

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 2004/05 and
2005/06 Revenue Requirements Application**

and

**An Application by British Columbia Transmission
Corporation for Approval of an Application for Deferral
Accounts**

Vancouver, B.C.
May 27, 2004

PROCEEDINGS AT HEARING

BEFORE:

R. Hobbs,	Chairman
L. Boychuk,	Commissioner
M. Birch,	Commissioner

VOLUME 11

APPEARANCES

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P. COCHRANE	CITY OF NEW WESTMINSTER

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RICHARD MARCHANT, Affirmed:

STEVE HOBSON, Affirmed:

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VANCOUVER, B.C.

May 27, 2004

(PROCEEDINGS RESUMED AT 9:00 A.M.)

THE CHAIRPERSON: Please be seated.

B.C. HYDRO PANEL 3

DENNIS JOSEPH MANIAGO, Resumed:

NICOLA JUDITH WEBB, Resumed:

DANA HARDY, Resumed:

THE CHAIRPERSON: Are there any preliminary matters this morning?

MR. FULTON: Yes, Mr. Chairman. I'll lead off on preliminary matters.

At transcript page 1457 there was a discussion between Commissioner Birch and Ms. Hardy, and Ms. Hardy referred to background information and basis for conclusions relating to Section 31(10) of the Handbook, and there was a suggestion, at least as we took it from the transcript, that that background information and the basis for conclusions was amongst the filed material likely in CD-ROM. But we weren't able to locate it. I now understand that it's not in the filed material. I have spoken to Mr. Webb and I understand that the material that Ms. Hardy was referring to will be filed.

THE CHAIRPERSON: Thank you.

Information Request

1 MR. FULTON: That is my preliminary matter. I'll turn the
2 mike next over to Mr. Christian, who has stood up first.

3 MR. CHRISTIAN: Good morning, Mr. Chairman, panel. We have
4 one document we can file this morning in response to a
5 request made yesterday by Mr. Wallace. That was at
6 Volume 10 of the transcript, page 1552, lines 13 through
7 17. Mr. Wallace asked for any total compensation
8 studies that B.C. Hydro, and we have one here to
9 distribute. It's called the B.C. Hydro Market
10 Compensation Comparison dated May 10th, 2002.

11 MR. FULTON: Exhibit B1-50.

12 THE HEARING OFFICER: Marked Exhibit B1-50.

13 (B.C. HYDRO MARKET COMPENSATION COMPARISON, DISCUSSION
14 DRAFT, DATED MAY 10, 2002, MARKED AS EXHIBIT B1-50)

15 **Proceeding Time 9:02 a.m. T02**

16 MR. CHRISTIAN: And the second one I have here is from
17 May 25th, Volume 9, page 1244, and the question was,
18 "Please provide further data in response to information
19 request Commercial Energy Consumers No. 2.1.1," and so
20 we've got a handout here with a table.

21 MR. FULTON: Exhibit B1-51.

22 THE HEARING OFFICER: B1-51.

23 (B.C. HYDRO RESPONSE TO CEC IR NO. 2.1.1, MARKED AS
24 EXHIBIT B1-51)

25 MR. CHRISTIAN: And that's all we have, Mr. Chairman.

26 THE CHAIRPERSON: Thank you.

1 MR. WALLACE: Mr. Chairman, I have two matters. First is
2 with respect to Exhibit B1-46, and I believe in B.C.
3 Hydro's response -- and far be it from me to correct it,
4 but the reference in the response, I believe, is to BCUC
5 IR 2.152.0 instead of .2, which I did not find a
6 response for. That's fine.

7 **Proceeding Time 9:04 a.m. T03**

8 My concern is that the response misses the
9 point. If there is not a return on investment or hurdle
10 rate, we do need to know the discount rate and I'm
11 wondering if that can be provided. I don't need to ask
12 any further questions on this exhibit, provided that is
13 forthcoming.

14 MR. CHRISTIAN: I would like the opportunity to take a
15 look at the response, and provide a response to Mr.
16 Wallace's request, at the break.

17 THE CHAIRPERSON: Fine.

18 **Information Request**

19 MR. WALLACE: That's fine. And the other thing is, Mr.
20 Chairman, this is just a more general matter. When we
21 started this hearing, we had probably the best
22 electronic exhibits record that I've been familiar with
23 in any proceeding. Since then, it's deteriorated a bit,
24 and I'm wondering if the Commission could encourage
25 parties, or if parties would on their own, circulate
26 electronic copies of the exhibits when they file them,

1 preferably in PDF searchable form, so that we can keep
2 that record going, it will be of great assistance in
3 putting argument together, and quotes, et cetera.

4 **THE CHAIRPERSON:** Thank you. I appreciate that
5 suggestion and I do think it's an important one. I
6 believe the Commission staff are endeavouring to ensure
7 that the BCUC Website is current, at least to within 24
8 hours. So that there should be an electronic copy on
9 the BCUC Website as well.

10 And for those who don't have the advantage of
11 being able to create a CD around the document that they
12 wish to file, the Commission staff will assist you, just
13 as they did before the hearing started, to create an
14 electronic copy. So the intention is, is that all
15 documents, whether they're filed before the hearing
16 starts or after the hearing has commenced, that all
17 documents will be in electronic form. And so I do
18 encourage -- in fact, that's the only way you're going
19 to meet our document filing protocols. I do encourage
20 you to make an electronic copy available so that we're
21 working off electronic copies.

22 If there are exceptions to that, I don't mind
23 you bringing them to my attention.

24 **MR. FULTON:** And one last point, Mr. Chairman, before I
25 commence my cross-examination. There is an updated
26 exhibit list as of May 26th, 2004, available at the back

1 of the room, and it has been made available
2 electronically as well. So, if the Commission panel
3 doesn't have a copy of that, I'll ask the Hearing
4 Officer to provide you with copies of the updated list
5 at this time.

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

7 THE CHAIRPERSON: That would be helpful, thank you.

8 **CROSS-EXAMINATION BY MR. FULTON:**

9 MR. FULTON: Q: Good morning, panel.

10 PANEL: A: Good morning.

11 MR. FULTON: Q: I'm going to begin with you, Mr. Maniago,
12 and I'd like to discuss the topic of corporate safety
13 programs. This was a topic that I commenced with Mr.
14 Elton and had some discussion with Mr. Elton and Ms.
15 Farrell at pages 829 to 832 of Volume 7 of the
16 transcript, and you don't need to turn to that. The
17 evidence that you have given up until this time has
18 answered a number of the questions that I had
19 outstanding from that discussion with Panel 1.

20 I'd like to ask you, however, if you could
21 turn to yesterday's transcript Volume 10, page 1576, and
22 at lines 10 to 21 you were responding to a question from
23 Mr. Weafer about savings from creating a safer work
24 environment, and I want to follow up with your answer at
25 those lines.

26 Now, as I took your answer, B.C. Hydro would

1 have very little economic incentive to reduce lost time
2 injuries, and that is because the cost of a lost time
3 injury netted to zero because of the WCB payments. Am I
4 correct in that understanding, that there isn't that
5 incentive because of the zero netting?

6 MR. MANIAGO: A: No, there is an intent absolutely to
7 continue to improve. What I was trying to articulate
8 yesterday when the question was put to me was the cost
9 savings that we were generating, and what I was trying
10 to indicate that by having lesser number of injuries,
11 that would go to B.C. Hydro's performance and would be
12 looked at in subsequent years from a WCB premiums point
13 of view.

14 **Proceeding Time 9:10 a.m. T5**

15 The actual productivity of achieving
16 additional people at work would result in offsetting of
17 other contingent workforce not being utilized, and
18 that's what I was trying to articulate. So absolutely
19 not. There is definitely a drive or an incentive to
20 improve.

21 In the case of safety, it isn't really about
22 the dollars. The incentive really is to make sure that
23 people aren't getting hurt. That's really what it boils
24 down to, and that's why you'll see in our strategies
25 that it is in fact safety first for us.

26 What I was trying to articulate is that

1 several years ago, we had something like 140 people hurt
2 over a 12-month period, and we had reduced that down to
3 about 70 in the last -- or as of the year ending March
4 31. This is a passion of mine, around making sure that
5 people don't get hurt, so I want to make that very
6 clear.

7 MR. FULTON: Q: Okay, and is the number that you've put
8 on the number of people hurt a couple of years ago the
9 number that is reflected in the statement at page 32 of
10 Chapter 9, and which Mr. Weafer referred you to at page
11 1574 of the transcript? So if you just look at the
12 transcript, the statement is 1574, lines 3 to 5, that in
13 its first year of a service organization, Field Service
14 has improved its safety performance by approximately 36
15 percent. Is that the percentage improvement that's
16 reflected by the numbers that you just gave us?

17 MR. MANIAGO: A: I'm sorry, could you just repeat the
18 line and where you're reading from?

19 MR. FULTON: Q: Yes, it's lines 3 to 5 on page 1574 of
20 the transcript.

21 MR. MANIAGO: A: That 36 percent would refer to the
22 number of injuries, the frequency not the severity. So
23 it would have suggested that in our first year we went
24 from something in the order of 140 injuries down to 90,
25 and I believe that that is about a 36 percent
26 improvement.

1 MR. FULTON: Q: And does not that measure of improvement
2 say that the safety performance prior to that was a
3 relatively poor safety performance?

4 MR. MANIAGO: A: I would disagree with that statement
5 that it was a poor performance. I would --

6 MR. FULTON: Q: I said relatively poor.

7 MR. MANIAGO: A: I would disagree with the statement that
8 it was relatively poor. We were at second quartile
9 performance corporately, and what we were saying is we
10 went from second quartile performance to first quartile
11 performance as a result of this improvement.

12 MR. FULTON: Q: Now, can I take it that generally that
13 there are some economic incentives to have a good work
14 safety record?

15 MR. MANIAGO: A: I would say absolutely, that by having a
16 very good safety performance there are many positive
17 outcomes, the first of which is less people hurt. But
18 clearly, if you don't have injuries, that is a sign, I
19 think, that the work is being done very well and
20 attention is being paid to detail, and as a result,
21 productivity would follow as well in terms of how well
22 we do the work and the completion of that work.

23 MR. FULTON: Q: Right, and are you aware of any studies
24 that have been done that link the economic well-being of
25 an organization to good worker safety, a good accident
26 record?

1 **Proceeding Time 9:14 a.m. T06**

2 MR. MANIAGO: A: Not any studies.

3 MR. FULTON: Q: Okay. Now when you say not any studies,
4 what would you have in mind that are different than
5 studies?

6 MR. MANIAGO: A: Well, I've read various articles by
7 various groups of people who have indicated in their
8 opinions that having a very safe workforce results in
9 very productive work forces. So generally, it's read in
10 either textbooks or articles, or other leaders who have
11 made significant progress within their respective
12 organizations.

13 MR. FULTON: Q: Okay. Thank you. And has B.C. Hydro
14 quantified what the economic incentive would be to have
15 a good safety performance record?

16 MR. MANIAGO: A: Not that I'm aware of.

17 MR. FULTON: Q: Would you agree with me that insofar as
18 contractors are concerned, that contractors' lost time
19 injuries may affect the cost and the quality of the work
20 done?

21 MR. MANIAGO: A: Yes, I would agree with that.

22 MR. FULTON: Q: And would you also agree with me,
23 generally, that if the contractors have extra costs,
24 that are related to lost time injuries, that these costs
25 may be passed on in the form of higher bid prices?

26 MR. MANIAGO: A: Yes, I would agree with that.

1 MR. FULTON: Q: Thank you. In considering policies that
2 relate to the replacement of aging or failing equipment,
3 does B.C. Hydro factor in the cost of safety hazards or
4 public liability for its own employees or the employees
5 of its contractors?

6 MR. MANIAGO: A: That would be a question that the
7 distribution and transmission panels would respond to, I
8 think, in terms of their asset programs. My opinion,
9 however, would be that they absolutely do.

10 MR. FULTON: Q: All right, well, I'll explore that further
11 with Panels 5 and 7. Just as a particular example,
12 though, are you aware of the failure of the spring-
13 loaded Fargo conductor splices on the distribution
14 system? Or is that something I should ask Panel 5?

15 MR. MANIAGO: A: I'm aware of the problem, but I think
16 it's something that the panel would be in the best
17 position to respond to.

18 MR. FULTON: Q: And what about the Canadian Ohio brass 69
19 kilovolt clamp-top insulators, is that something that I
20 should also deal with Panel 5 on?

21 MR. MANIAGO: A: I believe so.

22 **Proceeding Time 1:42 p.m. T42**

23 MR. FULTON: I'm going to move to the topic of service
24 organization staffing, Mr. Chairman, which is issue 3.1
25 on the issues list. The public safety or corporate
26 safety programs issue that I have just discussed with

1 Mr. Maniago was originally issue 1.2, but you'll recall
2 that Mr. Elton said that this would be the panel to deal
3 with that. So those earlier questions fall under that
4 issue.

5 MR. FULTON: Q: If I could ask you to turn to the
6 application, Exhibit B1-1, beginning at page 9-12, and
7 if you could also have before you the response to BCUC
8 IR 2.193.1, which is in Exhibit B1-8. So application
9 B1-1, page 9-12, and the response to BCUC IR 2.193.1,
10 Exhibit B1-8.

11 So if we could first look at Table 9-3 on
12 page 9-12, that table shows that B.C. Hydro, as I read
13 it in any event, expects that it's Engineering Services
14 internal head count will be maintained at approximately
15 fiscal 2003 actual levels throughout the test period,
16 while the contractor consultant hires will go from 141
17 to 80 from fiscal 2003 to fiscal 2005.

18 Can you tell us why B.C. Hydro in that period
19 is not reducing its internal staff levels?

20 MR. MANIAGO: A: No.

21 MR. FULTON: Q: Okay. Is there another panel that might
22 be appropriate to ask that question?

23 MR. CHRISTIAN: Mr. Chair, panel, the issue about whether
24 there would be a witness present to deal specifically
25 with engineering services questions I think was
26 addressed both in our letter of April 23rd, and then

1 again we discussed it at the outset of this case, and I
2 think there was no objection from anyone, including the
3 Commission, with respect to us taking undertakings on
4 questions with respect to engineering services.

5 So the short answer to the question from Mr.
6 Fulton is there is no witness that is able to address
7 that from his or her personal knowledge, but we'll
8 happily answer the questions on undertakings.

9 MR. FULTON: And that's fine, Mr. Chairman. Thank you.

10 **Information Request**

11 MR. FULTON: Q: The response to BCUC 2.193.1 shows
12 unbillable hours averaging about 17 percent between the
13 fiscal 2004 forecast number and the fiscal 2006 plan
14 number.

15 **Proceeding Time 9:22 a.m. T08**

16 And at page 9-15 of the application, there's a reference to
17 the Black and Veatch report of June, 2003, and I take it
18 also that from the response, or the text under section
19 2.5.1.1 there was also another study, in addition to the
20 Black and Veatch report, is that right?

21 MR. MANIAGO: A: I'm unable to answer at that level of
22 detail. This is all part of the engineering
23 organization.

24 MR. FULTON: Q: All right. So then I'll take that as a
25 written undertaking as well.

26 **Information request**

1 MR. FULTON: And probably what I should do, Mr. Chairman,
2 is I'll just put these questions on the record and they
3 can be treated as written undertakings, so that we have
4 them.

5 MR. FULTON: Q: The next question is, if the Black and
6 Veatch or the other benchmarking study which I believe
7 is referred to in 2.5.1.1, established a good practice
8 benchmark on billable hours ratios for utilities, what
9 are those hours and how does B.C. Hydro compare to the
10 benchmarks?

11 MR. MANIAGO: A: I can't -- I'm trying to recall, but --
12 from the information I've been provided, but I cannot
13 speak to it.

14 MR. FULTON: Q: Okay. And again, we'll treat these as
15 undertakings if you say that you don't know the answer.

16 **Information request**

17 MR. MANIAGO: A: Thank you.

18 MR. FULTON: Q: If those benchmarking studies established
19 benchmark on billable hours ratios for engineering
20 consultants, what are the ratios and how does B.C. Hydro
21 compare?

22 MR. MANIAGO: A: I don't know.

23 MR. FULTON: Q: Okay. All right, again, we'll treat that
24 as an undertaking.

25 **Information request**

26 MR. FULTON: Q: At 9-13, B.C. Hydro states that it intends

1 to rely on internal resources to perform specialized
2 engineering functions, and that's at lines 13 to 15.
3 Would you agree with me that B.C. Hydro's aging
4 engineering staff places it in a position where it needs
5 to aggressively develop staff to maintain its current
6 level of technical expertise overall?

7 MR. MANIAGO: A: I think I can say yes to that question --

8 MR. FULTON: Q: Thank you.

9 MR. MANIAGO: A: Subject to a review with the -- but no, I
10 think that's a yes.

11 MR. FULTON: Q: Thank you. One recommendation of -- or
12 one area of opportunity, I should say, that was
13 identified in the Black and Veatch study, is referenced
14 at page 9-16 of the application, at lines 4 to 6, and
15 that is the provision of additional human resource
16 development opportunities including training, shifting
17 the employment culture to a more commercial one,
18 protecting key skills and expertise, and increasing
19 workforce, and contractor flexibility.

20 **Proceeding Time 9:26 a.m. T9**

21 Are you able to tell me, Mr. Maniago, how
22 B.C. Hydro decided that its current level of internal
23 staff was optimal, particularly considering factors like
24 the Energy Policy requirement that most new generation
25 will be provided by third parties, and the lesser
26 reliance or existing high voltage direct current

1 transmissions on the existing high voltage direct
2 current transmission systems?

3 MR. MANIAGO: A: No, I can't answer that question.

4 MR. FULTON: Q: Okay, so we can treat that as a written
5 undertaking too.

6 **Information Request**

7 MR. FULTON: Q: This is probably a question that
8 hopefully either you or Ms. Webb can answer. When the
9 highly skilled engineers retire, does B.C. Hydro offer
10 them contract or consulting work to lessen the knowledge
11 loss on their retirement?

12 MR. MANIAGO: A: I would refer that question to Ms. Webb.

13 MR. FULTON: Q: Thank you.

14 MS. WEBB: A: So, yes we do in certain circumstances. We
15 do have a policy about who we rehire or contract back
16 to, after they've retired from us. But in certain
17 circumstances, to facilitate the knowledge transfer, we
18 will bring employees back. We try through Strategic
19 Workforce and other initiatives Engineering has
20 underway, to do the knowledge transfer before employees
21 retire, but if it's a specialized skill or knowledge,
22 that we will contract with them.

23 MR. FULTON: Q: Thank you. Would reducing internal staff
24 numbers increase the unbillable hour ratio for the
25 staff?

26 MR. MANIAGO: A: Sorry, would you please repeat that?

1 MR. FULTON: Q: Reducing internal staff hours, would that
2 increase the unbillable hour ratio for staff, or would
3 it have the opposite effect and increase the billable
4 hour?

5 MR. MANIAGO: A: Just repeat the question again. Is it
6 the number of billable hours that you're asking?

7 MR. FULTON: Q: Yes, yes, the number.

8 MR. MANIAGO: A: The volume.

9 MR. FULTON: Q: Yes.

10 MR. MANIAGO: A: I'm not sure. I would think it would
11 decline.

12 MR. FULTON: Q: Okay.

13 MR. MANIAGO: A: But I think I would refer that to the
14 engineering people to answer.

15 MR. FULTON: Q: Okay, thank you. And on page 9-10 of the
16 application, the statement appears at lines 10 to 11
17 that BCTC has committed to use a fixed level of
18 engineering services for a minimum six-year period. Is
19 the fixed amount for that commitment the \$14.2 million
20 that appears in the response to BCUC IR 2.195.5, page 5,
21 line 4?

22 **Proceeding Time 9:30 a.m. T10**

23 MR. MANIAGO: A: I can speak to the high level commitment
24 that BCTC has with Engineering that they would have a
25 commitment to use up to a certain level of engineering.

26 MR. FULTON: Q: Yes.

1 MR. MANIAGO: A: Whether that translates to the 14.6
2 million, I can't confirm. So I would -- I think that
3 would have to be referred to the Engineering to see if
4 that in fact is the same dollar amount in ceiling.

5 MR. FULTON: Q: Right.

6 MR. MANIAGO: A: But I do know there is a ceiling in
7 place.

8 MR. FULTON: Q: Okay. And you had said 14.6 million, Mr.
9 Maniago. I said 14.2 million, and I believe that the --
10 unless there's other information that you have, the
11 response at page 5, line 4 is 14.2 million?

12 MR. MANIAGO: A: My apologies. It was your figure, the
13 14.2.

14 MR. FULTON: Q: Do you know why the BCTC commitment
15 period is the six years, or is that something that I
16 need to discuss with Engineering in terms of a written
17 undertaking?

18 MR. MANIAGO: A: I believe that is more appropriately
19 discussed with BCTC.

20 MR. FULTON: Q: Okay. I now have some questions about
21 the construction business unit, and if you could turn to
22 the response to BCUC IRs 2.111.5, so 2.111.5, and also
23 the schedule that is found at Exhibit B1-1, page 9-73.
24 So Exhibit B1-8, the response to BCUC IR 2.111.5, and
25 Exhibit B1-1, Schedule 8 on page 9-73.

26 The response to the BCUC IR says that the

1 increased Field Services head count is caused by the
2 increased volume of capital and maintenance work planned
3 for fiscals 2005 and 2006, and when we look at Schedule
4 8 on page 973, however, that states that the CBU
5 utilization rate is expected to go down from 85.7
6 percent in 2003 to 81.4 percent in fiscals 2005 and
7 2006. Can you explain the reasons for the decrease?

8 I believe that the explanation would be that
9 the total available hours would

10 **Proceeding Time 9:35 a.m. T11**

11 MR. MANIAGO: A: I believe that the explanation would be
12 that the total available hours would have been higher in
13 fiscal '03 actual. And that that would result in that
14 determination that the amount of staff and chargeable
15 hours would have seen a greater ability to spread the
16 fixed cost, the administration, management, et cetera,
17 over a bigger denominator, so to speak. And that would
18 result in a higher utilization in '03 compared to '05
19 and '06.

20 MR. FULTON: Q: Okay. Thank you. If you could turn back
21 in B1-8 to the response to BCUC IR 2.111.2. And here
22 I'm referencing the last paragraph in the response. The
23 response refers to the planning utilization rate for
24 fiscal 2005, and states that the -- in the last line,
25 that actual utilization rates will be optimized in
26 fiscal 2005 and fiscal 2006.

1 Does that mean that B.C. Hydro is using a
2 rather conservative or low utilization rate when
3 planning for fiscal 2005?

4 MR. MANIAGO: A: No, I don't believe that to be the case.

5 MR. FULTON: Q: Okay. Can you tell me what it would take
6 for B.C. Hydro to get the CBU utilization rate back up
7 to the 85.7 percent, roughly 86 percent, that appears in
8 Schedule 8 at page 9-73?

9 MR. MANIAGO: A: We would have to allocate more work to
10 the CBU, would be the main way of doing it. That would
11 allow us to spread our overheads over a greater volume
12 of activity, thereby driving the utilization rate up.
13 Which is -- utilization rate is a measure of the total
14 -- chargeable to the total available of that
15 organization.

16 MR. FULTON: Q: And would that result in a reduction in
17 annual costs?

18 MR. MANIAGO: A: No, it would not. Because we would be
19 essentially taking work from another pool to drive that
20 utilization up. So, for example, if the utilization
21 meant more work for the CBU, then potentially the
22 contractor volumes would decline.

23 MR. FULTON: Q: Can you tell us what effective utilization
24 rate was used to estimate the contractor head count?

25 MR. MANIAGO: A: We did not use a utilization rate for the
26 contractors as I recall. What we looked at was the

1 total billings in previous years, and we divide by a
2 certain factor, which is, I believe was about \$90,000,
3 to arrive at an FTE equivalent.

4 **Proceeding Time 9:39 a.m. T12**

5 So we looked at potentially what would be the
6 cost of an individual plus truck and used the \$90,000
7 figure. And that's what drove our numbers of FTEs for
8 contractors.

9 MR. FULTON: Q: Thank you. I'd now like to turn to the
10 issue of gain sharing. And you will need the Exhibit
11 B1-8 and if we could begin with the response to BCUC IR
12 2.112.7.

13 MR. MANIAGO: A: Could you repeat that number, please?
14 Sorry.

15 MR. FULTON: Q: Yes. 2.112.7.

16 MR. MANIAGO: A: Thank you. Yes, we have it.

17 MR. FULTON: Q: And also if you could have before you,
18 2.195.5.

19 MS. WEBB: A: Sorry, 195-point-what?

20 MR. FULTON: Q: Five.

21 MR. MANIAGO: A: There's an awful lot of tables in here.

22 MR. FULTON: Q: Okay, I know, and I'm just going to
23 summarize the tables for you and you can take them
24 subject to check. So, we'll begin with the 112.7, and
25 then I'll take you to the tables.

26 MS. WEBB: A: Okay.

1 MR. FULTON: Q: So, the response in 2.112.7 states that
2 gain sharing is paid to eligible B.C. Hydro union
3 employees subject to certain rules for eligibility. And
4 that -- does that mean that providing they meet these
5 rules, all IBEW and OPEIU members who are employed by
6 B.C. Hydro qualify for gain sharing?

7 MS. WEBB: A: If there's a payment that year, yes.

8 MR. FULTON: Q: And do you know if that also is the case
9 with BCTC, do they qualify for gain sharing as well?

10 MS. WEBB: A: When they were -- before they transferred,
11 during the year?

12 MR. FULTON: Q: Yes.

13 MS. WEBB: A: Last year, when they transferred? For the
14 period of time they were our employees, they were under
15 our plan, and then BCTC would have to answer what
16 happened, how they dealt with them once they became
17 their employees.

18 MR. FULTON: Q: Are there any other employees who are
19 covered by the gain sharing program? Other than the
20 union employees?

21 MS. WEBB: A: No.

22 **Proceeding Time 9:43 a.m. T13**

23 MR. FULTON: Q: On page 2 of that response, the table
24 that's headed "Actual and Forecasting Gain Sharing
25 Amounts", the 2003 actual is 3.33 percent, or translated
26 to dollars, \$1,709, correct?

1 MS. WEBB: A: Yes.

2 MR. FULTON: Q: And would I be correct in understanding
3 that the \$1,709 is the average gain sharing amount paid
4 to each unionized employee in 2003?

5 MS. WEBB: A: Yes.

6 MR. FULTON: Q: Now if we can go forward to the response
7 to IR 195.5, and would you take it subject to check that
8 the union head count for fiscal 2003 totaled 2,974
9 employees broken down to 1,598 IBEW members and 1,376
10 from the OPEIU?

11 MR. MANIAGO: A: Could you give us the schedule number
12 that you were looking at there, please?

13 MR. FULTON: Q: I had to look at a number of the
14 schedules. I looked at D1-1, D2, D3, D4, D5, D6, D7,
15 D8, D9, and D19.

16 MR. MANIAGO: A: Thank you.

17 MR. FULTON: Q: And I totaled the numbers for each of
18 those unions and came to the 2,974.

19 MR. MANIAGO: A: I'd say it sounds about right.

20 MR. FULTON: Q: Okay.

21 MR. MANIAGO: A: But we'd have to check.

22 MR. FULTON: Q: Right, and so if you can accept the 2,974
23 subject to check, and you know how I arrived at those
24 numbers, if the 2,974 number is correct, would that mean
25 that the total gain sharing payment in 2003 was \$1,709
26 times the 2,974 or approximately \$5.1 million? So I've

1 taken the total number of union members that I
2 calculated at 2,974, and I multiplied that by the \$1,709
3 that we agreed to, and I came to \$5.1 million
4 approximately.

5 MS. WEBB: A: No.

6 MR. FULTON: Q: Okay.

7 MS. WEBB: A: That doesn't work because this would be --
8 I believe this number is head count, and it would be
9 paid on hours worked. So the head count may be higher
10 than the actual hours worked. It wouldn't show part
11 employees or part periods of time, so it might overstate
12 the bonus payment.

13 **Proceeding Time 9:47 a.m. T14**

14 MR. FULTON: Q: All right. So then can I ask you, if you
15 don't know, to provide me as an undertaking, what the
16 total amount of the gain sharing payment in 2003 was?

17 MS. WEBB: A: The amount of -- yes, I can. I can -- yes,
18 I can.

19 **Information request**

20 MR. FULTON: Q: Provided by undertaking.

21 MS. WEBB: A: I can give you -- so the estimate would be
22 -- so the bonus earned in 2003 is paid in 2004.

23 MR. FULTON: Q: Yes.

24 MS. WEBB: A: And it was approximately \$4.3 million.

25 MR. FULTON: Q: Thank you.

26 MS. WEBB: A: Gain sharing. That was the gain sharing

1 portion, sorry.

2 MR. FULTON: Q: Thank you. And can you tell me, Ms. Webb,
3 how much of the gain sharing is included in the forecast
4 costs for fiscal 2005 and 2006, in terms of dollars?

5 MS. WEBB: A: I have it as a percentage. I have it as a
6 percentage. So it was -- they estimated a three percent
7 payment, I don't have the dollars.

8 MR. FULTON: Q: All right. So if you could provide me as
9 an undertaking, the total dollar amount for both those
10 years.

11 **Information request**

12 MR. FULTON: Q: And so is the three percent then the
13 percentage of base earnings?

14 MS. WEBB: A: Yes.

15 MR. FULTON: Q: Okay. And so if we turn back to 2.112.7,
16 am I correct in my calculation that the maximum
17 percentage for fiscals 2001 and 2002 was four percent of
18 the base earnings?

19 MS. WEBB: A: No. They were different programs. The
20 program changed in 2002.

21 MR. FULTON: Q: And so I'm not -- because of the change,
22 I'm not able to make a comparison? Or can you tell me
23 what the total, the maximum percentage then was for
24 fiscal 2001 and 2002?

25 MS. WEBB: A: Subject to check, I believe it was six
26 percent.

1 MR. FULTON: Q: Okay. And in 2000 -- okay, six percent.
2 And why were the programs that high compared to what
3 you're forecasting now?

4 MR. CHRISTIAN: Mr. Chairman, Panel, I'm not sure of the
5 relevance of the questions with respect to the program,
6 the evidence of Ms. Webb is that the program's changed.
7 So the payments in the program then, I think, are
8 relevant only to the extent that they are -- guide the
9 Commission in its determination of what's a prudent cost
10 for '05 and '06. And I'm not sure what the line of
11 questioning here, how it can help that.

12 MR. FULTON: All right, I'll move on, Mr. Chairman.

13 MR. FULTON: Q: Is the goal level for each of the
14 customer satisfaction and all injury frequency for 2005
15 and 2006 .67 percent?

16 MS. WEBB: A: Yes.

17 MR. FULTON: Q: Okay. If that is the goal then could you
18 tell us why a percentage greater than the goal level
19 should be included in the revenue requirements?

20 **Proceeding Time 9:51 a.m. T15**

21 MS. WEBB: A: Because we reward employees for
22 overachievement as well, so it's a variable pay plan
23 designed to incent higher performance. And if they
24 achieve higher performance on those two measures than
25 the goal, there is additional variable pay they receive.

26 MR. FULTON: Q: Would you agree with me that the net

1 income performance measure is largely for the benefit of
2 the shareholder, if you are able to?

3 MS. WEBB: A: I'm not sure.

4 MR. FULTON: Q: Okay. Mr. Maniago?

5 MR. MANIAGO: A: No, I'm not able to respond to that
6 question.

7 MR. FULTON: Q: Okay. Ms. Hardy?

8 MS. HARDY: A: I would say it's not all to the benefit of
9 the shareholder because there's a number of ways that
10 people can improve performance around net income. Part
11 of that is increasing revenues but decreasing costs and
12 finding efficiencies is another way to improve net
13 income, and over the long term that would benefit
14 ratepayers as well as the shareholder.

15 MR. FULTON: Q: No, and my question was not all to the
16 benefit of the shareholder, it was largely to the
17 benefit of the shareholder.

18 MS. HARDY: A: That's probably true in the short term,
19 but it can provide incentives that are to the benefit of
20 the ratepayer over the longer term.

21 MR. FULTON: Q: Thank you. Has B.C. Hydro included the
22 net income component of the forecast gain sharing
23 payments in the revenue requirements for fiscal 2005 and
24 2006?

25 MS. WEBB: A: Yes, in -- I'm sorry, I'm not sure I
26 understand the question, but if the design of the plan

1 for '06 -- '05 and '06 is anticipated to be the same,
2 has been announced for '05 as being the same.

3 MR. FULTON: Q: Okay. And can you tell us why B.C. Hydro
4 did that?

5 MS. WEBB: A: Because we are linking employees' behaviour
6 with our service plan and our commitment, and we think
7 that having variable pay for all employee groups helps
8 incent that behaviour.

9 MR. FULTON: Q: Okay. And B.C. Hydro has bonus or other
10 incentive plans for management and professional staff,
11 does it not?

12 MS. WEBB: A: It's not a bonus plan, it's a variable pay
13 plan, but yes.

14 MR. FULTON: Q: Okay. And can you tell us what the
15 forecast payments under these plans are that are
16 included in the revenue requirements --

17 MS. WEBB: A: Yes.

18 MR. FULTON: Q: -- for 2005 and 2006?

19 MS. WEBB: A: Yes, and that's in one of the IR answers
20 and it's 8 million and 8.5 million, and the IR number is
21 -- it's part (E) of IR from the Commercial Energy
22 Consumers 1.2.2.1.

23 MR. FULTON: Q: Thank you.

24 MS. WEBB: A: Part (E).

25 **Proceeding Time 9:55 a.m. T16**

26 MR. FULTON: Q: Can you tell us what for fiscal 2005-2006

1 are the corresponding threshold goal or target and
2 maximum levels under the variable incentive plan for
3 management and professionals?

4 MS. WEBB: A: The actual targets that we've set?

5 MR. FULTON: Q: Yes.

6 MS. WEBB: A: They were approved by the board this week,
7 and yes, I could you tell you '05. '06 would not be set
8 until we finalize the service plan for '06.

9 MR. FULTON: Q: Okay, so if you could give me '05 then.

10 MS. WEBB: A: Yes, I could. Oh, I can't -- off the top
11 of my head?

12 MR. FULTON: Q: If you can't, you can provide it by
13 written response. That's fine.

14 MS. WEBB: A: Thank you.

15 **Information Request**

16 MR. FULTON: Q: Thank you. And in the response you'll be
17 able to tell me what it is in terms of total dollars, I
18 take it, as well?

19 MS. WEBB: A: It would be the \$8 million forecast.

20 MR. FULTON: Q: Okay, thank you.

21 MS. WEBB: A: That's design of the plan payout.

22 MR. FULTON: Q: Mr. Maniago, I'd like to talk about the
23 line contractors agreement for a moment, and can you
24 tell me whether B.C. Hydro performed any estimate of the
25 monetary benefits of that agreement?

26 MR. MANIAGO: A: There are no detailed estimates. The

1 agreement simply says, though, that our average would
2 decline in terms of our CBU from what was a three-year
3 average of 47 down to 40. So that translates into a
4 difference of seven power line technicians. And if we
5 look at what the seven power line technicians costs are
6 on a CBU rate, for example for a year, I'm going to just
7 say it was approximately per individual, say in the
8 order of 350 to 400 thousand, but that work is now going
9 to be issued to contractors and at about an equivalent
10 price tag of about that same figure, give or take a few
11 dollars, so the net impact is zero.

12 MR. FULTON: Q: Thank you.

13 MR. MANIAGO: A: And the important thing here is that
14 this will allow us to retain that flexibility and mix
15 that I had talked about earlier on yesterday, and I
16 think that will continue to provide us with Q1
17 performance into the future.

18 MR. FULTON: Q: Next I'd like to go to the Leading
19 Practice Review document, May 12th, 2004, and that was on
20 the CD as part of one of the responses in Exhibit B1-9.
21 And I'd like to take you to page 21.

22 **Proceeding Time 9:59 a.m. T17**

23 Mr. Weafer discussed that with you in part
24 yesterday. And the comment about field services being
25 able to generate 18 to 30 million dollars of added value
26 per year, can you tell us -- and you may have to do this

1 in terms of coming back with a written response, but can
2 you tell us, for each of the categories that is
3 enumerated on that page, what the measures were that
4 were contemplated by the study?

5 MR. MANIAGO: A: I'm sorry, could you repeat the
6 question? I'm not sure I understand --

7 MR. FULTON: Q: Right. We're trying to understand from
8 the categories that appear on page 21 --

9 MR. MANIAGO: A: Yes.

10 MR. FULTON: Q: -- the measures that needed to be taken
11 to achieve that range of value potential.

12 MR. MANIAGO: A: If I understand the question, the
13 labour, for example, was the amount of time at work
14 sites compared to the total time available in a day. So
15 it would be suggesting that if you could make all kinds
16 of changes to collective agreements and others, that
17 instead of perhaps having five hours a day at work
18 sites, several work sites during the day, and having two
19 to three hours a day of windshield time, driving from
20 the yard to the site, and then subsequently from one
21 site to the next, that's what the labour and vehicle
22 costs were getting at. So it was to try to reduce the
23 amount of travel time and to reduce the amount of yard
24 time.

25 So that would be the first two that it was
26 referring to. Those were the metrics. So, the

1 overtime, I think, is pretty straightforward. That's
2 just reducing the amount of time that we are working at
3 premium time. And the last one is -- the contractor
4 procurement was, as I described briefly yesterday, one
5 of the suggestions was that if you go to a smaller
6 number of large contractors, as opposed to a large
7 number of small contractors, you may have some
8 administrative savings. And that's what the contractor
9 procurement was looking at. So those were the metrics
10 that supported that.

11 The overtime figure, in fact, looked at the
12 numbers that actually had occurred during the past
13 fiscal year, and they identified or included two very
14 extraordinary events that we had during the year. And
15 they were a major mudslide that threatened the towers in
16 the Sechelt peninsula, and the Vancouver supply was at
17 risk, and the other one was forest fires in the interior
18 of the province, and they would not be factored in to
19 the '05 and the '06 plans.

20 MR. FULTON: Q: Okay. And vehicles?

21 MR. MANIAGO: A: Well, vehicles would be part of that
22 utilization, the amount of vehicles we have in the
23 travel area, and do we need as much? Can we increase
24 the utilization of those trucks by having less of them,
25 is what that was suggesting. Again, it goes to the
26 length of day, it goes to how you can better schedule

1 your work. And I emphasize, these are not net benefit,
2 or -- these are gross benefits. They do not take into
3 account the costs to achieve these benefits.

4 **Proceeding Time 10:03 a.m. T18**

5 MR. FULTON: Q: Thank you. So can I take it from that
6 answer that you haven't -- or B.C. Hydro hasn't
7 considered, at least at this point, the feasibility of
8 achieving these potential benefits?

9 MR. MANIAGO: A: No, you can't take it to mean that.
10 What we are doing in fact is we already have a number of
11 process implementations that are somewhat aligned with
12 this project underway.

13 I had referred to yesterday that we have an
14 IT investment of -- I'm going to use a rough number here
15 of about one and a half million of IT that's described
16 in one of schedules, that is to support our work
17 scheduling tool. That one is underway.

18 There was also a reference in the report to
19 managerial presence being increased. And when I was
20 asked yesterday, could we reduce our M&A further in '06
21 by a further 3 percent, I had answered no, I thought we
22 needed some initiatives to be happening. And one of the
23 things we're looking at is perhaps having more
24 administrative support to free up the managers to get
25 them into the field.

26 So a number of these initiatives have some

1 things underway. They've started. We have, as I
2 mentioned, implementation plan starting, but by the time
3 they are fully complete I don't expect that the full
4 benefits, or even partial benefits, will start to be
5 realized until after fiscal '06.

6 MR. FULTON: Q: Yes, and that was your evidence yesterday
7 in terms of --

8 MR. MANIAGO: A: Yes.

9 MR. FULTON: Q: -- when the benefits might show up.

10 At this point, however, are you able to tell
11 us whether or not some of these benefits do appear to be
12 feasible?

13 MR. MANIAGO: A: Not within the test period.

14 MR. FULTON: Q: Okay. Can you tell us what the typical
15 length of term of contract that B.C. Hydro would have
16 with its contractors is?

17 MR. MANIAGO: A: There are several ways we procure
18 contractor services. One would be on what we refer to
19 as local work contracts, and they typically would be
20 package work that is tendered. And in that case I would
21 say the length of the project might be for Field
22 Services in the order of one to two weeks would be
23 typical. They're not long, they're generally in one
24 month or less. That's one type of work.

25 We also have a contract that is a tendered
26 process, where we have what is referred to as unit price

1 contracts, and it's typically utilized when we have very
2 tight deadlines with some of our customers that need
3 infrastructure added. And so they typically are the
4 couple of day type projects, and they are assigned by
5 the manager to a contractor based on those particular
6 units. And again, those are tendered and they typically
7 stand for, I believe it's a year tender that sets out
8 the prices.

9 The last one is through our emergency line
10 agreement which spells out the cost for response in
11 emergency situations, and it's an hourly charge-out
12 rate, and that is a negotiated price between Hydro and
13 its contractors. So those are the three -- most of what
14 we do in Field Service typically is of smaller projects.
15 They tend to be up to two and three months in those
16 local work contracts. A month is about the longest, and
17 most of them are in the days to weeks type projects.
18 Many types, or many large volumes of them, but typically
19 small.

20 **Proceeding Time 10:07 a.m. T19**

21 MR. FULTON: Q: All right. So that in terms of those
22 small contracts, it's not going to be difficult when the
23 contracts come up for renewal, or you issue new
24 contracts, to introduce new operating practices for
25 those contractors?

26 MR. MANIAGO: A: For some of them it would be relatively

1 easy in terms of setting the standards, but that process
2 of setting new standards require considerable due
3 diligence, and then giving the contractor community
4 reasonable notice that those will be changing, so that
5 they can start planning accordingly.

6 One such example would be, if we are
7 starting, or we did, for example, several years ago,
8 change some of our environmental management practices.
9 And it required that the contractors formulate plans to
10 train their employees on a number of things. The one
11 program would have been the working in and around water.
12 We wanted to heighten our sensitivity as to how that
13 work was carried out. And so we gave the contractors
14 some notice that that was going to be coming, so that
15 they could be preparing for their tendering processes.

16 MR. FULTON: Q: And when you say some notice, what
17 approximate notice did you give them?

18 MR. MANIAGO: A: I can't recall specifically, but it
19 seems to me that we were talking three to six months
20 before the changes took place. And I think you'll see
21 in that -- the arrangement or the agreement, we have
22 with the contractors, that we will be meeting regularly,
23 every three months or so, and that's where that kind of
24 dialogue takes place.

25 I should also add on these projects, it's --
26 that as far as the contractor safety, we have very

1 rigorous processes that we follow which include the pre-
2 job conferences, also would include ensuring that their
3 workers are all qualified, and that means a manager
4 actually goes through a testing process and their
5 employees are authorized every two years, and then put
6 on to our systems. We do job site inspections, and we
7 do a number of quality reviews, which in fact look at
8 the quality of the work from the visual inspection at
9 the ground on a weekly basis. We also do some aerial
10 checks of their work on a random-sample basis, and then
11 we do full quality assurance on the completion of all
12 other work.

13 MR. FULTON: Q: Just dealing with page 21 again, of the
14 leading practice review and the contractors' item.
15 Would the reasonable notice period that you would
16 contemplate, if changes were to be made there, be the
17 three- to six-month period?

18 MR. MANIAGO: A: We would -- that one might be more
19 sensitive than that. You could appreciate if we went
20 out to the contractors and said "We are going to be
21 putting out tenders that require that you have the
22 capability to look after a third of the province," and
23 that would mean to some of them that they may lose some
24 of their business. And it may affect their operations.

25 I would suggest that that type of an approach
26 may even take longer, because I can anticipate quite a

1 bit of reaction from that kind of a change. So we would
2 certainly start the dialogue. Could we do it in three
3 months, or six months? I think we would have to gauge
4 the entire impacts and the feedback we got, not only
5 from them, but potentially from other -- or from the
6 communities in which they serve.

7 **Proceeding Time 10:11 a.m. T20**

8 MR. FULTON: Q: Okay, and without the benefit of doing
9 that gauging, can you give me some timeframe of what
10 additional length of time you might be looking at?

11 MR. MANIAGO: A: No I cannot.

12 MR. FULTON: Q: Okay. Page 17 of the Leading Practices
13 Review --

14 MR. MANIAGO: A: Sorry, 17 of the --

15 MR. FULTON: Q: Leading Practices Review. Yes. The
16 reference to the lagging trouble response times and the
17 potential for improvement by focusing on out to dispatch
18 and dispatch to arrival times, and adopting new staffing
19 practices and employee incentives, would this mean that
20 there would be an improvement in reliability and
21 security to customers that would result from an
22 improvement to the lagging trouble response times, if it
23 was achievable?

24 MR. MANIAGO: A: The overall reliability would be
25 expected to improve, yes. The question would be at what
26 cost.

1 MR. FULTON: Q: Okay.

2 MR. MANIAGO: A: And again, these would require
3 collective agreement changes in order to achieve some of
4 the things that are being discussed. We, for example,
5 currently have and it was described in the application,
6 shift operations that are 16 hours a day, 7 days a week,
7 365 days of the year for the more concentrated loads, to
8 try to address this. But in other places it just isn't
9 cost justifiable to enter into that, at least in our
10 past reviews.

11 So yes, you could improve reliability, and if
12 our clients, the distribution line of business and the
13 transmission line of business, would like us to enhance
14 that, and they would want to have the costs, we would
15 provide that information to them.

16 MR. FULTON: Q: Right, but certainly from the study's
17 perspective, the costs that might be achieved are
18 contemplated within that 18 to 30 million dollars of
19 added value whether it's achievable or -- sorry.

20 MR. MANIAGO: A: Sorry. They are not -- I repeat the
21 costs are not included in those benefits. Those are
22 gross benefits. They are directional only. They do not
23 take into account what it would cost to achieve those
24 benefits.

25 MR. FULTON: Q: Okay. One last question on Engineering
26 Services staffing. Would it be more flexible and cost-

1 effective to reduce internal staff by the 55 positions
2 shown between fiscal 2003 and 2005, and hire contract
3 consultants when they are found to be necessary?

4 MR. MANIAGO: A: If you look at the value of the product
5 that you are trying to achieve, and the need for the
6 technical expertise that's required to look after a very
7 complex hydroelectric system, I would say to that
8 question, no.

9 **Proceeding Time 10:15 a.m. T21**

10 MR. FULTON: Q: Thank you, panel, those are my questions.
11 Thank you, Mr. Chairman.

12 COMMISSIONER BIRCH: Good morning, panel.

13 MR. MANIAGO: A: Good morning.

14 COMMISSIONER BIRCH: Ms. Webb, could you please tell me
15 how B.C. Hydro chooses their comparator companies for HR
16 purposes?

17 MS. WEBB: A: Certainly. We look at three types of
18 markets. We look at energy companies, oil and gas
19 companies in Canada, we look at utilities in Canada, and
20 we look at Canadian companies with revenues over 1
21 billion, similar-sized companies to B.C. Hydro.

22 COMMISSIONER BIRCH: Have you seen any change in your
23 comparator companies as we've evolved to more PBR-type
24 regulation?

25 MS. WEBB: A: To more --

26 COMMISSIONER BIRCH: The performance-based regulation.

1 As the utilities move more to acting like regular non-
2 regulated companies, because they've got the incentives
3 for their own bottom lines, rather than all the deferral
4 accounts we've been struggling with. Have you seen any
5 change in how your compensation bases work within those
6 comparators?

7 MS. WEBB: A: I think generally we've seen a trend to
8 putting more pay at risk. More variable pay around
9 incentives. I think all Canadian companies have seen
10 that trend among -- certainly among M&P employees.

11 COMMISSIONER BIRCH: This study that was handed out this
12 morning, the market compensation comparison, B1-50. The
13 last page of it, page 27, shows a full utility sample
14 and a select utility sample. What sort of criteria were
15 used in selecting the utilities you did out of that
16 sample?

17 MS. WEBB: A: We used judgment. So it's not -- that is
18 not our normal comparator group. We did a special study
19 to do total compensation in that group. So we looked --
20 I think we used some judgment as to what comparators
21 would best match. We're always looking for the optimum
22 match with our jobs.

23 COMMISSIONER BIRCH: Okay. How do you assess what I call
24 decision-making responsibility for compensation levels?
25 There's many systems that have been used, Hays,
26 different Hay-point systems, different things that the

1 industry uses. But how do you take into account, I
2 guess, the bottom-line responsibility of non-regulated
3 companies versus the regulated companies? And how do
4 you differentiate that in terms of decision-making?
5 MS. WEBB: A: I'm not sure that we do. We look for
6 internal consistency. So when we evaluate, rate our
7 jobs, we do look at decision-making, knowledge base,
8 complexity of decisions. So we look at very similar
9 things to most companies that I've worked for. I'm not
10 sure we handle -- see a difference between regulatory --
11 regulated and non-regulated. Because the job evaluation
12 system is for internal equity. And then we take the
13 jobs externally from there.
14 COMMISSIONER BIRCH: Under the Energy Plan, B.C. Hydro is
15 no longer responsible for planning, developing,
16 constructing large new generation projects. What staff
17 reductions were achieved as a result of taking away that
18 responsibility and changing that mandate? And I guess,
19 what business processes changed as a result of that?
20 MS. WEBB: A: I think you'd need to ask the vice-
21 presidents of each of the LoBs, as how they have reacted
22 to that.
23 **Proceeding Time 10:19 a.m. T22**
24 COMMISSIONER BIRCH: Okay. What approaches have you used
25 to reduce costs on benefits? Things like flexible
26 benefit plans, that sort of thing?

1 MS. WEBB: A: Yes. And you're talking about active
2 employee benefits --

3 COMMISSIONER BIRCH: Yes.

4 MS. WEBB: A: -- or post-retirement benefits. Okay.

5 Active employee benefits. So the main activity we did
6 there in the late '90s is introduce flex benefits for
7 M&P employees. So we've been able to cap the cost in
8 that area, and our surveys would say we've been
9 effective in keeping our costs below the average for
10 similar benefit plans in the Canadian market.

11 In the hourly, the unionized work groups,
12 we've gone to three tiers, where in one level we -- they
13 take a lower selection and get some money back, we pay
14 the full cost of tier two, and in tier three they pay
15 for some additional benefits. We're currently in the
16 process of re-looking those, on how we can control that
17 cost.

18 The other area that we look at for benefit
19 cost is wellness in the workplace. So we have a return
20 to work program, we have an employee assistance program,
21 we have a variety of health check kind of activities,
22 where we're trying to encourage our employees to be
23 healthier and wiser health-care consumers.

24 COMMISSIONER BIRCH: Roughly what sort of savings do you
25 see in that, and where's that trend going?

26 MS. WEBB: A: I think unfortunately our benefit costs are

1 trending up, like other Canadian employers. So drug
2 costs in Canada are showing about a 15 percent increase
3 per year, so we're picking that cost up. We're seeing
4 some increase in long-term disability costs because of
5 new -- like other employers, new illnesses coming into
6 the group that's being -- that are being treated.
7 Dental costs are up because the fee schedules are up.
8 So generally, our benefit costs are going up, but not
9 out of pace with the general Canadian trend. So there's
10 nothing unusual about our benefit plans, but clearly we
11 need to continue to be active in trying to get those
12 costs going in a different direction.

13 COMMISSIONER BIRCH: Do you find any difference between
14 yourselves and the contractors? Are they facing the
15 same issues, or do they manage them in different
16 manners?

17 MS. WEBB: A: I'm not sure how the line contractors manage
18 benefits.

19 COMMISSIONER BIRCH: Okay. Mr. Maniago, yesterday you
20 testified that B.C. Hydro pays about \$50 an hour more,
21 plus corporate overheads, for its staff than outside
22 contractors, based on the assumption that B.C. Hydro
23 must provide emergency service through internal staff.
24 That seems to me a very major cost driver, that simple
25 assumption that the two-hour response time, say, in a
26 rural area, must be handled first of all by B.C. Hydro

1 staff.

2 Can you tell me what other business models
3 you've looked at to determine that that is the least-
4 cost approach?

5 MR. MANIAGO: A: The reviews I've done of the benchmarking
6 that shows us that first quartile in the areas of cost,
7 high customer satisfaction levels, is essentially the
8 report that I've looked at. Things like this Accenture
9 leading practices review confirms the strategy, I
10 believe, that we have adopted. I think that having a
11 core staffing internal cost that has that additional
12 administration, though, would be common, generally, no
13 matter who you used. I think that's the important thing
14 to remember.

15 When we look at the difference of 108 to 60,
16 for example, it really is an apple/orange comparison.
17 The 108 includes servicing 80 communities. The \$60 is
18 basically somebody dispatching from several locations to
19 different places. If we asked them to dispatch to
20 within an hour, that cost would not be \$60 an hour, in
21 my view.

22 COMMISSIONER BIRCH: What other things are you looking at,
23 I guess in the test years, to either consolidate the
24 number of stations you've got, or to potentially
25 outsource, or things like home mustering, what other
26 kinds of approaches do you see to try to keep the costs

1 under control?

2 MR. MANIAGO: A: Well, one of the things I would say,
3 first of all, is that we've looked at parts of our
4 business to see if we can outsource it. And one example
5 is our vegetation programs that we do on behalf of the
6 lines of business. All of the pruning and mechanical,
7 for example, is all publicly tendered. All outsourced.
8 We recently, as I mentioned yesterday, looked at our
9 fleet operations to see if there was some opportunity to
10 outsource that as well.

11 **Proceeding Time 10:28 a.m. T23**

12 So we are looking at elements of each of our
13 operations to see if there pieces or parts that we can
14 continue to look externally for a more effective
15 solution. And we will continue to do that.

16 In addition to those kinds of outsourcing
17 opportunities, we will be, through our service plan and
18 through our variable pay, looking to drive productivity
19 improvements regardless of where we are with things like
20 the Leading Practices Review. They will be part of the
21 next two years. They are ones that we may not see the
22 benefits in years 5 and 6, '05 and '06, but they will be
23 benefits that we hope to derive for future years as
24 well.

25 So we're looking to do whatever we can for
26 the test years and beyond.

1 COMMISSIONER BIRCH: Ms. Webb, under the B.C. Hydro Pension
2 Review, again, which was handed out yesterday, B1-44, on
3 page 33 they talk about the risk sharing arrangements of
4 the plan, and the quote at the bottom is:

5 "This arrangement is asymmetrical. The upside
6 is smaller than the downside for B.C. Hydro."

7 What are you doing in the pension area to again keep
8 costs reasonable?

9 MS. WEBB: A: So we've got a variety of reviews underway
10 or actions. I think the other comment you may have
11 picked up in this survey or this feedback was about
12 termination benefits. So we're looking at the design of
13 termination benefits and if they're competitive.
14 There's some sense from the report we may be overly
15 competitive in that area and need to address them.

16 We're looking at the funding arrangement
17 within the plan between the base plan and the index
18 plan. Currently there's language that suggests when we
19 overachieve on the actuarial assumptions, that money
20 goes into the index fund. Well, the index fund is
21 relatively well funded, and we would benefit of keeping
22 more money in the base plan, so we're looking at
23 changing that language.

24 We're looking at the whole issue of the
25 solvency requirement. So our understanding is we're the
26 only public sector plan in B.C. currently that's

1 required to do that. So do we really have to do that
2 funding, meet that funding obligation? And if we didn't
3 have to do a solvency calculation there would be some
4 savings there.

5 We're also looking at the defined
6 contribution plan, of how that would fit in our plan
7 design and the benefits, the pros and cons of that.

8 So there's several initiatives underway right
9 now in our pension plan structure to make sure it is
10 appropriate for the long term.

11 COMMISSIONER BIRCH: And one last comment. Mr. Maniago,
12 thank you for your efforts on safety. Obviously they're
13 working.

14 THE CHAIRPERSON: I would echo Commissioner Birch's last
15 comments. I appreciate the significance of safety in
16 the workplace as well, and thank you for that effort.

17 I'd like to turn to B1-9, the Leading
18 Practices Review, and again I'll turn to page 21. I'd
19 like you to, if you can, give us some estimate of the
20 costs to achieve these benefits that you've defined as
21 gross benefits, and also the major obstacles. And if
22 you can prioritize the obstacles, that would be helpful
23 as well. You've mentioned changes to your collective
24 agreement. There may be others. I'd like to hear your
25 comments in that regard, Mr. Maniago.

26 MR. MANIAGO: A: It's difficult for me to quantify the

1 cost. We've only had the one or two major initiatives
2 underway. I mentioned we expect that in the IT area our
3 costs are going to be about one and a half million
4 dollars. Beyond that, notionally I really don't have a
5 good handle that I'd feel comfortable to suggest to you
6 what the cost might be.

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

8 There are, as I mentioned earlier, to go
9 through a collective agreement it would be, I think, bad
10 faith bargaining for me to be trying to suggest what
11 that might be today. We just don't know what the costs
12 of those would be, so it's very difficult for me to
13 answer that question in terms of the costs.

14 They would not be insignificant, is what I
15 would suggest, and I think in general terms the benefits
16 here would certainly be reduced -- the net benefits
17 would be reduced fairly significantly from what is
18 suggested.

19 With respect to the major obstacles, I think
20 I have articulated a little bit what they would be. I
21 think first and foremost would be, I think, the
22 collective agreement negotiations, and just whether we
23 will have the opportunity to get into full and wholesome
24 negotiations at the conclusion of our agreement in 2005.

25 The second one I think that is referred to
26 here is the contractor improvements in administration.

1 I'm not sure that there isn't an obstacle there from a
2 triple bottom line in terms of community impacts. If,
3 as I say, we see going from let's suggest 80 contractor
4 firms to 20, what might be the implications of that in
5 various communities around the province? And that
6 would, I think, would also be a significant burden or
7 challenge to overcome.

8 I think the third is just the ability to
9 absorb and do this work, as well as doing everything
10 else that's on our plate.

11 So clearly the third is entirely in our
12 control. The other two, I think we need to have a
13 little bit of stakeholder involvement in those two
14 pieces.

15 THE CHAIRPERSON: Is it your impression that the benefits
16 are going to exceed the costs?

17 MR. MANIAGO: A: Absolutely. I definitely believe that
18 this is an opportunity for us to gain productivity.

19 The only thing I would add is the timing of
20 when we would get those benefits may be into the future
21 beyond the next year and a half, for example.

22 THE CHAIRPERSON: Why did the authors of this study not
23 consider the costs?

24 MR. MANIAGO: A: I think it goes to what the scope of the
25 project was that we had asked them to do. As Mr. Elton
26 had articulated in the early sessions, he had talked

1 about now that we have our lines of business
2 established, he expected that each of the organizations
3 would now start to think about how they could gain
4 productivity improvements into the future. And so what
5 we had done is we'd already embarked, as I described, an
6 initiative to start to continue to drive for gains, and
7 there's some 15 initiatives that are somewhat related to
8 this going forward.

9 But what we said is, well we've done an
10 internal review; can we look and ask somebody to give us
11 how are we doing against some of those leading
12 companies, never mind the first quartile, but who are
13 the best in class, and what are they doing compared to
14 us.

15 So we asked them really to focus on who are
16 the best in class, not only in the electric utilities
17 but across other sectors as well. What are they doing
18 that would help them improve their performance, and what
19 would make us go from first quartile to best in first
20 quartile?

21 So we really looked at it and said, really
22 that's what we want. We want our affirmation of are we
23 on the right track? Are there areas that we should
24 explore?

25 **Proceeding Time 11:32 a.m. T25**

26 And quite frankly, I wanted to get a report

1 that wasn't going to be that expensive. And I didn't
2 think that the cost necessarily would be something that
3 we needed at this time because that would have required,
4 I think, significant effort. And in addition to that,
5 we would have had to quantify what is it that collective
6 bargaining would be needed, and I think all we wanted to
7 have was the directional notion.

8 So we were trying to frame an external view
9 of the future for ourselves.

10 THE CHAIRPERSON: Is this report with respect to your
11 practices broad enough in terms of the practices that it
12 in fact delivers on what you just suggested that it
13 might, that it provides a vision for you for the future?

14 MR. MANIAGO: A: I think it gives us a very good road map
15 for the future. Six months from now things may change
16 and I'll be out there looking to see what other good
17 things are happening. We will keep an eye to the
18 external markets, but I think this will give us a very
19 good road map that confirms what we've been doing
20 internally, but also gives us some ideas of where we
21 could perhaps go further.

22 I guess the classic example for me was trying
23 to reduce our administration costs, and we've been --
24 you know, we've been driving and driving and driving
25 trying to reduce it, but at the end of the day I'm
26 beginning to wonder whether it's misplaced in that

1 perhaps we should have sustained them at a higher level
2 and had more of our people in the field, the managers
3 for example, doing crew reviews or doing more time
4 checks or doing the quality and positive reinforcement
5 that ought to have been happening in the field.

6 So it's that balancing act, that I think this
7 opened my eyes up at least to say, "Whoa, wait a minute.
8 Don't just focus on cost reduction. In this area you've
9 got to really look at the big picture when you're making
10 those determinations." And I think that's what this did
11 for me.

12 THE CHAIRPERSON: Turning to your second obstacle, reducing
13 the number of contractors and the implications that
14 might have on the communities that you're operating in.
15 How significant is that consideration going to be for
16 you when it comes down to implementing this road map? I
17 mean, do you see that? If the benefits and the costs --
18 if the benefits exceed the cost, would that prevent you
19 from in fact implementing that recommendation?

20 MR. MANIAGO: A: I think that if we -- I think the answer
21 is possibly, depending on that social dimension or that
22 economic input that we would have. So yes, it's
23 possible. It might prevent -- again it depends on the
24 significance of the net benefit, I think would be
25 critically looked at, and what would that translate
26 into.

1 I know that we had tried, in fact, in another
2 -- some time ago to package a bigger bundle of work
3 together in around vegetation, and the benefits we
4 thought would be realized didn't come to fruition as we
5 had thought. So we would look at very carefully, Mr.
6 Chair. I just cannot commit to say if it's just a
7 little bit more, would I do it? Probably not. If it's
8 significant, I would say we would have to clearly look
9 at that from the point of view of all ratepayers.

10 THE CHAIRPERSON: That's a piece that's independent, if you
11 will, from the collective agreement issues.

12 MR. MANIAGO: A: Yes.

13 THE CHAIRPERSON: So you could implement changes in that
14 regard and they wouldn't be linked to the collective
15 agreement issues.

16 MR. MANIAGO: A: That is correct on a direct basis.
17 Moving to that may lead to those contractors having
18 collective agreement issues with their respective work
19 forces.

20 So if we wanted more, then we would have our
21 collective agreement issues. By going this route, it
22 may, and I'm not saying it would, but it's possible that
23 those larger contractors might have to enter into
24 different sets of collective agreement provisions with
25 their workers.

26 **Proceeding Time 10:36 a.m. T26**

1 THE CHAIRPERSON: Right. The unit price arrangement that
2 you have with some of your contractors --

3 MR. MANIAGO: A: Right.

4 THE CHAIRPERSON: -- includes what you referred to as
5 emergency work.

6 MR. MANIAGO: A: Right.

7 THE CHAIRPERSON: Is that emergency work at the
8 distribution level?

9 MR. MANIAGO: A: It could be at both the distribution
10 level and at the transmission level. But I would say
11 that the vast bulk, the vast majority of it, is at the
12 distribution level. We did, for example, some work
13 around slides that affected some of our transmission,
14 where we had some types of contractors doing
15 geotechnical checks to make sure it was safe for our
16 people to approach the sites. So that's the kind of
17 thing that we would do there. But when it's a major
18 rebuild, then it would be done differently.

19 THE CHAIRPERSON: Right. But it's not -- are you able to
20 use that unit price arrangement with your contractors to
21 influence the number of core employees that you have for
22 -- particularly for your field services, your field
23 offices in the Interior?

24 MR. MANIAGO: A: Well, that's the key point for us, as I
25 mentioned yesterday. Once we have our core staff
26 established, we make sure that they are fully occupied

1 during the day. So, for example, if they're not dealing
2 with emergencies, then we want them to be doing
3 something else, which is typically adding plant or
4 fixing plant for our clients. And so, the unit price
5 would potentially be used in some of those jurisdictions
6 to augment. But typically the unit price is used in the
7 more urban centres, where the work is more dramatic.
8 Generally local work contracts are what are used in the
9 outlying areas. There's a little bit of unit price, but
10 very little, from what I can recall.

11 THE CHAIRPERSON: Okay. If the requirements for your
12 services were changed so the response time was changed,
13 and I'm thinking in both directions -- from the two
14 hours in the rural areas to one-and-a-half to two-and-a-
15 half, to pick two points. Would that have -- is there a
16 fairly direct correlation between that response time and
17 costs? Is it --

18 MR. MANIAGO: A: I believe that there is. Not as subtle
19 as -- if it's the range that you describe, if you said
20 two-and-a-half compared to two, I would say, no. But if
21 we said, for example, a response time of six hours
22 versus two, then I would, no doubt, revisit my core
23 staffing and change it. Because instead of having 87
24 locations I might have 70 locations. Or 65 locations.
25 So there's no question that that will drive my core
26 staff. No doubt. But it depends on the difference, and

1 if it's a half-an-hour, then I think it's just too small
2 an increment to make a difference. To go from two to
3 one, could in fact have a potential upward pressure on
4 my core staff.

5 THE CHAIRPERSON: Right. And it's as simple as just drive
6 time here. Because response time is time from the call
7 to the time on site.

8 MR. MANIAGO: A: That is correct.

9 THE CHAIRPERSON: So --

10 MR. MANIAGO: A: Exactly.

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

12 THE CHAIRPERSON: It's just a simple matter of doing the
13 logistics across the province.

14 MR. MANIAGO: A: That's it exactly, correct. The simple
15 example is if I have an outage in Prince Rupert, and if
16 it's six hours, where do I put those people? I could
17 put them in Terrace. And I may be able then to, you
18 know, we have more concentric circles in terms of your
19 planning.

20 THE CHAIRPERSON: Right, which is what's driving your
21 comment that you might not see much of a change in terms
22 of your core staffing requirements --

23 MR. MANIAGO: A: Depending.

24 THE CHAIRPERSON: -- if you go from two hours to two and a
25 half hours.

26 MR. MANIAGO: A: Precisely.

1 THE CHAIRPERSON: But if it's six hours it --
2 MR. MANIAGO: A: That makes a big difference, yeah.
3 THE CHAIRPERSON: -- it becomes significant.
4 MR. MANIAGO: A: Correct.
5 THE CHAIRPERSON: I'd like to -- and I don't think you need
6 to turn to this IR. You've mentioned it, Ms. Webb. But
7 CEC 1.2.2.1 identifies the amount in the revenue
8 requirement for the variable pay payments, and as I
9 said, I don't -- if you've got it handy you can look at
10 it, but I don't think you need to for the purposes of my
11 question. And then in 3-31, which is -- it's Volume B1-
12 1, page 3-31, there's a table, Table 3-12, that sets out
13 the target variable pay percentages.
14 MS. WEBB: A: Yes, I'm just getting that chart.
15 THE CHAIRPERSON: Okay, I'll wait for you.
16 MS. WEBB: A: Thank you. Yes.
17 THE CHAIRPERSON: Are those numbers, the eight and the
18 eight and a half million, based on those target variable
19 pay percentages?
20 MS. WEBB: A: That's right, paying to the target.
21 THE CHAIRPERSON: Okay. So you may be above or below
22 depending on what the actual --
23 MS. WEBB: A: That's right.
24 THE CHAIRPERSON: -- payments are. And you're one year
25 behind, so your '06 variable pay -- the variable pay
26 payments for performance in '06 will be made after the

1 end of the test period.

2 MS. WEBB: A: Would be paid in '07, that's right.

3 THE CHAIRPERSON: But you have included in the revenue
4 requirements for '05 and '06 the -- you've made the
5 assumption, have you, that the payments for performance
6 in those two years would in fact be made in those years?

7 MS. WEBB: A: My understanding of the assumption is that
8 the '04 earned variable pay would be paid -- would be
9 the \$8 million. So the variable pay we just calculated
10 would be paid in '05.

11 THE CHAIRPERSON: Okay, so the amount in the revenue
12 requirement for '05, I understood from CEC 1.2.2.1, is
13 the 8 million.

14 MS. WEBB: A: That was the forecast.

15 THE CHAIRPERSON: That's your forecast that's included in
16 the revenue requirement for that.

17 MS. WEBB: A: Right.

18 THE CHAIRPERSON: And you're telling me now that that is
19 for performance in 2004.

20 MS. WEBB: A: That's right.

21 THE CHAIRPERSON: Okay. And then for '06 similarly, the 8
22 and a half million is for performance in '05.

23 MS. WEBB: A: Right, paid in '06, that's right.

24 THE CHAIRPERSON: Okay.

25 Yesterday, Mr. Maniago, Mr. Wallace asked you
26 to provide a comparison of, if you will, the business

1 case for your replace versus maintain decision with
2 respect to fleet. Do you own most of your vehicles or
3 do you lease some of your fleet?

4 **Proceeding Time 10:44 a.m. T28**

5 MR. MANIAGO: A: We own virtually all of it. In fact, we
6 just went through an outsourcing review where we put out
7 for tender a potential sale leaseback of a portion of
8 our fleet, which was the lighter vehicles, not the heavy
9 equipment. And I can't remember the exact number of
10 cars, but it might have been about a thousand something,
11 in that order. And we received proposals for that kind
12 of an arrangement, and we found that when we did the
13 analysis or the comparison, the cost of our debt
14 compared to the cost of that leasing arrangement was
15 that it was not attractive for us to do that sale
16 leaseback arrangement.

17 THE CHAIRPERSON: Do you do your own maintenance?

18 MR. MANIAGO: A: On the heavy equipment, the heavier
19 trucks that have a lot of specialized hydraulics which
20 go to our safety type things, that is all done in house.
21 We do a fair amount of outsourcing and contracting of
22 parts of our lighter fleet, and we will in fact -- part
23 of our strategy now is that we are providing third party
24 service to people like Terasen for some of their lighter
25 fleet, and as far as our outsourcing we've decided to
26 exit that line of business, and we have advised Terasen

1 we will no longer provide that particular type of thing.

2 THE CHAIRPERSON: Can you turn to Volume 10, page 1554
3 please.

4 MR. MANIAGO: A: Sorry, page 1554?

5 THE CHAIRPERSON: Yes, 1-5-5-4, lines 18 to 23. You refer
6 to a business case in that answer, and I'd just like to
7 confirm with you the scope of that business case.

8 MR. MANIAGO: A: What I was referring to here was the
9 review of whether an individual or a department requires
10 a car or a truck to be replaced, and it had reached a
11 certain point in terms of its criteria being too many
12 miles, there was lots of breakdowns, we were having
13 problems, that kind of thing. If it was a replacement,
14 one for one exchange, then we have criteria that require
15 that a manager of an operating unit say yea or nay as to
16 whether that person needs it to be replaced or not.

17 **Proceeding Time 10:48 a.m. T29**

18 Once that person makes that determination,
19 they forward it to my fleet operations, and my fleet
20 manager would say, okay, they have a need for the car to
21 be replaced, and it's documented on this criteria list.
22 That fleet manager would then review it and say, we
23 could supply that replacement through either a
24 reallocated car from somewhere else that we have in our
25 pool, or we may have to go out and acquire a new one.
26 So they would look at that from that perspective.

1 I think -- to be really clear here, if we in
2 fact are deciding on whether to acquire or not, that's
3 another whole matter. And that's the business case that
4 we would be talking about, in terms of strategy as to
5 when to replace, how much maintenance to put into a
6 vehicle, etc., etc. So we do have that kind of an
7 approach. But looking at this, the first -- this is
8 really talking about just to get to the point where the
9 car is decided on, whether they need another one or not.
10 That's what lines 8 through 20 was trying to address.
11 But then, fuller, later on, when I talk about a business
12 case, it's the fuller business case that looks at
13 maintenance, replacement, how long do we keep vehicles,
14 what's our strategy, and that's a different one than
15 this particular one that I was referring to at this
16 line.

17 THE CHAIRPERSON: Right. And Mr. Wallace takes you to the
18 latter one --

19 MR. MANIAGO: A: Yes.

20 THE CHAIRPERSON: -- and that's your undertaking.

21 MR. MANIAGO: A: Yes.

22 THE CHAIRPERSON: Do employees have the option of using
23 their own vehicles -- and I'm thinking now of pickups,
24 and that sort of thing, instead of a company vehicle?

25 MR. MANIAGO: A: Yes. We have an arrangement that they --
26 individuals, if they need a certain threshold or so many

1 kilometers per month, below which it is cheaper for us
2 to go potentially with an employee using their own
3 vehicle, and we do authorize that. And so the answer to
4 your question is yes.

5 THE CHAIRPERSON: And what's the rate?

6 MR. MANIAGO: A: The rate, it's on a per-kilometer basis
7 that we would reimburse an individual. I'm -- the
8 number 46 cents per kilometer rings a bell, that -- but
9 per kilometer up to a certain level, like I think it's a
10 thousand, it's 46 cents a kilometer and then I think it
11 declines after that. But it's in that 46 to 50 cents a
12 kilometer. I would have to get the specifics if you'd
13 like to have the information, but we do definitely have
14 it and it is on a per-kilometer basis, and it would only
15 be authorized if it's under a certain amount of usage.
16 Beyond that usage level, it's more economic for us to
17 supply the vehicle.

18 THE CHAIRPERSON: Okay. Thank you. Those are our only
19 questions. Thank you, you may stand down.

20 MR. MANIAGO: A: Thank you.

21 THE CHAIRPERSON: Pardon me, I often forget this. Mr.
22 Christian, do you have any re-direct.

23 MR. CHRISTIAN: I have no re-examination, thank you.

24 THE CHAIRPERSON: Thank you. You may stand down.

25 MR. MANIAGO: Thank you.

26

(PANEL ASIDE)

1 THE CHAIRPERSON: It's way past our time for our break.
2 Let's take 15 minutes now.

3 **(PROCEEDINGS ADJOURNED AT 10:52 A.M.)**

4 **(PROCEEDINGS RESUMED AT 11:08 A.M.)** **T30**

5 THE CHAIRPERSON: Please be seated.

6 MR. FULTON: Mr. Chairman, I have one preliminary matter,
7 and it's a follow-up to the exchange that you had with
8 Mr. Wallace on the electronic filing of documents. I'm
9 advised by the hearing officer that all the hearing
10 exhibits will be electronically available at the
11 *allwestbc.com* website by about 1 o'clock today, and they
12 will be available on the Commission website a little
13 later. It's just that there's some time lag involved to
14 getting them onto the Commission website, but certainly
15 they'll be available on the *allwestbc.com* website by
16 one-ish.

17 THE CHAIRPERSON: Thank you. This is the first proceeding
18 under the new document filing protocols, and one of the
19 objectives was to ensure that all documents were
20 available electronically, and I'm pleased to hear that,
21 Mr. Fulton.

22 MR. FULTON: Thank you.

23 THE CHAIRPERSON: Go ahead.

24 MR. SANDERSON: Mr. Chairman, Mr. Bemister is now kindly
25 affirming the next panel, which is Panel 4, dealing with
26 the cost of energy.

1 **B.C. HYDRO PANEL 4**
2 **MARY HEMMINGSEN, Affirmed:**
3 **RICHARD MARCHANT, Affirmed:**
4 **STEVE HOBSON, Affirmed:**
5 **BEVERLEY VAN RUYVEN, Resumed:**
6 **EXAMINATION IN CHIEF BY MR. SANDERSON:**
7 MR. SANDERSON: Q: Ms. Van Ruyven, if I can start with
8 you, you have previously been sworn or affirmed in these
9 proceedings?
10 MS. VAN RUYVEN: A: Yes I have.
11 MR. SANDERSON: Q: And I understand you're prepared to
12 act as the chair of this panel?
13 MS. VAN RUYVEN: A: Yes I am.
14 MR. SANDERSON: Q: Ms. Hemmingsen, I wonder if you could
15 just indicate your position with Hydro for the record.
16 MS. HEMMINGSEN: A: I manage B.C. Hydro's Planning and
17 Portfolio Management Group.
18 **Proceeding Time 11:10 a.m. T31**
19 MR. SANDERSON: Q: Thank you, and I understand that you
20 filed direct testimony. It appears under the tab
21 bearing your name in Exhibit B1-9?
22 MS. HEMMINGSEN: A: I have.
23 MR. SANDERSON: Q: And are there any changes or additions
24 to that testimony you'd like to make?
25 MS. HEMMINGSEN: A: No.
26 MR. SANDERSON: Q: Can you adopt it as your evidence in

1 this proceeding?

2 MS. HEMMINGSEN: A: I can.

3 MR. SANDERSON: Q: Thank you.

4 Mr. Marchant, perhaps similarly you could
5 describe your responsibilities at B.C. Hydro.

6 MR. MARCHANT: A: I'm responsible for the Customer Care
7 and PowerSmart functions at B.C. Hydro.

8 MR. SANDERSON: Q: And I understand you too have filed
9 written evidence in this proceeding under your name in
10 that same exhibit?

11 MR. MARCHANT: A: Yes, I have.

12 MR. SANDERSON: Q: And are there any changes or additions
13 to that testimony?

14 MR. MARCHANT: A: No, there are none.

15 MR. SANDERSON: Q: Can you adopt it as your testimony in
16 this proceeding?

17 MR. MARCHANT: A: Yes I can.

18 MR. SANDERSON: Q: Thank you.

19 Mr. Hobson, what is your responsibility at
20 B.C. Hydro?

21 MR. HOBSON: A: I'm the Marketing Manager with Customer
22 Care and PowerSmart.

23 MR. SANDERSON: Q: I see, and have you filed testimony in
24 this proceeding under the tab bearing your name?

25 MR. HOBSON: A: Yes I have.

26 MR. SANDERSON: Q: And are there any changes you'd like

1 to make to that or additions to it?

2 MR. HOBSON: A: No.

3 MR. SANDERSON: Q: Can you adopt it as your evidence in
4 this proceeding?

5 MR. HOBSON: A: Yes I can.

6 MR. SANDERSON: Q: Ms. Van Ruyven, was there anything you
7 had by way of opening statement for this panel?

8 MS. VAN RUYVEN: A: No I do not.

9 MR. SANDERSON: Mr. Chair, this panel is ready for cross-
10 examination.

11 **CROSS-EXAMINATION BY MR. JONES:**

12 MR. JONES: Q: Good morning, panel, Commission panel. My
13 name is Chris Jones. I'm counsel for the Sierra Club of
14 Canada, B.C. Chapter, in this proceeding. I'll be
15 asking you, not surprisingly, about PowerSmart.

16 **Proceeding Time 11:12 a.m. T32**

17 My first question is with respect -- I'm
18 going to have a series of questions, I should say, with
19 respect to avoided costs, and the first is with respect
20 to capacity savings. Would you agree with me, and I'm
21 not directing this to anyone in particular, I'll leave
22 that to Ms. Van Ruyven or others on the panel. Would
23 you agree with me that efficiency programs such as those
24 included within PowerSmart help to avoid or delay the
25 need for new generation capacity?

26 MR. MARCHANT: A: Yes, they can.

1 MR. JONES: Q: And would you also agree with me that the
2 PowerSmart ten-year plan does not place a value or
3 account for generator capacity savings resulting from
4 the programs instituted as part of that plan?

5 MR. HOBSON: A: I would say that we have not placed a
6 specific value on capacity savings. Generator capacity
7 savings, I would suggest, are within the avoided cost of
8 supply.

9 MR. MARCHANT: A: Just to add to that, in the cost of
10 energy that we use when we're evaluating a PowerSmart
11 program, both the value of energy and capacity are
12 assumed to be in that cent per kilowatt hour value. So
13 we assume that the value of generation is within that
14 figure. We have not specifically accounted for any
15 benefits the system might derive from deferring a
16 transmission or distribution investment, but we're
17 presuming that the value of generation is captured in
18 the cent per kilowatt hour that we comparing too.

19 MR. JONES: Q: Okay, well I was actually thinking about
20 your response to a CEC Information Request, and maybe I
21 can just follow up on that. I don't have to take you to
22 it, I don't think. It's CEC 1.54.1.1. You can turn to
23 it if you like. I was simply going to read it out for
24 you, but feel free.

25 **Proceeding Time 11:14 a.m. T33**

26 MR. MARCHANT: A: Yes, we have it.

1 MR. JONES: Q: Okay, let's just make sure we're talking
2 about the same thing. Perhaps I'll just -- I'll first
3 follow up with your response, Mr. Hobson. Or perhaps it
4 was Mr. Marchant, I'm not sure. With respect to
5 accounting for generation capacities savings. Is that
6 accounted for as part of the benefits ascribed to
7 PowerSmart programs within the ten-year plan? In other
8 words -- sorry, go ahead.

9 MR. MARCHANT: A: Our presumption in the PowerSmart ten-
10 year plan is that when we've made comparisons of the
11 programs we've put forward and done our cost
12 evaluations, we're doing it against the price forecast.
13 And that the price forecast, expressed in cents per
14 kilowatt-hour, captures the value of energy and
15 capacity.

16 MR. JONES: Q: All right. I think I'm understanding you.
17 Maybe I'll just turn to that information request now.
18 And the answer was that kilowatt savings are not
19 included as a benefit in the calculations of the ten-
20 year plan. Is that consistent with what you were just
21 telling me, or where am I going wrong?

22 MR. HOBSON: A: I think the differentiation here is
23 between capacity savings at the generator, and capacity
24 savings through the transmission and distribution
25 system.

26 MR. JONES: Q: I see. Would you care to elaborate on

1 that?

2 MR. HOBSON: A: To go further, I think what we're trying
3 to express here is that transmission and distribution
4 capacity savings are not included as an explicit value
5 within the benefits of the plan.

6 MR. JONES: Q: Okay.

7 MR. HOBSON: A: But built into the value of the avoided
8 cost of supply, it would lead you to think that the
9 generator capacity value would be a part of that cost.

10 MR. MARCHANT: A: And the impact of PowerSmart programs,
11 the capacity impact on the system, is accounted for in
12 the load forecast. So we would generate our estimates
13 of what the energy savings would be, and from that we
14 would derive what the capacity impact would be, and
15 that's accounted for in the planning that's done.

16 So in that sense, going forward, again, the
17 capacity impact of the energy-driven programs is
18 accounted for.

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

20 MR. JONES: Q: I see, okay. Maybe then I will turn you,
21 just to make sure I am fully understanding you, and
22 perhaps this would just be by way of confirmation, I'll
23 turn you to Volume 2 of the application, Appendix I
24 which is the ten-year plan.

25 MR. HOBSON: A: Yes, we have that.

26 MR. JONES: Q: Do you have that?

1 MR. HOBSON: A: Okay.

2 MR. JONES: Q: I'm looking on page 8, top of page 8, and
3 you'll see there a note at the top of page 8. Are you
4 with me there?

5 MR. HOBSON: A: Yes.

6 MR. JONES: Q: Okay. Mr. Sanderson, I'm on page 8 of the
7 appendix.

8 MR. HOBSON: A: I've got it.

9 MR. JONES: Q: Okay. Again I'm looking at -- I'm looking
10 at the entire note, which I will -- I'll read into the
11 record. The note:

12 "Application of the costs of new supply to the
13 energy savings by region is beyond the scope
14 of this analysis."

15 There's a note within the note, which I will skip, and
16 then the last sentence says:

17 "In addition, for the purpose of conservatism,
18 capacity savings were not estimated or valued
19 in this analysis, thus making the analysis
20 conservative."

21 And I guess I'll return to the same question. Is what
22 you were saying, telling me before, consistent with that
23 note? And if so, perhaps you could explain how that is.

24 MR. HOBSON: A: Yeah, I still see that as being
25 consistent. I think all we're trying to say is there is
26 no additional value for capacity savings beyond the

1 avoided costs of new supply that we have built into the
2 plan.

3 MR. JONES: Q: Okay, that's helpful, thank you.

4 MR. HOBSON: A: Yeah, not to say that we don't think
5 there are benefits to the transmission and distribution
6 system that we have not accounted for.

7 MR. JONES: Q: Okay. I'm sorry, did you say benefits to
8 the transmission and distribution system?

9 MR. HOBSON: A: Yeah, we've not placed any value on,
10 let's say, the potential of an energy efficiency program
11 delaying addition of a substation, deferral of
12 improvement of a line.

13 MR. JONES: Q: Okay, all right. So when in this note, in
14 the last sentence I read, when it refers to capacity
15 savings being not estimated or valued, again that's
16 transmission distribution capacity?

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

18 MR. JONES: Q: I see, okay. All right. Perhaps that's
19 something I'll turn to now then. So your evidence is
20 that the ten-year plan did not place a benefit on
21 avoided transmission or distribution upgrades, is that
22 correct?

23 MR. HOBSON: A: Yes.

24 MR. JONES: Q: Okay. Would you agree with me that
25 efficiency programs such as those included within
26 PowerSmart are particularly well suited to reductions in

1 transmission and distribution costs, as they essentially
2 address electricity demand at that source?

3 **Proceeding Time 11:20 a.m. T35**

4 MR. MARCHANT: A: Just seeking some clarification there
5 about how the figures are used when we go forward with
6 our capital planning, and the capacity impacts do indeed
7 impact the future planning for transmission and
8 distribution systems.

9 MR. JONES: Q: Okay.

10 MR. MARCHANT: A: I guess the point we were trying to make
11 is that we don't accrue a value to PowerSmart from that
12 activity.

13 MR. JONES: Q: That's fine. And perhaps I'll just return
14 my question, perhaps you didn't understand it. My only
15 point was that efficiency programs such as those which
16 are included within PowerSmart are particularly
17 effective with respect to the reduction in transmission
18 and distribution costs, because they are, virtually by
19 definition, a reduction of energy use at the source.

20 MR. MARCHANT: A: I would agree. I would add that they
21 can be effective if you're targeted -- if you're looking
22 at using PowerSmart or energy savings to defer capital
23 investment in distribution in particular, as an example.
24 You would have to have advanced warning of when the need
25 is required. Energy efficiency programs are not
26 something that you start and do in a couple of months.

1 So if we have an opportunity in the
2 distribution system with enough advanced warning, to get
3 localized benefits that were identifiable, I would agree
4 with you.

5 MR. JONES: Q: Okay. As a result of the fact that those
6 -- the transmission/distribution capacity savings are
7 not included within the ten-year plan, would you
8 characterize the ten-year plan as conservative in that
9 regard?

10 MR. HOBSON: A: Yes.

11 MR. JONES: Q: And in fact, would you say that the ten-
12 year plan underestimates the benefits -- that the ten-
13 year plan underestimates the benefits of some of the
14 efficiency programs within PowerSmart, and within the
15 ten-year plan, as a result of those benefits not being
16 included?

17 MR. HOBSON: A: Yes.

18 MR. JONES: Q: I just wanted to turn to a similar topic,
19 perhaps, with respect to Vancouver Island and
20 constrained areas. I don't think these are
21 controversial, but I'll just have them for you on the
22 record. As I understand it, the HVDC cable serving the
23 island will be retired for planning purposes in or about
24 2007?

25 MS. HEMMINGSEN: A: That's correct.

26 MR. JONES: Q: Thank you. In addition, as I understand

1 it, although there is a call for tenders in place to add
2 additional capacity on Vancouver Island, there remains a
3 projected shortfall of some 30 megawatts by 2008. Is
4 that right?

5 MS. HEMMINGSEN: A: You're referencing the shortfall that
6 arises from our filed load forecast, that identifies the
7 requirements in 2007? Is that what you're referencing?

8 MR. JONES: Q: I'm actually, I'm just referencing -- I can
9 give you the reference, if you like. I am referencing
10 the Integrated Electricity Plan at page 37, and I'm
11 happy to read to you, if you like.

12 "On this basis and including the impact of
13 PowerSmart, there would be still be
14 approximately a 30 megawatt shortfall in
15 2008."

16 Is that right?

17 MS. HEMMINGSEN: A: That's correct.

18 MR. JONES: Q: Okay, thank you. Would -- Mr. Marchant,
19 did you want -- I didn't want to cut you off.

20 Would you, would the panel agree with me then
21 that Vancouver Island could be characterized as a
22 constrained -- as capacity constrained?

23 MS. HEMMINGSEN: A: It is capacity constrained as a result
24 of the retirement of the cable. Or will be.

25 MR. JONES: Q: Okay. Are there other areas in the
26 province which you would similarly characterize that

1 way?

2 **Proceeding Time 11:24 a.m. T36**

3 MS. HEMMINGSEN: A: I'm not aware of any that are
4 capacity constrained at this point in time. In the
5 future there may be areas that are capacity constrained
6 and require additional transmission infrastructure.

7 MR. JONES: Q: All right. Would you agree with me that
8 to the extent efficiency programs can ease pressure on
9 regions which are capacity constrained, this should be
10 regarded as a benefit of those programs.

11 MS. HEMMINGSEN: A: Well, I think it is. In the IEP we
12 undertake a system based analysis. So to the extent
13 that PowerSmart initiatives produce capacity reductions,
14 that reduction would be factored into the timing of new
15 transmission infrastructure. For example, for the
16 interior to Lower Mainland cables, there's various
17 scenarios evaluated in the Integrated Electricity Plan
18 that point to earlier or later in service, and
19 PowerSmart is very important in allowing a later in-
20 service, because PowerSmart activity is, the ten-year
21 plan is producing 500 megawatts of capacity savings.

22 So it is evaluated in the context of the
23 system.

24 MR. JONES: Q: So it's evaluated in the context of the
25 system though restricted to your evaluation of the IEP,
26 is that right?

1 Let me put the question directly to you. Is
2 the benefit that you have just described, is that
3 benefit accounted for in the ten-year plan?
4 MS. HEMMINGSEN: A: It would be accounted for in terms of
5 the net present value of the portfolio that incorporated
6 PowerSmart. So the portfolio would include all of the
7 capital or all of the energy purchases that were
8 required to meet load under that portfolio. So to the
9 extent PowerSmart deferred a transmission investment,
10 that would be reflected in the NPV in terms of a reduced
11 value, reduced cost.
12 MR. HOBSON: A: That would be within the context of the
13 IEP, not the ten-year plan.
14 MR. JONES: Q: That was my question.
15 MR. HOBSON: A: Yes.
16 MR. JONES: Q: Okay, maybe so we can have it clearly on
17 the record, you can just make that point.
18 MR. HOBSON: A: Yes. I think one of the things to note is
19 really the ten-year plan is really a collection of
20 programs and costs and their related energy savings, and
21 we are comparing those back against an avoided cost of
22 supply, and within the guidelines that we've set out in
23 the plan we produced inputs essentially for the IEP, and
24 the IEP is really the context for comparing all these
25 other options. So for the ten-year plan to be the
26 context for bringing those types of analysis into play,

1 is really not the appropriate place.

2 MR. JONES: Q: Oh, I see. But -- okay. So the answer, I
3 guess, to my question is, yes, those benefits aren't
4 included within the ten-year plan, and the reason you're
5 giving, as I understand it, is that that's only possible
6 on a comparative basis.

7 MS. HEMMINGSEN: A: We have to look at the system-wide
8 impact and that analysis is done through the IEP.

9 MR. JONES: Q: Okay. All right. Well, I think actually
10 I'll get to a question I think right on that point in
11 the IEP. Is it -- I'll put this question to you, I'm
12 not sure, again your answer may be along the same lines,
13 Mr. Hobson.

14 Is it fair to characterize the ten-year plan
15 as conservative for having not included within it, as
16 opposed to its evaluation of the IEP, included within it
17 benefits ascribed to PowerSmart efficiency programs
18 resulting from benefits to constrained regions?

19 MR. HOBSON: A: To the extent that the IEP would show that
20 there are transmission and distribution capacity savings
21 related to the PowerSmart programs, then the ten-year
22 plan would be conservative in that it does not include
23 those benefits.

24 MR. JONES: Q: Thank you. Okay, I'm going to try to wrap
25 up those questions into one package and I'm not sure
26 that it's a package you'll be able to swallow, but we'll

1 see. To the extent that the ten-year plan does not
2 account for things that we've been describing,
3 transmission, distribution and generation capacity
4 savings, would you agree with me that the ten-year plan
5 does not capture all of the benefits of efficiency
6 programs as identified in the California Standard
7 Practice Manual? And again that document, just for
8 reference, is attached to your evidence, Mr. Hobson.

9 **Proceeding Time 11:29 a.m. T37**

10 MR. HOBSON: A: Could you repeat the question please?

11 MR. JONES: Q: Sure, of course. To the extent that the
12 ten-year plan does not account for transmission,
13 distribution and perhaps generation capacity savings,
14 would you agree with me that the ten-year plan does not
15 capture all of the benefits of efficiency programs as
16 identified in the California Standard Practice Manual?
17 And if you like, the Standard Practice Manual is
18 attached to your evidence which is Exhibit B1-31, and
19 specifically I'm thinking of --

20 MR. HOBSON: A: I actually have the reference in front of
21 me here.

22 MR. JONES: Q: Okay.

23 MR. HOBSON: A: I would agree with your statement to the
24 extent -- I think the best way for me to answer this is
25 to say, to the extent that the IEP proves out that there
26 are those benefits, I would agree with your statement

1 that the tests would allow us to include those types of
2 benefits within the parameters of the ten-year plan.

3 MR. JONES: Q: And the implication of your answer is that
4 those benefits are not currently included within the
5 ten-year plan?

6 MR. HOBSON: A: The benefits that would be proven out
7 through the IEP would not be -- around transmission and
8 distribution capacity savings, are not included in the
9 ten-year plan, that's correct.

10 MR. JONES: Q: All right, thank you.

11 I wanted to talk about just one, I think,
12 relatively discrete point at this point with respect to
13 non-electricity customer benefits. I'll just make a
14 reference to you. At page 5 of the ten-year plan, and
15 also in reference to a BCUC information request, B.C.
16 Hydro notes that for some PowerSmart programs non-
17 electrical customer benefits were excluded from the TRC
18 or total resource cost calculation as they had not been
19 quantified. What benefits are we talking about there?

20 MR. HOBSON: A: They can really range, but I mean non-
21 electricity benefits, depending upon the sector, could
22 range from things like operation and maintenance
23 savings, productivity, fuel savings, a real range of
24 things. It could be as much as comfort in the
25 residential sector. And what it really speaks to is an
26 investment that a customer is making in a measure that

1 is producing energy savings. It is often included in
2 other benefits as part of the criteria for the making of
3 decision. And the difficulty we face is trying to
4 isolate the investment that they're making specific to
5 the energy savings benefit.

6 So you really have two choices. You can
7 either try to isolate the cost specific to the energy
8 savings investment, or you can try to offset that by
9 assuming some level of non-energy benefits that are
10 factoring into the investment decision by the customer.

11 They're difficult things to quantify, and
12 what we've been very conservative in in the ten-year
13 plan is not applying a significant amount of non-energy
14 benefits within the plan. So in that sense I would
15 suggest that for the total resource cost tests, we're
16 understating the benefits within that cost test.

17 **Proceeding Time 11:33 a.m. T38**

18 MR. JONES: Q: I think those answered my next few
19 questions, thank you.

20 We've just finished a series of questions
21 related to the exclusion of certain benefits
22 attributable to energy-efficiency programs which were
23 left out of the ten-year plan, as a result of what
24 you've described as conservatism. To the extent that
25 B.C. Hydro agrees that the benefits were excluded, and I
26 think we've -- I've received large agreement that there

1 have been some benefits, at least, excluded from the
2 ten-year plan. Would you also agree that the inclusion
3 of such benefits would have an impact on the rates which
4 -- or the impact on rates as attributable to the demand-
5 side management programs?

6 MR. HOBSON: A: I'm not sure I understood your question.

7 MR. JONES: Q: Okay. To the extent -- I'll try to re-word
8 that better. To the extent that there were benefits
9 excluded from the ten-year plan, as we've been
10 discussing, would that -- what impact would that have
11 with respect to B.C. Hydro's revenue requirement and
12 therefore its impact on rates?

13 MR. HOBSON: A: I think the simple answer to this is
14 really the inclusion of these benefits, or the ability
15 to isolate the costs specific to the energy savings
16 would have an impact on the total resource cost tests,
17 specifically, and would result in improved total
18 resource cost tests for the various programs, where non-
19 electricity benefits were then applied. I don't believe
20 it would have changed the direction that we followed,
21 and the plan, and therefore I don't see how it would
22 change the revenue requirement.

23 MR. JONES: Q: All right, thank you. Just to move on.
24 Would you agree with me that the ten-year plan devalued
25 the costs and benefits of efficiency programs in the
26 year in which they were incurred? And I'm just

1 referring you to -- and you can certainly refer to this,
2 if you like; BCUC IR 2.144.

3 MR. HOBSON: A: Sorry?

4 MR. JONES: Q: BCUC Information Request 2.144.1.

5 MR. HOBSON: A: Could you repeat your question, please?

6 MR. JONES: Q: Yeah, sure. I'm just referring, by the
7 way, to the last paragraph of that answer. You can see
8 there's a large paragraph on the last page. You've got
9 it there?

10 I'm just trying to clarify. Were the costs
11 and benefits of efficiency programs in the ten-year plan
12 incurred in -- I'm sorry. Let me try that again.

13 Would you agree with me that the ten-year
14 plan valued the costs and benefits of efficiency
15 programs in the years in which the costs were incurred?

16 **Proceeding Time 11:37 a.m. T39**

17 I don't know if this would be of assistance
18 to you, but the sentence I was wanting clarification on
19 was the second sentence in that large paragraph on page
20 3 of the information request, and it does make specific
21 reference to the rim test.

22 "As the rim test results in Table 4.9 were
23 calculated on a discount cash flow basis that
24 valued DSM costs and benefits in the year that
25 they were incurred."

26 And then you go on to say:

1 "However B.C. Hydro treats most DSM costs as a
2 capital expense and amortizes them over a ten-
3 year period to better match the lifespan and
4 resulting energy savings."

5 That's what I'm thinking of.

6 MR. HOBSON: A: I think where I was hesitating in
7 answering your question is I wasn't clear as to whether
8 or not you were referring me back to the IR that you
9 referenced or the ten-year plan. And they are slightly
10 different views in that the ten-year plan has taken more
11 of an economic view.

12 MR. JONES: Q: I see.

13 MR. HOBSON: A: Whereas what we've tried to address in the
14 IR is more of a financial perspective in showing how it
15 actually hits in two specific years. So while the rim
16 test results in the ten-year plan for Table 4.9 are
17 providing a long-term view over the life of the plan and
18 the energy savings and bringing it back to a point in
19 time, what we've been asked to do in the IR is to pull
20 two slices out of time for the two test years and
21 demonstrate what the impacts are in those two test
22 years. And to do that, the approach we used was a
23 different approach than what we've used within the plan.

24 So what it utilizes is an amortized amount as
25 opposed to the actual amount spent within the year.

26 MR. JONES: Q: Oh, I see. Okay.

1 MR. MARCHANT: A: So when the ten-year plan document, when
2 you are looking at it, you'll see the actual capital
3 that we've invested in each year, and then as Mr. Hobson
4 has explained we use present value analysis to bring
5 that back. Whereas in the response to the IR we've
6 taken the amortized amount in each year, rather than a
7 capital investment in that year.

8 MR. JONES: Q: Thank you. That's helpful. To the extent
9 that -- does that approach then, and it may be that the
10 difference between economic and financial analysis, Mr.
11 Hobson, but does that -- does the method by which costs
12 and benefits were analyzed in the ten-year plan, does
13 that not overstate the cost of the programs? Because as
14 you were just saying, these programs are generally
15 amortized over a ten-year basis, or a ten-year time
16 frame.

17 MR. HOBSON: A: No, I don't believe that's true. I think
18 what we're doing within the ten-year plan is we are
19 using a discount methodology to adjust for that very
20 thing. I don't think we're overstating the costs of the
21 plan at all.

22 MR. JONES: Q: Okay. All right. I'd like to then turn to
23 some questions with respect to the IEP. I take it --
24 actually let me hand this out first. This is Appendix C
25 to Part 6 of the IEP, which is the portfolio attribute
26 results.

1 Mr. Chair, it is available, I think, in
2 print, but I was able only to get it on the disk and so
3 I thought I'd provide this for everyone.

4 **Proceeding Time 11:41 a.m. T40**

5 MR. FULTON: Mr. Chairman, as you know, the IEP is B1-24
6 and so it consistently with the approach that we've
7 taken earlier with documents that are part of the CD or
8 part of a CD, that document would just form part of B1-
9 24.

10 MR. JONES: Sorry, Mr. Chairman, I estimated 30 copies
11 which I thought would be enough, but it appears to be a
12 little skimpy. My apologies for that. And I do
13 apologize for the small print. I'm sorry about that.
14 It's the best I could print them out.

15 MR. JONES: Q: Turning to trade revenues, which has been
16 the subject of a couple of information requests, I take
17 it, and bear with me on this question, I take it that it
18 is not controversial, that all other things being equal,
19 capacity freed up as a result of the operation of
20 efficiency programs will reduce B.C. Hydro's revenue
21 requirements by reducing purchases, reducing thermal
22 generation, or increasing trade revenue, is that right?

23 MS. HEMMINGSEN: A: To the extent that it doesn't defer
24 another resource addition. So for example in running
25 the portfolios that we assumed beyond some lumpiness of
26 PowerSmart investments, that it would work to defer

1 future resource additions. So that the trade revenues
2 would become important in those years before it actually
3 served to defer that investment.

4 MR. JONES: Q: Okay, I appreciate that.

5 MS. HEMMINGSEN: A: And I believe we responded to that in
6 an IR.

7 MR. JONES: Q: Yes, yes. Just for the record it is IR --
8 Sierra IR 3.1.

9 Now I just wanted to turn to that handout I
10 just gave you, and this also is the subject matter of an
11 IR, but I think I had some difficulty following that,
12 and I thought I would follow up with respect to that.

13 If you turn to the second last page of the
14 document that I just handed out, and you'll see there,
15 going from left to right you'll see the P2 base case,
16 P3A, P3B, P4, et cetera. Oh, you've got much nicer
17 copies than I've got.

18 Do you have that?

19 MS. HEMMINGSEN: A: I do.

20 MR. JONES: Q: Thank you. You'll note that going from
21 the P2 base case to the P3 case, P3A case, and looking
22 down on the left-hand side which is the NPV calculation,
23 you'll see an item marked "Trade" on the left-hand side,
24 and you will see that the numbers for trade tend to
25 decline from the P2 base case to the P3A case.

26 How is that -- we're having some difficulty

1 understanding how that would be, particularly in light
2 of the answer you just gave me with respect to the
3 impact of efficiency programs on trade revenues. Maybe
4 I could just ask you to try to explain that for me.

5 MS. HEMMINGSEN: A: And this'll be subject to check,
6 because as we said before, this is a system-based
7 analysis, so there can be a number of factors that
8 influence those trade dollars.

9 But my expectation is it's related to the
10 lumpiness of the investment and the timing, and to the
11 extent that you are getting the value from the
12 PowerSmart in terms of deferring future resources. So
13 its contribution to trade revenues may not be as
14 significant on that basis, because the contribution to
15 improving trade revenue is of a finite duration.

16 But I can check that for you.

17 MR. JONES: Q: Sure, that would be fine. But as I
18 understand your answer, that the analysis which is
19 undertaken for each portfolio in the IEP has a large
20 number of -- well, not assumptions, but the program
21 which results in these portfolios has a number of
22 resources coming in -- sorry, going out I suppose, but
23 coming in at different times.

24 Is that the lumpiness you're referring to?
25 So in this particular instance, whatever program is
26 developing this portfolio would assume a certain

1 only .2 percent under the NEB projections, and a further
2 .1 percent under the P3B case. Am I reading those
3 correctly?

4 MS. HEMMINGSEN: A: So you're referencing 1.2 percent
5 under the NEB, in P2 --

6 MR. JONES: Q: Correct.

7 MS. HEMMINGSEN: A: -- and 1.4 percent in P3A, and 1.5
8 percent in P3B.

9 MR. JONES: Q: And I'm reading that correctly, that those
10 are the rate impacts relative to the P2 case. So,
11 again, taking the NEB --

12 MS. HEMMINGSEN: A: That's right.

13 MR. JONES: Q: -- projections, okay.

14 MS. HEMMINGSEN: A: And that's a key point that's
15 important to interpret them relatively.

16 MR. JONES: Q: Yes. No, I appreciate that. I appreciate
17 that. Maybe just for my clarity, when it says that the
18 rate impact for the P2 base case, under the NEB cost
19 projections, is 1.2 percent, that's 1.2 percent relative
20 to -- to what?

21 MS. HEMMINGSEN: A: That is relative to the base year, so
22 that represents a levelized rate increase over the
23 entire period of the IEP plan, 20 years.

24 MR. JONES: Q: Okay. Thank you.

25 MS. HEMMINGSEN: A: So it may vary year to year, but that
26 represents the levelized discounted back-to-today rate

1 increase.

2 MR. JONES: Q: Okay. Thank you. That's all. For the
3 same comparisons, again, on a relative basis, for the
4 P3A and P3B cases, can you confirm for me that there is
5 a decrease in net present value from the P2 base case to
6 the P3 case of some \$150 million, and a further
7 -- I think approximately \$80 million for the P3B case?

8 MS. HEMMINGSEN: A: There's a lot of numbers, a lot of
9 small columns, so it's --

10 MR. JONES: Q: Yeah, sorry. Let me lead you through --

11 MS. HEMMINGSEN: A: Maybe reference the specific one.

12 MR. JONES: Q: Let me lead you through it more slowly for
13 everybody's benefit. What I'm looking at is under
14 "attributes," and in the box at the top left-hand
15 corner, which is the net present value calculation, and
16 under that is the new resources and variable operating
17 costs of Burrard. You can see that line?

18 MS. HEMMINGSEN: A: Mm-hmm.

19 MR. JONES: Q: I assumed that that line is simply an
20 addition of the four previous amounts, that being
21 capital costs, fixed costs, variable costs, and trade?

22 MS. HEMMINGSEN: A: That would be my expectation too.

23 MR. JONES: Q: Okay, thank you. So if we look -- then
24 moving from that bottom line, new resources and variable
25 operating costs at Burrard, and under the NEB case, we
26 see an NPV of 3434, which I guess is -- is that 3

1 billion? This is in billions.

2 MS. HEMMINGSEN: A: Three billion, yes.

3 MR. JONES: Q: And then, relative to that in the P3A case,
4 the number is 3284 which is a decrease in \$150 million
5 in NPV?

6 **Proceeding Time 11:52 a.m. T43**

7 MS. HEMMINGSEN: A: In costs, yes.

8 MR. JONES: Q: In costs.

9 MS. HEMMINGSEN: A: Net costs.

10 MR. JONES: Q: Net costs, all right. And there's a
11 further decrease in net costs of \$80 million to the P3B
12 case?

13 MS. HEMMINGSEN: A: Of 80 million, is that what you said?

14 MR. JONES: Q: I'm sorry?

15 MS. HEMMINGSEN: A: How much did you say?

16 MR. JONES: Q: There's a further \$80 million in decrease
17 in net costs under the P3B case.

18 MS. HEMMINGSEN: A: Yes.

19 MR. JONES: Q: So I'm reading that correctly.

20 MS. HEMMINGSEN: A: Yes.

21 MR. JONES: Q: Okay.

22 MS. HEMMINGSEN: A: There's actually a summary chart that
23 might help you in the IP. I think it's seven in the
24 main part of the chapter. This is six, Part 6. I
25 believe it's at the end there's a series of charts and
26 graphs that compare the various portfolios and they plot

1 all of the alternatives.

2 MR. JONES: Q: I think we are mostly done, but thanks
3 anyways. I think that will be useful to see. Could
4 you --

5 MS. HEMMINGSEN: A: Sure.

6 MR. JONES: Q: -- while you are looking for it.

7 MS. HEMMINGSEN: A: It starts -- the graphs start at 6,
8 Figure 5.1, 4.1. Take the series of portfolios.

9 MR. JONES: Q: I'm sorry, which part are we in?

10 MS. HEMMINGSEN: A: I'm in Part 6.

11 MR. JONES: Q: Yes.

12 MS. HEMMINGSEN: A: And for example Figure 7.3 which is
13 page 66, plots out the levelized 20-year rate impact of
14 future resource option portfolios.

15 MR. JONES: Q: Oh, yes.

16 MS. HEMMINGSEN: A: So you can see it visually there.

17 MR. JONES: Q: Yes. No, I certainly was aware of those.
18 Maybe I work better with numbers than visually, but
19 thank you.

20 Now, in Panel 1, Ms. Van Ruyven, you agreed
21 with me in a statement made by the Minister of Energy
22 and Mines to Mr. Davis in a letter dated April 19, 2004
23 that the -- towards the effect that PowerSmart is a key
24 component for providing British Columbians with the
25 lowest cost energy possible, is that right?

26 MR. VAN RUYVEN: A: That's correct.

1 MR. JONES: Q: Thank you. Following the analysis we have
2 just gone through, with squinted eyes, could that be
3 said for PowerSmart 3 and 4 as well in your opinion?

4 MR. VAN RUYVEN: A: I think it has to be put in the
5 context of our balanced portfolio approach, and the
6 PowerSmart is one of many resources that we look at and
7 as you can see from the output of the IEP it is seen to
8 be a cost effective resource. It is balanced by other
9 resources that we look to whether that's independent
10 power, power purchases that we make through electricity
11 purchase agreements or our own ResourceSmart projects,
12 mixed with our own hydro supply, and we feel that is the
13 right way to go, is a balance of mixed resources to
14 mitigate the risks and uncertainties.

15 I don't think we would want to have all of
16 our eggs in one basket, so to speak, with just relying
17 on one single resource, because then you wouldn't be
18 able to balance the risk portfolio and profile of that.

19 PowerSmart, we are relying very heavily on
20 PowerSmart going forward. 3600 gigawatt hours is a
21 significant portion of our resources going forward. If
22 our system was growing at say 10,000 gigawatt hours over
23 the next ten years, it's clearly a third of our new
24 resources and we feel that's an appropriate balance
25 based on the rest of the resources that we look to. And
26 it is cost-effective, and it is cost-effective in

1 comparison to the other resources that we also look to
2 bring on to have reliable supply.

3 **Proceeding Time 11:55 a.m. T44**

4 So you can look at the cost. That's just one
5 of the many things that we have to balance. We also
6 have to look at the risks and we have to balance that
7 out and mitigate that to make sure we've got the most
8 reliable portfolio supply for our customers.

9 MR. JONES: Q: Okay. I have a feeling your answer may
10 answer my next question, but I'm going to take the risk
11 and ask it anyway. If -- you know, given your answer
12 that the PowerSmart 3 and 4 are cost-effective programs
13 to pursue, could it be that if they were brought on
14 earlier they could displace some of the planned
15 acquisitions that are referred to in the Resource
16 Evaluation and Acquisition Plan, the REAP, such as the
17 energy call referred to therein?

18 MS. VAN RUYVEN: A: In theory, I think if you brought any
19 resource on sooner it could offset a potential purchase
20 or building of another resource that you were looking
21 at. We feel we struck the PowerSmart program to bring
22 on the kilowatt hours in an appropriate way for the
23 investment that we're making over the next ten years.
24 And again it's back to that balanced portfolio. If we
25 decided to spend more on PowerSmart, that would be then
26 skewing more to one particular resource where we feel

1 we've really struck the appropriate balance.

2 So I think, theoretically, yes, I would agree
3 with you if you spent more on PowerSmart, but then you
4 would be putting more risk in all one type of resource,
5 and again we want to take that more balanced approach,
6 and that's why we are doing some ResourceSmart projects,
7 IPP purchases as well as PowerSmart, and we feel that
8 we've struck the appropriate balance going forward.

9 It's also not -- PowerSmart's not necessarily
10 the kind of thing that you can immediately invest in and
11 see the kilowatt hours ramp up in a very short period of
12 time. So it's not always that you spend the money --
13 well, any resource you could probably say the same
14 thing. A lot of them have longer lead times. So
15 spending today might take some time to have an effect
16 later on.

17 MR. JONES: Q: Although as I recall in one portion of the
18 IEP, you have suggested -- not you personally but B.C.
19 Hydro has suggested that PowerSmart 4 could be brought
20 -- I'm not sure if online is the right idea -- could be
21 brought forward to 2006-2007, is that correct?

22 MS. VAN RUYVEN: A: Yes, but that's what the IEP is
23 actually all about is to look at many different sources
24 and portfolios. And we've looked at hundreds of
25 different scenarios, and that's really what the
26 Integrated Electricity Plan is all about is to keep our

1 optionalty and many options open to us going forward.
2 Because we're in a different world now. We're not
3 building large projects ourselves. We're looking to a
4 number of different resources and we need to be able to
5 study them and evaluate them on a level playing field to
6 keep the optionalty open.

7 PowerSmart potentially could be an option for
8 increased PowerSmart activities, whether that's
9 PowerSmart 3 or 4 in the future, depending on all of the
10 other factors and variables being looked at at the same
11 time, for example gas prices, what we could bring on
12 cost-effectively from independent power producers in
13 British Columbia, our own ResourceSmart projects. So it
14 must be looked in the context of the whole resource
15 portfolio in the options that we have going forward.

16 MR. JONES: Q: Okay, thank you.

17 Mr. Chair, I note the time. I'm probably not
18 going to be much more than another 15 minutes. I'm in
19 your hands as to whether or not you'd like to take the
20 break now or if you would like me to continue.

21 THE CHAIRPERSON: Let's break until 1:30.

22 **(PROCEEDINGS ADJOURNED AT 12:00 P.M.)**

23 **(PROCEEDINGS RESUMED AT 1:30 P.M.)**

T45

24 THE CHAIRPERSON: Please be seated.

25 MR. FULTON: Mr. Chairman, I have one procedural matter,
26 and then I'll turn the mike over to Mr. Sanderson for

1 some filings.

2 I just wanted to let people know that the
3 Hearing Officer has the ability to obtain for people's
4 witness aids larger-print documents. And speaking for
5 myself, it would be very helpful if they approach the
6 Hearing Officer if they were having some technological
7 challenges, so that I at least -- thank you, Mr.
8 Chairman. So I won't be alone in struggling through the
9 documents. So, just if people could do that, it would,
10 I think, help the process very much.

11 THE CHAIRPERSON: Thank you.

12 MR. SANDERSON: Mr. Chairman, I have a blizzard of paper
13 here, which I'll try and walk through as quickly as I
14 can. The first is a transcript commitment made by Ms.
15 Hardy in Volume 10, page 1457, at lines 22 to 25. She
16 was asked -- she referred to a document called
17 "Background information and basis for conclusions re
18 ARO" and that document hasn't previously been marked, so
19 I've made copies and we'll now circulate it.

20 MR. FULTON: B1-52.

21 THE HEARING OFFICER: B1-52.

22 ("ASSET RETIREMENT OBLIGATIONS - BACKGROUND INFORMATION
23 AND BASIS FOR CONCLUSIONS ", MARKED AS EXHIBIT B1-52)

24 **Proceeding Time 1:32 p.m. T46**

25 MR. SANDERSON: The next exhibit is a response to
26 transcript reference Volume 8, page 1050, a question

1 asked by Mr. Wallace. He asked to provide the breakdown
2 of the requested increase in revenues by customer class,
3 and that's accomplished in this IR response. Just bear
4 with me a second.

5 I think this one -- I think this is the
6 reference. I think if you go to that reference you'll
7 find that Mr. Wallace in his question was assuming that
8 the increase not accounted for by the principal
9 industrial classes -- sorry, the principal rate classes,
10 was \$3 million, and I think when we did the arithmetic
11 we found it was \$5 million, and I think this makes clear
12 that there are \$5 million of the increase which come
13 from other energy sales. I think he was expecting it to
14 show three, but I'm just giving you a heads-up.

15 MR. FULTON: B1-53.

16 THE HEARING OFFICER: Marked Exhibit B1-53.

17 (RESPONSE TO UNDERTAKING AT TRANSCRIPT VOLUME 8, PAGE
18 1050, MARKED AS EXHIBIT B1-53)

19 **Proceeding Time 1:34 p.m. T47**

20 MR. SANDERSON: The next one is Volume 9, page 1369, and
21 this is a response to Mr. Fulton, and the question was,
22 "When was the threshold of \$50,000 in direct costs for
23 the application of interest during construction
24 changed", and the response is on this undertaking.

25 MR. FULTON: B1-54.

26 THE HEARING OFFICER: Marked B1-54.

1 (RESPONSE TO UNDERTAKING AT VOLUME 9, PAGE 1369, RE
2 THRESHOLD OF \$50,000, MARKED AS EXHIBIT B1-54)
3 MR. SANDERSON: Next is a response to Mr. Weafer. He
4 asked, "What is the definition of debt available as that
5 term is used in Exhibit B1-40, page 6?" and that's at
6 Volume 10 of the transcript, page 1430.
7 MR. FULTON: B1-55.
8 THE HEARING OFFICER: Marked B1-55.
9 (RESPONSE TO UNDERTAKING AT VOLUME 10, PAGE 1430, RE
10 DEFINITION OF DEBT, MARKED AS EXHIBIT B1-55)
11 MR. SANDERSON: Then next a response to Mr. Weafer, Volume
12 10, page 1442, he asked for a copy of the July, 2003
13 CIBC World Markets presentation, which I believe was
14 referred to in the Salomon study. And so we have a copy
15 of that for him.
16 MR. FULTON: B1-56.
17 THE HEARING OFFICER: Marked B1-56.
18 (RESPONSE TO UNDERTAKING AT VOLUME 10, PAGE 1442, JULY,
19 2003 CIBC WORLD MARKETS PRESENTATION, MARKED AS EXHIBIT
20 B1-56)
21 MR. SANDERSON: Next, Volume 10 of the transcript, page
22 1446, again Mr. Fulton, he asked "Can insurance proceeds
23 be used to offset the capital costs of replacement
24 assets under GAAP?" and the response to that is the next
25 exhibit.
26 MR. FULTON: B1-57.

1 THE HEARING OFFICER: Marked B1-57.
2 (RESPONSE TO UNDERTAKING AT VOLUME 10, PAGE 1446, RE
3 INSURANCE PROCEEDS OFFSETTING CAPITAL COSTS OF
4 REPLACEMENT ASSETS UNDER GAAP, MARKED AS EXHIBIT B1-57)

5 **Proceeding Time 1:36 p.m. T48**

6 MR. SANDERSON: And finally, for this round at least, is
7 another response to a question asked by Mr. Fulton.
8 This time at transcript Volume 10, page 1455, he asks us
9 to provide the forecast hydro flows in California for
10 the current water year, and the response to that is
11 contained in the next exhibit.

12 MR. FULTON: B1-58.

13 THE HEARING OFFICER: Marked B1-58.
14 (RESPONSE TO UNDERTAKING AT VOLUME 10, PAGE 1455, MARKED
15 AS EXHIBIT B1-58)

16 MR. SANDERSON: That's all I have.

17 THE CHAIRPERSON: Thank you.

18 MR. JONES: Are you all set, Mr. Chair?

19 THE CHAIRPERSON: You may proceed.

20 **CROSS-EXAMINATION BY MR. JONES (Continued):**

21 MR. JONES: Q: I do apologize for the rather small print
22 of the -- Mr. Fulton was not alone in his complaints
23 about the small size, and I thank him for the suggestion
24 that we speak to Mr. Bemister for larger print.

25 I am going to now be referring to something
26 in 12-point print. It is Appendix B to Part 3 of the

1 IEP entitled "Demand-Side Management" and I will hand
2 that up. I believe that the panel will have a copy of
3 that already. Is that right? It's Part 3, Appendix B.

4 Do you have that reference, panel?

5 MS. HEMMINGSEN: A: Yes we do.

6 MR. JONES: Q: Okay. If you would look on the second
7 page of that document, I'm just going to refer you to
8 the first full paragraph. It's actually the revision.
9 This was revised May 13, 2004, and it's page B-2, and
10 again of Appendix B to Part 3 of the IEP.

11 **Proceeding Time 1:39 p.m. T49**

12 I'm just going to quote to you the first part
13 of that paragraph, where it says:

14 "The PowerSmart total resource unit energy
15 cost and utility unit energy cost numbers used
16 in this Integrated Electricity Plan differ
17 from the numbers in the Revenue Requirements
18 Application because, subsequent to the
19 December, 2003 filing, a standardization of
20 methodologies was done, resulting in this
21 change. In the Revenue Requirements, the
22 calculation of total resource cost and utility
23 cost used a real discount rate of 8 percent
24 for discounting energy savings. In the IEP
25 this was changed to 6 percent real, to agree
26 with the rest of the IEP, and the new

1 corporate policy."

2 Is that correct, that there was -- in the
3 Revenue Requirements Application, the calculation of TRC
4 and utilities cost used a real discount rate of 8
5 percent? Is that correct?

6 MR. HOBSON: A: Yes. Specific to the ten-year plan, the
7 cash flows within the ten-year plan are nominal cash
8 flows, thus use an 8 percent nominal discount rate. The
9 8 percent discount rate was also carried over into the
10 levelized costs test, and that creates a different set
11 of assumptions than what you will find in other
12 documents. So care needs to be taken in comparing
13 levelized cost values within the ten-year plan to
14 levelized cost values calculated outside of it.

15 One of the key things to note is that the
16 levelized cost methodology applies to all of the cost
17 tests, whether it's utility TRC or RIM test, as well as
18 the benchmark of the avoided cost of supply. And I
19 think this has created some of the confusion that's
20 noted through some of the IRs in trying to compare
21 different values, around \$55 and values down in the 48
22 or 49 range. And it comes back to this levelizing
23 methodology.

24 So relative to a real discount rate being
25 used on the energy savings, the ten-year discount rate
26 being at 8 percent is over-discounting the denominator

1 of the equation, and resulting in a higher cents-per-
2 kilowatt-hour cost. Okay? So if it's being compared
3 back against that benchmark of avoided cost of supply,
4 it's moving with it. So the comparisons within the ten-
5 year plan are still valid. The benefit/cost ratios are
6 unaffected, because they're not factored into that
7 calculation.

8 MR. JONES: Q: Okay. Thank you for that answer. I'm
9 going to just ask you to tell me what the discount rates
10 used -- and you may have already answered it, but bear
11 with me; just tell me what the discount rates were used
12 in the CPR, the Conservation Potential Review, the ten-
13 year plan, and then in the IEP, and where they differ.

14 MR. HOBSON: A: Okay.

15 MR. JONES: Q: And maybe you've tried to do that, but bear
16 with me.

17 MR. HOBSON: A: The discount rate utilized within the CPR
18 was an 8 percent real discount rate, and that's
19 consistent with what B.C. Hydro would have utilized for
20 a real discount rate at the time. In the ten-year plan,
21 we utilized the equivalent of a 6 percent real discount
22 rate, which was also consistent with B.C. Hydro's
23 discount rate at that time. So there is a timing
24 difference that comes into play there.

25 The key thing to note is that we're using an
26 8 percent nominal rate within the plan, and the

1 methodology difference, in terms of the levelized cost,
2 is that that 8 percent nominal rate carried into the
3 equation on the levelized cost for the energy savings,
4 which makes it inconsistent with other documents. So in
5 comparing to those other documents, that adjustment
6 needs to be taken into account.

7 So, for example, if you were taking the IEP,
8 which would use a 6 percent real discount rate, in that
9 levelized cost, comparing it to the PowerSmart plan
10 using an 8 percent nominal discount rate on that
11 levelized cost, you're going to get values that aren't
12 going to be comparable.

13 **Proceeding Time 1:43 p.m. T50**

14 Making the adjustment in the ten-year plan to
15 use the 6 percent real would bring down the cost test
16 within the PowerSmart ten-year plan. It would also
17 bring down the levelized avoided cost of supply using
18 that methodology. At that point the numbers are then
19 comparable.

20 MR. JONES: Q: All right, thank you. I think I'll have
21 to chew over that one for a little while, but thank you.

22 I'm just going to continue on with that
23 paragraph that we were just referring to. The paragraph
24 goes on to say:

25 "In the Revenue Requirements the PowerSmart
26 ten-year plan includes losses to the regional

1 level, as this has been the usual practice
2 when building a business case. In the IEP
3 losses are included at the full system level
4 to agree with the practice in the load
5 forecast."

6 And I believe there was an answer this morning to one of
7 my questions which made reference to that.

8 And then finally the paragraph concludes
9 with:

10 "These changes result in a decrease of
11 approximately \$10 per megawatt hour in total
12 resource costs."

13 Now my first question is just for clarification, I'm
14 assuming that the reference to these changes refers to
15 both the discount rate change and the treatment of
16 losses, is that right? I'm just trying to interpret the
17 paragraph.

18 MR. HOBSON: A: We would have to check to get back to
19 that number.

20 MR. JONES: Q: Okay, yes, please do. That'd be great.

21 **Information Request**

22 MR. JONES: Q: Where it says, though, that these
23 changes, whatever they turn out to be, resulted in a
24 decrease of approximately \$10 per megawatt hour in total
25 resource costs, is this not significant with respect to
26 the cost-effectiveness of these programs?

1 MR. HOBSON: A: The thing that you -- separating the
2 issues, the discount methodology, I need to be clear
3 about this. You're moving both the benchmark of the
4 avoided cost of supply along with the cost test. So for
5 example, if you move to the 6 percent real discount
6 methodology within the ten-year plan, you're not going
7 to affect the benefit/cost ratios at all. What you will
8 do is you'll lower the cents per kilowatt hour
9 calculations, but you'll also be lowering the levelized
10 benefit -- the levelized avoided cost of supply at the
11 same time.

12 So the value that you're comparing it back
13 to, being the avoided supply costs, has also decreased.
14 So the net gain out of this is no, it's not
15 demonstrating within the context of the plan that the
16 plan has really changed in terms of its cost-
17 effectiveness, because you're changing the benchmark of
18 what you're comparing it back against to.

19 MR. JONES: Q: All right, okay. Okay.

20 I'm just going to move on to the REAP and a
21 few questions with respect to it. First I'd like you to
22 turn to page 8 of the REAP, and I'm just looking to
23 halfway down the page under "Demand-Side Management and
24 Rate Options". It indicates there that B.C. Hydro will
25 investigate the feasibility of a capacity-based
26 PowerSmart program. Can you describe that for me?

1 **Proceeding Time 1:47 p.m. T1A**

2 MR. MARCHANT: A: In the document we're making a
3 statement that we have an intent, as a part of the REAP,
4 to look at the value and feasibility of capacity-based
5 PowerSmart programs. We have done some early
6 investigations already, particularly on Vancouver
7 Island, of electric water heater remote control, that
8 type of thing, but here it's a broader commitment to
9 look at programs which would focus on capacity value.

10 MR. JONES: Q: Actually my question was more along the
11 lines of part of your answer. What tangible programs or
12 tangible efforts are we talking about here?

13 MR. MARCHANT: A: To be specific, we're looking at -- I
14 think sometimes when people refer to demand-side
15 management, they can equate that to energy efficiency or
16 conservation, reducing energy consumption. Demand-side
17 management can also include peak shifting, peak
18 cliffing, valley filling and so on. So here what we're
19 looking at is across all customer sectors, what types of
20 things could we do to reduce the actual capacity at the
21 peak for the system?

22 MR. JONES: Q: Can you give me some examples?

23 MR. MARCHANT: A: Beyond the ones I've provided already
24 where we're looking at some for residential for the
25 water heaters, we are -- there's a couple of others.

26 MR. HOBSON: A: Specific to the residential market, water

1 heaters do have quite a potential in terms of shifting
2 load. Another one that's, I know, been investigated is
3 electric thermal storage, which is another form of just
4 transferring the timing of when the energy is used and
5 deferring the actual heat over a long period of time.

6 MR. JONES: Q: Okay, thank you.

7 Next I want just to look down the page just
8 to one box further down. With respect to the reference
9 to Site C, there's a reference to pursuing licensing in
10 environmental assessment processes. Which licensing and
11 environmental assessment processes are we talking about
12 there? Do you see where I'm looking?

13 MS. HEMMINGSEN: A: I think there that question would be
14 better directed to the Generation Panel.

15 MR. JONES: Q: Okay. Similarly I take it with respect to
16 the cost of those things.

17 MS. HEMMINGSEN: A: That's correct.

18 MR. JONES: Q: Thank you.

19 Okay, I think we're back to you, Mr. Hobson,
20 likely for my penultimate series of questions. In your
21 testimony you indicated that the California Standard
22 Practice Manual is the standard approach used by North
23 American utilities for the review of DSM programs, is
24 that right?

25 MR. HOBSON: A: Do you have a reference of --

26 MR. JONES: Q: In your evidence, yes. It's Exhibit B1-

1 31.

2 MR. SANDERSON: Mr. Chair, this raises an issue we haven't
3 actually addressed yet, and that is the sort of status,
4 if you want, of the rebuttal testimony. Mr. Hobson's
5 testimony that I think my friend is referring to is in
6 rebuttal. He referred to the California standards which
7 are, he's quite correct, attached to that. And I didn't
8 take the point then because I thought, well, it's
9 already in the evidence anyway. It's attached to Ms.
10 Cochrane's evidence.

11 **Proceeding Time 1:51 p.m. T02A**

12 MR. SANDERSON: I didn't take the point then, because I
13 thought, well, it's already in the evidence anyway, it's
14 attached to Ms. Cochrane's evidence on behalf of the CEC
15 in any event, so it didn't seem to me to make a
16 difference.

17 The point I want to make now, though, is the
18 rebuttal evidence is filed because that was a
19 requirement of the Commission's pre-hearing order.
20 Whether we actually call that testimony, whether it
21 actually becomes sworn testimony in this proceeding,
22 will of course depend on where we are at the end of all
23 of the evidence. And so I'm a little leery about making
24 reference to it in the questions, because it's going to
25 confuse the record if we decide not to call Mr. Hobson
26 in rebuttal, which is our right.

1 So if there's a way to ask this question --

2 THE CHAIRPERSON: Sure.

3 MR. SANDERSON: -- sort of anew, if you want, with a good

4 hint as to what the answer might be, because we've filed

5 a rebuttal, that might be a better way to do it, for the

6 record.

7 THE CHAIRPERSON: Sure.

8 MR. JONES: That's acceptable. Thank you.

9 MR. JONES: Q: Mr. Hobson, you're aware of the societal

10 cost test which is referred to in that manual?

11 MR. HOBSON: A: Yes.

12 MR. JONES: Q: Thank you. Has B.C. Hydro considered the

13 use of a societal cost test?

14 MR. HOBSON: A: I would say that we've considered the use

15 of the societal cost test, but I think some of the

16 difficulties I communicated earlier today around

17 quantifying and monetizing non-electricity benefits for

18 the purpose of a narrower version of that, being the

19 TRC, has its own challenges. So, while we wouldn't be

20 opposed to a societal cost test, we've chosen a TRC as

21 the economic efficiency measure of our investments,

22 which does take a narrower view, and part of the reason

23 for that is we see difficulty in trying to quantify and

24 monetize those external societal benefits.

25 MR. JONES: Q: When you said you wouldn't be opposed to a

26 societal cost test, I assume you're also saying that,

1 were this Commission to decide to evaluate DSM programs
2 on the basis of such a test, B.C. Hydro wouldn't be
3 opposed?

4 MR. HOBSON: A: Yes. Currently we've gone forward with a
5 combination of three tests, and as I've said, we believe
6 the TRC is the appropriate test for the economic
7 efficiency of the resource acquisition.

8 MR. JONES: Q: Sorry, I think I got the answer I was
9 looking for when you were saying if -- I asked, if the
10 Commission were to employ a societal cost test to
11 evaluate DSM program, B.C. Hydro would not be opposed?

12 MR. MARCHANT: A: If I can interject, I think it's
13 important, when you look at the California Standard
14 Practice Manual and the series of tests that are pointed
15 out there, that the California Public Utilities
16 Commission make a very strong statement in the manual
17 that it's important not to pick a test and use a single
18 test as the means of deciding what your DSM programs
19 are. They encourage all parties to use the series of
20 tests, and the important thing is to decide what weight
21 one is putting on which test.

22 We have chosen to use the TRC as the measure
23 of economic efficiency, as Mr. Hobson said. That it's
24 an indicator that it's the best thing to do for all
25 customers. It doesn't mean that we don't look at the
26 other tests, but we use the TRC as our predominant test.

1 But again, we're not advocating that there is a test.

2 MR. JONES: Q: Oh, no no no. And I wasn't meaning to
3 suggest that, I appreciate your answer in that regard.

4 Perhaps the question would be better asked,
5 then, were the Commission to want to employ the societal
6 cost test, amongst other tests, in the evaluation of DSM
7 programs, I take it from what Mr. Hobson said, that B.C.
8 Hydro would not be opposed to that?

9 MR. HOBSON: A: If what you're asking is would we
10 calculate a societal cost test and consider the result
11 of that test if we were ordered to do so, the answer
12 would be yes. What weight we would place upon it, I
13 think, would be subject to further analysis on our
14 behalf and the ability for us to properly monetize those
15 benefits.

16 MR. JONES: Q: I appreciate that. Thank you. One last
17 point I wanted to ask was, there was a Sierra Club

18

19

20 **Proceeding Time 1:55 p.m. T3A**

21 MR. JONES: Q: I appreciate that. Thank you. One last
22 point I wanted to ask was, there was a Sierra Club
23 Information Request in the land round of information
24 requests which came relatively shortly before the oral
25 phase. It's Information Request 3.2, Sierra Club
26 Information Request 3.2, and it goes back to the

1 discussion you and I had earlier this morning, Mr.
2 Hobson, with respect to the response to BCUC Information
3 Request 2.144 I believe it was. In this information
4 request Sierra Club has asked B.C. Hydro to essential
5 rerun the analysis from 2.144 to cover the entire study
6 period for the ten-year plan. Would you be prepared to
7 do that?

8 MR. SANDERSON: Before I invite the witnesses to indicate
9 how feasible that is, I guess it would help, I think, if
10 we understood how the recalculation, which I'm guessing,
11 I don't know this, would be a significant undertaking,
12 affects either expenditures in the test year or
13 commitments made in the action plan for fiscal 2005,
14 which are the two things to which the information that
15 ought to be elicited should be relevant, I would think,
16 or at least that I conceive of that the information
17 might relate to.

18 So maybe Mr. Jones can help us with how
19 that's going to relate to either of those things before
20 we invite the panel to comment on how feasible it would
21 be at this stage to rerun the numbers.

22 MR. JONES: I think the simple answer to Mr. Sanderson's
23 question is, when we look at, for example, Table 4.9,
24 which is a summary of the evaluation of DSM programs in
25 the ten-year plan, it covers that entire study period.
26 What we're trying to get at here is the method by which

1 -- or the method which the Utilities Commission staff
2 asked B.C. Hydro to calculate the rate impact based on
3 the different set of assumptions in Information Request
4 1.144.

5 What we're asking for is that that simply be
6 done for that period of the ten-year plan, and the ten-
7 year plan is one of the documents at issue in this
8 proceeding. I think that's how it's relevant.

9 MR. SANDERSON: But again, the ten-year plan is a relevant
10 document in this proceeding to the extent that it
11 informs either the rates in '05-06 or the expenditures
12 in fiscal '05. And so it's tendered for that purpose.
13 But if I understand the question, and I may not, but if
14 I understand the question, it's looking at levelized
15 rate impact over the ten-year period, and I'm not sure
16 that that itself and redoing the plan in order to come
17 up with a different view of that, helps inform the
18 Commission with the task before it right now.

19 So I think I understand what Mr. Jones is
20 seeking, but I think I have to say that it seems to me
21 outside the scope of the issues you've identified for
22 this panel.

23 THE CHAIRPERSON: Is that in fact, Mr. Jones, the purpose
24 of your question, is to solicit the rate impacts during
25 the PowerSmart ten-year plan?

26 MR. JONES: Yes.

1 THE CHAIRPERSON: Do we have the -- presumably we do have
2 the rate impacts for the test period. They are filed in
3 evidence at some point.

4 MR. JONES: Well, I think that that's -- I think that
5 that's what the ten-year plan was addressing. This is
6 in effect asking the panel to calculate, do the same
7 calculation, but on the same -- essentially the same
8 basis as the Utility Commission staff asked for that --
9 just that two-year period.

10 THE CHAIRPERSON: Oh, I see.

11 MR. JONES: Yes.

12 THE CHAIRPERSON: So the two years are already in evidence.

13 MR. JONES: I believe so, yes.

14 THE CHAIRPERSON: I think --

15 MR. SANDERSON: You see 2.144.1 has the fiscal '05 and
16 fiscal '06 impacts.

17 THE CHAIRPERSON: Mr. Jones, I think Mr. Sanderson is
18 correct. That meets the requirements for the purposes
19 of the task that's before this panel. Unless there is
20 something that's relevant to the test period that's
21 going to come from your request, then I don't believe
22 it's within the scope of the hearing.

23 **Proceeding Time 1:59 p.m. T04A**

24 MR. JONES: I think -- I probably can't phrase it any
25 better than I already have. Just that, when trying to
26 compare the rate impacts of the ten-year plan, and the

1 methodology used there, it's very useful for us to try
2 to compare that with the methodology which Utilities
3 Commission staff asked in 144. To try to get at the
4 rate impacts of DSM programs as we go forward.

5 I guess I would also note that it seems to
6 me, following your ruling on Friday with respect to the
7 hearing issues, things may have broadened to some
8 extent, and that may be of assistance in terms of
9 determining whether or not this is a relevant request.

10 THE CHAIRPERSON: Well, the changes that we've made with
11 respect to the REAP really principally pertain to the
12 test period, but for the fact that the REAP is for the
13 four-year period.

14 I'm hesitant to rule on this one at this
15 stage because I'm concerned that it may have some
16 implications that are broader than your question, and it
17 goes to the fact that we are looking at a PowerSmart
18 program that has been identified for a ten-year period,
19 and if the end of the PowerSmart program in some way is
20 relevant to the considerations that are before this
21 panel, the first two years of it, then I am making a
22 much broader ruling than I wish to at this stage,
23 because I don't want to close arguments that would
24 suggest that there should be a different investment
25 during the test period, because of the implications
26 beyond the test period. And that's going to be a line

1 we'll need to draw at some stage.

2 It does seem to me, Mr. Jones, that for the
3 purposes of getting the rate impacts, for the latter
4 eight years of the ten-year plan, that that's not going
5 to be very helpful for you in comparing that to another
6 PowerSmart three or four, for example, that's going to
7 be helpful.

8 If you can somehow tie your request in to --
9 much closer to a nexus with the two-year test period,
10 then you may convince me that that's a reasonable
11 undertaking. But I'm not there yet, with you.

12 MR. JONES: Okay. Could I suggest this? Could I --
13 although I don't wish to take excessive time for myself,
14 could I address this at the end of the day? And we can
15 deal with it then?

16 THE CHAIRPERSON: I'd prefer you do it in the morning.

17 MR. JONES: That's fine. That's fine. I'm happy to do it
18 in the morning.

19 MR. SANDERSON: And a variant on that, Mr. Chair, may be if
20 Mr. Jones and I can talk off-line, you know. If there
21 is a relationship, then we're quite happy to take the
22 undertaking assuming that it's a practical one. I just
23 don't see it at the moment. So if I'm -- I guess, like
24 you, I'm prepared to be convinced and save the record
25 time if we can discuss it off-record.

26 MR. JONES: Why don't we do that, and then we can either

1 deal with it again in the morning, and report back to
2 you at that time.

3 Thank you, panel, those are my questions.

4 **Proceeding Time 2:04 p.m. T5A**

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

6 MR. WALLACE: Q: Panel, I'd like to start out by just
7 going back to basics with respect to the three principal
8 economic tests that are utilized in PowerSmart
9 evaluation and consideration.

10 Starting with the test which I think you
11 described as principal test, the total resource cost,
12 that measures the total costs of the utility and the
13 customer with respect to the particular DSM project or
14 program?

15 MR. HOBSON: A: Yes.

16 MR. WALLACE: Q: And you then use that total resource
17 cost or TRC to compare to our alternatives, usually
18 being the purchase cost of energy?

19 MR. HOBSON: A: Within the context of the ten-year plan
20 we would compare it against the benchmark of avoided
21 cost of supply, but the context for the comparison
22 against all supply options would be within the IEP.

23 MR. WALLACE: Q: Okay. And the fundamental test that you
24 put up, is I gather, is that the TRC should be less than
25 the cost of new supply?

26 MR. HOBSON: A: Yes.

1 MR. WALLACE: Q: And if it is not, then the DSM program
2 should not proceed?

3 MR. HOBSON: A: Yes.

4 MR. WALLACE: Q: Okay. The next test I'd like to discuss
5 is the utility cost, and that is simply your cost of the
6 particular program.

7 MR. MARCHANT: A: Can I interject just to the TRC --

8 MR. WALLACE: Q: Sure.

9 MR. MARCHANT: A: Your statement that should not proceed,
10 if I could expand on that. Shouldn't be launched if it
11 hasn't been started. If a program is underway that has
12 a TRC that demonstrates to be less than one, we would
13 make efforts to bring it above one or try and identify
14 benefits that have been missed.

15 MR. WALLACE: Q: Or alternatively, close it down?

16 MR. MARCHANT: A: Or alternatively, close it down, yes.

17 MR. WALLACE: Q: Okay, thank you.

18 Now, I'm sorry, on the utility cost, do you
19 confirm that that is simply the utility's cost of the
20 program?

21 MR. HOBSON: A: That's correct.

22 MR. WALLACE: Q: And in itself, as long as that's lower
23 than the TRC, doesn't tell you too much about whether
24 you should proceed with that particular program or not.

25 MR. HOBSON: A: I'm not sure if I understand your
26 question.

1 MR. WALLACE: Q: Well, if a utility cost of two and a
2 half cents a kilowatt hour or three and a half cents a
3 kilowatt hour doesn't tell you whether the program
4 should proceed or not, that you would either look to the
5 TRC or possibly to the RIM test for further information.

6 MR. HOBSON: A: Yes.

7 MR. WALLACE: Q: Okay. Now as I understand the evidence,
8 you have set a limit of two and a half cents a kilowatt
9 hour for the overall -- on the utility cost, for the
10 overall PowerSmart portfolio.

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

12 MR. WALLACE: Q: Is there any individual program limit on
13 the utility cost per kilowatt hour, other than it not
14 exceed the TRC?

15 MR. HOBSON: A: When we're designing the programs I think
16 we're falling back to the guideline around the two and a
17 half cents for the portfolio level. But we take a look
18 in situations where the program structure requires us to
19 go forward with an initiative that would have a positive
20 TRC but would push us above that threshold of two and a
21 half cents. If we found a situation like that that made
22 sense for us still to pursue, then at a program level we
23 would still pursue that.

24 **Proceeding Time 2:08 p.m. T06A**

25 MR. WALLACE: Q: Okay. Now, the rate impact measures, or
26 the RIM test, measures the impact on non-participating

1 ratepayers, those who aren't beneficiaries of the
2 particular PowerSmart program?

3 MR. HOBSON: A: We would use the RIM test as an
4 understanding of the distribution of benefits. So it's
5 an equity measure, and it helps us to understand, as you
6 say, the impacts on non-participants.

7 MR. WALLACE: Q: And I take it it's a measure of those
8 impacts on non-participants.

9 MR. HOBSON: A: Yeah, I guess I would term it more as an
10 indicator of those impacts, in that what it's telling
11 you is what impacts you're having on rates, and for non-
12 participants that aren't receiving an offsetting benefit
13 to that, then it's suggesting that there would be an
14 impact on those customers.

15 MR. WALLACE: Q: Okay. So if the RIM is less -- the lower
16 the RIM is, then the worse off the non-participating
17 customers are.

18 MR. HOBSON: A: If you're referring to the benefit/cost
19 ratio, then yes, the lower the RIM test is, it's an
20 indicator that non-participants would be worse off.

21 MR. WALLACE: Q: Okay, thank you. And assuming that the
22 TRC test is passed, a RIM test result below one means
23 that there is a high utility cost involved, which
24 requires contribution from non-participants?

25 MR. HOBSON: A: Can you restate that question?

26 MR. WALLACE: Q: Let me try it the same way again first.

1 Assuming that the TRC test is passed, a RIM benefit-to-
2 cost ratio below one probably means that there's a high
3 utility cost involved which requires contribution from
4 non-participants.

5 MR. HOBSON: A: The utility cost would be a factor in
6 arriving at the RIM result. I'm not sure I would
7 categorize it necessarily as "high", and the impact or
8 the source of the funds for the utility cost would come
9 from all ratepayers.

10 MR. WALLACE: Q: Okay. Well, the reason I raise this is
11 because I've noticed that you can have a variety of TRCs
12 around one, and yet have for RIM, the RIM test on those
13 projects can vary very significantly from, say, a third
14 to 75 - 80 percent or even 1. And it seemed to me the
15 driving factor on the difference in the RIM test was
16 probably that the utility cost was higher and therefore
17 the participant contribution in the program was less,
18 and therefore other utility consumers had to hop in and
19 help out. Is that generally the right analysis?

20 MR. HOBSON: A: Well, there's a few different factors
21 going on within the RIM test, and utility cost would
22 certainly be one of those.

23 MR. WALLACE: Q: Okay. What other ones would be there
24 that would be driving it, assuming -- assume a constant
25 TRC of 1. You've got a project that's okay, but we see
26 RIMs varying on similar projects, what is usually

1 driving that difference?

2 MR. HOBSON: A: It's dependent upon whether utility cost
3 or revenue loss would be the two variables that can be
4 in place. So depending upon the rate applied to the
5 customers participating in that program, your revenue
6 loss would also vary, and utility cost would also be a
7 factor.

8 MR. WALLACE: Q: Okay, thank you. And would in most of
9 the cases, where you do see a RIM test result in the --
10 say, less than .9, would there likely be a utility cost
11 significantly above two-and-a-half cents per kilowatt
12 hour?

13 **Proceeding Time 2:12 p.m. T7A**

14 MR. HOBSON: A: Not necessarily.

15 MR. WALLACE: Q: No, I'm just saying likely. I'm trying
16 to get what would be probably the driving factor, or if
17 not the driving factor, at least normally in there as a
18 significant factor.

19 MR. HOBSON: A: Yeah, I guess I'm looking back within the
20 plan and noticing a lot of programs that are below that
21 two and a half cent threshold that also have RIM tests
22 that are at or below .9. So I think there are some
23 different variables at play.

24 MR. WALLACE: Q: And the other principal variable then
25 would be lost revenue.

26 MR. HOBSON: A: Yes.

1 MR. WALLACE: Q: Thank you. And I guess the higher the
2 rate per kilowatt hour, the more lost revenue for
3 evaluation purposes.

4 MR. HOBSON: A: Typically the energy savings, if it's at
5 a higher rate, will result in higher lost revenue, yes.

6 MR. WALLACE: Q: Okay. And that means, I guess then,
7 from a RIM impact point of view, displacing energy in
8 the residential sector where the rates per kilowatt are
9 the highest, lead to the highest lost revenue, and
10 accordingly the lowest RIM test result.

11 MR. HOBSON: A: On a per kilowatt hour basis, yes, the
12 residential sector would have a higher impact in terms
13 of the revenue loss, but the utility cost would still
14 have to be factored into the equation to understand what
15 the impact on RIM would actually be.

16 MR. WALLACE: Q: Now, B.C. Hydro undertakes a large
17 number of programs where the RIM is less than one.

18 MR. HOBSON: A: Yes.

19 MR. WALLACE: Q: And a large program can have a
20 significant impact on non-participants?

21 MR. HOBSON: A: I'm not sure of your question.

22 MR. WALLACE: Q: Okay, well if you have a low RIM and a
23 major program, it could have a significant revenue
24 impact for non-participants?

25 MR. HOBSON: A: Yes, that's true, but that's also why we
26 attempt to provide a broad range of programs, to offer

1 significant opportunities for participants.

2 MR. WALLACE: Q: So if you don't get -- if you pay the
3 subsidy, the cross-subsidy on one program, you might get
4 it back on another one is the idea.

5 MR. HOBSON: A: Well, I think the idea is that you're
6 trying to understand that the RIM is going to result in
7 an equity issue, and we shouldn't be surprised as we're
8 putting these plans together that there is going to be a
9 distribution impact. And that's the purpose of why we
10 calculate the RIM test and try to understand what the
11 distribution impacts are. It also factors into our
12 development of the programs to try to ensure that we're
13 providing broad opportunities for participation, so that
14 we do limit those impacts overall.

15 MR. WALLACE: Q: Okay, but I almost take it that you're
16 saying RIM does result in an equity issue, but if you
17 get enough inequities, maybe it comes out fair in the
18 end?

19 MR. HOBSON: A: I think what we're really saying is that
20 RIM below one is an indicator that you do have an equity
21 issue, and I don't think we're trying to say anything
22 different than that with it. I think we're also trying
23 to indicate that we're attempting to provide a broad
24 range of opportunities for customers to participate so
25 that they do reap some of the benefits in the form of
26 bill savings, which can offset any of the impacts that

1 commercial and residential programs tend to have RIM
2 test results below one?

3 MR. HOBSON: A: Many of the programs within residential
4 and commercial will have RIM test results below one.

5 MR. WALLACE: Q: And, as such, increase rates for all
6 customers including the industrial customers.

7 MR. HOBSON: A: I think what it's indicating is that there
8 will be a pressure on rates, and how those rates are
9 determined, I'm not sure is within the context of what
10 we've outlined in the plan.

11 MR. WALLACE: Q: Has any consideration been given to
12 allocating the results of the PowerSmart programs to
13 particular classes, so that they bear any of those
14 shifts that might be happening?

15 MR. MARCHANT: A: I think we would take that to be a rate
16 design issue.

17 MR. WALLACE: Q: To this point, no consideration's been
18 given to that?

19 MR. HOBSON: A: No.

20 MR. WALLACE: Q: I'm sorry, you're agreeing with me?

21 MR. HOBSON: A: I'm agreeing with you --

22 MR. WALLACE: Q: Thank you.

23 MR. HOBSON: A: -- that to this point, as part of the
24 Revenue Requirement Application, we haven't given any
25 consideration to that.

26 MR. WALLACE: Q: Okay. I'd like to then just go back to

1 -- once we get this sign of an inequity with respect to
2 the RIM test, is there a point you draw a line and say,
3 "That's just too low," or how do you go through that
4 analysis and how do you use the RIM test result?

5 MR. MARCHANT: A: I think, as Mr. Hobson was saying, it
6 would depend on the particular program we were looking
7 at. If we were looking at a small pilot, a very small
8 program that had a RIM in the .6 range, we might proceed
9 with it, if it demonstrated that it had other potential
10 benefits. If it was going to underlie another program,
11 provide lift on another program, we might proceed with
12 it.

13 So, coming back to Mr. Hobson's point, that
14 as you look into the residential and commercial sectors,
15 you'll see a much broader offering of programs, because
16 we're trying to give more opportunities for customers to
17 participate, such that they actually will see a net
18 reduction in their bill. Yes, a RIM less than one will
19 result in a rate increase, but if people participate,
20 they have an opportunity to bring their bill down, while
21 the rate may have gone up.

22 So I guess my answer to your question is, it
23 would vary by the circumstance, or the size of the
24 program, the nature of the program, and the breadth that
25 we were offering in the sector.

26 MR. WALLACE: Q: Okay, and I'm having trouble coming to

1 grips with that, and I'm wondering, is there any general
2 guideline, in the same sense that you have a two and a
3 half cent kilowatt hour utility cost test guideline. Is
4 there any guideline with respect to the RIM test? Or is
5 it just wide open?

6 MR. HOBSON: A: I think it's fair to say that we haven't
7 established a firm guideline like we have with the
8 utility cost or the TRC, but I would have a hard time
9 imagining going forward with a program that produced a
10 RIM test that was getting below 0.6. Again, it's going
11 to depend on the sector and it's going to depend on the
12 type of program we're looking at. And I think within
13 that threshold, there would certainly be situations
14 where we wouldn't want to go as low as that.

15 **Proceeding Time 2:20 p.m. T9A**

16 MR. WALLACE: Q: Okay. Now is that formalized in any
17 recommendation or is that just your reaction, Mr.
18 Hobson, with respect to it?

19 MR. HOBSON: A: It's not formalized, no.

20 MR. WALLACE: Q: Okay, thank you.

21 I'd like to turn then to business cases, and
22 in some of the material I have read there is reference
23 to business cases with respect to PowerSmart programs.
24 When are they prepared for PowerSmart programs?

25 MR. HOBSON: A: When are business cases prepared?

26 MR. WALLACE: Q: Yes. Does every program get a business

1 case, or is this done in some cases and not in others?

2 MR. HOBSON: A: Business cases are prepared for the
3 programs.

4 MR. WALLACE: Q: For all programs?

5 MR. HOBSON: A: Yes.

6 MR. WALLACE: Q: And are they prepared before they're
7 undertaken?

8 MR. HOBSON: A: Yes.

9 MR. WALLACE: Q: I know that sounds like it should be
10 self-evident, yes, but -- well, let me then direct you
11 to Exhibit B1-2, Appendix M, DSM Evaluation Summary and
12 Plan, and in particular page 9. So I'll just give that
13 reference again. Exhibit B1-2, Appendix M, and it is
14 page 9 and 10 that I'm really looking at with respect to
15 the Seasonal Light Emitting Diode Program. And there's
16 the statement there:

17 "The Seasonal Light Emitting Diode Program
18 (SLED) is an electricity acquisition and
19 market transformation program. Mass
20 advertising and product donations are used to
21 educate and encourage residential customers to
22 adopt energy-efficient LED light strings as
23 holiday lighting.

24 Further program activity is contingent on
25 making an appropriate business case."

26 And then it sets out the key evaluation dates. And that

1 the portfolio as a whole to get an average TRC of one.
2 It is individual program judgment.

3 MR. HOBSON: A: We also look at the portfolio overall to
4 ensure that the portfolio overall is going to also be in
5 line, and that's part of what we've provided with the
6 ten-year plan.

7 MR. WALLACE: Q: But you wouldn't use the overall average
8 of the TRC to do programs that had a TRC below one.

9 **Proceeding Time 2:24 a.m. T10A**

10 MR. HOBSON: A: The intent is that programs, when all
11 non-energy benefits are considered, that we would move
12 forward with programs that pass the TRC on their own
13 merits.

14 MR. WALLACE: Q: Thank you. Now, with respect to
15 programs, and I think, Mr. Marchant, you probably
16 indicated can change over time, and where they may have
17 been economic, may become uneconomic. When and how does
18 B.C. Hydro make the decision to stop programs?

19 MR. MARCHANT: A: Programs that are launched have an
20 evaluation plan put in place before the program begins.
21 And then there's ongoing monitoring of the program as
22 it's underway. So during that ongoing monitoring, we
23 would be looking to see whether or not we're getting the
24 results in terms of the energy and the costs. We would
25 first attempt to modify the program if it wasn't
26 performing correctly before we terminated it.

1 MR. WALLACE: Q: Okay. Well, if you could look at
2 Appendix B1-2, Appendix M, again, page 43, and I have
3 Appendix D table 1.1 DSM, and it is small print, but I
4 don't -- it's small print but not quite as small as what
5 Mr. Jones provided earlier. But it's right at the limit
6 of my capability.

7 MR. MARCHANT: A: Sorry, you're on page 43?

8 MR. WALLACE: Q: I'm on page 43, and it's Appendix D,
9 entitled "DSM Cumulative Results for PowerSmart Legacy
10 Programs".

11 MR. MARCHANT: A: Yes, I have it.

12 MR. WALLACE: Q: And I take it PowerSmart legacy Programs
13 are programs that commenced with the first round of
14 PowerSmart?

15 MR. MARCHANT: A: That's correct. From the period as
16 shown back to 1988-89.

17 MR. WALLACE: Q: And when I look at this, not one
18 PowerSmart Legacy Program has a RIM at or above one.
19 And that does include the industrials.

20 MR. MARCHANT: A: That's correct.

21 MR. WALLACE: Q: And that told me that these programs seem
22 to be slipping. The residential RIM test was the
23 average, 0.52, which is below Mr. Hobson's .6. And I'm
24 wondering when is a decision going to be made to deal
25 with these programs?

26 MR. MARCHANT: A: Just to be clear, the programs

1 themselves are complete, in terms of them being offered.
2 If we look at the residential as an example, where
3 you're looking at the RIM average overall of 0.52,
4 there's a number of points I could raise as we go down
5 through the various programs.

6 First of all, I draw your attention to the
7 line that says, "Energy education program," if I'm
8 reading across correctly. It has a total resource cost
9 benefit of zero. This is something we've switched to --
10 now, this time, during the Legacy Programs, we were
11 showing TRCs for programs that had no identifiable,
12 recognizable, claimable energy benefits. So in the
13 column here, included in the overall total resource
14 cost, you're going to see programs that don't draw
15 energy.

16 **Proceeding Time 2:28 p.m. T11A**

17 We've also got some programs in here that
18 were driven by other objectives. If I pick BC21
19 PowerSmart out as an example, it was done in cooperation
20 with the other utilities in the province and with the
21 provincial ministry to provide both electricity benefits
22 as well as gas benefits, water benefits and so on. So
23 we've got a bit of a mixture and a muddle in some of
24 these figures in terms of what's included.

25 One thing I would like to point out on the
26 industrial that's a significant change for us is, as you

1 point out, the RIM here is below one. The first go-
2 round of PowerSmart, the Legacy Programs we've shown
3 here, was very much a product based program. So as we
4 went across the various sectors we were encouraging
5 people to participate with a high efficiency motor, a
6 new fridge, that type of thing. We've been able to
7 raise the RIM well above one in our current program,
8 because particularly in the industrial area, as well
9 much in the commercial, we are very much a project based
10 program now.

11 So when we come forward and say that we've
12 identified an opportunity, we've provided an incentive
13 and we're measuring it, it's a specific opportunity at a
14 pulp and paper mill, at a warehouse building, so it's
15 allowed us to raise that up.

16 MR. WALLACE: Q: Okay. Now, I'm sorry, when you said
17 these programs are completed, have they then in their
18 entirety been replaced, either discontinued or replaced
19 by current programs?

20 MR. MARCHANT: A: Yes.

21 MR. WALLACE: Q: Thank you. And then I take it that the
22 current programs are probably those set out on Appendix
23 B1-2 -- I'm sorry, Exhibit B1-2, Appendix I, PowerSmart
24 ten-year plan at page 28.

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

26 MR. WALLACE: Q: And if you'd turn to that page, we have

1 the industrial sector in total being a RIM test of 1.1.

2 MR. HOBSON: A: Yes.

3 MR. WALLACE: Q: And for the commercial and government
4 sector, average of 0.8.

5 MR. HOBSON: A: That's correct.

6 MR. WALLACE: Q: And in that, at least your .6 is, I
7 guess, avoided. With respect to the residential sector,
8 however, you have an average of 0.8 and a couple of
9 programs that are at .6 or lower.

10 MR. HOBSON: A: Yes. The one program at the bottom,
11 Courtney Comox Quesnel is really a pilot offering that
12 was used to start residential PowerSmart as we got going
13 again, so it's been brought out on its own merits within
14 the purpose of the ten-year plan, but it really leads
15 into a number of the programs that you see listed within
16 here. The expenditures are also quite small with this
17 program.

18 MR. MARCHANT: A: If I could add, on the Courtney Comox
19 Quesnel program that comes back to a question that was
20 posed from one of the audits that was done by our
21 internal audit group and there was a statement made in
22 it that we possibly were moving too quickly and too
23 aggressively in terms of having our systems and
24 processes in place. Our original intent when we
25 launched the new ten-year plan was to start at full
26 speed, and we very much took to heart the

1 recommendations from the audit and decided to phase in
2 or layer in our start-up. And we started with the
3 Courtney Comox Quesnel area.

4 The point I'm trying to make is the benefit
5 it served to us was it allowed us to get our rigor
6 processes and discipline in order, but it certainly
7 produced a low RIM.

8 **Proceeding Time 2:32 p.m. T12A**

9 MR. WALLACE: Q: Okay, and is the reason that these
10 programs, both the commercial, government commercial and
11 residential sectors, don't have a RIM test above zero
12 point -- or an average up around one or closer to one,
13 that you are unable to get adequate contributions from
14 the customers, or is it a lost revenue issue?

15 MR. HOBSON: A: The fact that the RIM test falls below
16 one is going to be a combination of the utility cost and
17 the revenue loss as it stacks up against the avoided
18 cost of supply. Our investment in the utility cost is
19 going to part go to direct incentives for different
20 energy efficiency measures going forward, and in that
21 sense it's offsetting part of the customer cost.

22 There's also a significant portion of the
23 utility cost that goes to non-incentive activities to
24 address other market barriers that exist beyond
25 affordability. So it's a combination of both of those
26 things.

1 MR. WALLACE: Q: Thank you. I'd like to turn to a couple
2 of program, one I guess residential and one more the
3 commercial institutional. The first one I'd like to
4 look at is compact fluorescent lights, and that
5 description is found at Exhibit B1-2, Appendix M, pages
6 18 to 24, and also in the program summaries which I
7 think is Appendix I.

8 MR. HOBSON: A: Appendix N.

9 MR. WALLACE: Q: Appendix N for the program summaries?

10 MR. HOBSON: A: Yes.

11 MR. WALLACE: Q: Thank you, sir. Pages 41 and 42. And
12 for that program I find TRC benefit to cost ratio of
13 2.8, which sounds very attractive. Can you confirm that
14 2.8?

15 MR. HOBSON: A: Yes.

16 MR. WALLACE: Q: And can you confirm that that's a very
17 attractive TRC benefit/cost ratio?

18 MR. HOBSON: A: That is an attractive benefit/cost ratio.

19 MR. WALLACE: Q: And in spite of having that very
20 attractive benefit/cost ratio, you still have a RIM
21 benefit/cost ratio of only .8, and I guess, again, is
22 that because you simply cannot get the customers to
23 front the expensive cost of compact fluorescent lights?

24 MR. HOBSON: A: I think there's a combination of barriers
25 in the compact fluorescent light market. One of them is
26 affordability, but there's also a number of issues at

1 play here around availability of product, customer
2 acceptance of product, the overall accessibility, and
3 the types of models that are available. So there's a
4 number of things at play, and probably the biggest
5 barrier is getting a customer interested enough in a
6 product as simple as a light bulb to hear the message
7 and to spend the money to try the product.

8 The other side of the equation is the supply
9 side, and there are significant barriers in trying to
10 convince retailers and manufacturers to bring product in
11 and make product available, product selection available
12 for customers. So there's a number of things at play.

13 **Proceeding Time 2:36 a.m. T13A**

14 MR. WALLACE: Q: Okay, and to make it attractive, you gave
15 out, I understand, and I don't know if you still are, a
16 large number of lights free and significant discount
17 coupons?

18 MR. HOBSON: A: That's correct. In the short term, the
19 strategy of the program is to pull customers in by
20 providing free product. This is also serving to bring
21 the supply chain around and discount coupons are a part
22 of the transition for customers going back through to
23 the normal channels of distribution.

24 MR. WALLACE: Q: Okay, and when you did this cost-benefit
25 analysis, were they based on giving away the bulbs for
26 free, or on the discount coupons, or what basis?

1 MR. HOBSON: A: It's a combination of both.

2 MR. WALLACE: Q: And did you take into account the
3 possibility of bulbs sitting on shelves in people's
4 homes, rather than being utilized?

5 MR. HOBSON: A: Yes we did. There's a significant factor
6 applied for non-installation.

7 MR. WALLACE: Q: Okay. What -- just generally with
8 respect to residential customers, do you have a sort of
9 rule of thumb payback that's required to make this type
10 of measure attractive to residential customers?

11 MR. HOBSON: A: I think it completely depends on the type
12 of product that you're talking about. And I think most
13 people within this room could relate to it, as we're all
14 residential customers. That depending on the product
15 and the various benefits you're going to receive from
16 it, it's going to affect your decision in terms of what
17 the payback would be.

18 MR. WALLACE: Q: Do I take it, then, that payback with
19 residential customers at least, is a less recognized
20 factor than maybe it would be with commercial,
21 industrial and institutional?

22 MR. HOBSON: A: Less recognized? I think all of us, in
23 our minds, consider what we're getting for our money
24 when we spend a dollar. How formalized we make that
25 analysis, I think, is probably more the question, and
26 what benefits we value and what we consider when we make

1 that expenditure.

2 MR. WALLACE: Q: So if we want it, we'll use the payback
3 to rationalize getting it, and if we don't want it we'll
4 ignore the payback. Or give it less of a role.

5 MR. HOBSON: A: No, I think the payback still comes in,
6 but I think it does become difficult to use payback, and
7 understand -- understand that the mentality of the
8 residential customer and how they're thinking about
9 payback with a particular product.

10 MR. MARCHANT: A: I think a good example of that would be
11 the refrigerator buy-back program. Our offer there was
12 a 30 dollar rebate and free pick-up of your fridge, as
13 well as insurance to you that it would be disposed of
14 correctly from an environmental perspective. Obviously
15 when we put that program into play, we were looking at
16 the utility costs and the TRC for it. I think it would
17 be difficult to calculate the payback of -- I hate to
18 talk about beer and wine, but taking away someone's beer
19 and wine refrigerator.

20 MR. WALLACE: Q: I can go along with that. Thank you.
21 Was a business case done prior to this program being
22 undertaken?

23 MR. HOBSON: A: The CFL program?

24 MR. WALLACE: Q: Yes.

25 MR. HOBSON: A: Yes.

26 MR. WALLACE: Q: And could you provide a copy of that

1 business case, the original one?

2 MR. SANDERSON: I believe we could.

3 MR. HOBSON: A: Yes, we can.

4 **Information Request**

5 MR. WALLACE: Q: Just so you don't think I'm going to go
6 through all your programs and ask for them, I'm not. I
7 am going to ask for one more business case, and I think
8 that will then give me an understanding of how they work
9 across different programs. And we can turn to the other
10 program at this point, then. And that's the LED traffic
11 signals. And a description of that is found in Exhibit
12 B1-2, Appendix M, pages 31 to 32, and Appendix N,
13 PowerSmart Program Summaries, page 10 of 11.

14 And I take it before I get into it, that I
15 recognize this program at least in the descriptions is
16 scheduled to end on March 31st of 2004, I believe?

17 **Proceeding Time 2:40 p.m. T14A**

18 MR. HOBSON: A: That's correct.

19 MR. WALLACE: Q: And did it end at that time?

20 MR. HOBSON: A: I believe it's essentially wrapped up at
21 this point.

22 MR. WALLACE: Q: And was that because it was uneconomic
23 or simply because the opportunities had been exhausted?

24 MR. HOBSON: A: It's more that the opportunities have
25 been exhausted. The program design was over a short
26 period of time.

1 MR. WALLACE: Q: Okay, so it's still representative of
2 the types of programs you like to do?

3 MR. HOBSON: A: Yes.

4 MR. WALLACE: Q: Okay. And its TRC was 1.7?

5 MR. HOBSON: A: That's correct.

6 MR. WALLACE: Q: And its RIM was 0.7.

7 MR. HOBSON: A: That's correct.

8 MR. WALLACE: Q: Now, and this'll be my final business
9 case, was there a business case prior to this program
10 being entered into?

11 MR. HOBSON: A: Yes.

12 MR. WALLACE: Q: And could you provide a copy of that
13 please?

14 MR. HOBSON: A: Yes.

15 MR. MARCHANT: A: Yes.

16 **Information Request**

17 MR. WALLACE: Q: Thank you.

18 Now at page 32 of Appendix M, there's a
19 statement and I quote, that:

20 "Most municipalities will not spend beyond
21 normal paybacks, usually three to five years,
22 solely for environmental reasons."

23 And I guess that there are a couple of questions around
24 that. Is that three to five-year payback the payback
25 that you normally see with respect to institutional and
26 commercial customers?

1 MR. MARCHANT: A: For commercial customers overall we're
2 usually looking at a three to four-year payback.

3 MR. WALLACE: Q: Okay, and does it vary between
4 municipal, institutional or other governments? So are
5 they pretty well in line with commercial overall?

6 MR. MARCHANT: A: I think it would vary for government
7 and institutional.

8 MR. WALLACE: Q: Okay, and how? In which direction? Are
9 they more willing to spend for environmental purposes,
10 or less?

11 MR. MARCHANT: A: Let me back up a bit. I overlooked the
12 fact you made specific reference to environmental
13 purposes. You're narrowing in on that compared to just
14 a payback for an investment?

15 MR. WALLACE: Q: Well, I'm thinking of PowerSmart type
16 investments, which I take as following in that category
17 that was described here as solely for environmental
18 reasons. If there's more subtlety to it than I'm
19 getting, please don't hesitate to explain.

20 MR. MARCHANT: A: I'm not sure I'm interpreting the
21 statement the same. I'm interpreting it to mean that if
22 they had a payback of three to five years, they wouldn't
23 go beyond that if the only benefits were environmental.

24 MR. WALLACE: Q: Yes, okay.

25 MR. MARCHANT: A: Is that the way you're interpreting it?

26 MR. WALLACE: Q: I don't think I got quite that subtle on

1 it, I guess. I guess I was asking -- rather than worry
2 too much about the statement, let's go with your
3 experience, and you've said your experience for the
4 commercial customer as a whole is the three to five year
5 range on paybacks, and I guess my question to you is,
6 trying to break that commercial sector as a whole down,
7 are municipalities and governments inclined to go a
8 little longer or a little shorter or the same?

9 **Proceeding Time 2:44 p.m. T15A**

10 MR. MARCHANT: A: Looking at the average cost that we've
11 provided as incentive, I would say a little shorter.

12 MR. WALLACE: Q: Okay. Now, I'm a little surprised about
13 that because my understanding was that municipalities
14 and government were generally more open to -- and maybe
15 it's just the spin, but more open to green energy and to
16 conservation and issues like that, and the environment,
17 and I would have thought PowerSmart fell into that
18 category and that you might be able to take advantage of
19 that. Am I wrong?

20 MR. MARCHANT: A: In terms of the benefits they would see
21 from --

22 MR. WALLACE: Q: In terms of what they might look at for a
23 payback, that they go a little longer than they would
24 otherwise because they recognize the environmental and
25 the other aspects of it, so that rather than be shorter
26 than the commercial class I would have thought they'd be

1 longer.

2 MR. MARCHANT: A: I don't have evidence for this
3 statement, but if there's anyone who is short of capital
4 it's schools, hospitals and colleges.

5 MR. WALLACE: Q: Okay. So the current squeeze has just
6 made things very tight for them.

7 MR. MARCHANT: A: Well, and going back to your questions
8 about the traffic light program, of course the hurdle
9 that the municipality is faced with the capital being
10 available to actually purchase the fixtures. The school
11 programs as well, they are extremely short of capital.

12 MR. WALLACE: Q: Okay. And so on that program,
13 essentially you paid out the costs in full and then
14 recovered half of them over five years out of the
15 savings that the municipalities enjoyed.

16 MR. MARCHANT: A: For the traffic light program, that's
17 correct. Off the bill.

18 MR. WALLACE: Q: And that has to be about as attractive as
19 anything can get. Were you able to get virtually 100
20 percent?

21 MR. HOBSON: A: It's a very high percentage. It's not
22 quite 100, but it's quite close to that, yeah.

23 MR. WALLACE: Q: Okay, thank you.

24 MR. MARCHANT: A: I think it's important, I think, to
25 recognize though, that while we put a payment structure
26 in place there, where we put the capital out and

1 recovered it, when you look at the cost calculations,
2 they take that timing into account.

3 MR. WALLACE: Q: Yes. But they didn't have to put any
4 money upfront. They saw a reduced bill and they could
5 pay you back without facing an increase in their costs
6 at any point in the five-year period.

7 MR. MARCHANT: A: That's correct, and with the TRC to the
8 benefit of all customers.

9 MR. WALLACE: Q: Although their RIM meant that other
10 customers were carrying part of the cost.

11 MR. MARCHANT: A: Non-participants, yes.

12 MR. WALLACE: Q: The non-participants were carrying part
13 of the costs, thank you.

14 I'd like to then just discuss goals of the
15 PowerSmart program generally, and I'd like to provide
16 you with a copy of the internal audit report demand-side
17 management. And this is excerpts from it dated April
18 19th, 2002, and Mr. Chairman, this is one of those
19 documents that is found at BCUC 1.75.10.1, so I won't
20 ask that it be marked as an exhibit, but we'll hand it
21 up again for ease of people following it.

22 Okay, and I realize this is an audit report
23 so if there's something in it that you disagree with
24 where it suggests Hydro's position, please don't
25 hesitate to point it out.

26 At page 17, the first page I have attached,

1 it says:

2 "One of PowerSmart's goals is to be in the top
3 quartile of DSM providers in North America,
4 PowerSmart has identified two key performance
5 indicators, percent of annual sales saved, and
6 percent of annual revenue invested for
7 tracking progress to meet this goal."

8 **Proceeding Time 2:48 p.m. T16A**

9 Can you confirm that it is Powerex -- or a
10 PowerSmart goal to be in the top quartile of DSM
11 providers in North America?

12 MR. MARCHANT: A: Yes it is.

13 MR. WALLACE: Q: Okay. And when we look to the goals,
14 being in that top quartile can be measured in terms of
15 both energy and capacity or demand savings?

16 MR. MARCHANT: A: It can be. The comparison we're
17 looking for was in terms of energy.

18 MR. WALLACE: Q: Okay, and I think that's recognized at
19 the bottom of the page. The final paragraph says:

20 "The target energy savings percentage
21 reduction of 6 percent is well within the
22 range of savings achieved by the top quartile
23 of DSM utilities in U.S., according to
24 research conducted by audit services.
25 However, the demand savings target of 4
26 percent is not within the top quartile."

1 And would you agree with those conclusions?

2 MR. MARCHANT: A: I would agree with the conclusion and I
3 would add that the reason we are not in the top quartile
4 is we are being compared to utilities that have capacity
5 focus based programs, which as we've stated, we don't.

6 MR. WALLACE: Q: We're going to come back to it, but do
7 you want to elaborate on why you have picked energy to
8 be in the top quartile and have not followed demand in
9 the same way?

10 MR. MARCHANT: A: I want to make I didn't cross -- trip
11 over the IEP.

12 MR. WALLACE: Q: Sorry, trip over what?

13 MR. MARCHANT: A: The IEP. Pretty clearly in the Legacy
14 Programs and in the PowerSmart Plan, as you can see we
15 are an energy-based program. We're looking at capacity
16 programs now as part of the REAP, but I don't know how
17 much more to offer to you than it was an energy program,
18 it is an energy program, and when we're looking at
19 capacity as an opportunity.

20 MR. WALLACE: Q: Okay, well, we're going to come to where
21 the REAP goes and to some extent what the IEP has to say
22 about it, so come back to that. Right now I'd like to
23 look at where you are in terms of demand or capacity
24 DSM, and if you turn to page 18 you see B.C. plan
25 savings under the ten-year plan, and you see energy of
26 six percent and you see demand savings of four percent,

1 and then you see top 50 U.S. utilities actual savings.
2 And when you look at that for demand savings, you see 16
3 percent for the weighted average of all 50 utilities.
4 Do you agree with that?

5 MR. MARCHANT: A: That's the figure shown, yes.

6 MR. WALLACE: Q: Okay. And B.C. Hydro's demand savings
7 are about a quarter of the average of the 50 utilities.

8 MR. MARCHANT: A: Correct, the difference again being
9 that we're being compared to utilities that have
10 capacity focus programs, and we're also largely being
11 compared here to utilities that are thermal based not
12 hydro based.

13 MR. WALLACE: Q: Which provides them with a greater
14 incentive?

15 MR. MARCHANT: A: I would say it would provide a thermal
16 utility with a much greater incentive to not have to
17 make an investment in a thermal unit, yes.

18 MR. WALLACE: Q: Okay, but you have some clear incentives
19 in terms of purchasing energy at times of peak periods?

20 **Proceeding Time 2:52 p.m. T17A**

21 MS. HEMMINGSEN: A: I'm not sure I understand your
22 question.

23 MR. WALLACE: Q: Well, with respect to demand, you do go
24 to the market at -- sometimes at peak periods, and are
25 buying energy, when it may be more desirable to be
26 cutting your demand?

1 MS. HEMMINGSEN: A: Principally we do that
2 opportunistically. I can probably elaborate on one
3 reason why we wouldn't focus as extensively on the peak
4 savings from PowerSmart is, if you look in the IEP,
5 there's a table that outlines the various cost ranges of
6 capacity resources. And the ResourceSmart capacity
7 resources that we have are by far and away the cheapest
8 capacity options in the range. And that puts a focus
9 for us more on the energy types of savings that we can
10 get from PowerSmart.

11 As we said in the REAP document, we are
12 committed to exploring PowerSmart capacity savings and
13 looking further into that. But there is such an
14 overwhelming low cost of capacity through our
15 ResourceSmart savings that it seemed more appropriate to
16 focus on energy-type options at that time.

17 MR. MARCHANT: A: I presume it's a part of the REAP too.
18 We make mention of time of use rates, and I presume that
19 that will lead to some discussion about demand.

20 MR. WALLACE: Q: Okay. But B.C. Hydro does have some
21 clear areas of capacity constraint, and Vancouver Island
22 is obviously one of them?

23 MS. HEMMINGSEN: A: It is, yes.

24 MR. WALLACE: Q: And the transmission Interior to the
25 Lower Mainland is another one?

26 MS. HEMMINGSEN: A: Yes, and the IEP looks at various

1 portfolios that defer or advance that requirement.

2 MR. WALLACE: Q: Okay. And both of those are going to
3 require very expensive solutions? A lot of money?
4 Hundreds of millions of dollars?

5 MS. VAN RUYVEN: A: I think, just to take a moment to
6 think about that, both of those examples you have given
7 require a solution. And they require us, as
8 distribution at B.C. Hydro, to look for the lowest-cost
9 solution. And we are doing that now in Vancouver
10 Island. We've been looking for a low-cost solution,
11 we're now in a Call for Tender process, that's the exact
12 reason we're undertaking that. We're also doing demand-
13 side management programs on Vancouver Island in a
14 variety of things, and any areas where we have capacity
15 shortfalls, and energy shortfalls, that's exactly what
16 we would do, and that's part of integrated electricity
17 planning, part of our action plan is that we would look
18 for the lowest-cost solution.

19 MR. WALLACE: Q: But you, on Vancouver Island, did not
20 entertain a capacity solution. You went for a
21 generation solution.

22 MS. VAN RUYVEN: A: We went for a generation solution that
23 provides us the capacity that we require. The firm
24 capacity on Vancouver Island. The outcome of that is
25 not known yet, so I don't really think at this point in
26 time --

1 MR. WALLACE: Q: I don't want to get too far into it
2 either. But you did not look at a demand reduction
3 solution, you looked at a generation capacity solution.

4 MS. VAN RUYVEN: A: We looked at a generation capacity
5 solution on Vancouver Island, and of course the outcome
6 is not known at this point in time, so -- it's not known
7 whether or not we have a successful outcome, where we
8 would have to look at some bridging on capacity
9 solutions, or to go to capacity solutions. It's not out
10 of the realm of possibility that we will have to look at
11 capacity programs on Vancouver Island, and we won't know
12 that until we know the outcome of the Call for Tender.

13 MR. WALLACE: Q: Okay. Thank you for that. And I will
14 come back to how the REAP and IEP do treat capacity
15 solutions.

16 Just carrying on with the document we're on,
17 on page 22, there's a recommendation for third-party
18 oversight and I'm wondering, has that been implemented?

19 **Proceeding Time 2:56 p.m. T18A**

20 MR. MARCHANT: A: It has. The reference I would give
21 you, and I'll have to provide a clarification on third
22 party, is Appendix F of Appendix M, the DSM evaluation
23 summary and plan, lays out the terms of reference for
24 the DSM evaluation oversight team. The evaluation
25 oversight team is comprised of people from within B.C.
26 Hydro from the rates and regulatory group, power

1 planning and portfolio management, transmission,
2 distribution, and so on.

3 MR. WALLACE: Q: So I gather you took it then that third
4 party evaluation meant somebody not in PowerSmart but
5 could still be within B.C. Hydro.

6 MR. MARCHANT: A: In our discussions with the auditor,
7 they were acceptable to a party being a cross group from
8 across the utility.

9 MR. WALLACE: Q: Okay, thank you. Okay, I'd like to turn
10 actually to the REAP and the IEP and Mr. Chairman, I'm
11 not sure, if we're taking the break at three then this
12 will be a good time. Otherwise I can complete this
13 section and be through about 3:15.

14 THE CHAIRPERSON: Let's break until 3:15.

15 MR. WALLACE: Q: Thank you.

16 **(PROCEEDINGS ADJOURNED AT 2:58 P.M.)**

17 **(PROCEEDINGS RESUMED AT 3:15 P.M.)**

T19A

18 THE CHAIRPERSON: Please be seated.

19 **CROSS-EXAMINATION BY MR. WALLACE (Continued):**

20 MR. WALLACE: Q: Panel, I'd like now to turn to REAP,
21 Exhibit B1-23, page 8, and in the second box on that
22 table it states:

23 "B.C. Hydro will investigate the feasibility
24 of a capacity based PowerSmart program."

25 Completion date, Quarter 4, fiscal 2005.

26 Why has it taken so long for B.C. Hydro to

1 decide to investigate the feasibility of a capacity
2 based PowerSmart program?

3 MR. VAN RUYVEN: A: I think just looking back on when we
4 first embarked on what we call PowerSmart 2, we sat down
5 and strategically thought about what we were trying to
6 achieve and we made a decision to relaunch energy
7 programs. At that time we looked at capacity and
8 thought about capacity. Now with any energy reduction,
9 you are getting some capacity savings across all the
10 customer classes, that -- but they weren't specifically
11 designed as capacity programs.

12 **Proceeding Time 3:17 p.m. T20A**

13 We are two years into that new PowerSmart 2
14 program and we have made a commitment that we will start
15 to look at capacity programs and we will be designing
16 what that looks like and hoping to launch some specific
17 ones where appropriate, once we understand where the
18 needs are and where we can most effectively launch those
19 programs sometime in the next year.

20 MR. WALLACE: Q: Well, I guess where I have a problem is
21 not that you may or may not have launched a program but
22 that it's taking till quarter 5 fiscal -- or quarter 4
23 fiscal 2005 to investigate the feasibility. Surely that
24 is something that could have been undertaken a long time
25 ago and might have provided useful information for
26 Vancouver Island or other locations.

1 programs. We've embarked on that. We've now, as part
2 of the recommendations that came out of that original
3 audit, we understand that capacity programs can have
4 benefits and we will investigate those and design
5 programs appropriately. This is a ten-year plan.

6 Part of the capacity savings and part of our
7 planning is also around rates and we need to look at
8 rate design, not just specific capacity programs that we
9 go out and launch, but rates will play a very big part
10 in that. We know we are about to go into a rate design
11 hearing, and we know that we will have some discussions
12 around rates that look at capacity savings. And we are
13 looking forward to that and that will also happen in the
14 same time frame that we are looking at capacity
15 programs, and looking at those is two different venues
16 or abilities to get at capacity savings with all of our
17 customers.

18 MR. WALLACE: Q: And would you agree that what you're
19 spending on looking at capacity savings or capacity DSM
20 is also far less than you're spending pursuing new
21 generation and transmission?

22 MR. VAN RUYVEN: A: Well, I think I've said we're spending
23 some resources and time to investigate capacity
24 programs. We will be spending some time and money going
25 through a rate design hearing, which we will be
26 discussing rates, which will also help us with capacity.

1 So I'm not sure of the relation to your question on
2 generation transmission. Generation and transmission as
3 it relates to what?

4 MR. WALLACE: Q: Well, to either Vancouver Island or to
5 transmission -- looking at transmission for the core
6 from the Interior down to the coast. I mean, those
7 inquiries are costing a lot of money.

8 MR. VAN RUYVEN: A: That's correct. And on Vancouver
9 Island we've set a very specific course of action which,
10 I think, is very clearly laid out in our call for
11 tender. We are looking for on-Island generation for
12 firm capacity with generation. As I said before, we
13 don't know the outcome of that call.

14 **Proceeding Time 3:21 p.m. T22A**

15 If it's not a successful outcome, we would
16 have to look very quickly to capacity programs, and we
17 are planning contingency plans as we speak, as to what
18 that would look like as a bridging strategy to what a
19 permanent solution would look like on Vancouver Island.

20 So in that specific case, we know we have a
21 capacity problem there, and I think we're doing all the
22 right things. I suppose you could say on our
23 contingency planning we are spending some project
24 planning money to look specifically at capacity options
25 for Vancouver Island. It's in the order of a few
26 thousand dollars, but in that particular area, because

1 they're -- we're uncertain of the outcome of the Call
2 for Tender, we are focusing very much so on Vancouver
3 Island.

4 MR. WALLACE: Q: Okay. And, I mean, would it be fair to
5 say that what you are intending to spend, even though
6 you don't have a specific budget for it, in
7 investigating the feasibility of capacity-based
8 PowerSmart program, will be in the range of a few tens
9 of thousands of dollars?

10 MS. VAN RUYVEN: A: Again, I don't know at this point in
11 time, it's too early on. We've made a commitment that
12 we will be investigating it, and we're not that far
13 along to be able to put a dollar figure on that
14 particular action item.

15 MR. WALLACE: Q: Okay. Now, I'd like you to turn to the
16 Integrated Electricity Plan, Exhibit B1-24, part 3,
17 Resource Options.

18 Actually, just before I get there, just for
19 the record, you've spent over \$120 million pursuing
20 generation to solve a capacity problem on Vancouver
21 Island?

22 MR. SANDERSON: I'm not sure that the history of Vancouver
23 Island and the expenditures there has anything to do
24 with this proceeding. It may be I'm just missing the
25 connection, but certainly that's been the subject matter
26 of other proceedings, will no doubt be the subject of

1 future proceedings. But has it got anything to do with
2 this one?

3 MR. WALLACE: Well, Mr. Chairman, I think it does, and it
4 does to do with the REAP and with the IEP, in that my
5 clients are extremely frustrated that capacity
6 PowerSmart seems to be on the very back burner. And I
7 raise the number simply to put it on the record as a
8 comparison to a few thousand dollars in this area to
9 solve capacity problems. And that's the importance.
10 I'm not going to go any further than I've just gone,
11 with respect to the question.

12 THE CHAIRPERSON: It's not going to be very helpful to you.

13 MR. WALLACE: Okay, well -- I will move on, then.

14 MR. WALLACE: Q: Turning then to the Integrated
15 Electricity Plan, at Part 3, resource options, of
16 Exhibit B1-24, and page 24, and this is the section of
17 the IEP that deals with demand-side management capacity
18 programs.

19 MR. MARCHANT: A: Yes.

20 MR. WALLACE: Q: And this section ends on the following
21 page, 25?

22 MS. VAN RUYVEN: A: Yes, that's correct.

23 MR. WALLACE: Q: And that is the total consideration given
24 to capacity demand-side management capacity programs in
25 the REAP?

26 MS. HEMMINGSEN: A: I think it's a summary of the

1 consideration given to capacity-based programs in the
2 IEP --

3 MR. WALLACE: Q: Oh, I'm sorry, in the IEP.

4 MS. HEMMINGSEN: A: There are some other details in the
5 appendices, on some costs of various programs, and a
6 commitment to explore that further in terms of resource
7 options.

8 **Proceeding Time 3:25 p.m. T23A**

9 And probably an important point to make is
10 that in developing the IEP and with the expedited time
11 frame to ensure it was available for this hearing, we
12 assembled information on resource options that we had
13 available and then we asked for comment from
14 stakeholders in December to augment the database, but we
15 didn't pursue additional reports and information on
16 those various options because of the constricted
17 timeframe that we had.

18 MR. WALLACE: Q: Okay, and the details contained in the
19 appendices are limited to those contained within the
20 Conversation Potential Review 2002? On this subject.

21 MR. VAN RUYVEN: A: Could you just repeat that question,
22 please?

23 MR. WALLACE: Q: Ms. Hemmingsen mentioned that there were
24 -- that this was the summary of your thinking but that
25 there were further details in the appendices of the IEP
26 and I'm just suggesting that the further details

1 contained there are found in the Conservation Potential
2 Review 2002.

3 MS. HEMMINGSEN: A: I'd have to check on that reference.
4 There is a table, 7.3, on page 7-2 which summarizes all
5 of the capacity options that we did look at in the IEP.

6 MR. WALLACE: Q: Okay.

7 MS. HEMMINGSEN: A: And PowerSmart is noted there with a
8 cost range.

9 MR. WALLACE: Q: Okay, thank you. And if you could let me
10 know if the source of that is anything other than the
11 Conservation Potential Review of 2002, I'd appreciate
12 it.

13 **Information Request**

14 MR. WALLACE: Q: Now, looking at page 24 and 25, and going
15 to page 25, it starts out:

16 "The Conservation Potential Review 2002
17 include a preliminary findings that DSM
18 measures to reduce peak demand for electricity
19 on the B.C. Hydro system or in a particular
20 region of the system, could reduce peak demand
21 by 550 megawatts and would involve the
22 following: peak shaving, short-term load
23 shifting, long-term load shifting, load
24 reduction, market and operation optimization
25 and load displacement, fuel switching, self-
26 generation. The CPR study was preliminary in

1 nature and intended only to determine whether
2 it would be worthwhile for B.C. Hydro to spend
3 more effort investigating the subject."

4 And I take it up until this stage you have decided it
5 wasn't worth spending more effort but it now is and you
6 will be doing that?

7 MR. VAN RUYVEN: A: I think it's just a matter of timing
8 and we are now committing to a timeframe where we will
9 be spending the effort to look at capacity programs.

10 MR. WALLACE: Q: Okay. It then goes on to say:

11 "If targeted reduction and industrial
12 production were considered, the reduction
13 could be increased to over 750 megawatts.
14 However, the cost of this capacity is unknown
15 and may be high based on the value of
16 electricity and associated production to
17 industrial customers. Given the potential
18 magnitude for the industrial sector, B.C.
19 Hydro is considering further investigation
20 into capacity programs and their future
21 inclusion in resource planning processes."

22 And I take it to this point you have not defined what
23 those costs are and lost production are?

24 **Proceeding Time 3:29 p.m. T24A**

25 MS. VAN RUYVEN: A: No, we haven't.

26 MR. WALLACE: Q: Thank you.

1 I'd like to turn then to DSM administration,
2 I guess, operating and maintenance. I'm sorry, first
3 the administration of the programs. And my
4 understanding from one of the comments in the audit
5 report that I provided you but I don't think you need to
6 turn to it, I want to simply make certain I have it
7 correct; with respect to industrial DSM, B.C. Hydro pays
8 25 percent of the grant upon commitment, 50 percent when
9 the equipment is ordered, and 25 percent one year after
10 completion? Is that correct?

11 MR. MARCHANT: A: So you're reading from the audit
12 itself?

13 MR. WALLACE: Q: The audit report mentioned that, and
14 actually, I'm sorry, I had -- I'm not sure --

15 MR. MARCHANT: A: On page 30?

16 MR. WALLACE: Q: It would be page 30. And it wasn't
17 clear to me whether that was an incentive, part of all
18 industrial programs or a limited portion of industrial
19 programs, and that's why I wanted to check. It's the
20 final bullet on page 30.

21 MR. MARCHANT: A: The payment stream for all PowerSmart
22 partner incentives, be they commercial or industrial, is
23 a 25/50/25 percent as set out here.

24 MR. WALLACE: Q: Okay, thank you, and so the final 25 one
25 year after completion.

26 MR. MARCHANT: A: Yes, when we put the incentive in place

1 we have a measurement and verification plan that the
2 customer have agreed to. It provides assurance that
3 we'll have some capacity to actual meter the savings.
4 It provides us with access and it provides us with an
5 agreement that if the savings are not achieved, we won't
6 pay the 25 percent, and as a matter of fact we have an
7 ability to claw back some of the 75 percent that's
8 already been provided.

9 MR. WALLACE: Q: So benefits under Industrial PowerSmart
10 are under, I guess, PowerSmart partner programs, are
11 assured. They're audited effectively.

12 MR. MARCHANT: A: They are.

13 MR. WALLACE: Q: Thank you.

14 MR. MARCHANT: A: Well, in the sense that we have a -- in
15 larger programs an on-site inspection.

16 MR. WALLACE: Q: Now, my understanding is that there have
17 been concerns by your customers about delay and
18 paperwork. Are those -- one, I don't know if you agree
19 if that's the situation. Can you comment on that?

20 MR. MARCHANT: A: Not trying to duck, I would need
21 something specific.

22 MR. WALLACE: Q: Well, I guess I simply hear indirect
23 stories of paperwork, delay in getting things processed,
24 claims, bureaucracy and audits, where it's very clear
25 material has been purchased.

26 Now, I'm asking you, do you get those

1 complaints in your program?

2 MS. VAN RUYVEN: A: Maybe I can answer that in that I
3 have had conversations with several large industrial
4 customers over the last few months, and yes, their
5 perception is delays and bureaucracy. But it is a
6 substantial amount of money, and I would characterize it
7 more as rigour and due diligence to ensure that the
8 money is being spent appropriately, and that the
9 monitoring and verification is being done completely
10 accurately. And I think we are approaching it with the
11 appropriate level of rigour to ensure that the money is
12 being spent appropriately and that the savings are
13 verified and that they're there, and they're there for
14 the term of the contracts we're entering into.

15 MR. WALLACE: Q: Are any efforts being undertaken to make
16 the process work more smoothly?

17 MR. MARCHANT: A: Over the past year we've actually
18 tracked and monitored our paper processing time and
19 improved it by 10 percent.

20 I'd like to add to Ms. Van Ruyven's comments
21 though, is if you speak with customers, which I do a
22 great deal too, it starts off when the incentive
23 application comes, because when the incentive
24 application comes to us it goes through a technical
25 review.

26 **Proceeding Time 3:33 p.m. T25A**

1 So if we have an application from a pulp and
2 paper group for a particular type of equipment, it goes
3 through our technical group who do a review, and they
4 are very diligent in insisting that we have the
5 information in front of us that demonstrates that the
6 customer hasn't started the project yet, that the
7 technology is viable, that it's feasible, that it's
8 actually going to be carried out and so on. So as we go
9 through that process we are quite insistent that we have
10 the documentation available to us.

11 We then move onto a financial review, looking
12 at the numbers that have forwarded by the customer and
13 again our financial review team are insistent and have a
14 great deal of diligence in ensuring that we have the
15 paper in front of us in the information before we make
16 the incentive offer.

17 After the incentive offer has gone out and
18 been accepted by the customer, we then go into the
19 process of needing certain papers and demonstrated
20 evidence that the project itself has been initiated,
21 that it is progressing, or that it has been completed.

22 So I would agree with you that there is
23 frustration, but I think the frustration is warranted by
24 the requirement for us to have a proper level of rigour.

25 MR. WALLACE: Q: Well, maybe we can leave it that we will
26 agree that you are ensuring you get value out of your

1 industrial PowerSmart programs. I'm sorry, you agree?

2 MR. MARCHANT: A: Is that a question?

3 MR. WALLACE: Q: Well, do we agree? You are taking the
4 steps, even if you customers find them awkward, to
5 ensure you get value out of your PowerSmart industrial
6 programs.

7 MR. VAN RUYVEN: A: We definitely want to make sure that
8 the money we're spending, we are getting value. And
9 there are some pieces of this audit missing, because we
10 only have a few pages as excerpts, but there were
11 several recommendations in the 2002 audit around
12 evaluation methodology and our process and documenting
13 it, and we took those to heart, and that's part of the
14 outcome of what you see, the audit recommendations. We
15 felt that we definitely needed to make sure that we had
16 a clear paper trail and a clear process to audit, our
17 expenditures and audit outcome and the results, and so
18 we had implemented and executed on the audit
19 recommendations in 2002.

20 MR. MARCHANT: A: I don't want to leave you with the
21 impression, either, that we are cold or not interested
22 in our relationship with our customers. We certainly
23 value that.

24 MR. WALLACE: Q: Yes, and I presume you will work to do
25 what can make it smoothly as long as you can be assured
26 you're getting the value out of your programs.

1 MR. MARCHANT: A: We continue to try to make it as smooth
2 as possible while still ensuring that we have the rigour
3 to be able to demonstrate to the ratepayers and to the
4 Commission that we've done the proper thing with the
5 investment.

6 MR. WALLACE: Q: Okay. Now, OM&A for PowerSmart is
7 approximately \$22 million a year for fiscal 2005 and
8 2006? And I have a reference of Exhibit B1-1, page 2-84
9 or Exhibit B1-8, BCUC IR 2.195.6A. And I'm not going to
10 go into a lot of depth, I'm trying to simply get a
11 ballpark number.

12 MR. MARCHANT: A: Sorry, did you say 8-4?

13 MR. WALLACE: Q: I'm sorry?

14 MR. MARCHANT: A: I'm sorry, did you say page 8-4?

15 MR. WALLACE: Q: 2-84 of B1-1. Page 2-84 Or BCUC IR
16 2.195.6A. Sorry, I thought these were pretty basic
17 numbers.

18 Sorry, I have schedule D3, page 2-84 showing
19 total OMA expenses, fiscal 2005, 22.6 million; fiscal
20 2006, 22.4 million.

21 **Proceeding Time 3:37 p.m. T26A**

22 MS. VAN RUYVEN: A: We have that.

23 MR. WALLACE: Q: Okay. And that, I presume, becomes the
24 bulk of what we see on Exhibit B1-2, Appendix N, Program
25 Summaries, where we have allocation of costs and
26 staffing by PowerSmart initiative, and that's at page --

1 say B1-2, Appendix N, page 48. Do you have that table?
2 MS. VAN RUYVEN: A: We have Appendix N, page 48.
3 MR. WALLACE: Q: Page 48, Appendix N entitled "Allocation
4 of Costs and Staffing by PowerSmart Initiative".
5 MS. VAN RUYVEN: A: Yes, and your middle reference you
6 had --
7 MR. WALLACE: Q: No, that's fine.
8 MS. VAN RUYVEN: A: Okay.
9 MR. WALLACE: Q: We've got the two key ones. What I
10 guess I'm trying to do, the link is between the
11 approximately \$22 million of OMA. I presume that most
12 of that finds its way in terms of allocation to the
13 awareness, information and education function and the
14 indirect and other enabling initiatives function that
15 are found at the bottom of page 48?
16 MR. MARCHANT: A: Right. The reason we're pausing is the
17 table that you're looking at on page 48 is deferred
18 capital from the program summaries.
19 MR. WALLACE: Q: Yes, but isn't all of -- pretty well all
20 of the PowerSmart expenditure capitalized and deferred?
21 MR. MARCHANT: A: All but a little over 2 million, yes.
22 MR. WALLACE: Q: And isn't that -- is this 22 million in
23 OMA different, or is that -- I would have thought,
24 incorporated into this and the bulk of it probably
25 falling into those two categories that I had mentioned.
26 MR. SANDERSON: I'm wondering a little whether or not, and

1 Mr. Marchant can correct me if I'm wrong, whether this
2 sort of reconciliation might best be done by Panel 5
3 when Mr. Sherlock is there. I may be wrong in that, but
4 one of the things we tried to do was give you a witness
5 for each area, and Mr. Sherlock would be a good person
6 on the numbers, I think, in this area, but Mr. Marchant
7 may be --

8 MR. MARCHANT: A: I would agree, and one of the reasons
9 I'm hesitating is there's some figures here that cross
10 over between customer care and PowerSmart, so I would
11 appreciate that.

12 MR. WALLACE: Q: I wasn't actually going to do a
13 numerical reconciliation, but that's fine. I'm quite
14 happy to take any questions on that.

15 So why don't we just focus in on that page 48
16 allocations of costs and staffing by Power Smart
17 initiatives. And the first one is awareness,
18 information and education, and that comprises 8,400,000
19 in fiscal 2005, and 7,670,000 in fiscal 2006 for roughly
20 \$16 million.

21 Now, this program does not have any TRC
22 associated with it and no RIM test, and I take it that's
23 because you can't measure the benefits of that program?

24 **Proceeding Time 3:41 p.m. T27A**

25 MR. MARCHANT: A: The benefits of the program are that it
26 underpins our other activities. We need to have a high

1 level of awareness within the business community and
2 public to drive participation in our other programs.

3 MR. WALLACE: Q: Well, why, then, if it underpins it, it
4 sounds very important to it, don't you allocate those
5 costs to the other programs, so that you get a more full
6 and true cost allocation for those programs?

7 MR. MARCHANT: A: I think similar to the indirect costs we
8 could get into an arbitrary allocation, but these are
9 costs that are broadly supporting the other programs and
10 are included when we look at the overall portfolio.

11 MR. WALLACE: Q: But they are -- I mean, I think, as you
12 said, they underpin it, broadly support it -- can't you
13 make a general allocation to the other programs? If
14 they're needed for the other programs, then can't they
15 become part of those programs' costs so that you get the
16 true costs of those programs?

17 MR. MARCHANT: A: I think to do that it would be important
18 to step back and look at what's included in those
19 expenditures. Awareness is extremely important to us,
20 as I said, and the four mainstays of that are our
21 outreach program, our advertising, our school program,
22 and our sponsorships. And the reason I wanted to
23 elaborate on those is, I think, if you look at them
24 specifically you'll see that the impact that each of
25 them has crosses over the business and residential
26 community.

1 If I gave you as an example for the outreach
2 program, we spent -- I think it's \$3 million in the
3 current fiscal year we've budgeted, and two and a half
4 million in the following year. The outreach teams
5 themselves -- last year as an example, attended almost
6 1900 events. They also attended 1300 business events
7 and retailer events.

8 So using that as an example, we reached
9 400,000 customers through those events. I could give
10 you examples, if you'd like, for the other parts --
11 MR. WALLACE: Q: No, I'm not saying that isn't a good
12 promotion. It sounds like it's an essential thing to do
13 for these programs. What I'm wondering is, why don't
14 you allocate it against the programs on a kilowatt hour
15 basis, on a grant basis -- whatever seems most
16 reasonable. But allocate it so that when you look at
17 those DSM projects and the full cost of carrying them
18 out, and compare it to the cost of an IPP, or the cost
19 of a demand -- cost of some other alternative,
20 ResourceSmart, that you have the full costs of each
21 program, rather than partial costs.

22 MR. MARCHANT: A: They are included in the portfolio
23 costs, so we are capturing them when we look at the 3600
24 and some gigawatt hours from the ten-year plan. When we
25 give a total cost for that, they are included.

26 MR. WALLACE: Q: Yeah. But they're not included with the

1 individual programs and the TRC, which decides whether
2 you go ahead with the program or not. And that's where
3 I'm trying to get at, is the vital decision to proceed
4 with the PowerSmart program or not. And if these costs
5 aren't allocated to the programs, but are essential to
6 them, the program costs are understated.

7 MR. MARCHANT: A: I think the opposite might hold true, in
8 that we're actually isolating the costs and the benefits
9 specific to the program, which is allowing us to make
10 the proper decision in terms of that program, and
11 whether it should go forward on its own merits.
12 Allocating in a fashion of kilowatt hours or sector
13 splits, for the purpose of allocating the dollars when
14 they're already captured within the overall portfolio,
15 could lead you into a situation where you'd be pursuing
16 a program that would otherwise be a viable program,
17 which would then just leave you with a decision of how
18 you then burden the remaining programs with the
19 remaining allocation.

20 MR. WALLACE: Q: Well, I guess you're walking a bit of a
21 line there, because there's also the danger that you
22 will understate the costs of a program because you've
23 left out an essential cost item, and you will pursue a
24 non-viable program. So it can go both ways.

25 **Proceeding Time 3:45 p.m. T28A**

26 MR. HOBSON: A: Well, I think what we're really doing is

1 we're taking a look at the costs and whether or not the
2 costs are specific or direct to the program itself, and
3 our position on the awareness, information and education
4 is that it's more around generating an overall energy
5 efficiency ethic or mindset within the community across
6 residential and business customers that allow us to go
7 forward with programs in general, provides us with a
8 brand presence, allows us to compete with people's time
9 in getting their interest in our programs which allow us
10 to move forward.

11 MR. WALLACE: Q: But the DSM projects, the individual
12 ones, require this to be done or those projects aren't
13 going to work. In the same way for IPPs you have call
14 for tenders, those are costs associated with that
15 option.

16 MR. HOBSON: A: As I said, I think our position is that
17 these are important costs for the overall portfolio to
18 move forward.

19 MR. WALLACE: Q: Okay, I'd like to leave that one for
20 later then or for argument. But I would like to move to
21 the next element on the same page, and that is indirect
22 and other enabling initiatives, and in fiscal 2005
23 that's 10,585,000, fiscal 2006 it's \$10,797,000, or
24 roughly \$21 million over two years.

25 I couldn't find a good description of what
26 indirect and other enabling is. Are you able to direct

1 me somewhere in the filed materials that would deal with
2 that in some depth?

3 MR. HOBSON: A: I'm not sure what sort of depth you're
4 looking for.

5 MR. WALLACE: Q: Well, right now I think we got about a
6 paragraph on -- or two paragraphs in Appendix N. There
7 doesn't seem to be any detailed description of that,
8 like there is for other programs where you go on in some
9 length.

10 MR. HOBSON: A: Well, I think one of the differences is,
11 it's not a program. They're supporting costs for the
12 portfolio, and their costs across a variety of areas,
13 whether it's information management that allows this to
14 do proper tracking in systems management for the
15 portfolio in general, for all programs. It includes a
16 significant amount of sales costs, which include time
17 for our sales reps to be in front of customers and to
18 discuss with them in general energy efficiency
19 opportunities that aren't specific to any given program.

20 As an opposite to that, if the discussion is
21 around a specific program, the time for that same sales
22 rep would go to the program. So there's a distinction
23 made there.

24 There's an amount of administrative support.
25 So when you're operating a multi-program, multi-sector
26 portfolio as we're doing within PowerSmart, there's an

1 administrative component to that that isn't specific to
2 programs.

3 And then there's a number of things that have
4 been mentioned today around the steps that we've taken
5 to ensure that the money we spend is driving energy
6 savings at a real savings, and with that come costs
7 related to the various processes that you need to
8 support that kind of business which are related to the
9 programs in general but not a specific program. And
10 these are the types of costs that go into the indirect
11 costs, and the reason why they're allocated at the
12 portfolio is, in our view these are costs that are going
13 to be required. They're essentially fixed costs in the
14 short term that are going to be required to support the
15 overall portfolio in the business going forward, and
16 they're not specific to a program.

17 MR. WALLACE: Q: Okay. It is \$10 million a year, and
18 accordingly I would request and you can either do it now
19 or by way of undertaking, that you point or direct me in
20 the application to where a detailed description of those
21 functions is, and also a detailed breakdown if such
22 exists within the filed materials.

23 MR. SANDERSON: We'll certainly take that undertaking if
24 neither Mr. Hobson or Mr. Marchant want to hazard a
25 response now.

26 MR. HOBSON: A: We'll provide that.

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Information Request

MR. WALLACE: Thank you.

MR. WALLACE: Q: Now changing subject completely, one of the issues that has arisen a bit is a role with -- and I guess respective roles of PowerSmart and stepped rates, and I was wondering what your current estimate is of when stepped rates will take effect?

Proceeding Time 3:50 p.m. T29A

MR. VAN RUYVEN: A: Well, we've had several conversations with the large industrial customers on this very topic and the reason we are hesitating is I'm -- there are some industrial customers who would like to see it as soon as possible and others who would like to see us get it right, and so take the time to go through the rate design and the time required to make sure we've got the right design.

It will depend on the rate design hearing, when that starts, the length of time that that takes and the debate within that hearing and it's very hard to estimate. We are working hard to, from our part, and our part in the process to do it as quickly as possible and to cooperate with whatever schedule the Commission has and to bring it on sooner, if that's what customers are looking for.

MR. WALLACE: Q: And I'm not really trying to go at whether it's right or wrong, early or late, but more

1 what the ramifications are both PowerSmart and for
2 stepped rates. So say, taking the two options, one
3 prior to a full rate design hearing, which for purposes
4 of discussion let's say early 2005, would that affect --
5 how would that affect the PowerSmart programs?

6 MR. VAN RUYVEN: A: Well, I think I touched on this
7 briefly in Panel 1, in that it would very much depend on
8 the design of the stepped rates. Until we see the
9 actual construct and design of the stepped rates, it's
10 hard to determine what effect it would have. We did try
11 to make an estimate, I believe, in our evidence that we
12 filed as to what that might look like with PowerSmart
13 and I'll have Mr. Marchant help me out in a moment on
14 that. And we also did say that a guiding principle from
15 our perspective would be to ensure that whatever the
16 design of that stepped rate looks like, we would ensure
17 that customers would not be incented twice for the same
18 kilowatt hours and we would ensure that there was a
19 mechanism that that wouldn't happen going forward.

20 So that would be obviously an important part
21 of the rate design, is that customers are not getting
22 incented twice for the same savings.

23 MR. WALLACE: Q: Okay, thank you.

24 MR. VAN RUYVEN: A: And maybe Mr. Marchant can elaborate
25 on what we put in the filing.

26 MR. WALLACE: Q: Sure.

1 MR. MARCHANT: A: Right. We did make an estimate in the
2 filing that it could reduce the incentive requirement by
3 approximately \$60 million. I did think we'd make some
4 statements in the application that we were working on a
5 a very hypothetical assumption as to what the stepped
6 rate might look like and what it's timing might be. But
7 then we had -- then had a look at the particular
8 opportunities we thought might exist. I think there's
9 also, timing-wise some discussion of a stepped rate
10 light, so it's -- our intention is to carry on.

11 MR. WALLACE: Q: With respect to that, I'm sorry, the
12 amount you said, Mr. Marchant?

13 MR. MARCHANT: A: In the application we made a suggestion
14 that, again based on some hypothetical assumptions, that
15 the amount of incentive required out of the entire ten-
16 year plan might be \$60 million.

17 MR. WALLACE: Q: Yes, and I think that's what I wanted to
18 get at, was the ten-year plan. And if a late filing of
19 the stepped rates occurred, following rate design, and
20 therefore I would suggest again for the purpose of
21 discussion, late 2005, early 2006, would it be fair to
22 say that stepped rates will have no impact during the --
23 or minimal impact during the test period on PowerSmart
24 expenditures.

25 MR. VAN RUYVEN: A: That's a very difficult question to
26 answer in that again it's the design of the rate. It's

1 MS. HEMMINGSEN: A: As it relates to Site C, the
2 generation panel can speak to more details under this.
3 But the approach right now is to initiate a preliminary
4 study, to understand some of the licensing, process,
5 milestone requirements, and that would be a relatively
6 modest amount, and they can speak to those specific
7 amounts as it relates to '05.

8 MR. WALLACE: Q: Okay, now I heard a number at some point
9 in this hearing thrown out of around \$10 million. Is
10 that what you're referring to as a modest amount, or are
11 you thinking of something far smaller?

12 MS. VAN RUYVEN: A: Yes, in Panel 1, Ms. Farrell had
13 talked directionally about \$10 million for the very
14 early phases of looking at the possibility of Site C,
15 and generation has been doing a lot of work since Panel
16 1 and are prepared to speak in a lot more detail as to
17 exactly what those expenditures would look like, on
18 Panel 7.

19 MR. WALLACE: Q: Ms. Hemmingsen, was that \$10 million what
20 you were thinking of as a modest amount?

21 MS. HEMMINGSEN: A: No, I was referring to the amounts in
22 fiscal '05, which I understand is the focus of this REAP
23 review.

24 MR. WALLACE: Q: And fiscal 2006 is also --

25 MS. HEMMINGSEN: A: As I understood the issue list, it
26 related to '05.

1 MR. WALLACE: Q: Okay. Well, my questions to you are with
2 respect to what's forecast under the REAP for 2005 and
3 2006 fiscal. If for future questions you could keep
4 that in mind so we don't get confused.

5 ResourceSmart in Hydro.

6 MS. HEMMINGSEN: A: The ResourceSmart projects, a number
7 of them are already underway, and they're listed in the
8 capital components for generation in this schedule in
9 REAP. So there's -- I can -- I'd have to take a moment
10 to find those exact costs, and then there's the costs
11 related to Mica and Revelstoke, and advancing the work
12 to have them available for in-service in 2009, and those
13 amounts for the two years, I understand, are about \$4
14 million.

15 MR. WALLACE: Q: Okay. So --

16 MS. HEMMINGSEN: A: However, generation can speak to
17 those, the details of those costs.

18 MR. WALLACE: Q: Yeah. Again, and the reason I'm asking
19 is just because sometimes numbers seem to pop out of
20 places --

21 MS. HEMMINGSEN: A: Right.

22 MR. WALLACE: Q: -- we didn't understand. So I'm really
23 trying just to get a summary number here for
24 ResourceSmart.

25 MS. HEMMINGSEN: A: Right. And I appreciate your
26 question, because the REAP was filed after our

1 application was filed. So there is some reconciliation
2 that needs to be undertaken.

3 MR. WALLACE: Q: Okay. Could you again -- and I'm willing
4 to leave it as an undertaking. You said you could
5 identify the ResourceSmart programs, and if you could
6 provide a total number for that, I would appreciate it.

7 **Proceeding Time 3:58 p.m. T31A**

8 MR. VAN RUYVEN: A: Okay. If you give me one minutes, I
9 probably can.

10 MR. WALLACE: Q: Okay.

11 MR. VAN RUYVEN: A: Or I can do it after. What's your
12 preference?

13 MR. WALLACE: Q: Well, it might be easier to do it after.

14 MR. VAN RUYVEN: A: Okay.

15 MR. WALLACE: Q: It will probably be -- I'll be giving you
16 a couple more and one page should summarize them.

17 MR. VAN RUYVEN: A: Okay.

18 **Information Request**

19 MR. WALLACE: Q: The next is with respect to coal
20 projects. Again studies, contracts, anything you are
21 looking at. Expenditures under the REAP in the two-year
22 period.

23 MR. VAN RUYVEN: A: Sorry, I missed the first word.
24 "Coal"?

25 MR. WALLACE: Q: Coal, anything to do with coal. It might
26 be zero.

1 MR. VAN RUYVEN: A: Coal?

2 MR. WALLACE: Q: Coal, that black stuff that they burn.

3 MR. VAN RUYVEN: A: Sorry, I didn't hear what --

4 MR. WALLACE: Q: That Mr. Newlands reminds me about
5 regularly.

6 MR. VAN RUYVEN: A: Well, you said in terms of coal or any
7 other non-B.C. Hydro option, we plan to continue with
8 the stakeholder engagement process and get input on
9 costs estimates for various projects and augment the
10 data base that we have developed to date.

11 MR. WALLACE: Q: Okay, and would the same be the answer
12 for renewables like wind?

13 MR. VAN RUYVEN: A: Yes.

14 MR. WALLACE: Q: That you will not be spending money -- or
15 Hydro will not be spending money.

16 MR. VAN RUYVEN: A: We'll be spending staff time in terms
17 of understanding what the potentials are and updating
18 our resource base, but we wouldn't plan to spend any
19 capital.

20 MR. WALLACE: Q: Okay, and -- well, again, in terms of
21 expense, I would be interested, what expense Hydro will
22 be undertaking with respect to coal with respect to
23 renewable -- and with respect to renewables?

24 MR. VAN RUYVEN: A: It would be found within our OMA
25 budget for fiscal '05 and '06 and it wouldn't be an
26 incremental amount.

1 MR. WALLACE: Q: Okay, but can you identify what portion
2 of it might -- even approximately might go to the
3 different sources?

4 MR. VAN RUYVEN: A: It's just such a fundamental part of
5 our ongoing activities to be aware of what resource
6 options are available to us, you know, including
7 capacity peak shaving opportunities and the like.

8 MR. WALLACE: Q: Okay. To the point that it just simply
9 is not identifiable as a renewables group or something.

10 MR. VAN RUYVEN: A: No.

11 MR. WALLACE: Q: A budget element. Okay, thank you. Ms.
12 Van Ruyven, you've mentioned a couple of times that you
13 do have contingency plans for Vancouver Island. Do you
14 have money built into the REAP or into the budget for
15 fiscal 2005-2006 for contingencies should natural gas
16 be, for example, too expensive by the time you finish
17 the VIG, or Vancouver Island process.

18 MR. VAN RUYVEN: A: I'll answer the -- yes, we do have a
19 contingency under way to look at all options on
20 Vancouver Island and of course, it will be dependent on
21 the outcome of the call for tender and Ms. Hemmingsen
22 can answer whether or not we built that cost into the
23 REAP.

24 MS. HEMMINGSEN: A: The cost to look at the contingencies
25 and develop them up is included in the budget for the
26 Vancouver Island CFT. So that amount is included in our

1 OMA for fiscal '05, and to the extent there's any
2 additional costs associated with procuring those
3 options, they have not been included, nor has the cost
4 associated with the capacity under the Vancouver Island
5 call for tender bid included in the four-year timeframe
6 for the REAP expenditures.

7 MR. WALLACE: Q: So the contingency is a planning
8 contingency expenditure at this point.

9 MS. HEMMINGSEN: A: That's right.

10 MR. WALLACE: Q: And what amount would that be? Again
11 approximately?

12 MR. VAN RUYVEN: A: It's about \$500,000.

13 MR. WALLACE: Q: Thank you. Now, I'd like to change
14 subjects again, and just very briefly some of the
15 alternative options to DSM and I've pushed you a little
16 about allocating overheads to specific DSM projects.

17 **Proceeding Time 4:02 p.m. T32A**

18 And I guess I'd like to look at the cost of
19 administering IPP contracts. When you make that
20 decision, be it DSM versus IPP, do you look at those
21 additional costs that you have inside in terms of
22 administering DSM and in terms of administering IPPs to
23 get an all-in cost?

24 MS. HEMMINGSEN: A: We certainly look at our costs of
25 administering contracts associated with IPPs. And not
26 to trivialize the issue but it's a rounding error on the

1 total costs, and I think we answered an IR which I can
2 find if you want, to establish what that cost was. I
3 think it was less than one cent.

4 MR. WALLACE: Q: Okay, thank you, and actually --

5 MS. HEMMINGSEN: A: Subject to check.

6 MR. WALLACE: Q: -- now when you express it in that way,
7 I think I'm familiar with it, but I will have a look.

8 What does it cost you to do a proposal call
9 now? And the reason I'm asking is you're planning a 400
10 gigawatt hour proposal call for the fall?

11 MS. HEMMINGSEN: A: Well, we've invested in the calls to
12 date in terms of building the processes and the contract
13 terms. So we expect the cost of the call to be much
14 reduced, although we do want to explore a number of
15 opportunities that have emerged in terms of streamlining
16 the call, and both the process and the contract terms.

17 MR. WALLACE: Q: Okay, but can you tell me -- do you have
18 -- well, can you tell me what your tender call or
19 proposal calls have cost you in the past for your -- I
20 think you've had three of them now.

21 MS. HEMMINGSEN: A: The CFT has been the most expensive
22 to date. The other two have cost in the range of half a
23 million dollars up to one million dollars to develop the
24 website information, to structure the terms of the call,
25 to create the participation mechanisms, the
26 transparency, et cetera, associated with running the

1 calls. And of course we expect to be able to leverage
2 off of that investment we've made over the past years
3 and vastly reduce that cost.

4 The other thing we're doing is we've been
5 very active in engaging with our peer organizations to
6 understand their call processes and their contract
7 terms, and we started a process of exchanging
8 information with those peer utilities so we don't have
9 to reinvent the wheel.

10 MR. WALLACE: Q: Okay. Why are you contemplating a 400
11 gigawatt hour call? One, doesn't seem necessary under
12 the IEP, and two, it seems so small as to be almost
13 symbolic rather than anything else.

14 MS. HEMMINGSEN: A: Well, we face large risks and
15 uncertainties in managing the supply/demand balance, and
16 there's a number of uncertainties associated with
17 attrition of the existing calls that we've made, timing
18 differences. There's load uncertainties, there's the
19 really large uncertainty associated with Burrard and the
20 outcome of Vancouver Island CFT. So we want to continue
21 to acquire a modest amount of electricity supply as a
22 hedge against some of those uncertainties.

23 And we also would like to proceed with some
24 of these streamlining improvements and suggestions that
25 we have worked with the IPP community to identify
26 through a series of workshops that we've held that we

1 think will produce really low-cost energy for us.

2 MR. WALLACE: Q: In terms of plants, roughly how many
3 megawatts would be involved with 400 gigawatt hour call?

4 **Proceeding Time 4:06 p.m. T33A**

5 MS. HEMMINGSEN: A: It really depends on the capacity
6 factor. If it was an 80 percent capacity factor, it
7 would be 50.

8 MR. WALLACE: Q: Yeah. Which is a pretty small call,
9 isn't it.

10 MS. HEMMINGSEN: A: It is. But as I said, it represents a
11 modest amount to continue to hedge us against some of
12 those uncertainties.

13 MR. WALLACE: Q: Okay. Now I have a few questions, but I
14 think they're probably directed to Panel 7, but I just
15 want to check with you, and that is with regard to
16 decisions to purchase at the market versus long-term
17 contracts with IPPs, would that be Panel 7?

18 MS. VAN RUYVEN: A: Yes, in the short term generation is
19 responsible for market purchases, on the operational
20 side of the system.

21 MR. WALLACE: Q: Okay. In the --

22 MR. SANDERSON: May I just clarify for a moment. In the
23 comparison, maybe I misheard the question, but in the
24 comparison, the comparison was between market purchases
25 and long term commitments to IPPs?

26 MR. WALLACE: Yes. Whether --

1 MR. SANDERSON: Because I just don't want you to be misled.

2 MR. WALLACE: Q: No.

3 MR. SANDERSON: That all of that will get dealt with in
4 Panel 7. That is the operational market purchase
5 decision, in real time, is certainly Panel 7. And if
6 that's where your interest is, then clearly that's to be
7 delayed. But if you want to explore the trade-off
8 between market purchases and long-term commitments to
9 IPPs, this might be the right panel to ask.

10 MR. WALLACE: Q: Okay. Maybe I will go a little ways with
11 it, but don't hesitate to suggest it should go to Panel
12 7. And I think Mr. Sanderson hit it quite correctly.
13 It is trade-offs that I'm concerned about. And you have
14 approximately 2500 gigawatt hours of market purchases
15 under the IEP?

16 MS. HEMMINGSEN: A: Well, what we have is we have an
17 import allowance. And it relates to our energy planning
18 criterion. This is a complex subject, and I'm going to
19 try and make it as simple as I can, but still do it
20 justice. So the energy planning criterion relates to us
21 establishing how much supply we can rely on as firm,
22 within our system, and through the import market. And
23 currently, what we have in place is, we rely on 2500
24 gigawatt-hours of non-firm imports that is assumed to be
25 firm enough to rely on on an assured basis. And that
26 market allowance hasn't changed, that is what you'll see

1 in the IEP in terms of how we have scheduled the various
2 portfolios.

3 What we have also done, though, is we have
4 looked if there's any merits of having lesser or a
5 higher market import allowance. And that analysis is
6 provided in the IEP, in section 6. And what that
7 analysis establishes is that it's more economic to have
8 a zero market reliance. So to have, in essence, supply
9 self-sufficiency.

10 MR. WALLACE: Q: Okay. And that is -- and what, the
11 assumption being that you will then sell off any excess
12 you have?

13 MS. HEMMINGSEN: A: We would sell any excess if there is
14 above-average hydro conditions or if we want to displace
15 some other resources.

16 MR. WALLACE: Q: Okay. Now, what about self -- self-
17 sufficiency could be contract or firm, whether it's an
18 import or not, I would presume.

19 MS. HEMMINGSEN: A: One of the problems with contracting
20 firm imports is getting firm transmission. So that's
21 one of the issues, and it's also the expense of getting
22 firm transmission. So one of the important aspects of
23 this import analysis is to realize that it is non-firm,
24 what we've done is, we've said, what is available to us
25 that we could consider that is firm.

26 MR. WALLACE: Q: And is that the principal reason you

1 would not consider supply from Alberta, we keep hearing
2 about the Fort McMurray area having or about to have an
3 excess of low cost generation?

4 **Proceeding Time 4:10 p.m. T34A**

5 MS. HEMMINGSEN: A: Well, that and other reasons is one of
6 the factors behind us wanting us to further evaluate the
7 market import allowance, and that's an action under our
8 REAPs that we want to undertake.

9 MR. WALLACE: Q: Okay, thank you. And again it's not
10 something that can be handled in the test period. It
11 won't affect your decisions in the test period.

12 MS. HEMMINGSEN: A: No.

13 MR. WALLACE: Q: Thank you. I think any further question
14 there can go to the other panel.

15 Just a couple of questions with respect to
16 load forecast. A couple of customers have wanted to
17 know what their forecast -- what has been included in
18 B.C. Hydro's forecast with respect to them so that they
19 can judge whether the forecast is a reasonable number or
20 not, and have had trouble getting those numbers from
21 B.C. Hydro. Can you comment on that?

22 MS. HEMMINGSEN: A: Well, typically we view the forecast
23 information on particular customers as confidential. As
24 you're probably aware, we did provide information for
25 one of your customers in the VIGP hearing --

26 MR. WALLACE: Q: Yes.

1 MS. HEMMINGSEN: A: -- as authorized by you.

2 MR. WALLACE: Q: No, but I've got a distinction here. I
3 have the customer coming to you and saying, "Tell me,
4 your customer, what you have included in your forecast
5 for me." Not for somebody else. And I can't understand
6 why you would hold a forecast about customer
7 confidential from that customer.

8 MR. VAN RUYVEN: A: Well, I'm unaware of that, because I
9 would suggest that it's -- in my experience, the key
10 account managers are going to the customer and asking
11 them for detailed information about their shutdowns, any
12 planned down time that they'd be taking, specific times
13 of the years, if they can commit to that, and that's the
14 detailed information that we are putting into our
15 forecast but it's provided by the customer.

16 MR. WALLACE: Q: Well, and I understand that, and that's
17 why I'm asking, I guess, the question, that you would
18 have no objection to providing a customer with the
19 forecast that you have used in this application with
20 respect to his load?

21 MR. VAN RUYVEN: A: If it's specific to that particular
22 customer's load, I don't think we would have an
23 objection, and I would -- and I think you'd have to give
24 us a specific example of where that occurred.

25 MR. WALLACE: Q: Well I could, but I don't think we need
26 to do it on the record. If you've indicated that can be

1 done, I'm sure we'll be able to progress with that off
2 the record.

3 MR. SANDERSON: I think this whole discussion belongs off
4 the record with great respect, Mr. Chairman. I mean I'm
5 not sure of what the particulars of all of this are, but
6 it doesn't sound to me like it's an issue that affects
7 anything that anyone is talking about putting on this
8 record; that is, if I'm understanding Mr. Wallace, he's
9 perhaps making a private request on behalf of one member
10 of his client group, that -- I just don't see this as
11 the appropriate place for that whole exchange, quite
12 frankly.

13 MR. WALLACE: Well, Mr. Chairman, we couldn't get it. It
14 had been followed up on a number of occasions with a
15 customer rep. It appears it can be obtained, we will
16 obtain it and I think that will probably be all we
17 require.

18 MR. SANDERSON: But again, what's troubling me about this
19 is this is not a place, with great respect, to seek to
20 obtain from the representatives here to testify to the
21 revenue requirement, commitments on other issues which I
22 don't know what the background is to whatever this --

23 MR. WALLACE: The background was a desire to test the
24 forecast with respect to an individual, because Hydro
25 does not put out the other numbers. We cannot test
26 them. Somebody said, "I'm going to see if I can get the

1 right number -- see the number they've got for me and
2 whether it looks high or low." We weren't able to get
3 that.

4 We now have a commitment that should be able
5 to be done. I don't need to take it any further at this
6 time. And that completes my questions for this panel.

7 **Proceeding Time 4:14 p.m. T35A**

8 MR. SANDERSON: All right, and the only thing I'm rising to
9 again is, whether we have a commitment is something I
10 need to confer with this panel about, and if we have an
11 objection to that commitment, Mr. Wallace will hear
12 about it first thing in the morning and we can argue
13 about it then.

14 MR. WALLACE: Thank you.

15 THE CHAIRPERSON: It seems to me that you've worked it out
16 and that Mr. Sanderson has reserved appropriately. You
17 do seem though, Mr. Wallace, in this one to have a
18 linkage through to the load forecast. Although it's
19 unusual linkage to the load forecast it's a linkage to
20 the load forecast. And if your principal purpose for
21 asking the question was to test the load forecast,
22 that's one matter. If you had another agenda --

23 MR. WALLACE: That is the whole purpose. We have not been
24 able to test the load forecast even in this
25 infinitesimal way of one customer. And we hope that we
26 will be able to get that example and have a look, and I

1 assume it'll probably be in line. If it isn't, we'll be
2 back. Thank you.

3 MR. AUSTIN: Good afternoon, panel. Before I start my
4 cross-examination, I'd just like to say on the record
5 that the IPPBC sent a letter to the BCUC with respect to
6 the Integrated Electricity Plan and its desire to have a
7 public hearing with respect to that plan. That letter
8 was initiated, at least a process to develop the letter
9 was initiated about two or three months ago, and by the
10 time I found out that the actual letter was going out,
11 it was too late to stop it. And the IPPBC fully
12 appreciates the fact that the Chair has made a decision
13 that the public hearing process or lack of public
14 hearing process with respect to the IEP is going to be
15 something that's a matter of argument and decision
16 resulting out of this revenue requirements hearing.

17 So the only reason that letter was sent out
18 is it was just started such a long time ago that it just
19 sort of finally came together and somebody sent it off,
20 and there was nothing more to it than that.

21 THE CHAIRPERSON: I appreciate you mentioning that. Thank
22 you.

23 **CROSS-EXAMINATION BY MR. AUSTIN:**

24 MR. AUSTIN: Q: Panel, obviously I don't have a lot of
25 time here, so I'm going to try and go into an area that
26 (a) may be fairly short, and (b) might require a little

1 bit of homework overnight, so it might be useful to
2 start in this area and it's in relation to the Burrard
3 Thermal Plant. And I'd like to refer you to GSX
4 Concerned Citizens Coalition Information Request 1.1,
5 and I'll tell you exactly where I'm going with this
6 cross-examination. There's nothing that's -- it's not
7 something that I've got any built-in surprises.

8 **Proceeding Time 4:18 p.m. T36A**

9 What I'm trying to get at is the firm
10 transportation on the natural gas system that's
11 available to run Burrard at 6,000 GWh. And the first
12 question I have in that respect, and this is may require
13 a little bit of homework, our calculations indicate that
14 if you run Burrard at 6,000 GWh, that's approximately
15 equal to or greater than about 70 percent of the entire
16 natural gas consumption in Terasen's Lower Mainland
17 system. That's our calculation. And has anybody ever
18 done that calculation on this panel?

19 MS. HEMMINGSEN: A: We have in the past, certainly, looked
20 at Burrard and what was the criteria to define it as
21 dependable capacity. And the criteria was availability
22 of gas transportation and access to market, beyond Sumas
23 and into other markets, in order to assure us that we
24 could utilize that resource.

25 MR. AUSTIN: Q: I'm looking at it from a slightly
26 different perspective. As I understand your

1 application, Burrard is going to be half-mothballed and
2 half-available, but for some reason it somehow stays in
3 the -- and I'll refer you to your evidence in that
4 respect -- it still somehow stays as a long-term
5 resource.

6 MS. HEMMINGSEN: A: We've included Burrard and the
7 dependable capacity and firm energy that is associated
8 with it in the long-term supply/demand balance. We have
9 also identified in the IEP a number of areas that we
10 want to explore with respect to Burrard, and that is
11 part of the REAP's commitment is to undertake some
12 studies to understand those types of issues, and what
13 costs and factors are involved in maintaining Burrard as
14 a dependable capacity and firm energy resource for us,
15 and to ensure that it is an economic one. So that is
16 something that we're very much committed to doing, and
17 understanding all those aspects and dimensions of
18 answering that question.

19 MR. AUSTIN: Q: I certainly appreciate that, but my time
20 horizon is the next two years. I'm not asking any
21 questions about the Integrated Electricity Plan, and its
22 longer-term role. The issue that I have, or the
23 question that I have, and I would like to explore, and
24 it's -- this chart will help in terms of the gas
25 transportation. But I'd also like to point you to your
26 Volume 1 in your Revenue Requirements Application, page

1 540, where it sets out the role for Burrard and you can
2 have a look at that.

3 MS. HEMMINGSEN: A: We'll just have to get that. Yes.

4 MR. AUSTIN: Q: And in particular, it says:

5 "This configuration will ensure that
6 approximately 450 megawatts of capacity and
7 3,300 GWh of energy capability is preserved
8 for resource planning purposes."

9 Now, where I'm going with this is, it says,
10 "is preserved for resource planning purposes".

11 MS. HEMMINGSEN: A: Sorry, I'm not quite following where
12 you are.

13 MR. AUSTIN: Q: On page 540.

14 MS. HEMMINGSEN: A: 540. Mm-hmm.

15 MR. AUSTIN: Q: Second full sentence from the --

16 MS. HEMMINGSEN: A: "This configuration..."?

17 MR. AUSTIN: Q: Yes.

18 MS. HEMMINGSEN: A: Okay.

19 **Proceeding Time 4:22 p.m. T37A**

20 MR. AUSTIN: Q: So I've got approximately 3,300 GWh of
21 energy capability will be available from the Burrard
22 generating plant, correct?

23 MS. HEMMINGSEN: A: Right.

24 MR. AUSTIN: Q: And it also says, "Full capability is
25 preserved for resource planning purposes," correct?

26 MS. HEMMINGSEN: A: That's right.

1 MR. AUSTIN: Q: So I'm assuming, subject to being told
2 otherwise, that since you've moth-balled half of it,
3 you've got 3,300 GWh that could be available for use.
4 Is that correct?

5 MS. HEMMINGSEN: A: I think this might be a question
6 that's better directed to the generation panel, but
7 there was a decision made that it was more economic in
8 the short-term to rely on 3,300 gigawatt hours of firm
9 energy out of Burrard, than relying on the whole output.

10 MR. AUSTIN: Q: But I'm looking at this from a short-term
11 perspective, security of supply. Let's suppose that
12 your ability to import electricity is somehow stopped,
13 and as I understand your application and your
14 electricity requirements, you would be relying on
15 Burrard not only for 3,300 but you would be relying on
16 Burrard for 6,000 GWh insofar as you could put it back
17 into service within six months, is that correct?

18 MR. VAN RUYVEN: A: Yeah, I think that the important
19 distinction is that we have not moth-balled any part of
20 Burrard. We have not reached a decision on the future
21 of Burrard, but we have not moth-balled half of Burrard
22 and therefore take 3,000 gigawatt hours out of our firm
23 capacity. It still sits as firm capacity at 6,000,
24 until such time as we make a decision on the future of
25 Burrard, and that won't be for several months.

26 MR. AUSTIN: Q: Well, perhaps I'm a little bit loose with

1 my terminology but it says on this page:

2 "The steam turbines and boilers for the units
3 in VAR support mode will be preserved in
4 storage..."

5 which most people in industry generally call moth-
6 balling and will be recallable to generation load on
7 approximately six months' notice. So in a sense, half
8 of the plant is put on recall on six months' notice, is
9 that correct?

10 **Proceeding Time 4:24 p.m. T38A**

11 MS. HEMMINGSEN: A: Right, and because of our flexible
12 storage system, we're able from a firm energy basis to
13 rely on access within a six-month period for the firm
14 energy component as it relates to the dependable
15 capacity component. We reviewed our dependable capacity
16 requirements for the years '05 and '06 and determined
17 that we didn't require the extra capacity for Burrard to
18 meet our capacity reserve requirements. And as such, we
19 could save money by reducing our fixed and variable
20 costs associated with that capacity. So it was a
21 decision in the short-term operating horizon to minimize
22 costs.

23 MR. AUSTIN: Q: Certainly I understand that. However,
24 when you're doing this, you're importing more
25 electricity. My point, and I'm just going to look at
26 this strictly from a natural gas transportation

1 perspective is, if the door slams shut in your face in
2 respect to electricity imports, then presumably you're
3 going to have to rely on Burrard to meet domestic
4 requirements. Isn't that correct?

5 MS. HEMMINGSEN: A: I'm not sure what you're saying about
6 the door is slammed shut.

7 MR. AUSTIN: Q: Let's suppose that for some reason you're
8 not able to import 5,000 GWh worth of electricity. Will
9 you not have to rely on Burrard even though you may have
10 six months through your storage to get it back in full
11 operation?

12 MS. HEMMINGSEN: A: Well, that's part of the energy
13 reliability criterion, to look over the year what
14 resources we have to have available to meet that
15 criteria. And then discretionary choices are made about
16 whether the market is the better place from an
17 optimization perspective to supply that.

18 MR. AUSTIN: Q: Well, let's assume that those options are
19 no longer available to you and you have to rely on the
20 Burrard Thermal Plant because essentially that's what
21 this application is saying. Is that not correct?

22 **Proceeding Time 4:26 p.m. T39A**

23 MS. HEMMINGSEN: A: And then we would look to -- in that
24 eventuality, we would look to six months' notice and we
25 would be able to use our flexible reservoirs to meet
26 that, presumably on a cost-effective basis.

1 MR. AUSTIN: Q: I'm not disagreeing with that. What I'm
2 saying is, if you have to turn Burrard on, you gas
3 support. Is that not correct?

4 MS. HEMMINGSEN: A: For firm energy, yes, you would need
5 gas.

6 MR. AUSTIN: Q: Yes, and this is the only that I'd like
7 to explore at this point in time. What I'd like to
8 explore is, what have you done or what firm gas
9 transportation contracts are in place should you need
10 the gas to run Burrard? And I'm trying to put this in
11 context by saying, and perhaps you can do this
12 calculation overnight, it's equivalent to 70 or more
13 percent of the entire Lower Mainland load. And the
14 question that I have and I want to go through this chart
15 is, what's the probability of being able to find that
16 much gas for Burrard on, say for example, six months'
17 notice?

18 MS. HEMMINGSEN: A: Okay, well, we can answer that
19 question for you, but the reason we have those gas
20 transportation contracts is so our market is not limited
21 to the Lower Mainland, so it's not limited just to Sumas
22 and we have access to the AECO market hubs and Station
23 2.

24 MR. AUSTIN: Q: That's exactly what I want to explore. I
25 just want to see in terms of the contracts in place, how
26 much gas you got -- how much gas transportation space

1 that you have available on a firm basis to do two
2 things: one, supply the natural gas required to run
3 Burrard on a 6,000 GWh per year basis, and two, to
4 continue to supply the Island Cogeneration Plant. And
5 I'm just wondering, not that I've sort of framed that,
6 if we could just leave it for that and if you could do
7 the calculation in terms of --

8 MS. HEMMINGSEN: A: Sure.

9 MR. AUSTIN: Q: -- how much Burrard represents in terms
10 of the Lower Mainland load.

11 MS. HEMMINGSEN: A: Sure, subject to one comment. We
12 would only plan to use Burrard up to the 6,000 gigawatt
13 hour firm energy that it provided in a critical water
14 situation, and we're not in the critical water
15 situation. So the usage that we would have to rely on
16 for Burrard would be less than the 6,000 gigawatt hours
17 in those circumstances.

18 MR. AUSTIN: Q: Well, for the purposes of this revenue
19 requirement hearing, is it possible in the test period
20 that we might go from kind of dry to really good and dry
21 in terms of a critical sequence? So it's something
22 there's the potential for doing, isn't there?

23 MS. HEMMINGSEN: A: The critical sequence is four years,
24 so it's not very conceivable that that would be the
25 case.

26

Proceeding Time 4:29 p.m. T40A

1 MR. SANDERSON: Mr. Chair, we will take Mr. Austin's
2 request and look at it overnight. The one thing I want
3 to just put on the record is that once we've looked at
4 it, the operation of the Heritage assets, generally
5 speaking, is the stuff of Panel 7. And we've been
6 talking a lot about that, but it may be that when we see
7 what the answer is, we're coming back tomorrow morning
8 to say, "Here's the answer, but follow it up with Panel
9 7," if that's acceptable.

10 **Information request**

11 MR. AUSTIN: Q: I certainly appreciate that, Mr. Chairman,
12 but in terms of this panel, they're the ones who are
13 responsible for meeting the electricity requirements of
14 B.C. Hydro's customers. And although other people
15 within the company may have information that might be
16 helpful, I want to know what's in their minds right now,
17 and how they plan to meet the load. So, it's one thing
18 to say, we can import it, and I just phone up so-and-so.
19 I want to know what's in their minds. I want to know
20 what analysis they've done. I want to know what
21 critical thinking they've gone through. I want to know
22 what they've done late at night or thinking late at
23 night: If this happens, what am I supposed to do.
24 MR. SANDERSON: Well, that's, I guess, precisely what I was
25 afraid of, and what took me to my feet, was that -- as I
26 think Mr. Austin knows from the Heritage contract

1 proceeding, the people who are obliged to deliver a
2 prescribed amount of Heritage resources is the
3 generation line of business. And it delivers that to
4 the distribution line of business. These questions that
5 are being asked, I think, are along the lines of "How
6 can you be sure that that generation line of business is
7 going to meet its Heritage delivery obligation?" And
8 I'm only suggesting that that's -- the answer from this
9 panel, I suspect, is "Well, because we have a Heritage
10 contract." They've committed to that in the Heritage
11 contract. If you doubt the veracity of the commitment,
12 well, you'd better ask generation as to how they're as
13 confident as they are, that they can meet the
14 obligations they've assumed in that contract.

15 THE CHAIRPERSON: Mr. Austin, we are going to hear from the
16 generation people, you're going to have an opportunity
17 to pursue that with them, if Mr. Sanderson defers to
18 them tomorrow morning. It seems to me that we're
19 regulating both generation and distribution; we're going
20 to have an opportunity to pursue it in one form or
21 another if Mr. Sanderson prefers it to occur with Panel
22 7, that's fine.

23 MR. AUSTIN: Q: Well with the one caveat that when I get
24 to Panel 7 I don't want to be told that, "Gee, that was
25 somebody on Panel 4 that should have answered that
26 question."

1 **Proceeding Time 4:32 p.m. T41A**

2 THE CHAIRPERSON: Yes. At the beginning of the hearing I
3 mentioned that I encourage counsel to be cautious about
4 that, so that it's good that you have asked the
5 questions that you have now. If Mr. Sanderson defers,
6 he won't be in a position at that stage to defer again.

7 MR. AUSTIN: Thank you.

8 THE CHAIRPERSON: It is 4:30. I did want to ask you, Mr.
9 Sanderson, before we adjourn, if you had your discussion
10 with Mr. Jones at the break and if that matter has
11 been --

12 MR. SANDERSON: We have not resolved that yet, Mr. Chair,
13 so perhaps we can do that overnight and report on that
14 in the morning, if that's acceptable.

15 THE CHAIRPERSON: It is. If further involvement of the
16 panel is required because you are unable to resolve it,
17 I will prefer to do that very likely immediately after
18 lunch rather than in the morning. If you had known now
19 that you weren't going to be able to resolve it amongst
20 yourselves then tomorrow morning would have been fine.
21 But on that basis we'll adjourn until tomorrow morning
22 and you'll report back to me as to whether or not you
23 were able to resolve that.

24 Mr. Fulton.

25 MR. FULTON: Yes, I just wanted to let everyone know that
26 on the basis of the present estimates that I have, the

1 entire day tomorrow likely will be spent with
2 intervenors cross-examining this panel, and if I get up
3 on my feet to question the panel, it will not be until
4 very late in the day if the estimates hold true. So.
5 And I expect that I will be several hours with them.

6 THE CHAIRPERSON: Thank you. We are adjourned until 9:00
7 tomorrow morning.

8 **(PROCEEDINGS ADJOURNED AT 4:33 P.M.)**

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