAMINATION IN CHIEF BY MR. CARPENTER:**

13 MR. CARPENTER: Q: Would you just give a brief overview
14 of your position at BCTC, and your responsibilities.

15 MR. MANSOUR: A: Thank you, Mr. Carpenter. My name is
16 Yakout Mansour, I'm the senior vice-president of
17 system operation and asset management of British
18 Columbia Transmission Corporation.

19 MR. CARPENTER: Q: And Mr. Barrett?

20 MR. BARRETT: A: My name is Bruce Barrett. I'm -- my
21 title at British Columbia Transmission Corporation is
22 manager of major capital programs, and I'm the
23 assigned program manager for the Vancouver Island
24 transmission reinforcement project.

25 MR. CARPENTER: And, Mr. Chair, since BCTC's witnesses
26 were effectively asked to come to the hearing, I don't

1 have anything else for them, and I propose that they
2 simply be available for cross-examination.

3 THE CHAIRPERSON: I will, in that case, then, for the
4 purposes of the record, ask if you can comment on
5 whether or not you were involved in the preparation of
6 the evaluation report of the Norske proposal, the full
7 title is "Evaluation of NorskeCanada Demand Management
8 Proposal as Requested, Page 34 and Reasons for
9 Decision, November 19th, 2004".

10 Were you involved in the preparation of
11 that report?

12 MR. MANSOUR: A: Yes, Mr. Chairman, I am the senior
13 officer of British Columbia Transmission Corporation
14 overseeing all the activities leading to the report.

15 THE CHAIRPERSON: Thank you. And there have been as well
16 Information Requests that have been responded to in
17 this proceeding by BCTC. Were you also involved in
18 the preparation of those?

19 MR. MANSOUR: A: I reviewed them, and I'm aware of
20 them, Mr. Chairman.

21 THE CHAIRPERSON: Thank you. And with that, I think I'll
22 leave it for you, Mr. Fulton, to call the first party
23 to cross-examine this panel.

24 MR. WALLACE: Thank you, Mr. Chairman.

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

26 MR. WALLACE: Q: Mr. Mansour, while I have you under

1 oath, are the reported rumours that you're going to
2 California ISO true?

3 MR. MANSOUR: A: Mr. Chairman, I'm taking the Fifth.

4 MR. WALLACE: Q: You're not down there yet. You're
5 still in Canada.

6 MR. MANSOUR: A: I -- well, since I'm under oath, I
7 have been approached, I have been offered the job, and
8 I am in my final stage of analyzing it.

9 MR. WALLACE: Q: Okay. Well, congratulations on
10 getting the offer, and I hope you stay here.

11 MR. MANSOUR: A: Thank you. Here, you mean here in
12 this room? Or --

13 MR. WALLACE: Q: You're always a very colourful
14 addition, even though your tie today is very
15 conservative for you. I was going to ask under oath
16 whether you'd ever worn such a conservative tie in
17 public before, but --

18 MR. MANSOUR: A: No, I haven't.

19 MR. WALLACE: Q: Thank you.

20 THE CHAIRPERSON: I always thought it was where Mr.
21 Mansour shopped for his ties, but now I'm convinced
22 that he just wears ties better than the rest of us.

23 **Proceeding Time 2:10 p.m. T5A**

24 MR. WALLACE: Q: Thank you.

25 Turning then to more serious matters, if
26 you could turn to the BCTC response to Duke Point

1 Power question 6.1. I gather you got here ahead of
2 your material, so we'll give a second for you to catch
3 up.

4 MR. MANSOUR: A: I was called on very short notice. I
5 will rely on my counsel to refer me to the reference,
6 Mr. Wallace.

7 THE CHAIRPERSON: Can you provide an exhibit number?

8 MR. WALLACE: I'm sorry, I don't -- yes. C6-6. It's
9 Duke Point Power question 6.1.

10 MR. MANSOUR: A: I have the question, Mr. Wallace.

11 MR. WALLACE: Q: Okay. And the question is, and I'll
12 just read the end of the record. It's not a long one
13 and the response isn't a long one either.

14 "Would DPP enhance transmission system
15 reliability on Vancouver Island and/or the
16 Mainland system, and likewise assist BCTC in
17 remaining compliant with WECC/NERC planning
18 and operating standards? If not, why not?"

19 And I take it you were involved or approved the
20 response?

21 MR. MANSOUR: A: Yes.

22 MR. WALLACE: Q: Okay. And the response says:

23 "When operating, DPP would have a positive
24 impact on the transmission reliability on
25 Vancouver Island by increasing reserve
26 capacity under normal operating conditions

1 and by reducing the risk of load shedding
2 under certain severe contingencies."

3 And I'd like to ask you first, with respect to reserve
4 capacity, I take it any generation on the system
5 increases reserve capacity?

6 MR. MANSOUR: A: For the system as a whole, any
7 generation on the system would do so. Generation on
8 the Island would do that only for the Island.

9 MR. WALLACE: Q: Okay. Well, and for the system as a
10 whole.

11 MR. MANSOUR: A: And for the system as a whole.

12 MR. WALLACE: Q: Yes. And then you go on and say:

13 "And by reducing the risk of load shedding
14 under certain severe contingencies."

15 Can you tell me what those severe contingencies would
16 be?

17 MR. MANSOUR: A: Again this is related to load shedding
18 on Vancouver Island, and in this particular case
19 severe contingencies would be loss of one 500 kV line
20 after the de-rated time, I mean zero de-rated time,
21 virtually DC supply to the Island.

22 MR. WALLACE: Q: Okay.

23 MR. MANSOUR: A: That is for planning purposes. For
24 operational purposes, of course, it could be more than
25 that. Any time we have that contingency or higher,
26 with capacity, more capacity on the Island, you would

1 achieve the same benefit.

2 MR. WALLACE: Q: But you're talking of by reducing the
3 risk of load shedding under certain severe
4 contingencies?

5 MR. MANSOUR: A: That's correct.

6 MR. WALLACE: Q: So the severe contingency would be the
7 loss of one 500 kV line after de-rating.

8 MR. MANSOUR: A: Loss of 500 kV line after de-rating,
9 yes.

10 MR. WALLACE: Q: And would the chance of load shedding
11 in those circumstances also be limited to cold periods
12 of the year?

13 MR. MANSOUR: A: The higher chance is during the cold
14 period of the years. But there are times in the
15 summer where one of the 500 kV lines, for example,
16 could be out for maintenance for an extended period of
17 time. And in preparation for the loss of the next
18 one, even when it is not peak, you still need more
19 capacity there to avoid load shedding.

20 MR. WALLACE: Q: Okay, you then go on and say:

21 "It would have no material effect on
22 Mainland transmission reliability."

23 Which makes sense. You then say:

24 "It is not required to maintain compliance
25 with WECC/NERC planning and operating
26 standards."

2 MR. MANSOUR: A: The WECC and NERC standards are more
3 rigid for as much as they impact the security of the
4 interconnection. So a loss of -- a limited amount of
5 megawatts or load on Vancouver Island is not
6 necessarily -- or not highly likely to impact the
7 security of the grade. So NERC and WECC standard is
8 less definitive in this particular circumstance.

10 MR. WALLACE: Q: And I take it then your point is that
11 252 megawatts of generation on Vancouver Island is not
12 required to maintain compliance with WECC and NERC
13 planning and operating standards.

19 MR. WALLACE: Q: Thank you very much. I'd like you to
20 -- actually, I'm not sure if Hydro can provide you
21 with this one, or I can read it to you, in any event,
22 and if you need a copy, I think we can get you a copy.
23 It's BCUC question to B.C. Hydro 1.40.3, and the
24 question is:

25 "B.C. Hydro assumes that temporary
26 generation would be used to provide capacity

1 back up in the Tier 2 scenario."

2 I'm sorry, that's the reference. The question is:

3 "What alternatives did BCTC offer for
4 contingent capacity?"

5 The response is:

6 "BCTC provided information on the following
7 two transmission capacity options: (1)
8 install new 230 kV submarine and overhead
9 transmission circuits from the Lower
10 Mainland to Vancouver Island. The target
11 project earliest in-service date is October,
12 2008. (2), refurbish critical components of
13 the existing HVDC transmission system to
14 increase its operational reliability.
15 BCTC's analysis indicated that the estimated
16 reliability is not sufficient for the HDVC
17 transmission system to be considered as firm
18 capability beyond 2007."

19 Thank you. And --

20 MR. MANSOUR: A: Yes.

21 MR. WALLACE: Q: Now, in BCTC IR response 1.1 to the
22 BCUC, so this is your own response to the BCUC, you --
23 if you could get that in front of you discuss there --

24 MR. CARPENTER: It's the document marked Exhibit 6-2, I
25 believe.

26 MR. WALLACE: Q: It's a fairly thick one.

1 MR. MANSOUR: A: Okay.

2 MR. WALLACE: Q: In response 1.1 there, you actually
3 describe five measures that you have put in place as a
4 contingency plan with respect to that.

5 MR. MANSOUR: A: Yes sir.

6 MR. WALLACE: Q: And I'm wondering, did you discuss the
7 extra measures with B.C. Hydro that are listed in this
8 five, or did you only discuss the two that they
9 mention there?

10 MR. MANSOUR: A: B.C. Hydro, as far as I know, was
11 always aware of those measures.

12 MR. WALLACE: Q: Okay.

13 MR. MANSOUR: A: The measures listed in answering this
14 question.

15 MR. WALLACE: Q: Thank you. Looking at them just
16 fairly quickly, in order, the transmission emergency
17 constraint management process, I take it is a long-
18 term process that's been in place with respect to
19 Vancouver Island?

20 MR. MANSOUR: A: There's a similar project for just
21 about every critical region on the system. It is
22 designed to deal with contingencies of any nature, not
23 just the loss of one component, but could be what --
24 loss of a component following a loss of another
25 component. So, things that are similar to this, they
26 are there for all critical load regions in the

1 systems.

2 MR. WALLACE: Q: Okay. With respect to number two, the
3 Vancouver Island transmission reinforcement project --

4 MR. MANSOUR: A: Yes.

5 MR. WALLACE: Q: -- you have indicated that you expect
6 it can be in place by October, 2008?

7 MR. MANSOUR: A: That's correct.

8 MR. WALLACE: Q: And are you relatively confident of
9 that?

10 MR. MANSOUR: A: I will get Mr. Barrett to express my
11 confidence in his one, I guess.

12 MR. WALLACE: Q: Thank you.

13 MR. BARRETT: A: Yes, the answer to that is, we have a
14 reasonably high level of confidence that we can
15 achieve that objective, with all the knowledge we have
16 now of the circumstances.

17 MR. WALLACE: Q: Thank you. Now, you say BCTC believes
18 that it is prudent to proceed with the project
19 regardless of the outcome of the CFT process. Can you
20 elaborate on that?

21 MR. MANSOUR: A: I will take that, Mr. Wallace. If you
22 recall, Mr. Chairman and Commissioner Boychuk, when we
23 testified to you in 2003, generation was a different
24 plant. It was starting with the VIGP, it was followed
25 by another generation after VIGP, it was relying on
26 GSX being there, a considerable gas supply, and two

1 generating facilities. And after that, the
2 transmission would follow.

3 **Proceeding Time 2:20 p.m. T7A**

4 Under this plan we had a lot of time and we
5 were relying heavily on the first generation project
6 that would be in place. Reading and understanding
7 everything that happened since, meaning that GSX is
8 not there and there is no second generation, and the
9 first generator is hardly enough, if any, to replace
10 the firm capacity of HVDC, we had to speed up the
11 transmission schedule to have it ready for the
12 earliest possible date.

13 Looking at what happened to the load
14 forecast since, and even with the VIGP -- or even with
15 the Duke Point Project at its current proposed
16 capacity, there is even shortage in 2007 from a firm
17 point of view. So that's why we thought, well,
18 regardless of whether this project gets approved or
19 not, the 2008 is a critical date to have the
20 transmission line in place. So whether this is
21 approved or not, it would be a matter of -- from a
22 firm point of view, it would be a matter of whether
23 we're deficient in 2007 or 2008.

24 MR. WALLACE: Q: Thank you, sir. Your third item is
25 upgrade of 500 kV cable circuit rating. And I take it
26 that this, depending on how it goes, could increase

1 operational capabilities by 60 to 120 megawatts?
2 MR. MANSOUR: A: That's correct. This is -- again this
3 is one of the -- back to what I was talking about
4 earlier, things that have changed from the 2003
5 timeframe when we testified to the Commission. There
6 are things that have changed on the positive direction
7 and things that have changed in the negative
8 direction. Things that have changed in the negative
9 direction is what I've just talked about, which is the
10 fact that we have only one generator that is proposed,
11 and also we have increase in the load forecast. That
12 is things that are working against us.

13 Things that are working for us, should we
14 have to have a plan to bridge from a time of de-rating
15 the DC to the next project, whether because the
16 project is approved and we're still deficient a small
17 amount or not approved at all, we have been
18 investigating a number of other possibilities, a
19 number of other operational means to mitigate the
20 situation since 2003, and this one is one of them. So
21 this is still under research. The idea is to be able
22 to monitor the temperature of the cable which is in
23 the ocean. The technology is new. There is a
24 reasonable level of confidence that it would work, but
25 not necessarily 100 percent. And if we have those
26 measurements, if the operator under severe

1 contingencies or under emergencies could actually look
2 at the temperature of the cable and determine as to
3 how much exactly the cable can take more, if possible.

4 The estimate right now is -- reasonable
5 estimate is up to 120 megawatts. But as I said, it is
6 not necessarily 100 percent certainty, but is not a
7 zero probability either.

8 MR. WALLACE: Q: Okay. And I note in your response
9 that it was a three-phase project to take a look at
10 this, and Phase 2 was due to be completed in December;
11 and just wondering if you have sort of finalized that
12 result and how it's going from that sense.

13 MR. MANSOUR: A: I have checked as recent as yesterday
14 on the progress of this research. There is a
15 confidence in the technology, the technology -- the
16 measurement technology. There is confidence in that.
17 There is confidence that there would be increase, some
18 increase. There is some work still to be done to
19 assess how much actually overheating will happen to
20 the cable, if you overload the cable for many hours.
21 So if it is for a short period, an hour or two, we're
22 reasonable confident. If it is for longer, let's say
23 five or six hours, that we still have to do work on.

24 So all I'm saying is, so far there is
25 progress and there is a reasonable level of optimism.

26 MR. WALLACE: Q: Okay, and to put it in another way, so

1 far it looks promising?

2 MR. MANSOUR: A: It looks promising.

3 MR. WALLACE: Q: Thank you. Was B.C. Hydro aware of
4 the work you've been doing in investigating this?

5 MR. MANSOUR: A: Well actually, this came actually in a
6 B.C. Hydro IR in our capital plan. So B.C. Hydro
7 asked us as an IR in the Capital Planning process to
8 report on the progress of this investigation. So
9 implicitly I take it they're aware of it.

10 **Proceeding Time 2:25 p.m. T08A**

11 MR. WALLACE: Q: Okay, thank you. And next item is
12 HVDC operational reliability improvement, and I take
13 it from that -- or HVDC operational reliability
14 improvement, I take it from that that you are reducing
15 use in advance to stretch the effective life?

16 MR. MANSOUR: A: A combination of a number of things.
17 We are again, just like we said in 2003, we are
18 putting Poll 1 on standby. We load it only when we
19 need to or we have to. So by doing so, we try to
20 extend as much life in it as much as possible. So far
21 we have been successful in doing so. The same with
22 Poll 2.

23 When I testified in 2003, as far as the
24 cables are concerned, we reported that cable number
25 five, one of the cables of the HVDC cable, had a
26 failure, and we were about to fix it, if you recall,

1 Mr. Chairman, at that time. That was all we were
2 aware of, and then shortly after we found there was
3 another cable which, cable number nine, that also was
4 shown to be faulty, but we fixed that too.

5 So from a cable perspective, I think we're
6 in reasonable shape. The rest, we have them still on
7 life-support.

8 MR. WALLACE: Q: Okay. But while on life-support, are
9 you going to be able to squeeze another year or two of
10 life out of them?

11 MR. MANSOUR: A: Well, every one of those options, I
12 will just have to accept before I answer maybe your
13 question, Mr. Wallace, I would not leave the wrong
14 impression. Every one of those ones of these
15 mitigating measures, none of them is firm on its own,
16 none of it is, I'm sure, of 100 percent. But that's
17 why I have four or five of them. Each one of them
18 have a capacity or a capability ranging for small to
19 large. In total, if you add them up, you find them
20 that are very big, but if you add every one of them
21 with a lower level of certainty, in combination I can
22 use them for operational purpose with a reasonable
23 level of certainty. But every one on its own is not
24 as good.

25 MR. WALLACE: Q: No, that's very helpful to me. And
26 with -- how much, in terms of megawatts, would you

1 feel you would have available to you with, as you say,
2 a reasonable level of certainty?

3 MR. MANSOUR: A: Can I take my tie off?

4 I mean, if you add -- again, depending on
5 the length of time, so if you, for example, if you add
6 the peak or the maximum of each one of those options,
7 you'll find that the HVDC name plate rating is about
8 600 megawatts. And there's some times when we had to,
9 with it. Norske is providing, but with some
10 restrictions, up to 210 megawatts. The upgrading of
11 the 500 kV could be up to 120 megawatts. And there's
12 some other median [sic] measures. So if you add them
13 up, you're talking about, you know, it's a deceiving,
14 very high number, which is it's like 7 or 800
15 megawatts.

16 MR. WALLACE: Q: Right.

17 MR. MANSOUR: A: But each one of them has a limited
18 level of availability that, if you ask me for the
19 first year, for example, maybe I would be comfortable
20 maybe with 200 megawatts, maybe. Again, not with a 98
21 percent probability, but a reasonable level that I can
22 depend on it. Now, if you leave it for another year,
23 or third year, or so on, then time will work again
24 you. First the HDVC would be older and older, and we
25 all have heard the experts in the last hearing saying
26 that you really, at that time, you're just working

1 against time very much. So you kind of -- as I said,
2 you kind of lose things as you go. But the shorter
3 the period you rely on or bridging time, the more
4 certain I am.

5 MR. WALLACE: Q: So for 2007 you would be comfortable
6 with a reasonable level of reliability, to use your
7 terms, of about 200 megawatts?

8 MR. MANSOUR: A: Reasonable comfort. Not necessarily
9 the usual certain comfort that I do.

10 MR. WALLACE: Q: Right.

11 MR. MANSOUR: A: But reasonable comfort. Like I would
12 sleep six hours instead of two.

13 MR. WALLACE: Q: How many hours do you sleep normally?
14 Thank you, you don't need to answer that.

15 Thank you very much, sir, that completes my
16 questions. Thank you, Panel.

17 **Proceeding Time 2:30 p.m. T9A**

18 MR. BOIS: Mr. Chairman, I only have a couple of
19 questions, surprisingly.

20 **CROSS-EXAMINATION BY MR. BOIS:**

21 MR. BOIS: Q: Mr. Mansour, I appreciate your candour
22 and your frankness in all of your discussions to Mr.
23 Wallace. One of the comments that you made, though,
24 was that the Norske proposal is proposing to provide
25 up to 210 megawatts of capacity on restricted
26 conditions.

1 I think a better way to characterize, and I
2 would ask you to think about this, is the Norske
3 proposal is providing up to 70 megawatts of capacity
4 from Crofton, or 140 megawatts from Elk Falls.

5 MR. MANSOUR: A: In total.

6 MR. BOIS: Q: Is that correct?

7 MR. MANSOUR: A: In total 210, yes, the two of them.

8 MR. BOIS: Q: Right, but I don't think the proposal
9 actually suggests that you can combine the two. I
10 think that the proposal is qualified in the sense that
11 Norske would consider going up to 210. They would
12 have to revisit that. Is that correct?

13 MR. MANSOUR: A: That's correct, sir.

14 MR. BOIS: Q: Thank you.

15 MR. MANSOUR: A: Mr. Chairman, just if -- I have not
16 met the gentleman before, so who are you representing?

17 MR. BOIS: Q: Oh, I'm representing Norske. I'm sorry.

18 MR. MANSOUR: A: Oh, okay.

19 MR. BOIS: Q: And my name is Charles Bois. And
20 actually we have met a couple of times but not enough
21 that we would have this familiarity.

22 MR. MANSOUR: A: I'm sorry.

23 MR. BOIS: Q: That's okay, and I appreciate that
24 because, you know, I don't get here very often.

25 And I just have one other question. From
26 all of the options that you've expressed and you've

1 discussed about in terms of the contingency planning,
2 would you consider the Norske proposal, given that
3 it's coming from an industrial consumer, to be a
4 practical solution to what could potentially be a
5 short-term problem?

6 MR. MANSOUR: A: First let me put on the record the
7 appreciate of BCTC's executives, management and staff
8 to Norske's effort with us. Norske, through the whole
9 process and before, has been a good corporate citizen.
10 They have been up front on whatever they can help
11 with, not just in this but in general. So let me put
12 that on the record first of all.

13 MR. BOIS: Q: Thank you very much.

14 MR. MANSOUR: A: The Norske proposal, when we sat down
15 with Norske and their first impression of what can be
16 helpful, and then we explained to them what the
17 limitations are and whether actually what would need
18 as compared to their limitation, they appreciated that
19 there are certain things they could do with a limited
20 amount. But also after they understood the issues and
21 how fast we need those measures and how often, they
22 expressed willingness to discuss it further with us.

23 MR. BOIS: Q: Yes.

24 MR. MANSOUR: A: So at that time, we did not really
25 say, okay, let us design the systems and the -- all we
26 knew is that Norske is willing to do certain things.

1 On its own is not sufficient, but in combination with
2 other things as I've just explained to Mr. Wallace, it
3 could be helpful.

4 Depending on the circumstances and the
5 outcome of these proceedings, we will then sit with
6 Norske on the details when we are clearer on what is
7 needed.

8 MR. BOIS: Q: Thank you very much.

9 Those are all my questions, Mr. Chairman.

10 MR. FULTON: Green Island? Village of Gold River.

11 **CROSS-EXAMINATION BY MR. LEWIS:**

12 MR. LEWIS: Q: Good afternoon, gentlemen. I'm David
13 Lewis. I'm the Mayor of the Village of Gold River,
14 and I really appreciate you making the effort to get
15 here on short notice.

16 Although I represent the Village of Gold
17 River, as a very small town on the west side of
18 Vancouver Island, we all try and stick together, our
19 communities on the North Island, and one of the key
20 reasons that I've been involved in this process
21 relates to the perceived transmission on North
22 Vancouver Island. Many North Islanders see
23 transmission upgrades as an obstacle to economic
24 development, and the outcome of these proceedings
25 could have a significant impact on those upgrades. So
26 that gives a little context to the questions that I'll

1 be asking.

2 How does the reinforcement or upgrade of
3 the transmission network north of the Sahtlam station
4 fit into your capital plan going forward?

5 MR. MANSOUR: A: Well, first of all you characterized
6 Gold River as a small village. It might be a small
7 village in the generic sense, but for us it's a very
8 important piece or part of the system. It's a great
9 place.

10 MR. LEWIS: Q: Thank you.

11 MR. MANSOUR: A: And I assure you that it has
12 significant attention from us as any other part of the
13 system.

14 **Proceeding Time 2:35 p.m. T10A**

15 The northern Vancouver Island system was
16 built for reasons. It is to supply the northern
17 Vancouver Island. Most of the flow of generation was
18 either a combination of local or from south to north,
19 if you like. But it was primarily supplying load.
20 The voltage level of the facilities were rated to do
21 that, the size of the conductors are rated to do that,
22 and the transmission system is designed to do so.

23 We do acknowledge the factor that the world
24 is changing, and the small village have ambitions, and
25 rightly so. Now, there are -- we see that some
26 potential generation in the north, of significant

1 amount, that now want to build there, and will change
2 the flow from -- in the opposite direction, and also
3 could be in large quantities.

4 We monitor these things continuously. Not
5 just to actually wait until someone tell us for sure,
6 and for certainty, that this is it, and sign a
7 contract. But we're monitoring it very closely to
8 know exactly how realistic it is, and we're not
9 looking for 100 percent. But when we see the signals,
10 when we see the support, when we see the support of
11 not just the Gold River people, but others who are
12 actually going to share those costs of the
13 transmission to be built, we will do so.

14 BCTC, for the first time, established a
15 extensive public planning process, and the first tier
16 of the public planning process is the so-called
17 transmission advisory committee. It's a committee,
18 standing committee, that is designed -- invited to
19 advise BCTC as to how to do and what to do. And these
20 are the kinds of things that we get, in terms of our
21 -- in our seeking consultations. Where are they --
22 what are the economic drivers? Where are the
23 activities. Should -- how early we should build the
24 transmission, what signals do we wait for before we
25 start doing so.

26 As Special Direction No. 9 is very

1 instrumental to do that, it allows us to do a lot of
2 work up front before we actually dig holes and cut
3 trees. The world changing, we are sensitive to your
4 needs and hopefully will do so.

5 MR. LEWIS: Q: Okay, well, thank you very much for your
6 kind words, and I'm sure that will give some definite
7 support to the people in north Vancouver Island,
8 knowing that you're looking out for their interest.

9 As newer and innovative tolling options
10 such as ODOR approved and/or developed, is system
11 capacity going to be considered more and more of an
12 asset, going forward?

13 MR. MANSOUR: A: You are talking about generation
14 capacity? Or --

15 MR. LEWIS: Q: Yeah, just the ability to transfer more
16 electrons. Is that going to be treated more as an
17 asset, because you'll be able to create revenue from
18 the movement of electrons?

19 MR. MANSOUR: A: Well, it is an asset, but let me
20 explain what kind of asset it is. We are limited by
21 how much we collect by our revenue requirement. So it
22 is not the sort of, the more we transfer the more
23 money we make. We're still limited with the revenue
24 requirement.

25 When there are more activities on the
26 system, there are more users to share those costs. So

1 it will be to the advantage of everyone, it will be to
2 the advantage of those who are actually -- the
3 newcomers, who will play the game, and who will trade,
4 and hopefully will have a lot of return in an economic
5 way to the province, and to the business people. But
6 at the same time, it will offset the charge that other
7 users are paying for transmission, because now they
8 have more people to pay for the transmission than just
9 the original ones.

10 MR. LEWIS: Q: Okay.

11 MR. MANSOUR: A: So the answer is "yes," but I had to
12 clarify that.

13 MR. LEWIS: Q: Sure, no, I appreciate your
14 characterization. If transmission upgrades were
15 identified as necessary for one of the portfolios
16 considered in this process, would the upgrade only
17 consider the required capacity for that portfolio? Or
18 would it have been -- would there have been
19 incremental capacity associated with it as well?

20 MR. MANSOUR: A: First of all, let me say that the
21 transmission upgrades associated with the portfolios,
22 the final portfolios, the six portfolios, I believe --
23 there was no need. There was no upgrade needs from
24 that respect, it was very limited. So there was
25 nothing much in there, because the portfolios were
26 either Duke Point by itself, which is south of

1 Dunsmuir so that does not need any intra-Island
2 transmission upgrade, or combination of Duke Point
3 plus some other smaller stuff.

4 So in that respect, you know, it came down
5 to the fact that there wasn't much upgrade needed for
6 those portfolios.

7 **Proceeding Time 2:40 p.m. T11**

8 MR. LEWIS: Q: Okay.

9 MR. MANSOUR: A: But if in a case where there is
10 upgrade needed, so this is where you actually say,
11 "Okay, this is the requirement that I have today," but
12 you always look at the big picture. If you can't
13 capitalize on the fact that you are starting with a
14 certain amount of investment that have specific needs,
15 you don't lose the big picture and the 20 or 30 year
16 plan. If it happens that we would have to build on
17 it, or capitalize on that opportunity and add more,
18 you know, within reasons and subject to the
19 Commission's approval we do so.

20 MR. LEWIS: Q: Okay, so with that hypothetical
21 situation, would the cost that would be associated to
22 that portfolio for the upgrades recognize not only
23 proportionality by project, but also proportionality
24 in the context of the entire capacity that would be
25 used now and be available for the future.

26 MR. MANSOUR: A: It's a case of specific, and there

1 will be times where we actually look at costs and you
2 see what -- you know, you take the total cost and have
3 to share the benefit to the beneficiaries. Some of
4 them are the ones who are in place today, and some of
5 it is our future.

6 MR. LEWIS: Q: Okay. Thank you very much, that's all
7 the questions I have.

8 MR. MANSOUR: A: Thank you.

9 MR. FULTON: Commercial Energy Consumers.

10 **CROSS-EXAMINATION BY MR. CRAIG:**

11 MR. CRAIG: Q: Good afternoon, panel. I just have a
12 few questions. In the evaluation of the Norske
13 proposal, in the conclusions you say:

14 "Moreover, BCTC continues to believe that
15 the long-term solution for Vancouver Island
16 supply should have a combination of on-
17 Island generation and transmission."

18 And the DPP plant you are considering to be on-Island
19 generation?

20 MR. MANSOUR: A: DPP plant is a on-Island generation,
21 yes, but I suggest now that you ask that latter part
22 of the question, when we said we believed that the
23 long-term solution for the Island is combination of
24 generation transmission, we did not mean to indicate
25 that generation means Duke Point. It was just meant
26 to that, it is generation. So we were not necessarily

1 tying Duke Point to that statement. But in general we
2 believe that this is a good approach.

3 MR. CRAIG: Q: Yes, and I wasn't trying to infer that.
4 I wanted to explore whether or not the fact that Duke
5 Point relies on a gas transmission line to the Island
6 makes it similar to a transmission line solution as
7 opposed to an on-Island generation that had no such
8 dependencies.

9 MR. MANSOUR: A: I agree with the statement to some
10 extent. First of all, again, we testified before here
11 in 2003. In answering the first part of your
12 question, "Does generation on the Island provide the
13 same level of reliability as transmission?" and the
14 answer we had on record is, "No, not quite." But it
15 is not too far below but it definitely not the same.
16 That is electric transmission capacity compared to
17 generation capacity.

18 And I've also answered "Is the generation
19 capacity at the modern design reliability level of 95
20 percent or higher is acceptable?" And we said yes.
21 So we are on record as saying so.

22 Now, as it relates to the gas supply, we do
23 not necessarily analyze it in that context. We just
24 analyze it based on what we are promised as the final
25 level of reliability in combination.

26 MR. CRAIG: Q: So would it be fair to say that that's

1 at least a question that should be asked as to what
2 the relative failure rates of a gas line and an
3 electric transmission line might be as it would relate
4 to the value that you might place on on-Island
5 generation, such that the DPP plant being gas supplied
6 might be considered to be not too dissimilar to a
7 transmission line?

8 MR. MANSOUR: A: It would be one of the questions we
9 will ask if we are to rely on a capacity to back up
10 transmission. We will ask that question and probably
11 99 other questions to make sure that the performance
12 is acceptable.

13 MR. CRAIG: Q: Great. Thank you, that is very helpful.
14 BCTC was involved in assessing transmission deferral
15 credits for the second 230 kV line?

16 **Proceeding Time 2:45 p.m. T12A**

17 MR. MANSOUR: A: Second, you mean the one in 2008 or
18 one after that?

19 MR. CRAIG: Q: The one after that.

20 MR. MANSOUR: A: I don't think in BCTC's timeframe we
21 looked at the second 230 kV in detail. We have looked
22 at the first one carefully. If there was an analysis
23 of the second, that would have been probably in the
24 B.C. Hydro plan before BCTC.

25 MR. CRAIG: Q: So that was not something that BCTC was
26 consulted on? Are you aware that there was a deferral

1 credit provided to the Tier 1 proposal for the --

2 MR. MANSOUR: A: Well, what we worked with is the
3 Commission decision to exclude deferral credit
4 associated with the Mainland to Vancouver Island
5 transmission.

6 MR. CRAIG: Q: Correct.

7 MR. MANSOUR: A: From the evaluation.

8 MR. CRAIG: Q: Yes.

9 MR. MANSOUR: A: And when that decision was made, we
10 did not pursue it any further.

11 MR. CRAIG: Q: Okay.

12 MR. MANSOUR: A: We assumed that there was no deferral
13 credit for that part of the system.

14 MR. CRAIG: Q: And that's the case, that there isn't.
15 But I believe for a second 230 kV line there was a
16 deferral credit --

17 MR. MANSOUR: A: From the time the Commission made
18 their decision, we did not consider further any
19 deferral credit.

20 MR. CRAIG: Q: Okay. To the extent that one is
21 assessing a deferral credit out 20 years, when we're
22 looking at the transmission system is it fair to say
23 that there are a very large number of factors that
24 would affect whether or not a transmission line 20-25
25 years out might be required?

26 MR. MANSOUR: A: Well, I don't even know if out of the

1 mathematics, if you're going to get any value on
2 deferring something that's 25 years away, even if you
3 do the exercise.

4 MR. CRAIG: Q: Yes, but could you agree with me that
5 there are a number of other factors that might affect
6 it, other than just the addition of a generation
7 plant?

8 MR. MANSOUR: A: When you look 25-30 years down, I
9 mean, it is difficult to assist right from now with a
10 reasonable level of certainty what would happen then
11 and what technologies are available, and you know, it
12 would become more difficult at that time.

13 MR. CRAIG: Q: And there may well be other assets being
14 added to the system that would make any assessment of
15 that something that you would have to consider if you
16 were going to assign a value to it, by discounting
17 that value.

18 MR. MANSOUR: A: Yeah, true. I mean in answering your
19 question I would say it's true, but let me clarify my
20 answer. It is reasonable and appropriate to think
21 today in 30 years' timeframe with a planning mindset.

22 MR. CRAIG: Q: Yes, absolutely.

23 MR. MANSOUR: A: So what we do today, how does it fit
24 the big picture 25-30 years from now? What is
25 difficult to know, what would I do 25 years from now
26 under the circumstance? I can evaluate what is needed

1 25 years from now today, but not 25 years from now at
2 what is needed then. That's more difficult.

3 MR. CRAIG: Q: Okay, I think that's very helpful and
4 confirms the point that I'm looking for. Thank you.

5 You referenced on the 500 kV circuit
6 potential uprating, that there was research going on.
7 I wonder if you could just give us some indication as
8 to when that research might be completed?

9 MR. MANSOUR: A: I believe the time is 2006, we will be
10 certain on that amount, and with that time also we
11 kind of -- putting a lot of effort in it and focusing
12 on it so it would be ready before the winter of 2007,
13 tested and ready if appropriate for the 2007 or 2008
14 winter if we have a deficiency.

15 MR. CRAIG: Q: Right. Thank you.

16 When you're describing combining a number
17 of less certain options to give you a higher
18 probability of some amount, not the absolute total
19 that's added together, can you help me with just the
20 math as to how the certainty improves? So if I give
21 you an example, two 200 megawatts with 50 percent
22 probability each for just the one year, if I combine
23 those two situations, what do I look at in the way of
24 an improved probability for just the 200 megawatts?

25 MR. MANSOUR: A: Just let me say, what I'm saying we're
26 comfortable as to what we did. When I say we're

1 comfortable with the combination, we did not get it
2 down to a sophisticated mathematical exercise.

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