

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

and

**An Application by British Columbia Hydro and Power
Authority (BC Hydro) for the Approval of the
2008 Long-Term Acquisition Plan (2008 LTAP)**

Vancouver, B.C.
February 20, 2009

PROCEEDINGS AT HEARING

BEFORE:

A. J. Pullman,	Chairperson
B. Milbourne,	Commissioner
M. Harle,	Commissioner

VOLUME 4

APPEARANCES

G.A. FULTON	Commission Counsel
C. GODSOE K. THRASHER	British Columbia Hydro and Power Authority
D. CURTIS	British Columbia Transmission Corporation
M GHIKAS	Terasen Gas Inc., Terasen Gas (Vancouver island) Inc., Terasen Gas (Whistler) Inc.
G. MacINTYRE	Columbia Power Corporation
E. WALKER	Pristine Power Inc.
C. BOIS	NaiKun Wind Energy Group Inc.
D. AUSTIN	Independent Power Producers of British Columbia
B. WALLACE K. SEYMOUR	Joint Industry Electricity Steering Committee
C. WEAVER	Commercial Energy Consumers of British Columbia
J. QUAIL L. WORTH	B.C. Old Age Pensioners' Organization, the Active Support Against Poverty, B.C. Coalition of People with Disabilities, Council of Seniors' Organizations of B.C., End Legislated Poverty, Federated Anti-Poverty Groups of B.C., and the Tenants' Rights Action Coalition
W. ANDREWS	B.C. Sustainable Energy Association; Sierra Club Of Canada, B.C. Chapter
R. GATHERCOLE	Peace Valley Environmental Association
L. BERTSCH	Horizon Technologies Inc./Energy Solutions for Vancouver Island Society; Okanagan Environmental Industry Alliance; Island Transformation.Org; Rental Owners and Managers Society of BC
M. OULTON L. WINSTANLEY	COPE 378
P. COCHRANE	City of New Westminster

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CAARS

VANCOUVER, B.C.

February 20, 2009

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

THE CHAIRPERSON: Please be seated.

ROBERT GEORGE ELTON, Resumed:

BEVERLY VAN RUYVEN, Resumed:

THE CHAIRPERSON: Mr. Godsoe, do you have any --

MR. GODSOE: I have one housekeeping matter, Mr. Chairman, Commissioners, and that is the table of IR concordance. I am the hold-up. As you might have guessed, I like to micro-manage when I'm on a file. At any rate, I need to have a review of it, but we should have it to you by late Monday afternoon, if that's acceptable.

THE CHAIRPERSON: That's fine, thank you. I should add, I've been told by Mr. Fulton that I didn't -- I let you go half-an-hour early yesterday, for which I apologize.

MR. QUAIL: We were all very upset.

THE CHAIRPERSON: I should also add that Commissioner Harle and I have a reservation on the coastal extravaganza which leaves Tsawwassen at six o'clock tonight, so I do plan on breaking at four sharp today. And we'll try and go for lunch between 11:45 and 1:15, if that's acceptable to everyone. Hearing nothing,

1 I'll assume it is.

2 Mr. Wallace, I'll let you continue.

3 MR. WALLACE: Thank you. I can't imagine an apology for
4 quitting early, sir. But thank you. No apology
5 necessary. It gave me a chance to revisit a couple of
6 matters also, which were helpful.

7 **CROSS-EXAMINATION BY MR. WALLACE (Continued):**

8 MR. WALLACE: Q: Panel, I'd like to go back to
9 yesterday and the point at which I was trying to find
10 if there was a price limit on cost-effectiveness on
11 supply-side, from IPPs. And you indicated, I think,
12 that there was not a limit in terms of dollars and
13 cents that's been set, but surely there must be some
14 limit on what is considered cost-effective on the
15 supply side.

16 MS. VAN RUYVEN: A: Well, I think there's a couple of
17 things that we can probably add to the conversation we
18 started yesterday. So I think that the \$120 that you
19 see in the LTAP, that basically came out of the
20 resource option report, is a good starting point, as a
21 proxy. So that's one aspect.

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

23 The other aspect is that cost-
24 effectiveness, when we run these calls, really -- you
25 know, it's pretty persuasive evidence running a
26 competitive process, because the outcome of that, by

1 the very nature of running the competitive process,
2 means that your output should be cost effective based
3 on competition. And the Commission in the Vancouver
4 Island hearing actually said that running a
5 competitive process is persuasive evidence that your
6 outcome is cost effective.

7 So I think that's one thing. We have a
8 very robust clean power Call going on. We had 68
9 proponents bid into that and by the very nature of
10 that, I think the output will be fairly cost effective
11 and I think that \$120 a megawatt hour is one of the
12 things that we will look at, amongst others, when we
13 make a decision on what we purchase out of that clean
14 power Call. So I mean, it's a starting point, but
15 it's not the only thing and it's not a cap and it's
16 not an exact level that we are only going to go to
17 120. I think we are looking at a number of factors.
18 But it's at least a starting point as a proxy.

19 MR. WALLACE: Q: Okay, and -- but do you look at
20 alternatives? For example, the 120 is above the 110
21 you accept, or 100 to 110 you accepted in the Bio-
22 energy Call. If it came in at 120 on the clean power
23 Call, would you revisit some of the bids in the Bio-
24 energy Call to see if they might be more attractive?

25 MS. VAN RUYVEN: A: I think we'd factor in a number of
26 matters. I think that's exactly what we would do. We

1 would look at first of all filling the gap. So we
2 believe to be self-sufficient by 2016 we need to be
3 purchasing up to 3,000 with attrition, which is --
4 means we need that 2100 gigawatt hours to help close
5 the gap in our plan. So that is one of -- the
6 starting point. And then what do those projects look
7 like and what kind of price can we negotiate with
8 those proponents to get what we think is fairly cost
9 effective.

10 And that's what we did in the Bio-energy
11 Call. We actually were able to get those prices down
12 by negotiating with the successful proponents, and we
13 will do the same and try to negotiate the best price
14 possible, knowing that we have, in this LTAP, built a
15 plan that includes IPP supply.

16 MR. WALLACE: Q: Okay. And you will look at
17 alternatives such as going back to the Bio-energy
18 Call, such as -- I don't know, are there other
19 alternatives out there? Or are you simply down to the
20 CFT?

21 MS. VAN RUYVEN: A: Well, no, we will be launching
22 phase 2 of the Bio-energy Call and we will -- those
23 proponents that bid into phase 1 will have an
24 opportunity to bid into phase 2 as well.

25 So we will have a Bio-energy Phase 2
26 process going on at the same time, and if there are

1 more cost-effective projects there, then that would
2 have an impact on what we purchased in the Clean Power
3 Call.

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

5 MR. WALLACE: Q: And would you look at the cost of a
6 gas turbine as a benchmark also?

7 MS. VAN RUYVEN: A: To some extent that \$120, \$125
8 price in the LTAP is also a proxy for a CCGT with sort
9 of a gas price scenario and a greenhouse gas offset
10 price. So that again is another input we would look
11 at.

12 MR. WALLACE: Q: Okay. And when you were doing that,
13 you'd look at current projections of gas curves, I
14 presume -- gas price curves.

15 MS. VAN RUYVEN: A: Yes, we would.

16 MR. WALLACE: Q: Thank you.

17 MR. ELTON: A: If I could just add, I mean, I think
18 we're obviously very keen to send the signal to the
19 IPPs that we want a good competitive process, and that
20 there is no price at which you can guarantee that they
21 would win, you know, either win the bid or get their
22 calls accepted. So we're not trying to be coy about
23 this, but we don't want to send particular signals
24 that would actually risk making the negotiations
25 harder for us.

26 MR. WALLACE: Q: No, and I understand that fully. On

1 the other hand, you don't want a signal -- send a
2 signal that there is -- you'll take it at any price,
3 either.

4 MR. ELTON: A: No, we don't.

5 MR. WALLACE: Q: I'd like to explore that \$120 to \$125
6 figure yesterday, and I think we've now agreed it's a
7 good proxy, but I would like to go back to one of the
8 responses in Exhibit B-12, JIESC 3.29.2. And in that,
9 the question there is

10 "What would be the estimated unit and total
11 annual costs of additional IPP energy
12 supplies if additional 1,400 gigawatt
13 hours...was acquired?"

14 And that's increasing the limit from 3,000 -- or the
15 Call from 3,000 to 5,000, the net amount being the
16 1400.

17 MR. GODSOE: I just want to make sure the witnesses have
18 that IR in front of them.

19 MR. WALLACE: Q: Okay, it's B-12, 3.29.2.

20 MR. GODSOE: Yes.

21 MR. WALLACE: Q: And I'd just like to read the response
22 to you.

23 "The estimate cost to increase the Clean
24 Power Call Electricity Purchase Agreement
25 awards from 2,100 GWh/year of post-attrition
26 firm energy to 3,500 gigawatt hours a year

1 of post-attrition firm energy based on the
2 Resource Options shown in Chapter 3 and
3 modeled in Chapter 5 of Exhibit B-1, and
4 calculating adjusted unit costs for firm
5 energy with non-firm energy valued at market
6 price, results in \$124 a megawatt hour cost
7 for firm energy, which would equate to a
8 total annual cost of 173 million per year in
9 fiscal 2017. The adjusted unit costs
10 reflect cost of incremental firm
11 transmission and loss adjustments to Lower
12 Mainland, Vancouver Island Region and
13 capacity credits."

14 And that's an accurate response?

15 **Proceeding Time 8:37 a.m. T4**

16 MS. VAN RUYVEN: A: Yes, it is.

17 MR. WALLACE: Q: Thank you. And then in 3.29.1 the
18 question was,

19 "What would be the changes to the DSM
20 programs and DSM costs/expenditures of the
21 full Clean Power Call of 5000 GWh (3500 GWh
22 net if tradition) were to proceed?"

23 And the response was:

24 "As set out in Exhibit B-10, page 18,
25 pursuant to subsections 44.1(2)(b) and (f)
26 of the *Utilities Commission Act*, B.C. Hydro

1 must pursue all cost-effective DSM before
2 relying on supply-side resources. As a
3 result, B.C. Hydro would not modify its DSM
4 Plan or reduce its proposed DSM expenditures
5 based on a 5,000 GWh Clean Power Call
6 proceeding.

7 The cost of 1,400 GWh per year of DSM
8 based upon the adjusted DSM Option A
9 described in Exhibit B-10 is approximately
10 \$43 a megawatt hour, which would equate to a
11 total annual cost of \$60 million a year in
12 F2017."

13 And that's an accurate response?

14 MS. VAN RUYVEN: A: Yes, it is.

15 MR. WALLACE: Q: So I take it from that that if you
16 were instructed to increase the Clean Power Call from
17 3,000 to 5,000, that it wouldn't change your DSM
18 program. You would simply be acquiring some surplus
19 electricity.

20 MS. VAN RUYVEN: A: Yes, we would, based on the new
21 load forecast. It would increase what now looks like
22 a 300 gigawatt hour surplus based on the plan you have
23 before you, to something -- well, 1400 gigawatt hours
24 more.

25 MR. WALLACE: Q: Thank you. And that would be power
26 that on average you would have to sell into the

1 market.

2 MS. VAN RUYVEN: A: Yes, just like whenever -- when a
3 surplus situation, we very much try our best to
4 optimize the system and sell surplus into the market
5 for value for our customers.

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

7 Now, I take it from that figure and what
8 you've said this morning then, that the marginal cost
9 of IPP supply is roughly in the 120 to 124 dollar
10 range, subject to what you see on the Clean Power
11 Call?

12 MS. VAN RUYVEN: A: Well, again that comes out of our
13 Resource Options Report, so again it's a proxy for
14 potential new supply costs.

15 MR. WALLACE: Q: Okay.

16 MR. ELTON: A: For the purposes of these kinds of
17 planning discussions, it's the best number that we
18 have.

19 MR. WALLACE: Q: Thank you and I accept it on that
20 basis.

21 MR. ELTON: A: Yes.

22 MR. WALLACE: Q: What I'm wondering is, if the Clean
23 Power Call comes in in that range and it becomes more
24 than a proxy, it becomes what you are paying, do you
25 anticipate that that will affect Tier 2, or that that
26 will become the new Tier 2 price?

1 MS. VAN RUYVEN: A: Could you clarify the Tier 2 price
2 of -- oh, of the stepped rate.

3 THE CHAIRPERSON: Which schedule did you have in mind?

4 MR. WALLACE: Q: Well, I'm sorry, but the guide, either
5 the residential or the industrial rates are both being
6 set approximately at the marginal cost of long-term
7 supply.

8 **Proceeding Time 8:41 a.m. T05**

9 MS. VAN RUYVEN: A: Well, as in past practices, we have
10 made adjustments to the Tier 2, based on the new
11 reference price, which is usually based on the most
12 recent results of the Call. And that's what we've
13 done, obviously, recently with the industrial rate.
14 That was adjusted to reflect the results of the '06
15 Call.

16 MR. WALLACE: Q: Now, the conservation you're
17 projecting in this LTAP, though, is based on what Tier
18 2 price?

19 MS. VAN RUYVEN: A: There's two places where we reflect
20 the conservation. One is in our general rate
21 increases, based on our rate forecast, so that is
22 taken into account in the load forecast. So that
23 already has a dampening effect on the load forecast
24 just by the price elasticity of rate increases. And
25 that's --

26 MR. WALLACE: Q: But that's the average rate increase.

1 MS. VAN RUYVEN: A: Yeah. That's based on our rate
2 increase forecasts. So that's the first place we look
3 at demand savings through price elasticity. The
4 second is, we then look at the rate design, which
5 would include the stepped rates from industrials and
6 the residential inclining block rate, and then we
7 would build in potential savings through the rates
8 portion, and I'm not exactly sure what we used beyond
9 certainty of what we have now in the stepped rates and
10 the residential inclining block rate, but Mr. Hobson
11 would be able to tell you what kind of projection we
12 put forth for 20 years, and then how that translated
13 into the DSM savings on the rate design.

14 MR. WALLACE: Q: You have a marginal cost, effectively,
15 of IPP supply. Do you have a marginal cost of DSM?
16 Is there any equivalent?

17 MS. VAN RUYVEN: A: Not that I'm aware of. We
18 generally cast it based on the plan, the cost of the
19 programs, and then we levelize it back to a per-
20 megawatt hour levelized cost.

21 MR. WALLACE: Q: Okay. And if I were to wish to
22 explore the marginal cost of DSM, who would I speak to
23 about it?

24 MS. VAN RUYVEN: A: Mr. Hobson could answer those
25 questions.

26 MR. WALLACE: Q: Thank you.

1 MR. GODSOE: I think that's Panel 4.

2 MR. WALLACE: Q: Thank you. And to your knowledge,
3 have you done any estimate of the impact of having an
4 incremental Tier 2 price in the range of \$120 to \$125?

5 MS. VAN RUYVEN: A: No, I'm not aware of any analysis
6 that we've done based on that.

7 MR. WALLACE: Q: Directionally, it would increase
8 conservation and reduce load?

9 MS. VAN RUYVEN: A: Yes, I -- you know, the higher that
10 Tier 2 price is, you've got -- based on your
11 elasticity assumptions, it should drive more
12 conservation.

13 MR. WALLACE: Q: Thank you. I'd like to turn to Smart
14 Meters, and I recognize they will have their own
15 filing at some point. In the -- they have been
16 recently hitting the press, and they have been
17 mentioned as having a conservation impact. I haven't
18 found any material mention of a conservation impact in
19 the LTAP, and I'm wondering, am I missing it?

20 MS. VAN RUYVEN: A: Well, we did answer an IR which --
21 I'm not sure if I can actually put my fingers on it
22 right now, where we talk about the energy savings we
23 anticipate through Smart metering, and I believe in
24 the three-year period where we're asking for funding,
25 it's 78 gigawatt hours, and then another 320 gigawatt
26 hours for the remainder of the plan. That doesn't

1 sound like a lot, but I think you have to understand,
2 the Smart metering benefits are really around capacity
3 savings through the time of use rate. So you will see
4 some significant capacity savings when we bring
5 forward a business case for Smart metering. You see
6 small energy savings there, in the plan, about 400
7 gigawatt hours. We also feel that Smart metering and
8 especially the in-home displays really become an
9 enabler for all of our programs, and our residential
10 programs account for pretty much half of our entire
11 target. So we think the Smart metering will help
12 build awareness and drive behavioural changes, and
13 enable that 4800 gigawatt-hours of savings that we're
14 looking for from the residential customers. So it's
15 an important piece of the whole plan.

16 **Proceeding Time 8:46 a.m. T06**

17 MR. WALLACE: Q: Well, at page 7 -- or, page 6-3 of the
18 LTAP, footnote 71 is how far down we had to go to find
19 something, it states:

20 "B.C. Hydro is required by Section 64.04(3)
21 of the UCA to install Smart Meters by the
22 end of calendar 2012. The full scope of the
23 Smart Meters to be installed is dependent,
24 among other things, on regulations which
25 have not yet been passed. Currently the DSM
26 plan includes 78 gigawatt hours of savings

1 that are enabled by SMI."

2 And that's a correct statement?

3 MS. VAN RUYVEN: A: Yes, that would be within the
4 three-year window. And then another 320 for the
5 remainder of the plan is what we have in there right
6 now.

7 MR. WALLACE: Q: Okay, I can't -- looking at the -- and
8 I'll leave it as an undertaking. Can you show me
9 where the other 400-some-odd gigawatt-hours you
10 mentioned are shown in the current LTAP? Because this
11 footnote appears to relate to tables that are talking
12 about 2020.

13 MR. GODSOE: I will find that IR. It's in the second
14 round of JIESC, and I'll get back to you. I don't
15 think we need an undertaking on that. It absolutely
16 is in Exhibit B-4, and I will find it.

17 MS. VAN RUYVEN: A: It's JIESC 2.23.3. "How does SMI
18 save energy?" And our response lays out:

19 "The 78 gigawatt hours from the period of
20 '09 to fiscal '11 that are enabled by SMI.
21 Additional DSM energy savings of 320
22 gigawatt hours per year by fiscal 2028."

23 MR. WALLACE: Q: Okay, thank you. Now, you mentioned
24 you will be filing a business case. I take it that's
25 still the plan? To file one with the Commission?

26 MR. ELTON: A: Yes.

1 MR. WALLACE: Q: And I think during the revenue
2 requirements application, it was indicated that the
3 business plan would likely be filed in 2008. What's
4 the situation today?

5 MR. ELTON: A: That it will be filed, I believe, in
6 2009. In other words, that --

7 MR. WALLACE: Q: You don't want to limit yourself maybe
8 a little closer than that?

9 MR. ELTON: A: Yeah. Well, no. We -- what we've been
10 doing, as we've mentioned in our service plan, is
11 looking at the whole project in the way that we're
12 looking at all projects at the moment, in the way that
13 probably every company is looking at projects at the
14 moment, in terms of timing and so on, and what exactly
15 we have to do. We have a legislative requirement to
16 do certain things by a certain date. Our original
17 plan saw us doing some extra things that we all
18 describe as part of the same project, that were not
19 legislatively required. What we're doing is looking
20 at what we have to do by that date, and what we
21 perhaps would like to do by that date. Therefore, the
22 business plan will be brought back -- you know, will
23 be brought to the Commission at some point, including
24 everything that we now plan to do. So, that's been
25 the reason for the hold-up.

26 MR. WALLACE: Q: Okay. Can you give any indication by

1 quarter of when it might be likely in 2009?

2 MR. ELTON: A: You know, I think it would probably be
3 in about four or five months. But you know, it's just
4 an indication.

5 MR. WALLACE: Q: Okay. Thank you. I'd like to turn to
6 *Alcan*, if I can. I guess the first question is, do
7 you have any assessment at this point as to the impact
8 of the Court of Appeal decision on the *Alcan* volumes
9 included on the LTAP?

10 MR. GODSOE: So, I'm happy to make submissions on that if
11 my friend wants me to do that now. I think that is a
12 legal issue. I'm in your hands, panel, on when you
13 want me to address that particular issue.

14 MR. WALLACE: I wasn't actually concerned about the legal
15 issue as much as simply timing, whether we were -- my
16 questions on that, and also with the modernization,
17 will simply be, is it going to continue volumes? Is
18 it going to increase volumes? Is it going to decrease
19 volumes? The legal arguments are for later.

20 MR. GODSOE: I'm happy for this panel to address the
21 modernization issue. I think that is evidentiary.
22 But the impact of the *Carrier Sekani Tribal Council* on
23 volumes, I can address. I think that is legal. So,
24 I'm in both of your hands on that. But the
25 modernization absolutely can be put to this panel.

26 THE CHAIRPERSON: Mr. Wallace, what do you think?

1 MR. WALLACE: I guess my desire would be to have Mr.
2 Godsoe address it earlier rather than later, in case
3 it turns out that there maybe is an evidentiary issue
4 that we would like to follow up with one of the
5 panels.

6 THE CHAIRPERSON: When would you see yourself addressing
7 this?

8 MR. GODSOE: Well, I can address that particular issue
9 now, if you'd like. It's narrowly confined to Alcan.

10 **Proceeding Time 8:51 a.m. T7**

11 THE CHAIRPERSON: Okay. So you're obviously ready to go,
12 Mr. Godsoe.

13 MR. GODSOE: I'm ready to go.

14 MR. WALLACE: He's ready to go, and I just simply want to
15 extend a little bit of an invitation, if obviously ILM
16 could be affected too.

17 MR. GODSOE: I will address both. And I think it might
18 be assistance if the Panel had both decisions in front
19 of them, so I'm just going to get those, Mr. --

20 THE CHAIRPERSON: The Panel does have --

21 MR. GODSOE: You have those decisions, okay, because I'm
22 going to take it as --

23 THE CHAIRPERSON: Sorry, no, Commissioner Milbourne's are
24 in the room, so we do need to --

25 MR. GODSOE: Because I'm going to be taking a certain
26 paragraph, so why don't I just ensure you each have a

1 copy.

2 THE CHAIRPERSON: So you can sit down and take the weight
3 off your legs, Mr. --

4 MR. WALLACE: Quite delighted to. I'm quite surprised
5 and pleasantly surprised, I must say. That's great.

6 THE CHAIRPERSON: Mr. Quail, you're on your feet.

7 MR. QUAIL: Just a process matter. Maybe it's clear, but
8 my understanding is what's happening now is we're
9 hearing B.C. Hydro's, my friend Mr. Godsoe's analysis
10 of the implications of the decisions. We're not sort
11 of moving into legal argument now, enlarge on the
12 question, but intervenors presumably will be
13 responding to these issues in arguments, the argument
14 stage of the process, or is the Commission wanting to
15 entertain a full debate of the issue at this point?

16 THE CHAIRPERSON: I'm imagining that what Mr. Godsoe is
17 going to give us is his interpretation of these two
18 decisions of the Court of Appeal on the LTAP, 2008
19 LTAP in front of us.

20 MR. QUAIL: Yes.

21 THE CHAIRPERSON: If at the end of Mr. Godsoe's remarks
22 you wish to make any observations, I will entertain
23 your request to do so.

24 MR. QUAIL: Okay, just with the proviso that of course
25 this little detour was not envisaged in the schedule
26 of process, and --

1 THE CHAIRPERSON: I don't think we --

2 MR. QUAIL: -- intervenors may not have prepared
3 themselves for a fulsome legal argument on it.

4 THE CHAIRPERSON: I don't think the Court of Appeal's
5 decision coming down the day before we started was
6 expected either, so.

7 MR. QUAIL: No.

8 THE CHAIRPERSON: And I think it would definitely help
9 me, certainly, to hear from Mr. Godsoe.

10 MR. QUAIL: Yes. Oh yes, I'm not objecting to that
11 happening. I suppose I'm simply just putting in a
12 marker saying we may wish to address that more
13 fulsomely, the legal issues, at the submission stage
14 at the conclusion of the hearings.

15 THE CHAIRPERSON: Your marker is recognized.

16 MR. GODSOE: I think that's a fair comment from my
17 friend, and I would also be more fulsome in argument
18 on this as well. But I wanted to give you an
19 indication of B.C. Hydro's preliminary thinking on the
20 impacts on the Alcan 2007 EPA and to the ILM in-
21 service date.

22 So first, as you know, the *Carrier Sekani*
23 *Tribal Council* decision concerned the 2007 EPA between
24 Alcan and B.C. Hydro. And the amount of firm energy
25 B.C. Hydro is relying on from the 2007 EPA is set out
26 in Exhibit B-12, B.C. Hydro's response to BCUC IR

1 3.270.1.

2 Now, if I could ask the panel to turn to
3 page 34, the last paragraph of the *Carrier Sekani*
4 *Tribal Council* decision, and the result is that the
5 2007 Alcan EPA proceeding before the Commission will
6 "be reopened for the sole purpose of hearing evidence
7 and argument on whether a duty to consult, and if
8 necessary, accommodate the appellant, exists, and if
9 so, whether the duty has been met in respect of the
10 filing of the 2007 EPA." So B.C. Hydro's view is
11 pending reopening of the proceeding before the
12 Commission for this limited purpose, and I emphasize
13 limited purpose, the 2007 EPA is unaffected, and the
14 volumes remain in our supply stack. And as I say, my
15 friend is welcome to explore with this panel the
16 effect of any delay the modernization would have on
17 those volumes, with this panel.

18 Turning now to the ILM decision, the effect
19 of the ILM decision is to require the Commission to
20 itself consider the adequacy of consultation in
21 connection with the issuance of the Certificate of
22 Public Convenience and Necessity. B.C. Hydro is
23 reviewing this judgment but is confident that
24 reconsideration required by the court can be
25 accommodated within the existing schedule for ILM.
26 And as you may recall, the earliest in-service date

1 for ILM is October 2014.

2 **Proceeding Time 8:55 a.m. T08**

3 And participants, and the Commission
4 itself, are welcome to visit that issue with Panel 3,
5 to explore the extent to which our risk assessment
6 took into account risks to the ILM in-service date.
7 And I think you'll find that with that panel, that
8 reinforces our position with respect to Burrard and
9 the sustaining capital we're asking for.

10 So those are my two submissions on those
11 two issues. What I haven't addressed, and I can, or I
12 can wait, is whether you want to get into the adequacy
13 of consultation vis-à-vis the LTAP. But I've
14 addressed the narrow issues of *Alcan* ILM.

15 THE CHAIRPERSON: That's fine. I think as far as --

16 MR. GODSOE: Thank you.

17 THE CHAIRPERSON: It helps me, anyway.

18 MR. WALLACE: Thank you. That's as far as I wanted to go
19 with it also.

20 THE CHAIRPERSON: There's Mr. Quail, before you --

21 MR. QUAIL: Again, I'll be very brief, and I'll have more
22 to say about it later, but the actual implications of
23 it in terms of the availability to B.C. Hydro of the
24 *Alcan* power, in my submission, is actually in
25 considerable doubt because it begs the question, what
26 the outcome will be of the process that the Court of

1 Appeal requires the Commission to go through. And if
2 there's a finding that there has not been adequate
3 accommodation of the First Nations in that project,
4 you know, the potential implications in terms of what
5 happens with the available resources is very -- is
6 impossible to predict, in my submission. And the way
7 that the court rejected the notion that, basically,
8 there was no problem here because all we're doing is
9 changing the contractual wrapper that the project is
10 wrapped up in was essentially rejected, and so the
11 substance of the impact of the 50 years of that
12 project, and everything that's been happening, is
13 potentially in issue in terms of what needs to be
14 accommodated, at least possibly.

15 So, I simply want to register the point
16 that it is impossible at this point to tell what the
17 availability of that resource will be. One might
18 assume that accommodations can be found, or will be
19 found -- will be ruled to have been achieved, that
20 will eliminate the issue. But there's a very
21 substantial risk to that resource.

22 THE CHAIRPERSON: Thank you. Mr. Wallace?

23 MR. WALLACE: Thank you.

24 MR. WALLACE: Q: I'd like now to turn to the impacts of
25 the Alcan modernization project, if I could. My
26 understanding is that Alcan has announced that it's

1 continuing to proceed with modernization, but at a
2 slower pace? Is that your --

3 MS. VAN RUYVEN: A: That's our understanding, yes.

4 MR. WALLACE: Q: And will -- what impact will that
5 have? Will it free up more power? Less power?

6 MS. VAN RUYVEN: A: Well, what I can tell you is that
7 we have entered into confidential discussions with
8 Alcan on some additional surplus, for -- that they may
9 have available to sell to us under the existing EPA
10 that we have with them. And the confidentiality
11 agreement, basically that's about all I can say, is
12 that we are in discussions for some additional
13 surplus.

14 MR. WALLACE: Q: Are you able to indicate the relative
15 size of the volumes that might be available?

16 MS. VAN RUYVEN: A: No, I'm not.

17 MR. WALLACE: Q: Okay.

18 MR. GODSOE: It might be of assistance to my friend,
19 though, that Exhibit B-12, response to BCUC IR
20 3.270.1, builds out scenarios of delays of the
21 modernization smelter from one to three years, and
22 that gives a high-level indication of the energy that
23 might be freed up as a result of that.

24 MR. WALLACE: Okay, thank you.

25 COMMISSIONER MILBOURNE: I'm sorry, what's that reference
26 again?

1 MR. GODSOE: Exhibit B-12, B.C. Hydro response to
2 3.270.1.

3 COMMISSIONER MILBOURNE: Thank you.

4 MR. WALLACE: Q: Thank you. The next area I'd like to
5 turn to is the role of industrial DSM programs, and
6 the steps that B.C. Hydro is taking with respect to
7 them. The industrial program -- industrial DSM forms
8 a large part of B.C. Hydro's DSM programs?

9 MS. VAN RUYVEN: A: Yes, it does.

10 MR. WALLACE: Q: And the savings are set out -- or the
11 DSM, well, savings, Table 1 of Appendix K?

12 MS. VAN RUYVEN: A: Yes, we have that.

13 **Proceeding Time 9:00 a.m. T9**

14 MR. WALLACE: Q: Okay. And if I look at that table,
15 which is entitled "Cumulative Energy Savings by
16 Customer", and the rate classes, it appears to me that
17 the industrials between 2008-2009 are up almost 82
18 percent, and roughly 35 to 40 percent through the next
19 three years.

20 MS. VAN RUYVEN: A: Could you give us that reference
21 again please?

22 MR. WALLACE: Q: The numbers I'm looking at, and
23 unfortunately I don't have my sheet with me, are the
24 industrial sector, the savings for fiscal two thousand
25 -- if you look at fiscal 2008 you see 169 gigawatt
26 hours per year; fiscal 2009, 309; 2010, 433; and 2011,

1 588.

2 MS. VAN RUYVEN: A: We actually don't have the table in
3 front of us, so.

4 MR. WALLACE: Q: Okay.

5 MS. VAN RUYVEN: A: What page of Appendix K?

6 MR. WALLACE: Q: It's page 101 of 213.

7 MS. VAN RUYVEN: A: Thank you. Yeah, we now have that.

8 MR. WALLACE: Q: Okay. And do you -- am I correctly
9 interpreting those numbers as showing the increase
10 that you are anticipating from the industrial sector
11 programs?

12 MS. VAN RUYVEN: A: So you're looking at the --

13 MR. WALLACE: Q: Looking at the industrial sector
14 total.

15 MS. VAN RUYVEN: A: Right, that takes you out to, for
16 example 2023 it's 5,339 gigawatt hours?

17 MR. WALLACE: Q: I think that's the total for energy,
18 and the one, the line above is the industrial at
19 2,501?

20 MS. VAN RUYVEN: A: Yes, we have that.

21 MR. WALLACE: Q: Okay. And as I say, the increase in
22 the industrial sector is 2008, 169; 2009, 309; 2010,
23 433; and 2011, 588.

24 MS. VAN RUYVEN: A: Yes.

25 MR. WALLACE: Q: And those increases, as I say, are
26 about 82 percent between 2008 and '9, and then about

1 35 to 40 percent thereafter.

2 MS. VAN RUYVEN: A: I'm sure your math is correct.

3 MR. WALLACE: Q: Subject to check. And also, I guess
4 the point is that that is an aggressive increase in
5 industrial DSM?

6 MS. VAN RUYVEN: A: Yes, as our whole plan is
7 aggressive across all of the sectors, and the
8 industrials have played a very important role in the
9 past and they will continue to do so.

10 MR. WALLACE: Q: But since you brought in the stepped
11 rate for industrials, industrial DSM programs have
12 basically been on hold? You've been doing some work,
13 you've been looking at them, but you have not got, I
14 suggest to you at this time, an active industrial DSM
15 program underway.

16 MS. VAN RUYVEN: A: Well, I wouldn't agree with that.
17 In the \$418 million that we're seeking for approval,
18 104 of that is earmarked for the industrial program.
19 So I would say that we have a healthy industrial
20 program underway.

21 MR. WALLACE: Q: You have a healthy budget for an
22 industrial program.

23 MS. VAN RUYVEN: A: Yes.

24 MR. WALLACE: Q: But you don't have industrial programs
25 out there that industrials are taking advantage of and
26 implementing DSM, do you? You're designing the

1 programs at the moment.

2 MS. VAN RUYVEN: A: We have some programs out there.
3 The new plant design would be one example for any
4 industrials, albeit maybe not the best time to be
5 designing a new plant in the economic times that we're
6 in, but --

7 MR. WALLACE: Q: Thank you.

8 MS. VAN RUYVEN: A: -- that is one program where we
9 actually do have some customers that are partaking of
10 that particular program.

11 MR. WALLACE: Q: But do you have, in place, industrial
12 programs that they can take advantage of, that are
13 going to achieve these sorts of goals at the moment?
14 And I suggest to you you're designing them. You don't
15 have them in place.

16 MS. VAN RUYVEN: A: Well, we are designing them and we
17 plan to get them in place as quickly as possible.
18 You've got to remember that we, through the last few
19 years, designed the stepped rate which was meant to
20 replace incentives and send a price signal to
21 industrials, and it's been quite successful. We now
22 realize that we have to do more than just the stepped
23 rate if we really want to get at these savings, and we
24 will have to provide incentives beyond that Tier 2
25 into the Tier 1, to get at some of those projects to
26 get to these savings.

1 MR. WALLACE: Q: And when are you going to roll out
2 those programs?

3 MS. VAN RUYVEN: A: That's probably a better question
4 for Mr. Hobson.

5 MR. WALLACE: Q: Thank you. Is getting those programs
6 in place a priority for the executive of B.C. Hydro?

7 MS. VAN RUYVEN: A: Yes, it is.

8 MR. WALLACE: Q: Thank you. And does Mr. Hobson have a
9 deadline on when he should get them out there?

10 MS. VAN RUYVEN: A: Again, I would ask Mr. Hobson --

11 MR. WALLACE: Q: Okay.

12 MS. VAN RUYVEN: A: -- where they are in the design of
13 those, and timing of them. He'll have those answers.

14 MR. WALLACE: Q: Well, I agree he'll -- he may know
15 what his deadlines are. I'm wondering if you know
16 what his deadlines are.

17 **Proceeding Time 9:05 a.m. T10**

18 MR. ELTON: A: Well, I think surely the answer is that
19 there is a plan, with timelines, that Mr. Hobson and
20 others are responsible for achieving, and that he can
21 certainly explain what those timelines are, and why he
22 believes that those timelines will get us to the right
23 answer. And yes, he and his folks and Ms. Van Ruyven
24 are accountable for achieving these savings by these
25 dates.

26 MR. WALLACE: Q: Okay. Thank you. I'll leave it at

1 that and go to Mr. Hobson.

2 I'd like now just to turn to your long-term
3 rate increase forecast. That was provided in
4 Information Response BCUC IR 1.7.1. And actually, you
5 don't necessarily have to turn to it. My question is
6 fairly basic, although we may get into more detail.

7 That's a forecast that was provided in
8 August. Obviously there have been changes in
9 circumstances since then, and I'm wondering if that
10 forecast has changed or been updated as a result of
11 the update in this matter, and subsequent events?

12 MR. ELTON: A: It has not.

13 MR. WALLACE: Q: So that's still your best view,
14 looking out of the ten years?

15 MR. ELTON: A: Yes, and I think given the purpose of
16 it, I think it's still appropriate.

17 MR. WALLACE: Q: Can you indicate if it were to be
18 updated, and I understand it hasn't been,
19 directionally whether you believe the update would
20 have moved it in one direction or the other?

21 MR. ELTON: A: I don't think it would make a big
22 difference.

23 MR. WALLACE: Q: Okay. And you recently, in your
24 service plan filed last week as part of the budget
25 documents, also projected increases out through 2012.
26 They vary slightly from the long-term plan. I'm

1 wondering if there's any particular reason for that.

2 MR. ELTON: A: Perhaps we should just have the long-

3 term plan and just look at the numbers and compare

4 them with these numbers, Mr. Wallace.

5 THE CHAIRPERSON: It might be helpful if the service plan

6 could be entered in evidence.

7 MR. WALLACE: I think that would be helpful.

8 Unfortunately, I did not bring copies.

9 THE CHAIRPERSON: I printed it out this morning, but it

10 didn't print very well, on my non-colour computer

11 printer.

12 MR. WALLACE: We can, I'm -- or I'm sure Hydro can

13 arrange for that.

14 MR. GODSOE: I have a copy. Mine's marked up, but we'll

15 ensure there's a copy.

16 THE CHAIRPERSON: Could you? Thank you.

17 MR. GODSOE: Yes.

18 MR. WALLACE: Q: It's very hard to compare numbers from

19 one spot to another, because obviously they're

20 different bases, and there's the revenue requirements.

21 MR. ELTON: A: Sure. I have a copy of the service plan

22 that is not marked up, if that helps.

23 THE CHAIRPERSON: I've got one. No, it's just that mine

24 didn't print out very well. So I'd rather B.C. Hydro

25 did it with their colour printers, and then --

26 MR. ELTON: A: Right. I don't have a colour one.

1 Could you give me the reference again for
2 the LTAP?

3 MR. WALLACE: Q: Well, the service plan numbers are at
4 page 35.

5 MR. ELTON: A: I've got those, yes.

6 MR. WALLACE: Q: And the LTAP is BCUC IR 1.7.1. And
7 adjusted for inflation, the LTAP numbers appear to be
8 a little bit higher than the numbers in the service
9 plan, and again, it is a bit difficult to compare
10 them.

11 MR. ELTON: A: I can't comment on the differences and,
12 in fact, the IR response here doesn't have the actual
13 long-term rate increase forecast numbers in.
14 Obviously the numbers in the service plan represent a
15 more detailed approach to budgeting than the numbers
16 in the long-term rate impact forecast, so the numbers
17 in the service plan are our latest and most accurate
18 view of what rate increases might be.

19 MR. WALLACE: Q: Okay. I will leave it at that for the
20 moment. I am concerned that you said that you didn't
21 -- that the LTAP numbers did not have --

22 MS. VAN RUYVEN: A: Our -- well, what page are you on
23 in the reference?

24 MR. WALLACE: Q: Unfortunately, I don't have a page
25 reference. But 1.7.1, I understand it did have it
26 built in. I'm sorry, it's --

1 MR. GODSOE: If I could just have two seconds with Mr.
2 Elton, I think the confusion is that the actual
3 numbers are in a paragraph written out as opposed to a
4 table.

5 MR. WALLACE: Q: Yes.

6 MR. ELTON: A: Yeah, you're right. Yes, that's right.
7 Thank you.

8 MR. WALLACE: Q: And do you have them now, Mr. Elton?

9 MR. ELTON: A: I do, thank you. Yes.

10 MR. WALLACE: Q: And they're at page -- which, just to
11 make sure we're all --

12 MS. VAN RUYVEN: A: Seven.

13 MR. ELTON: A: I'm sorry, they're at page 7 of 9 in
14 1.7.1, Attachment 1.

15 MR. WALLACE: Q: Right.

16 **Proceeding Time 9:11 a.m. T11**

17 MR. ELTON: A: And so the increases for fiscal '11, for
18 example, 7 percent, 12 to 14 -- 4 percent, whereas in
19 the service plan it's not 7 percent, it's 6.56
20 percent.

21 MR. WALLACE: Q: Yes, although I do point out the
22 previous paragraph that indicate -- well, both these
23 paragraphs, these increases in the paragraph you are
24 looking at are nominal, and inflation has to be added
25 to them.

26 MR. ELTON: A: That's correct, yes.

1 MR. WALLACE: Q: So it brings them closer.

2 MR. ELTON: A: Yes, it does.

3 MR. WALLACE: Q: Okay. I'm going to leave it with you.

4 If it is possible to do a reconciliation, please do.

5 If it's not, it's understood.

6 MR. ELTON: A: Thank you.

7 MR. WALLACE: Q: Thank you.

8 Mr. Chairman, that completes my questions.

9 THE CHAIRPERSON: Thank you, Mr. Wallace. Next? Good.

10 MR. QUAIL: Thought so.

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

12 MR. QUAIL: Q: Good morning, Mr. Elton and Ms. Van
13 Ruyven. Lovely sunny day today. Too nice maybe to be
14 here, so maybe we'll try to -- we'll try to be
15 expeditious but there's a lot of issues to be gone
16 through.

17 I think it goes without saying the future
18 is always uncertain, but I suggest that B.C. Hydro is
19 operating in a period of exceptional uncertainty right
20 now. Is that a fair general statement?

21 MR. ELTON: A: I think generally everybody is operating
22 in a period of exceptional uncertainty right now, yes.

23 MR. QUAIL: Q: Yeah. And I assume you're familiar with
24 the Speech from the Throne which was delivered in the
25 B.C. Legislature on Monday, February 16th, and it's I
26 believe Exhibit C17-8 in this proceeding?

1 MR. ELTON: A: Yes.

2 MR. QUAIL: Q: And just a little excerpt from page 6,
3 bottom part of page 6 of that document. It says:

4 "Only a few weeks ago, most experts
5 predicted net growth for British Columbia in
6 the year ahead. Today we must brace for a
7 period of recession. How deep it might be,
8 or how long it will last, is impossible to
9 know. Few, if any, saw the sheer force and
10 speed of the decline's progression. Now it
11 is hitting our families, companies,
12 communities, and provincial finances."

13 Do you agree with that general assessment
14 of the evolving financial situation, economic
15 situation in the province of British Columbia?

16 MR. ELTON: A: Yes.

17 MR. QUAIL: Q: And needless to say, these circumstances
18 are also hitting B.C. Hydro and its operating
19 environment.

20 MR. ELTON: A: Yes.

21 MR. QUAIL: Q: B.C. Hydro is very much an integral part
22 of the economic infrastructure of the province of
23 British Columbia.

24 MR. ELTON: A: Yes.

25 MR. QUAIL: Q: I want to look briefly at a few comments
26 on the record by B.C. Hydro to frame this issue a

1 little bit. First of all in the evidentiary update,
2 Exhibit B-10 at page 28. So this gives us a marker of
3 December 8th, and as I understand from the evidence
4 yesterday, the information or the data in the update
5 was current as of October. Is that correct?

6 MS. VAN RUYVEN: A: That's correct.

7 MR. QUAIL: Q: Okay. So this gives -- is drawn on sort
8 of an October snapshot of the world. And I cast my
9 mind back to October and I think that was the time
10 when people were almost afraid to look at the business
11 section of the newspaper to see how much carnage
12 yesterday had wrought on their portfolios, and banks
13 were failing, and havoc was in the air. Is that a
14 fair way to summarize October?

15 MR. ELTON: A: Certainly October was -- there was a lot
16 of very bad news. I mean, frankly, I was reading the
17 newspaper this morning, there was still a lot of bad
18 news. So hopefully none of us is afraid to read it,
19 but certainly there was a lot of -- there has been and
20 continues to be a lot of bad news.

21 MR. QUAIL: Q: Yes. So under heading 2.7 Revised Base
22 Resource Plan, it reads:

23 "The changes described in the prior sections
24 of this evidentiary update demonstrate the
25 degree to which B.C. Hydro continues to
26 operate in an environment of significant

1 The Evidentiary Update includes a load
2 forecast which projects future electricity
3 needs in British Columbia within a large
4 range of outcomes. Even this large range
5 may not necessarily capture all of the
6 uncertainties inherent in possible future
7 demand for electricity. These uncertainties
8 include those associated with the recovery
9 of the economy, which is related to world
10 economic events, as well as opportunities
11 created by British Columbia initiatives.
12 Further uncertainties and opportunities
13 result from the potential future demand
14 created by the transformation to a low-
15 carbon economy, a British Columbia
16 initiative as well as a world-wide trend.
17 These further uncertainties and
18 opportunities include the switching from
19 other fuels to electricity for personal
20 transportation, mass transit, heating and
21 other applications. As a result of all
22 these uncertainties and opportunities, and
23 the 2007 Energy Plan's goal to achieve
24 electricity self-sufficiency by 2016, B.C.
25 Hydro does not want to limit its
26 opportunities to acquire cost-effective

1 renewable power through competitive
2 processes with independent power
3 procedures."

4 And I take it that you adopt all of those statements
5 as being true, in terms of B.C. Hydro's perception at
6 that time?

7 MR. ELTON: A: Yes.

8 MR. QUAIL: Q: And in particular, that it is cost-
9 effective renewable power that you don't want to
10 limit, in terms of B.C. Hydro's availability.

11 MR. ELTON: A: Well, I mean, you just asked me do I
12 take everything there as true, and yes, I do, and so I
13 wouldn't say in particular any of it. It was written,
14 obviously, to strike a balance.

15 MR. QUAIL: Q: Along that vein, I'm going to be asking
16 you a number of questions involving economic and
17 market trends. I realize a lot of this stuff is
18 really more the meat-and-potatoes of some of the other
19 panels, but what I'm going to be seeking is some sort
20 of orders of magnitude and directional stuff that will
21 frame some of the policy issues that I understand
22 you're here to answer. So, I expect that my friend
23 will be pointing out and be assisting us in pointing
24 out where some of these issues should be shepherded
25 for more detailed review. But just --

26 MR. ELTON: A: Thank you.

1 MR. QUAIL: Q: -- I'm not going to be asking you to get
2 out your calculators or anything of that note.

3 So I think we've already pretty clearly
4 established that we live in exceptionally uncertain
5 economic times. A point reflected in the passage you
6 read from the Throne Speech.

7 I assume you're familiar with observations
8 by various economists and public officials that the
9 world is in the midst of the most serious financial
10 crisis since the Second World War. Are you familiar
11 with those pronouncements?

12 MR. ELTON: A: I am familiar with those pronouncements,
13 yes.

14 MR. QUAIL: Q: And that crisis reaches full momentum a
15 few weeks after B.C. Hydro filed the original LTAP
16 application. It seems way back now in the summer of
17 2008.

18 MR. ELTON: A: Well, again, I don't think we know when
19 the crisis reached its full momentum. I think we
20 hoped that that was its full momentum.

21 MR. QUAIL: Q: Yes.

22 MR. ELTON: A: Yes. But I think that is now generally
23 assumed, yes.

24 MR. QUAIL: Q: Yes. So you filed the application, it
25 was after that, suddenly, a lot of things went topsy-
26 turvy in quite a big way. Is that a correct

1 sequencing of the --

2 MR. ELTON: A: I mean, there were clearly signs that
3 there were economic problems facing us then, and I
4 think it's, you know, obviously -- as you quoted from
5 the -- the Speech from the Throne quote suggested, the
6 speed and severity of it surprised people, yes.

7 MR. QUAIL: Q: Yes. So just a few weeks ago, the
8 government was projecting that it would -- that
9 British Columbia might be able to avoid a recession,
10 and it's given up on that possibility.

11 MR. ELTON: A: Well, the government -- the provincial
12 government relies on, I believe, a panel of economic
13 experts, that it bases its -- those comments on. And
14 that panel of experts, I think individually all
15 revised their forecasts.

16 MR. QUAIL: Q: So there were a number of signs in the
17 air for people who wanted to read them, I guess, back
18 at the time when the application was filed. That was
19 in June, was it not?

20 MR. ELTON: A: Yes, it was. Yes, it was June, yes.

21 MR. QUAIL: Q: Yes. For example, there were mill
22 closures, there were other signs or issues in the
23 American housing market, all of these things were
24 still -- these things were already available to be
25 seen. But by September, after the time when you filed
26 it, equity markets were plunging, and many banks were

1 failing or in danger of failing in various parts of
2 the world, isn't that correct?

3 MR. ELTON: A: Yes.

4 MR. QUAIL: Q: I assume you're familiar with comments
5 by the president of the United States of America that
6 the American economy faces potential catastrophe if
7 successful stimulus measures don't take effect?

8 MR. ELTON: A: I am familiar with those comments, yes.

9 MR. QUAIL: Q: One feature of the crisis we're in has
10 been a sudden drying-up of credit for private
11 investment and business. Are you familiar with that?

12 MR. ELTON: A: Yes.

13 **Proceeding Time 9:20 a.m. T13**

14 MR. QUAIL: Q: Another is the collapse of many segments
15 of the manufacturing sector, automobiles, our own
16 resource industries and various other sectors?

17 MR. ELTON: A: Yes. Well, when you say "collapse",
18 it's significant closures, significant layoffs, and
19 significant reductions in output, yes.

20 MR. QUAIL: Q: Yes. For example, speculation General
21 Motors could be in bankruptcy, for example. I'm sure
22 you've seen that. I'm not asking you to testify
23 whether they're bankrupt, but that's sort of the --

24 MR. ELTON: A: I'm pleased to hear that.

25 MR. QUAIL: Q: In terms of, you know, three years ago,
26 could we have believed we were in such a world? I see

1 this has been an amazing reversal of fortunes for a
2 lot of the manufacturers.

3 MR. ELTON: A: Again, I think we're on common ground
4 here, everybody in the room is, that this has been --
5 this surprised a lot of people and has been very
6 severe, is very severe.

7 MR. QUAIL: Q: Yes. There's been a very -- I won't use
8 the word "collapse" again. Especially on such a sunny
9 day I should try to put a little braver face on
10 things, but very significant design in the
11 construction of housing, especially in the U.S.
12 market.

13 MR. ELTON: A: Yes.

14 MR. QUAIL: Q: And British Columbia has industries that
15 are very heavily dependent on the health of that
16 particular market, isn't that correct?

17 MR. ELTON: A: That is correct.

18 MR. QUAIL: Q: Another feature has been a precipitous
19 decline in many commodity prices. For example, oil
20 was approaching \$150 a barrel and is now in the \$30-
21 odd range. Is that correct?

22 MR. ELTON: A: Yes, and I mean I don't want to get into
23 a lengthy philosophical discussion about some of this,
24 but we should also remember that there were many
25 people who thought that commodities had been
26 overheated. In other words, that while there's

1 obviously been a decline to some extent, we have to
2 remember that there were several years of consistent
3 economic growth at a rate that we hadn't really seen
4 for a very long time.

5 MR. QUAIL: Q: Yeah, and that could be said probably of
6 a lot of housing prices that have dropped
7 precipitously, and probably equity markets as well.

8 MR. ELTON: A: It could well.

9 MR. QUAIL: Q: One analysis is there is quite a large
10 bubble that's burst, but the floor in terms of the
11 bottom of the burst bubble is what's troublesome.
12 That would be a fair way to characterize it.

13 MR. ELTON: A: That's an interesting mixed metaphor.

14 MR. QUAIL: Q: Yes, it is. You know, first thing in
15 the morning --

16 MR. ELTON: A: Maybe the sunshine is affecting all of
17 us.

18 MR. QUAIL: Q: First thing in the morning that my
19 metaphors tend to sort of flow in a, you know, sort of
20 stream of consciousness manner, so you'll just have to
21 bear with me.

22 And all of these features have serious
23 consequences for British Columbia in different ways,
24 isn't that correct?

25 MR. ELTON: A: Well, all of these features present, I
26 think, all of us with a challenge which we have to

1 meet. And I think, again you referred to the Speech
2 from the Throne and quoted the part that accurately
3 described what you've just been describing. If you
4 read the whole Speech from the Throne, which I'm sure
5 you have, it then goes on to talk about what you do as
6 a result of that. And I mean, I think, yes, there's
7 uncertainty and yes, there's gloom and despondency.
8 What do you actually do? And what you do is accept
9 today's reality and plan for the future.

10 MR. QUAIL: Q: Yes. And those impacts are graphically
11 demonstrated in the changes between the 2008
12 application and the December update, isn't that right?

13 MR. ELTON: A: What was the first part of that
14 sentence?

15 MR. QUAIL: Q: That is, we had talked about how -- my
16 previous question was about the consequences of all of
17 these things, the construction markets, the commodity
18 markets and so on on B.C. Hydro. And that's reflected
19 in the sort of before and after picture between June
20 when you filed the application, and you know, another
21 marker along the way is the December update, which
22 gives us an October vantage point.

23 MR. ELTON: A: Yes, the December update was clearly
24 intended, we clearly intended it to reflect our
25 understanding of today's reality as in then, and what
26 we expected would happen, yes.

1 MR. QUAIL: Q: And one of the biggest wallops was a
2 significant drop in the industrial load.

3 MR. ELTON: A: Yes.

4 MR. QUAIL: Q: And that reflects the many mills and
5 other concerns that have either shut down or reduced
6 their operations.

7 MR. ELTON: A: I mean, it reflects all factors, but
8 certainly those factors made a big difference to the
9 production, as you will hear from a later panel.

10 MR. QUAIL: Q: Yes, and this is sort of daily news. I
11 don't know if you saw today's *Vancouver Sun* and the
12 front of the business page, but Catalyst Paper closing
13 one mill and scaling back another one, that's today's
14 news.

15 MR. ELTON: A: I did read that, yes.

16 MR. QUAIL: Q: Yes. And I suggest it's common ground
17 that since the update was filed in December from
18 October to February 20th, 2009, things have gotten
19 worse, they haven't gotten better.

20 MR. ELTON: A: Well, certainly there have been more and
21 more manifestations of what you're describing, yes.

22 MR. QUAIL: Q: But the number of closures, the scale of
23 layoffs, the slowdown in both the domestic market and
24 other markets we rely on has become worse, it hasn't
25 become better.

26 **Proceeding Time 9:26 a.m. T14**

1 MR. ELTON: A: I mean, I think a difficult question to
2 answer -- I mean, obviously when we did in December in
3 the evidentiary update was to say, "Look, there's a
4 lot of" -- as you've said, all of the things you've
5 said are true. There's a lot of bad things happening.
6 We therefore have to adjust our forecasts and we
7 clearly start by adjusting our short-term forecasts
8 and that has an effect on our long-term forecast,
9 which I'm sure we'll be discussing during this
10 hearing.

11 There's always a question, as you get each
12 piece of bad news, is it actually just telling you
13 that what you forecast was correct, or does it tell
14 you you should be forecasting something different, and
15 I think that is a difficult question to answer, I
16 think, Mr. Quail, and I think we will --

17 MR. QUAIL: Q: Yes.

18 MR. ELTON: A: That is a fairly detailed question, I
19 think.

20 MR. QUAIL: Q: Yes, but a very difficult one. And I'd
21 suggest that in general, if you are operating in a
22 very volatile and uncertain environment, to operate
23 intelligently you have to adjust your strategies for
24 that kind of environment compared to a steady as she
25 goes kind of operating environment, would you agree
26 with that?

1 MR. ELTON: A: Well, and that's what we've done in the
2 evidentiary update, and with the actions that we took.
3 I mean, remembering again, this is, I think, important
4 that for sure the short-term forecast will change. I
5 mean, for example, the fact that a mill is closed
6 today, we need to look at what our current forecast
7 for this year is and what we assumed about that mill.
8 And that's one of the things we will do.

9 So in terms of this year and next year,
10 that's relevant. The question of whether it changes
11 our 20-year forecast, or our 10-year forecast is a
12 different question, and you know, that's a separate --
13 you have to have both discussions.

14 MR. QUAIL: Q: And in terms of -- you know, like we can
15 agree there's a great deal of uncertainty. Nobody is
16 attempting to predict with any kind of confidence the
17 depth or the duration of the recession, or the speed
18 and robustness of recovery, do you agree with that?

19 MR. ELTON: A: I agree that no one can -- well, there
20 are, actually, many people predicting the -- for
21 example, the economic growth in British Columbia for
22 this year. There are many people predicting it, and
23 for next year. I think that -- and there may even be
24 a fair amount of agreement among those people about
25 those forecasts. And the government again in its
26 budget just referenced, I think, six or seven economic

1 forecasts. I think it's not that people can't agree,
2 I think it's more that their level of confidence in
3 those charts and forecasts is low.

4 I think that there is general agreement
5 that there will be a recovery and that British
6 Columbia's economy will recover, and that the United
7 State's economy will recover. The question of when
8 is definitely -- there are different opinions about
9 that.

10 MR. QUAIL: Q: Yes.

11 MR. ELTON: A: But I mean, there are some people saying
12 that the Canadian economy will recover in 2009, will
13 start to grow. There are many people saying it will
14 start to grow in 2010. There are not too many that
15 are saying it will be after that.

16 MR. QUAIL: Q: Yes.

17 MR. ELTON: A: So when it comes to -- and then I think
18 if you go to the predictions of economic growth after
19 that, again, there is some level of congruence among
20 economic forecasters. Now, whether they are right is
21 something that we'll find out in a few years.

22 But in other words, what I'm saying is, you
23 are absolutely right, that today's situation is
24 unprecedented and is deeper than people thought. At
25 the same time we all -- or economists have been pretty
26 consistent that, look at the past, when you have

1 recessions you come out of them, that -- I haven't
2 heard too many people say that is not going to happen
3 this time.

4 MR. QUAIL: Q: No, our -- if you look at history,
5 there's a constant ebb and flow of boom and recession
6 that goes back centuries.

7 MR. ELTON: A: Right.

8 MR. QUAIL: Q: Sometimes people feel that this is, you
9 know, is something that's never happened to anyone
10 before.

11 And I suggest to you that one of the most
12 important tasks for strategic planning for B.C. Hydro
13 right now is to find effective strategies to manage
14 the high level of uncertainty that the utility must
15 operate within.

16 MR. ELTON: A: Yes, and I think that's always, frankly,
17 is one of our biggest tasks, because of the long-term
18 nature of the investments that we make.

19 MR. QUAIL: Q: When the course of events is uncertain,
20 you need to build in flexibility, in terms of your
21 ability to respond to the unexpected over time.

22 MR. ELTON: A: Yes. I mean again, I'd say that that is
23 true now. It was actually true two or three years ago,
24 because as we've just discussed, things can happen
25 that you really didn't expect.

26 MR. QUAIL: Q: Yes.

1 MR. ELTON: A: So you always have to flexibility in a
2 plan like ours, and we always do.

3 MR. QUAIL: Q: Absolutely, but there may be matters of
4 degree. The rollercoaster is on a bumpier ride right
5 now than it was in three years, so one can perceive a
6 need to prefer flexible options.

7 **Proceeding Time 9:30 a.m. T15**

8 MR. ELTON: A: It's interesting. I don't personally
9 like roller-coasters, I'll be very honest with you.

10 MR. QUAIL: Q: Neither do I.

11 MR. ELTON: A: I don't, because when I'm on one, I find
12 it difficult to believe that when I'm going down at
13 great speed, that I'm then going to go up again. And
14 I find it difficult to believe it will actually stop.
15 But I think an important point about planning is that
16 you do need to know -- if you are on a roller-coaster,
17 you do need to know that it will -- if it's going
18 down, it will go up.

19 MR. QUAIL: Q: Yes.

20 MR. ELTON: A: And that it will ultimately stop.

21 MR. QUAIL: Q: Yes.

22 MR. ELTON: A: Again, I'm not sure that analogy helps
23 anybody, but I just thought I'd --

24 MR. QUAIL: Q: Well, it's a rather useful analogy. And
25 maybe, you know, to take that metaphor one step
26 further and sort of being tossed around at high

1 velocities, whether by the economy or a roller-
2 coaster, can be unpleasant. But what I'm suggesting,
3 my question, though, was that one always has to retain
4 flexibility to deal with the future, which is always
5 unknown by definition.

6 MR. ELTON: A: Yes. Yes.

7 MR. QUAIL: Q: But when the amplitude of that
8 uncertainty is as graphic as it is today, one can
9 perceive a need to really give significant priority to
10 that flexibility.

11 MR. ELTON: A: I think you'd have to try and figure out
12 whether you believe that the particular crisis that
13 you're in is going to make -- is, you know -- what
14 kind of change might it make? Does it mean that we're
15 now going to have a series of them? Or does it mean
16 that it's just something that you've got to accept,
17 understand, then move on from? And I think it's
18 actually quite difficult to assess that.

19 MR. QUAIL: Q: Yes. And again, that's another reason
20 why one has to retain flexibility and prefer flexible
21 options, so that one can respond to the future,
22 however it unfolds.

23 MR. ELTON: A: Yes. And again, we haven't talked about
24 it, although the letter refers to it. The -- we're
25 talking now about the economic -- the question of
26 economic growth and the general level of demand. The

1 other thing that we also have to think about is, will
2 there also be structural changes in the economy
3 towards, for example, different uses of energy,
4 different uses of electricity? I think what makes
5 this particularly difficult, frankly, is you've got
6 both happening at once.

7 MR. QUAIL: Q: Or structural changes, for example, with
8 some industries that perhaps are -- may even be
9 mortally wounded by the situation that's happening
10 now, some of our resource sector, for example. But
11 conceivably, some mills may never re-open. On the
12 other hand, in a new economy emerging from a recovery
13 that there would be presumably other opportunities
14 that would use energy in different ways. Is that a
15 fair supposition?

16 MR. ELTON: A: Well, yes, I think it's a fair
17 supposition that, you know, you always have to try and
18 figure out what economic growth will do, and usually
19 it's easier than it is today. You always have to
20 consider whether there are going to be changes in the
21 use of your product. And I think that is actually
22 quite difficult at the moment, both ways.

23 MR. QUAIL: Q: I'm going to put a general proposition
24 to you, and that is that all other things being equal,
25 all other environmental and social concerns being
26 equal, taken into account, courses of action which

1 give B.C. Hydro superior ability to respond to
2 unexpected developments over the next few years are
3 preferable to courses of action which confine or limit
4 B.C. Hydro's options.

5 MR. ELTON: A: Well, all other things being equal is a
6 pretty important proviso, but given that, I mean, yes,
7 that's -- I mean, frankly, I regard that as something
8 of a motherhood statement.

9 MR. QUAIL: Q: Yeah, okay. And you agree that one role
10 for B.C. Hydro as a Crown utility is to help British
11 Columbians to weather the financial and economic storm
12 of our times.

13 MR. ELTON: A: That's a complicated question to answer,
14 but I'll give it a try. In the past, B.C. Hydro has
15 had a role -- it was overtly given roles by government
16 to assist in economic development. I believe that if
17 you look at the energy plan of 2002, and the energy
18 plan of 2007, and I mention the earlier one because
19 parts of it are still valid and, you know, weren't
20 changed by the 2007 energy plan, I don't believe that
21 B.C. Hydro was given overtly by government a role
22 specifically to assist in economic development. I do
23 believe that it was clearly stated in those energy
24 plans that B.C. Hydro does assist in energy -- in
25 economic development, through the breadth of its
26 activities, through its, you know, through the

1 expansion in demand, through buying power from
2 independent power producers and so on. But not -- but
3 in other words, let me make sure I'm being clear here,
4 the goal was not economic development, the goal was a
5 supply of reliable power in a competitive -- cost-
6 competitive way, in a way that respects the
7 environment.

8 I don't believe we have a mandate to go
9 beyond that. I do believe that as a result of our
10 activities around the province, and as a result of our
11 competitive rates, we do have and will have a very
12 positive effect on the economy of the province.

13 **Proceeding Time 9:35 a.m. T16**

14 MR. QUAIL: Q: Yes, and my clients would not quarrel
15 with that characterization of the issue of economic
16 development. But in terms of more broadly the
17 question of dealing with the impact of the economic
18 circumstances, for example, on households, B.C. Hydro,
19 for example, has developed initiatives that targeted
20 DSM for low income households to make it easier for
21 them to heat their homes more economically.

22 MR. ELTON: A: Yes, and that is something that we
23 believe very strongly in, and that I certainly believe
24 is encouraged by government. And I think a general
25 statement would be that we are certainly expected to
26 act responsibly, you know. The fact that we have a

1 big impact on the economy and on the province is well
2 known, and that in discussing many issues with our
3 shareholder, it's clear that they are very interested
4 in and expect us to be very interested in the total
5 impact of what we do.

6 MR. QUAIL: Q: Yes. So for example, you would, where
7 possible, avoid options which might exacerbate
8 economic hardship for households.

9 MR. ELTON: A: Yes.

10 MR. QUAIL: Q: In terms of prospects for rate
11 increases, I'd refer you to Exhibit B-12, IPPBC IR
12 3.7.1. This is just -- again, we're not going to be
13 -- you're not going to take out a calculator again.
14 This is sort of directional and orders of magnitude
15 kind of discussion. Do you have that there? The last
16 portion of the question says -- the 3.7.1, the
17 specific question is:

18 "Please confirm that the cumulative rate
19 increase described above is forecast to be
20 approximately 86 percent by fiscal 2018.

21 Response: Using the long-term rate increase
22 forecast set out in the attachment to the
23 response to BCUC IR 1.7.1, Exhibit B-3, the
24 forecast nominal and real cumulative rate
25 increase by fiscal 2018 is approximately 87
26 percent and 52 percent respectively. Please

1 note that for the purposes of applying the
2 elasticity estimates to a particular rate
3 increase, the appropriate rate increase is
4 the real increase and not the nominal
5 increase."

6 So you're familiar with that evidence and it's true?

7 MR. ELTON: A: Yes.

8 MR. QUAIL: Q: Will you agree with me that there are
9 unavoidable pressures that are pushing up electricity
10 rates over the coming period?

11 MR. ELTON: A: Yes.

12 MR. QUAIL: Q: So for example, our infrastructure is
13 aging, we have outgrown it in some respects, and the
14 costs of maintaining and of building infrastructure
15 today is substantially greater than it was 40 years
16 ago.

17 MR. ELTON: A: The first two statements clearly are
18 true. The third one, when you say "40 years ago" do
19 you mean in real terms or nominal terms or what?

20 MR. QUAIL: Q: I would suggest in real terms.

21 MR. ELTON: A: Yes.

22 MR. QUAIL: Q: The cost of building a dam today in real
23 terms is --

24 MR. ELTON: A: Certainly until a few months ago, we
25 were experiencing and have been experiencing
26 considerable increases in the cost of building

1 infrastructure. It is hard to tell whether what is
2 happening right now will actually help us as buyers of
3 infrastructure and builders of infrastructure. But
4 generally speaking you're right, yes.

5 MR. QUAIL: Q: Yes, but you raise a good point. Maybe
6 it goes back to what we've talked about earlier, that
7 there was some overinflation of some prices in the
8 market and some aspects of the crisis we're in now are
9 a popping of bubbles in terms of some of these costs.

10 MR. ELTON: A: Yes, although interestingly, when you --
11 when we talk to our peers, electric utilities are
12 still among the last people to downscale expected
13 capital expenditures. In other words, the
14 infrastructure deficit that we have is real. And so
15 at the moment, what I am hearing from my colleagues
16 around North America is they are still expecting to
17 keep spending, as we are, on significant capital
18 programs. So therefore that may well mean that the
19 costs of building infrastructure don't actually go
20 down because the things that -- we're all buying the
21 same things.

22 MR. QUAIL: Q: So for example, whatever happens to the
23 economy, you've got to make sure the transmission
24 towers are robust and are going to do their job, for
25 example.

26 MR. ELTON: A: Well, that's right, and you know,

1 turbines and so on. In other words, if an industry is
2 still relatively robust, even though the economy as a
3 whole is weak, that may mean that our particular cost
4 factors are still high.

5 MR. QUAIL: Q: And so I suggest no matter what policies
6 are in place, this factor, the costs of maintaining
7 and building the system, will put upward pressure on
8 rates so long as we want to have available and
9 reliable electricity.

10 **Proceeding Time 9:40 a.m. T17**

11 MR. ELTON: A: I think there is some -- I think the
12 answer is there is significant upward pressure on
13 rates. I do believe that it is North America wide,
14 and I won't call it world-wide, but in terms of OECD
15 countries, you know, world-wide, that obviously what
16 we are focused on, or will become increasingly focused
17 on is, are the increases that we expect going to
18 maintain our competitive position.

19 MR. QUAIL: Q: And addressing the unresolved rights of
20 our First Nations is another on-going cost pressure
21 that transcends policy directions of any government of
22 the day. It's going to be a built-in item of business
23 which is going to inevitably entail some cost. Is
24 that a fair statement?

25 MR. ELTON: A: What kind of cost do you mean?

26 MR. QUAIL: Q: Costs of accommodations, for example.

1 MR. ELTON: A: Well, I'd actually make a more general
2 statement that the -- if you look at all of our
3 facilities and the people that live near them, whether
4 they are First Nations or not First Nations, there are
5 increasing pressures from people. You know, we could
6 go into detail about the water-use planning process,
7 but the interests of neighbours, stake-holders and of
8 course First Nations in the building of facilities and
9 in the operation of facilities is getting larger all
10 the time. So I'd answer the question more generally
11 and say that there is a general upward cost pressure.
12 I wouldn't just put it at the door of First Nations.

13 MR. QUAIL: Q: So I think we can agree on that, but in
14 the case of First Nations, there are constitutional
15 imperatives.

16 MR. ELTON: A: Yes.

17 MR. QUAIL: Q: For example, the issues addressed by the
18 Court of Appeal earlier this week, that basically
19 hard-wire that into the process of developing the
20 system.

21 MR. ELTON: A: You're absolutely right, yes.

22 MR. QUAIL: Q: And different climate change strategies
23 will inevitably have cost impacts on energy.

24 MR. ELTON: A: Well, it will. Of course our fleet in
25 the province is basically very clean, and so climate
26 change costs may well help us in terms of our

1 competitive position, because they are likely to
2 increase the costs of, for example, other people's co-
3 fired plants and more substantial gas-fired plants.
4 That might actually help us.

5 MR. QUAIL: Q: Relative to jurisdictions that burn
6 coal, for example.

7 MR. ELTON: A: Yes.

8 MR. QUAIL: Q: Yes. So we've canvassed a number of
9 costs that are inevitable, and one could list a number
10 of others. I think we went through an exercise in
11 another hearing. I went through the table of contents
12 of the application and there was item after item that
13 -- you know, a built in cost pressure. Some of them
14 are mandated by law, some are just built in costs of
15 the business of being an electrical utility. So I
16 want to move to that vantage point. That is that
17 there is several built-in drivers pushing B.C. Hydro
18 rates upward in the midst of an economy in crisis. Is
19 that a fair characterization?

20 MR. ELTON: A: Yes.

21 MR. QUAIL: Q: Do you agree that given that scenario,
22 B.C. Hydro should be looking for strategies, where it
23 can, to limit avoidable upward pressure on rates?

24 MR. ELTON: A: Yes.

25 MR. QUAIL: Q: I'd like to turn your attention to the
26 2007 Energy Plan, Appendix A to the application, at

1 page 14. And I hope that the pagination of my version
2 matches yours.

3 And the heading is "Maintain Our
4 Electricity Competitive Advantage".

5 MR. ELTON: A: Yes.

6 MR. QUAIL: Q: Do you have that? And the text reads:

7 "British Columbians require a secure,
8 reliable supply of competitively priced
9 electricity now and in the future.
10 Competitively priced power is also an
11 incentive for investors to locate in British
12 Columbia. It provides an advantage over
13 other jurisdictions and helps sustain
14 economic growth. We are fortunate that
15 historic investments in hydroelectric assets
16 provide electricity that is readily
17 available, reliable, clean and inexpensive.
18 By ensuring public ownership of B.C. Hydro,
19 the Heritage assets and the B.C.
20 Transmission Corporation, and confirming the
21 Heritage contract in perpetuity, we will
22 ensure that ratepayers continue to receive
23 the benefits of this low-cost generation.
24 Due to load growth and ageing
25 infrastructure, new investments will be
26 required. Investments in maintenance and in

1 MR. ELTON: A: Yes.

2 MR. QUAIL: Q: And B.C. Hydro's primary mandate, I'd
3 suggest, is to serve the energy needs of businesses
4 and households in British Columbia in a socially and
5 environmentally responsible way.

6 MR. ELTON: A: I certainly don't disagree with that
7 characterization. I mean, there's various ways in
8 which we express that, but that makes sense, yes.

9 MR. QUAIL: Q: And B.C. Hydro is strongly committed to
10 ensuring that ratepayers get good value for their
11 dollars spent on electricity.

12 MR. ELTON: A: Yes.

13 MR. QUAIL: Q: If we need to increase supply, then I
14 put it to you, we should do it in a manner that leads
15 to the least impact and risk on ratepayers. If we
16 find down the road that demand hasn't grown as
17 anticipated. Actually, that's -- I've formulated a
18 long sentence here.

19 Put it this way, that one of the things
20 that needs to be taken account, particularly in the
21 uncertain environment we have talked about, is
22 strategies that limit the risk that ratepayers are
23 being signed on for acquisition of energy ahead of the
24 time when it's going to be required by them.

25 MR. ELTON: A: So, of course, we need to do that. And
26 of course, when we talk about risk, it does involve,

1 you know, a consideration of short-term and long-term.
2 So, for example, if we acted in such a way that we
3 were actually short of energy, then that would mean
4 that the cost to the ratepayer could be much more
5 considerable than the benefit to the ratepayer of
6 being somewhat surplus energy. So, with that rider, I
7 agree with your statement. In other words, I'm just
8 making a point that I think we'd all agree with, that
9 you need to look at all factors and you need to look
10 at the long term.

11 MR. QUAIL: Q: Okay. And I'd assume it's common
12 ground, probably with nearly everybody in the room,
13 that the best way to satisfy B.C.'s electricity load
14 is through conservation.

15 MR. ELTON: A: Certainly we -- I mean, certainly I and
16 we believe that, yes.

17 MR. QUAIL: Q: That is hard-wired into the mandate of
18 the Commission, and it's a central tenet of the energy
19 plan, is that correct?

20 MR. ELTON: A: Yes.

21 MR. QUAIL: Q: It's also the thrust of the recent
22 amendments to the *Utilities Commission Act* regarding
23 demand-side measures.

24 MR. ELTON: A: Yes.

25 MR. QUAIL: Q: Everything else being equal, including
26 unit cost, if B.C. Hydro has a choice between meeting

1 customer needs by acquiring new supply or achieving
2 conservation through demand-side measures, then B.C.
3 Hydro must prefer the DSM option.

4 MR. ELTON: A: Well, again, the way in which that
5 decision must be made is, as you said, is specifically
6 in legislation and the wording in the legislation is
7 what we would take to be our instructions there.

8 MR. QUAIL: Q: Okay. And I assume you're familiar with
9 the new DSM sufficiency regulations issued by the
10 Cabinet a few weeks ago?

11 MS. VAN RUYVEN: A: Yes, we are.

12 MR. QUAIL: Q: And you'll agree with me that one thing
13 they do is to ease the test for the approval of DSM
14 initiatives in the utilities resource plans.

15 MS. VAN RUYVEN: A: Yes, they do.

16 MR. QUAIL: Q: And do you agree that this also
17 represents a push from government to encourage B.C.
18 Hydro and other utilities, because it's not just
19 specific to you folks, to place load reduction through
20 conservation at the heart of the resource strategy?

21 MS. VAN RUYVEN: A: Yes, it applies to all utilities.

22 MR. QUAIL: Q: I think the application to all utilities
23 is coming up in the very near future.

24 MS. VAN RUYVEN: A: I believe they have to comply to
25 adequacy by June of 2009.

26 MR. QUAIL: Q: I believe that's correct.

1 issue. But I think often at these discussions we
2 don't focus on that too much, but that is the part
3 that everybody takes for granted, that if you look at
4 the supply/demand stack it's the biggest number. And
5 if we don't spend money on it then it won't be there.

6 MR. QUAIL: Q: I wouldn't quarrel with that, but I'd
7 suggest maybe it reflects the fact that as British
8 Columbians we tend to take those Heritage assets very
9 much for granted.

10 MR. ELTON: A: Right. So I just wanted to just make
11 that point. I'm sorry, then having said that, please
12 -- maybe you could restate your question.

13 MR. QUAIL: Q: So the next question, so I'll also say
14 this, so we've got DSM and maintaining our Heritage
15 resources would appear to be the top of the list in
16 terms of what to do to deal with the load
17 requirements. I put it to you that the next best
18 choice is to expand the planning use of Burrard.

19 MR. ELTON: A: Did you say to expand the planning use
20 of Burrard?

21 MR. QUAIL: Q: Yes. That is, Burrard -- since Burrard
22 production is normally displaced with market purchases
23 or secondary Heritage and IPP energy, expanding
24 Burrard exposes ratepayers to the market price, which
25 based on B.C. Hydro forecast is significantly below
26 the cost of IPP source power, even under the 2006

1 call.

2 MR. ELTON: A: So there'll be a lengthy -- or there'll
3 be a panel available to discuss the details of this in
4 due course, which is Panel 2?

5 MR. QUAIL: Q: Yes.

6 MR. ELTON: A: Panel 2, thank you. But let me make a
7 few general comments, if I may, about that.

8 I think when you're looking at what the
9 possibilities for Burrard are, in terms of energy, you
10 have to consider a number of factors. One would be
11 the government's Energy Plan and Energy Policy, what
12 it says. Two would be what is the operational
13 capability of Burrard? In other words, what is it
14 actually capable of achieving technically? And there
15 is and will be evidence on that. Three would be the
16 environmental, you know, if you were to operate
17 Burrard differently, what would you be able to -- what
18 would be acceptable environmentally, so that the
19 concept of a licence to operate, so those would be --
20 and then four would be indeed the cost, cost issues.

21 Maybe I can just make some general
22 comments, recognizing that Panel 2 will be able to
23 substantiate some of those comments with studies and
24 so on that we've done.

25 In terms of government policy, maybe we
26 could go to page 14 of the Energy Plan. And I think

1 that -- and maybe I can just read what I think are the
2 key comments, that even though it could generate
3 electricity from Burrard Thermal, B.C. Hydro imports
4 power primarily because the plan is outdated,
5 inefficient and costly to run. Then it talks about
6 the extra capacity or reliability insurance for the
7 province's electricity supply, which I don't believe,
8 by the way, are -- I don't believe that's at issue in
9 the question you're asking, so I'll leave that issue
10 for the moment.

11 By 2014, B.C. Hydro plans to have firm
12 electricity to replace what would have been produced
13 at the plant. Government supports B.C. Hydro's
14 proposal to replace the firm energy supply from
15 Burrard Thermal with other resources by 2014.
16 However, B.C. Hydro may choose to retain the plant for
17 reliability insurance should the need arise.

18 So, that energy -- what that statement says
19 is that if we can come forward -- if in this LTAP we
20 were saying that our reliance on Burrard was zero,
21 that government would support that proposal. I don't
22 read this that government is saying that's what we
23 must do. In other words, I read this as a carefully
24 worded statement that gives us some flexibility. And
25 we've used that flexibility by basically using a 3,000
26 megawatt hour number.

1 **Proceeding Time 9:54 a.m. T20**

2 Frankly, I think if we had gone to zero, I
3 think there would be a real question about whether we
4 were really, you know, even looking to be in the same
5 direction as the government. So, and I think that
6 would be a problem.

7 The question of why we have this
8 flexibility, in other words why is the wording "This
9 is B.C. Hydro's plan; we support B.C. Hydro's plan,"
10 versus, "You must do it," I think there's a
11 recognition on the part of government and on the part
12 of everybody here that Burrard is a unique asset that
13 has a tremendous value. Having a plant that's close
14 to load with a capacity that it has, everybody agrees
15 that's a really good thing. It is an ageing asset and
16 at some point it won't be there in the form it's in
17 now, but at the same time, it's in everybody's best
18 interest, we believe, that we keep investing in it to
19 keep it able to carry on its current function.

20 Governments tend to be -- I have to think
21 carefully how to say this. If you look at governments
22 around the world, they often have a very keen interest
23 in electricity policy. They often get quite
24 interested in fuel sources. So, for example, they'll
25 have portfolio standards, they'll make statements
26 about fuel sources. They often are best served not to

1 get into specific decisions about existing facilities.
2 So that when a government actually makes an
3 announcement like we think these coal plants should be
4 phased out by a certain period, sometimes that can be
5 difficult for them. Because sometimes the options
6 aren't readily available.

7 So without prejudging what future
8 government policy might be on Burrard, I think it's
9 helpful that this particular government said, you
10 know, we have a direction we want you to go in here,
11 but we want to leave you and the B.C. Utilities
12 Commission to sort this out. So therefore what we did
13 was to commission a number of studies looking at the
14 technical capability of Burrard, the economics of it,
15 and the licence to operate, and came to some
16 conclusions that led to a 3,000 number.

17 I realize that it is halfway between six
18 and zero, and I realize that it might look like it was
19 done that way. It wasn't. We said and -- I basically
20 said to Chris O'Riley and to our folks involved with
21 this, "Do this work and do it in an unbiased way and
22 come back with what you believe to be a supportable
23 number." 3,000 is what I believe to be a supportable
24 number, and I think it represents a balance that takes
25 into account the interests of the ratepayers. You
26 know, versus using, you know, a different number. But

1 also respects what I believe is government's intention
2 as in a clear statement of direction.

3 I think the number is supported by the view
4 we have around what the plant could technically do.
5 It could operate at 3,000, and I believe that, for
6 example, if we were to go to a 6,000 number, I don't
7 believe that we could imagine ever operating the plant
8 at that level. I don't believe that that would be
9 environmentally something you could do these days. At
10 the same time I don't believe that going down to zero
11 would be responsive to government policy.

12 It's a lengthy answer, but I thought it was
13 useful to summarize the waterfront there.

14 MR. QUAIL: Q: I've crossed out a whole bunch of other
15 questions that are --

16 THE CHAIRPERSON: Mr. Quail, it's 10:00.

17 MR. QUAIL: Yes, this is probably a good point to stop.
18 I'll be a little while for the next one.

19 THE CHAIRPERSON: Let's break for fifteen minutes, then.

20 **(PROCEEDINGS ADJOURNED AT 9:58 A.M.)**

21 **(PROCEEDINGS RESUMED AT 10:13 A.M.)** **T21/22**

22 THE CHAIRPERSON: Please be seated.

23 MR. GODSOE: Mr. Chairman, if I could enter the B.C.
24 Hydro Service Plan 2009/10 to 2011/12, as Exhibit B-
25 16.

26 THE CHAIRPERSON: That would be fine, thank you.

1 THE HEARING OFFICER: B-16.

2 (B.C. HYDRO SERVICE PLAN 2009/10 TO 2011/12, MARKED
3 EXHIBIT B-16)

4 THE CHAIRPERSON: The floor is yours.

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

6 MR. QUAIL: Q: Panel, I understand that a regulation
7 has very recently been promulgated in Victoria, B.C.
8 Regulation 27-2009, which has an impact on the return
9 on equity that your shareholder receives from your
10 operations, is that correct?

11 MR. ELTON: A: Yes.

12 MR. QUAIL: Q: And my understanding is that it, in
13 effect, it adds on a 1.63 percent onto the current
14 formula, is that right?

15 MR. ELTON: A: Broadly speaking. It might be helpful
16 if somebody has it, if they could maybe just make sure
17 we got that rate precise. Thank you very much.

18 Okay, I have it now.

19 THE CHAIRPERSON: Mr. Quail, could you share that with
20 the panel, do you think?

21 MR. QUAIL: I don't know if I can. I would love to, Mr.
22 Chair.

23 MR. GODSOE: I can. Sorry.

24 MR. QUAIL: Well, I wasn't aware of this much earlier
25 than you have become now.

26 THE CHAIRPERSON: This week has been full of surprises

1 for me, Mr. Quail.

2 MR. QUAIL: It has been surprising. It's what makes life
3 so interesting.

4 THE CHAIRPERSON: That's right. But please keep -- you
5 know, continue. I mean, don't -- you can't wait on
6 us.

7 MR. QUAIL: Q: And --

8 MR. ELTON: A: So, yes, I can -- you were asking me
9 whether the amount was 1.63 percent, and I can confirm
10 that was the amount, yes.

11 MR. QUAIL: Q: Yes. And obviously this is a brand-new
12 development, and so this would have implications in
13 relation to your long-term rate forecast, for example.

14 MR. ELTON: A: Yes.

15 MR. QUAIL: Q: I don't know if you're -- I doubt that
16 you're in a position at this point to quantify the
17 rate impact that this will have on customers.

18 MR. ELTON: A: Well, the service plan that was just --
19 perhaps I'll wait for the -- the service plan that was
20 just issued does reflect these percentages, because we
21 were aware that this was going to happen. And it, you
22 know, it was part of the provincial government's
23 budgeting process, and frankly relates to a general
24 approach to the provincial budget. So the rate
25 increases, for example, that are in the -- out years
26 in the service plan do reflect these percentages.

1 MR. QUAIL: Q: Okay. But the -- I had put to you an
2 earlier IR response to IPPBC dealing with the long-
3 term rate forecast. I gather that those numbers did
4 not incorporate the impact of this ROE change, is that
5 right?

6 MR. ELTON: A: That's correct. And also our response
7 to this, in terms of what does it mean to the way we
8 run our business, what does it mean to our operating
9 costs, we have also not formulated, and it's probably
10 a discussion for another -- for other places and other
11 times. But the answer to your question is, yes.

12 MR. QUAIL: Q: I don't think it would be a fair
13 question for me to ask you to sort of at least
14 identify potential impacts of this on the long-term
15 acquisition plan, so I'm not going to do that. And I
16 also assume that your full analysis of this is going
17 to take a while, from the answer that you've just
18 provided. But I wonder if you would be able to,
19 perhaps as an undertaking, file a brief synopsis, just
20 identifying potential impacts on the -- some of the --
21 of the chief aspects of this application. Is that
22 problematic?

23 **Proceeding Time 10:18 a.m. T23**

24 MR. GODSOE: So let me just get a little clearer on the
25 undertaking, and try to confine its scope here. I
26 think this Panel can start with whether there is an

1 impact or a discount rate analysis, which I think is
2 the central question for the LTAP, and I think we are
3 in a position to answer that. And it can start with
4 this Panel and move to Panel 3.

5 I think, in terms of re-running the long-
6 term rate increase forecast, I would resist that. I
7 think that would take a long time, perhaps beyond the
8 parameters of this hearing. So, let's try on with the
9 discount rates and see if that satisfies my friend,
10 before we get into undertakings. Is that fair?

11 MR. QUAIL: Q: Yes, and I wasn't necessarily suggesting
12 that within the scope of this hearing that you would
13 be reworking the entire rate impact.

14 So, in terms of a discount rate impact, are
15 you able to enlighten us on that at this point?

16 MR. ELTON: A: Yeah, in general terms. And again,
17 there will be more detail on this later on. You know,
18 we've looked -- we look at -- we've looked at a range
19 of discount rates, and we don't think this change
20 makes a material impact on that aspect of this
21 application.

22 THE CHAIRPERSON: Well, especially as I read it, Mr.
23 Quail, that it is only for the next three fiscal
24 years.

25 MR. QUAIL: Exactly, that's correct.

26 THE CHAIRPERSON: I mean, it seems to me that with --

1 somebody in your shop with a calculator could probably
2 say it's going to make so many basis points'
3 difference to your long-term rate increase forecast.
4 And I think that's probably where this Panel would be
5 interested in hearing from one of your panel members
6 as to the impact it has. On a quick and dirty basis.

7 MR. GODSOE: Sure.

8 MR. QUAIL: Quick and dirty was precisely the phrase
9 running through my mind as well, as you were
10 suggesting that, Mr. Chair.

11 THE CHAIRPERSON: Mr. Godsoe, is that all right with you?

12 MR. GODSOE: So, let me clearly understand the
13 undertaking. Just a mechanical layering on of the
14 return on equity on our long-term rate increase
15 forecast, set out in Exhibit B-3, response to BCUC IR
16 1.7.1?

17 THE CHAIRPERSON: Yes. I'm imagining that someone would
18 know what the sensitivity of a 1 percent change in ROE
19 is.

20 MR. GODSOE: Yes.

21 THE CHAIRPERSON: And this is a one-point -- as I read
22 it, it's from -- first time I've ever seen it, this is
23 1.63 percent.

24 MR. GODSOE: I think we can do that.

25 THE CHAIRPERSON: Thank you.

26

Information Request

1 MR. GODSOE: Yes.

2 MR. QUAIL: Q: Okay, Panel, before the break we were
3 talking about the resources, and trying to develop
4 some kind of a notional ranking, potentially, of
5 resources, in terms of value to ratepayers in order to
6 meet load requirements. And we had talked about DSM
7 and the Heritage resources. It talked about the
8 issues surrounding Burrard. And I recall in Ms. Van
9 Ruyven's evidence yesterday, she talked of purchases
10 from IPPs as being at the top of your cost curve. Do
11 you recall that discussion, Ms. Van Ruyven?

12 MS. VAN RUYVEN: A: Yeah. Maybe if you have the
13 transcript.

14 MR. ELTON: A: I think I said that. I think -- I think
15 I said --

16 MR. QUAIL: Q: Someone said that in response to Mr.
17 Wallace's questions.

18 MR. ELTON: A: I said that.

19 MR. QUAIL: Q: Okay. And you -- so you would agree
20 with me that when one looks at the choice of options,
21 once it gets down the list to purchases from IPPs,
22 we're looking at transactions which have a much more
23 significant impact on rates.

24 MR. ELTON: A: That would be a logical conclusion from
25 them being at the top of the cost curve, yes.

26 MR. QUAIL: Q: Yes.

1 MR. ELTON: A: I should say, of course, that as with
2 any procurement process, there will be the range of
3 costs, and there may well be at any given time --
4 well, in fact, there were, I think, IPPs that will be
5 cheaper than other alternatives. But the average cost
6 of the IPPs puts them at the top of the cost curve.

7 MR. QUAIL: Q: Yes. So the package that you've got, of
8 DSM, for example, as a levelized average price of \$41,
9 I'd suggest to you that if you saw bids from IPPs of
10 \$41, there would be a big celebration that we would
11 probably join in along with you. Do you agree with
12 that?

13 MR. ELTON: A: We would be very happy to acquire IPP
14 power at \$41.

15 MR. QUAIL: Q: That's around half of the 2006 Call
16 results, isn't it?

17 MS. VAN RUYVEN: A: Yes, the 2006 adjusted average bid
18 price was \$88 a megawatt hour.

19 MR. QUAIL: Q: Yes. So, less than 50 percent. And as
20 we've discussed already, B.C. Hydro's Heritage
21 resources help keep our rates low and our economy
22 competitive. I'd suggest to you that all incremental
23 supply of electricity that costs more than that --
24 that, first of all, all incremental supply of
25 electricity available to you, all choices, are going
26 to cost more than the Heritage resources.

1 MR. ELTON: A: Yes. And again, that would include, for
2 example, an expansion project at an existing Heritage
3 resource. In other words, you'd be paying the same
4 prices for labour, the same prices for equipment, that
5 an IPP would be paying, or close to it. And so,
6 everything new costs more than the Heritage part, if
7 you like, of the Heritage resources, yes.

8 THE CHAIRPERSON: Excuse me, Mr. Quail. You -- before
9 the break, you, as I thought, and perhaps you can
10 correct me if I'm wrong, you differentiated between
11 Heritage resources and Burrard.

12 MR. QUAIL: Burrard is certainly within a category of
13 Heritage resources, you're quite correct, Mr.
14 Chairman. Perhaps the differentiation is that
15 Burrard, perhaps more in terms of a political level,
16 seems to be approached as a distinct category.

17 **Proceeding Time 10:23 a.m. T24**

18 THE CHAIRPERSON: If you want to talk about Heritage
19 Hydro, feel free to do so.

20 MR. QUAIL: Yes. Yes. Okay, so to be more precise,
21 we're talking about Heritage Hydro.

22 THE CHAIRPERSON: Thank you.

23 MR. QUAIL: Q: So I'll reformulate my question that
24 way, that is the storage dams and resources of that
25 nature.

26 The Bio-Energy Call Section 1 Application

1 dated February 17th has been filed as an exhibit in
2 this proceeding, and I don't have the exhibit number
3 handy.

4 MR. GODSOE: Exhibit B-15.

5 MR. QUAIL: Q: That's right. I wonder if you could
6 please turn to Table 2-2 at page 15 of that document.

7 MS. VAN RUYVEN: A: We have that.

8 MR. QUAIL: Q: And what this shows, this is price
9 comparisons showing the initial prices for 20
10 proponents who responded to the Bio-Energy Call, is
11 that correct?

12 MS. VAN RUYVEN: A: That's correct.

13 MR. QUAIL: Q: And the final column, Levelized Adjusted
14 Bid Price, I take it that generically this is the
15 equivalent of the average levelized adjusted price
16 that you spoke of earlier for the 2006 call?

17 MS. VAN RUYVEN: A: That's correct, so it would equate
18 to the \$88 per megawatt hour.

19 MR. QUAIL: Q: Yes, and it also would essentially be
20 equivalent to the \$41 levelized adjusted price
21 attached to your DSM package.

22 MS. VAN RUYVEN: A: Yes, it would.

23 MR. QUAIL: Q: So just to make sure we're comparing
24 apples and apples here. And it appears from that
25 column that the levelized adjusted bid price of the
26 ranked bids, ranked according to price, range from 111

1 all the way up to \$395 per megawatt hour, is that
2 correct?

3 MS. VAN RUYVEN: A: That's correct.

4 MR. QUAIL: Q: And if I understand correctly, then
5 awarded EPAs, these are the four successful proponents
6 is what it says, range from 107 to 114 dollars per
7 megawatt hour.

8 MS. VAN RUYVEN: A: That's correct.

9 MR. QUAIL: Q: Now, the more incremental supply we add
10 to the system, the higher our rates go. Isn't that
11 right?

12 MS. VAN RUYVEN: A: Well, new supply does have a rate
13 impact.

14 MR. QUAIL: Q: Yes. And one of the issues that I
15 believe was discussed in your testimony yesterday, I
16 believe in the context of a discussion of DSM as
17 opposed to IPP resources, was a reference to diversity
18 of the portfolio. Do you recall that discussion?

19 MS. VAN RUYVEN: A: I recall that.

20 MR. QUAIL: Q: And the nature of that, I guess, to put
21 it in general terms, one might say it's good to have
22 more than one kind of egg in your basket.

23 MS. VAN RUYVEN: A: Yeah. The conversation we had
24 yesterday was in the context of our broader definition
25 of cost-effectiveness is not just lowest cost. It
26 includes diversity of resources.

1 MR. QUAIL: Q: Okay. But the point is that you
2 shouldn't be reliant only on one type of resource,
3 that there's advantages, flexibility advantage in
4 having more than one type of resource available to
5 you.

6 MS. VAN RUYVEN: A: Yes, that's correct.

7 MR. QUAIL: Q: And we have discussed, there's a whole
8 series of different kinds of resources available to
9 you, isn't that right?

10 MS. VAN RUYVEN: A: That's true.

11 MR. QUAIL: Q: But the IPP, let's take again the
12 analogy of the egg in the basket, I put it to you this
13 is a pretty expensive egg to be sitting in a basket
14 with the other resources, isn't it?

15 MS. VAN RUYVEN: A: Well, as Mr. Elton said, it's
16 within the cost range of us developing or expanding
17 our own Heritage resources, so those are our two
18 supply-side options. You have DSM on the one hand and
19 then you have expanding our own Heritage or building
20 our own or buying from IPPs. And if you were to look
21 back at Aberfeldie, which was an application that came
22 before this Commission right around the same time as
23 the '06 call, I believe the Aberfeldie levelized cost
24 was \$84 and that was rebuilding our own asset, which
25 compared very favourably to the IPP average Call.

26 So those supply additions are more

1 expensive than the DSM, but then back to the cost-
2 effectiveness broader definition of having diversity
3 of resources is important to reliability in our
4 system.

5 MR. QUAIL: Q: If you had gotten a bio-energy bid at
6 the cost of the energy you're getting from the
7 Aberfeldie project, that would have been right at the
8 top of your selection of projects, wouldn't it?

9 MS. VAN RUYVEN: A: Absolutely. I mean, if we'd gotten
10 an \$84 bid, that would have been one of the contracts
11 we awarded.

12 MR. QUAIL: Q: Better than the pack, that's better than
13 the pack even compared to the 2006 call.

14 MS. VAN RUYVEN: A: The Aberfeldie?

15 MR. QUAIL: Q: Yes.

16 MS. VAN RUYVEN: A: It's close though.

17 MR. QUAIL: Q: Yes.

18 MS. VAN RUYVEN: A: There were bids in the 2006 Call
19 that were quite a bit less than Aberfeldie.

20 MR. QUAIL: Q: Yes. But presumably if Aberfeldie were
21 one of those bids, it would have made the grade. In
22 the 2006 Call, it would have been one of the approved
23 projects, presumably, according to your methodology.

24 **Proceeding Time 10:28 a.m. T25**

25 MS. VAN RUYVEN: A: Yes, and again, we don't -- we also
26 have to -- yeah. If it was technically feasible and

1 passed all of the other screens that we put IPPs
2 through, including First Nations, financeability risk
3 and such, then it would have received an EPA.

4 MR. QUAIL: Q: I say that because --

5 MR. ELTON: A: Sorry, if I -- I just want to get back
6 to the -- if you don't mind the eggs in one basket
7 analogy.

8 MR. QUAIL: Q: Yes.

9 MR. ELTON: A: And I'm afraid I'm going to do this
10 again. I mean, the point about diversity is that you
11 don't just have eggs. So, if the IPP power is the
12 most expensive -- you know, rather than looking at it
13 as the most expensive egg, it's a different thing.
14 And if you look at most jurisdictions around again,
15 OECD countries right now, almost all of them are
16 mandating or encouraging the development of renewable
17 power projects and, you know, wind power, run-of-the-
18 river power, solar power and so on. And I think it's
19 because there's a belief that sooner or later we are
20 going to need -- you know, there is going to have to
21 be a transformation of the whole industry towards
22 those kinds of projects. And that it's in our
23 interest to make sure that we learn about them,
24 hopefully see the costs come down, as they have for
25 wind power, for example. And facilitate the
26 development of an industry.

1 So that's a general approach that many
2 governments have taken. And yes, in most cases, the
3 egg, to use your analogy, that they're buying or
4 building is more expensive than other alternatives.
5 But again, I think it's a deliberate approach to
6 diversify. So I think diversification in its nature
7 means that you can't just say, "Well, look at -- you
8 know, look at them all, they're all the same, pick the
9 cheapest one." The whole idea of diversification is
10 that you're -- is that they're not all the same and
11 that you may need some of that.

12 MR. QUAIL: Q: And presumably one attaches some kind of
13 cost or value to the different characteristics that
14 these different resources or different eggs might
15 have, is that right?

16 MR. ELTON: A: No, one does. And I think the question
17 of how quickly you do it, and what risk you take, and
18 who's paying the freight, those are all very relevant
19 questions.

20 MR. QUAIL: Q: Yes.

21 MR. ELTON: A: And my point is, though, that if you
22 think about our LTAP, which includes, you know, a
23 proposed 3,000 pre-attrition Call, it looks for a
24 mixture, and that -- and it looks for a balance and,
25 as it happens, that balance is the kind of balance
26 that people around North America and around Europe and

1 so on are also looking for.

2 MR. QUAIL: Q: I won't dwell on this, but perhaps you'd
3 agree with me that what might appear to be a balance
4 in a jurisdiction which heavily relies on GHG-
5 intensive resources like burning coal might look very
6 different from one that is 80 percent clean and
7 hydroelectric to start with. You'd agree with me that
8 those are different kinds of objectives that need to
9 be met in those two different jurisdictions?

10 MR. ELTON: A: Where the discussion is just about GHGs,
11 yes. I think if you look at how people define -- so
12 when people have renewable portfolios, then, there's
13 the way they define renewable energy generally doesn't
14 include large hydro. In other words, there is a whole
15 -- we are, of course, B.C. Hydro's a very big
16 proponent of large hydro projects, and their value in
17 our society. But in terms of, again, the future of
18 the industry, you will see skepticism about large
19 hydro projects, and therefore in the eyes of some of
20 those jurisdictions, our large hydro and their coal
21 and gas are similar. I realize, though, that if
22 you're talking about greenhouse gases only, then
23 you're right, that our system is very different.

24 MR. QUAIL: Q: I assume you're also familiar with
25 public skepticism about small-scale hydro projects,
26 for example, the public reaction to some of the local

1 run-of-river projects that --

2 MR. ELTON: A: Well, and we'll always be consistent
3 that we expect any IPP, whatever its fuel source, to
4 go through the same -- you know, to go through the
5 right environmental assessment processes that are set
6 by the elected government, and only those projects
7 that pass those processes will be acceptable to us.

8 MR. QUAIL: Q: Now, Mr. Elton, winding back a couple of
9 minutes in your testimony now, you used the phrase
10 "sooner or later". Sooner or later, that we'd be
11 requiring -- or that this change would be happening in
12 the nature of our resources, I believe it was the gist
13 of your discussion. But your phrase was "sooner or
14 later".

15 You'd agree with me if we need it later
16 rather than sooner, you know, a couple of years from
17 now, five, ten years from now, those rivers will still
18 be there to be dammed with small hydro projects, isn't
19 that right?

20 MR. ELTON: A: I certainly agree that, yes, the rivers
21 will still be there, yes.

22 MR. QUAIL: Q: If they're not, I hope that we haven't
23 relied on weirs and turbines to generate electricity.

24 MR. ELTON: A: I believe that five to ten years from
25 now we can say comfortably that the rivers will still
26 be there, Mr. Quail.

1 MR. QUAIL: Q: And the wind will still be blowing, one
2 hopes, as well.

3 MR. ELTON: A: That I'm even more certain of.

4 MR. QUAIL: Q: These resources hopefully are not going
5 away and can be brought to bear when they're required,
6 in principle.

7 **Proceeding Time 10:33 a.m. T26**

8 MR. ELTON: A: The resources, I believe, will have a
9 very long-term existence, yes.

10 MR. QUAIL: Q: I believe that -- this is just putting a
11 very quick gloss on things, but it's in the discussion
12 with Mr. Wallace, we had established that if there --
13 and correct me if I'm wrong, that one of the issues in
14 relation to the contracting for IPP source power, is
15 that to the extent that we may have surpluses on our
16 hands from time to time, we rely on sales into the
17 market in order to recoup that cost. Is that either
18 established or do you agree if it hasn't been, that
19 that's true?

20 MR. ELTON: A: I believe it was established, and I also
21 agree that that's true.

22 MR. QUAIL: Q: And you'd agree with me the electricity
23 market prices are highly sensitive to natural gas
24 prices in this region?

25 MR. ELTON: A: They are.

26 MR. QUAIL: Q: And you agree with me that natural gas

1 prices have fallen dramatically along with other
2 commodities in the past few months?

3 MR. ELTON: A: They have fallen, as have other
4 commodities, yes.

5 MR. QUAIL: Q: Natural gas, and correct me if your
6 understanding is different from mine, but is currently
7 trading in the \$4 and a few cents range per gigajoule.
8 Is that right?

9 MR. ELTON: A: In that range, yes.

10 MR. QUAIL: Q: We'll leave it to other panels to be
11 more precise.

12 I would draw your attention to Exhibit B-1,
13 the application, page 4-16, and in particular Figure
14 4-2 entitled "Natural Gas Price Scenarios at Sumas Hub
15 by Calendar Year".

16 MR. ELTON: A: Yes.

17 MR. QUAIL: Q: So the start date for this is 2008. And
18 I'd like you to look at the projection for calendar
19 2009, which appears to me to range from a low of \$6 to
20 a high of \$9. Do you agree with me?

21 MR. ELTON: A: I do agree with you.

22 MR. QUAIL: Q: And of course I'm not faulting your
23 projection because we say, things have been knocked
24 sideways in the last little while, and so I think
25 we've already established that natural gas is trading
26 today well below the low gas forecast.

1 MR. ELTON: A: Yes.

2 MR. QUAIL: Q: In fact it's about two-thirds of the low
3 gas forecast, \$4 range compared to 6.

4 MR. ELTON: A: Yes.

5 MR. QUAIL: Q: You don't need a calculator for that
6 one. Even I can handle that one.

7 So the ability to earn income through the
8 resale of surplus electricity on the market is going
9 to be highly sensitive to natural gas prices in the
10 medium term, isn't that right?

11 MR. ELTON: A: I think that's right, yes. I mean,
12 we're making an assumption that natural gas will
13 continue to be the swing resource. I believe that's a
14 good assumption at a high level, and there will be a
15 panel that can, you know, discuss in more detail
16 whether, frankly, whether they also believe that. But
17 that's my understanding.

18 MR. QUAIL: Q: Yes. Yes, and I wouldn't ask this panel
19 to be any more precise than that.

20 But I put it to you that this scenario
21 suggests another reason for caution when it comes to
22 committing ratepayers in an uncertain environment to
23 energy supply which is potentially surplus to our
24 needs.

25 MR. ELTON: A: Certainly, any time that you buy
26 something on a long-term contract, that you -- if you

1 expect to sell it, and if you expect that you're going
2 to have to sell it on a short-term basis, clearly the
3 -- I think I said this yesterday, the price that you'd
4 have to sell it for is a very important issue. Now, I
5 mean, there are other uncertainties and of course one
6 of the points of the self-sufficiency policy is to
7 make sure that we don't put ourselves in a position
8 where we'll be short and where we'll be importing
9 power, because if you believe that there is a
10 reasonable probability that let's say 20 years from
11 now that energy will be much more expensive in real
12 terms, you wouldn't want to be looking back then and
13 saying, "Who were those people that left us short?"

14 MR. QUAIL: Q: That could be a little bit like looking
15 at the winning numbers in yesterday's lottery and
16 kicking yourself for choosing different numbers, isn't
17 it?

18 **Proceeding Time 10:38 a.m. T27**

19 MR. ELTON: A: No, I don't think so. No. I mean, but
20 it's an interesting analogy. I think that, you know,
21 if you have a serious discussion with -- you know,
22 with people that are involved with utilities, or with
23 Ministers of Energy and so on, the one thing that you
24 worry about the most is that you will have missed the
25 boat, and that you will end up being short, either
26 because you haven't taken care of your assets, or

1 because you didn't anticipate what was going to
2 happen. Because, as I said earlier, the cost of being
3 short to our economy, in turn quality of life, is
4 unacceptable. And if it turned out that you had a bit
5 too much, and that you could have made more money if
6 you didn't have a bit too much, then I think most
7 people would agree -- people wouldn't even -- that
8 would be a risk worth taking. But it is not worth
9 taking the risk to be actually short, to be physically
10 not being able to supply your customers.

11 MR. QUAIL: Q: What's the approximate time frame in
12 terms of IPP-source power from the issuing of a Call
13 to operation of a facility?

14 MS. VAN RUYVEN: A: Well, it varies, but in this Clean
15 Call, we have the ability to have staggered start
16 dates. So from the time we award those contracts in
17 sort of the summer -- probably the earliest project
18 that would come on would be 2012, which quite -- is
19 probably very optimistic. Probably more towards the
20 2016 timeline.

21 MR. QUAIL: Q: So, somewhere around five years,
22 perhaps, give or take?

23 MS. VAN RUYVEN: A: Yeah, and I actually think in the
24 other --

25 MR. GODSOE: And there is actually a response, virtually
26 asked and answered, Exhibit B-12, BCUC panel IR 1-

1 point -- I think 28.1. Let's test my memory.

2 MS. VAN RUYVEN: A: We've also taken a stab in the
3 evidentiary update on page 29 to show you how that
4 2100 gigawatt hours flows in. It's table 2-10, page
5 29. And actually the earliest is 2014.

6 MR. QUAIL: Q: Okay.

7 MS. VAN RUYVEN: A: That you start to see some of that
8 Clean Power Call come on-line, with it all there
9 basically by fiscal 2017, because we are relying on
10 that 2100 gigawatt hours to meet the self-sufficiency.

11 MR. QUAIL: Q: It occurs to me the risk of B.C. Hydro
12 finding itself physically short of electricity, unable
13 to obtain energy during that time frame, is extremely
14 small.

15 MS. VAN RUYVEN: A: During which time frame?

16 MR. QUAIL: Q: That's now to 2014. 2014, 2015. During
17 that -- this coming time frame, the chances of being
18 unable to lay your hands on required energy source --

19 MS. VAN RUYVEN: A: No, I wouldn't agree with that.
20 We've had a couple of years where we -- our system has
21 been very tight. That's one of the reasons we signed
22 curtailable contracts with our industrial customers
23 and we have actually called on that curtailable load.
24 We've had some units out, some unexpected outages,
25 part of an aging infrastructure. So I wouldn't say
26 it's very low. I think we have found ourselves in our

1 three-year operating window somewhat concerned and
2 nervous about our ability to meet load.

3 MR. QUAIL: Q: Including meeting load through market
4 purchases or operating Burrard?

5 MS. VAN RUYVEN: A: We look at all of those resources
6 when we are in the operating window and, yes, we have
7 found ourselves fairly tight.

8 MR. ELTON: A: So, I think there's a -- thank you.
9 Thank you. There's a balance to be struck here, I
10 think. I think, first of all, it's a very important
11 question you're asking, and whether or not it -- and
12 how it relates to the LTAP, the person responsible for
13 the operation of the system in the next three-year
14 window is Mr. O'Riley on Panel 2.

15 MR. QUAIL: Q: Yes.

16 MR. ELTON: A: And he can discuss with you the
17 probabilities. And what we do is, probability
18 analysis before each year, and look at for the next
19 three winters, it's really the winters we're concerned
20 about, what is the probability that we will be short.
21 And you know, there are definitely resources available
22 to us as you just mentioned, including imports,
23 including load curtailment, as Ms. Van Ruyven said.
24 And we do probability analysis on what is the risk of
25 our equipment failing.

26 So, I'd encourage you, actually, to -- you

1 know, get the more precise answers. My view, as Ms.
2 Van Ruyven said is, we certainly -- you never lose
3 concern about this. You never know whether you're
4 going to have the coldest winter for X years.
5 However, you know, we have over the last few years had
6 quite high load. We've proven able to deal with it.
7 And because of some of the issues around load
8 forecasts for the next year or two, which we've just
9 talked about, that, frankly, eases the pressure.

10 MR. QUAIL: Q: Yes.

11 MR. ELTON: A: But I think if you go back to the Energy
12 Plan and the self-sufficiency target, one of the
13 reasons why it was chosen was for just these reasons.
14 In other words, that it wasn't -- I mean, at the time,
15 the economy was booming, had been for several years.
16 Assets, you know, assets aging as you mentioned. And
17 so, the reason for -- I think one reason for the
18 critical water definition in the self-sufficiency
19 target was just to make sure that we get there. And
20 so I believe we'll get there, and I also believe that
21 while I agree with Ms. Van Ruyven's comment that we're
22 concerned, I also believe that we have good plans in
23 place to deal with our concerns.

24 **Proceeding Time 10:43 a.m. T28**

25 MR. QUAIL: Q: If we are heading into a long and deep
26 recession, I suggest to you that we're probably self-

1 sufficient in terms of capacity and energy over the
2 coming period.

3 MR. ELTON: A: Well, our LTAP is based -- and
4 evidentiary update is based on certain assumptions
5 that show us getting to there by 2016. Clearly if the
6 load that we experience during that period at
7 different weather is lower than we've expected,
8 clearly -- and other things pan out, clearly we'll end
9 up comfortably getting there. But we do expect to get
10 there.

11 And again, and the reason why I'm, you now,
12 emphasizing this is because this is -- you know, I
13 certainly don't want to create the sense that we don't
14 have confidence in our system. So if we achieve self-
15 sufficiency at critical water, because of the
16 definition of critical water, that will help in our
17 conclusion that we will not be physically short.

18 MR. QUAIL: Q: Now, in the testimony yesterday there
19 was discussion about issues of deliverability with
20 respect to any resource. Every resource has potential
21 deliverability issues. Is that right?

22 MS. VAN RUYVEN: A: That's right, yes.

23 MR. QUAIL: Q: And I would like to discuss that a
24 little bit in the context of contracts with
25 independent power producers. As I recall in the
26 previous LTAP proceeding, B.C. Hydro assumed an

1 attrition rate from the 2006 Call of 40 percent. You
2 recall that number?

3 MS. VAN RUYVEN: A: In which proceeding?

4 MR. QUAIL: Q: This was in the previous LTAP
5 proceeding.

6 MS. VAN RUYVEN: A: I believe we have put forward 30
7 percent attrition.

8 MR. QUAIL: Q: 30 percent attrition.

9 MS. VAN RUYVEN: A: Yes.

10 MR. QUAIL: Q: Thank you.

11 THE CHAIRPERSON: Well, to be precise, 20 and 10 I think
12 was the number, adds to 30.

13 MR. QUAIL: I obviously have the weakest memory --

14 MR. GODSOE: It was actually 23 percent and 7.

15 THE CHAIRPERSON: Seven, oh.

16 MR. QUAIL: My friend Mr. Godsoe's --

17 MR. GODSOE: Maybe you should put that to the panel so
18 you have that on the record.

19 MR. QUAIL: Q: Does that sound correct to you?

20 MS. VAN RUYVEN: A: Yes, I'm sure it's correct.

21 MR. QUAIL: And Mr. Godsoe's memory for numbers,
22 including IR references, never ceases to astonish me.
23 I don't even try to compete with him.

24 MR. GODSOE: I hope that's not a Rain Man comment, but
25 I'll take that as a compliment.

26 MR. QUAIL: Q: What is the approximate attrition rate

1 to date, actual attrition rate so far in the 2006
2 Call?

3 MS. VAN RUYVEN: A: It's at 67 percent.

4 MR. QUAIL: Q: And is that --

5 MR. GODSOE: Sorry, just to interrupt. Maybe it would be
6 of assistance if we all had an IR that deals with this
7 attrition question in front of us. I believe it's
8 Exhibit B-12, BCUC IR 3.266.1.

9 THE CHAIRPERSON: Can I trouble you for that number
10 again, Mr. Godsoe?

11 MR. GODSOE: With pleasure. Exhibit B-12, BCUC Hydro
12 response to BCUC IR 3.266.1.

13 MR. QUAIL: Q: So I'll give the panel an opportunity to
14 review that to refresh their memories. I'm not going
15 to be going into greater precision.

16 So again, my question was the attrition
17 rate to date, is there a more precise answer flowing
18 from --

19 MS. VAN RUYVEN: A: Well, the total, if you look at the
20 table at the bottom of the IR, you'll see that it is
21 67 percent. However, right after we awarded the 2006
22 Call awards, the Energy Plan came out and said you
23 could not have coal-fired plants unless they were
24 fully sequestered. And by far our largest project
25 that we awarded was a coal-fired plant up in the Peace
26 River area. So if you take the coal-fired/biomass

1 projects out of there, the attrition is 41 percent.

2 MR. QUAIL: Q: And is that expected to be the end of
3 the story as far as attrition goes then? Are you
4 counting on the -- are you banking on everything else
5 coming in?

6 MS. VAN RUYVEN: A: Well, we review the IPPs and their
7 progress towards their projects every month. So there
8 is -- there's the possibility that number could go
9 either way. It could get better or it could get
10 worse.

11 MR. QUAIL: Q: Okay. But I think it goes without
12 saying that just because you sign up for IPP power
13 doesn't mean you can bank on receiving it.

14 MS. VAN RUYVEN: A: Well, no, that's why we build in
15 attrition rates to our calls, for that very reason.

16 MR. QUAIL: Q: Yeah. On the other hand, if there is a
17 what might be considered a pleasant or unpleasant
18 surprise and the power all arrives, then you've got to
19 deal with the full amount that you've contracted for.

20 MS. VAN RUYVEN: A: That's correct, yes.

21 MR. QUAIL: Q: But there's also uncertainties, as I
22 think you referred you yesterday, around DSM as a
23 resource for meeting future load requirements, is that
24 right?

25 MS. VAN RUYVEN: A: That's correct.

26 MR. QUAIL: Q: And one of those again is the issue of

1 deliverability.

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

3 MS. VAN RUYVEN: A: That's right. So in the DSM
4 instance, it's really around relying on 1.7 million
5 people to participate in our programs and that we
6 reach the take-up rates that our business cases
7 project. And that the money we are spending is
8 actually driving the results that we hope to get, the
9 9600 gigawatt hours.

10 MR. QUAIL: Q: But in terms of exposure to risk, you've
11 got a \$41 DSM package, if I can call it that, in terms
12 of average levelized adjusted price. Let's suppose
13 that in the course of events you have a deliverability
14 failure, let's say to the extent of 50 percent. That
15 is, you know, half of the achieved savings don't
16 materialize. Okay? Then one way of looking at that
17 is that in effect what you are getting is an \$82
18 resource rather than 41. You've sunk the money. It
19 only achieves half of what you've projected. It's an
20 \$82 resource, is that right?

21 MS. VAN RUYVEN: A: That's correct. And then we have a
22 different problem on our hands in that we have a way
23 bigger gap and hence probably have to look to the
24 supply side of the equation at that point to close the
25 gap to meet the self-sufficiency.

26 MR. QUAIL: Q: Yes. And one of the advantages of DSM

1 programs, is that a DSM program can be adjusted and
2 evolved as events unfold, isn't that correct?

3 MS. VAN RUYVEN: A: I would agree with that, yes.

4 MR. QUAIL: Q: So if it isn't performing well, you can
5 tweak it, or you can replace it, for example.

6 MS. VAN RUYVEN: A: Yes, you can.

7 MR. QUAIL: Q: Once you've signed the 20 or 30 year
8 contract, you don't have that luxury do you, with an
9 IPP?

10 MS. VAN RUYVEN: A: No, you are locked into the terms
11 and conditions of that commercial contract. However,
12 you do have the certainty for 30 years of
13 deliverability because you've also factored in
14 liquidated damages and they have -- you have the
15 certainty of the kilowatt hours being delivered.

16 MR. QUAIL: Q: We're very pleased that you've got the
17 liquidated damages in those contracts, by the way.
18 It's a very good feature.

19 I've just got a couple of other issues I
20 want to touch on. One is this question of fuel
21 switching. That is electricity to natural gas fuel
22 switching, and we heard my friend Mr. Ghikas suggest
23 in his opening statement that a strategy of fuel
24 switching from electricity to natural gas, or a
25 preference in that direction, is consistent with
26 government policy. So can you tell us whether it is

1 your understanding or not that that's a correct
2 statement?

3 MS. VAN RUYVEN: A: I don't believe there's any
4 government policy that specifically says that B.C.
5 Hydro should encourage switching from electricity to
6 natural gas.

7 MR. QUAIL: Q: And yesterday, Ms. Van Ruyven, you
8 talked about discussions you've been involved in with
9 government on this question.

10 MS. VAN RUYVEN: A: That's correct.

11 MR. QUAIL: Q: Can you identify any particular
12 governmental organizations that you have been involved
13 in those discussions with?

14 MS. VAN RUYVEN: A: Well, my reference was to a
15 specific meeting that was held in Victoria before
16 Christmas. I was in attendance, along with the Deputy
17 Minister of the Ministry of Energy, Mines and
18 Petroleum Resources, Greg Reimer; the Climate Change
19 Secretariat, Graham Whitmarsh; and Terasen was also
20 present, Randy Jespersen, as well as one of his VPs,
21 Doug Stout and myself.

22 MR. QUAIL: Q: And what is the Climate Change
23 Secretariat?

24 MS. VAN RUYVEN: A: That is a ministry that reports
25 directly to the premier to advise him on matters of
26 climate change.

1 MR. QUAIL: Q: Would it be fairly characterized as the
2 highest level --

3 MR. ELTON: A: Sorry, just to be clear. It did report
4 to the premier at the time of your meeting. It now
5 reports to the -- it's part of the Ministry of
6 Environment now, just to be clear.

7 MR. QUAIL: Q: That's correct.

8 MR. ELTON: A: Yeah. I'm sorry, it reported to the --
9 it was attached to the premier's office. That's what
10 we should be saying.

11 MR. QUAIL: Q: That's correct. Would it be correct
12 then to characterize the Climate Change Secretariat as
13 really the highest level expert advisory body in
14 relation to the formulation of climate change policy
15 to the political players?

16 **Proceeding Time 10:53 a.m. T30**

17 MR. ELTON: A: Well, the Cabinet formulates climate
18 change policy and this meeting was with officials.
19 And just to be clear we get policy direction from
20 government through the Ministry of Energy, Mines and
21 Resources, so -- however it is often convenient, if
22 we're dealing with deputies, for example, to have a
23 deputy of a relevant department there at the same
24 meeting. But -- so in terms of -- I don't think it
25 matters which is high-level. In other words, the two
26 deputies are the highest level of staff.

1 MR. QUAIL: Q: Yes.

2 MR. ELTON: A: Yeah.

3 MR. QUAIL: Q: The Climate Change Secretariat, I guess,
4 in the vernacular is sort of the high-level in-house
5 think tank of government on the issue of climate
6 change. Is that a fair way to put it?

7 MR. ELTON: A: Yeah. That would be fair, yeah.

8 MS. VAN RUYVEN: A: I think so.

9 MR. ELTON: A: Yeah. More than a think tank. I mean,
10 it actually promulgates policy and stuff.

11 MR. QUAIL: Q: Yes, okay. And so, when you related
12 your experience in terms of discussions with
13 government, that specifically was the discussion of
14 the meeting involving the Secretariat and Deputy
15 Minister, and Mr. Jespersen.

16 MS. VAN RUYVEN: A: Yes, it was.

17 MR. QUAIL: Q: Just very briefly picking up from my
18 friend Mr. Wallace's discussions about Smart Meters.
19 Are you aware that the official opposition, the
20 critic, has called for scrapping of the Smart Meter
21 initiative?

22 MR. ELTON: A: Yes.

23 MR. QUAIL: Q: And are you aware that there will be a
24 provincial election in the middle of May of this year?

25 MR. ELTON: A: I am.

26 MR. QUAIL: Q: To be moving into a realm which is even

1 more uncertain than anything else that we've discussed
2 this morning, so I won't go further into that, and
3 those are all of the questions I've got. Thank you
4 very much.

5 MR. ELTON: A: Thank you.

6 THE CHAIRPERSON: Thank you, Mr. Quail. Mr. Fulton, I
7 see you've --

8 MR. FULTON: Yes, Mr. Chairman. We now have before the
9 Commission Panel Order-in-Council 074, which was not
10 marked as an exhibit. The Heritage -- to Special
11 Direction HC No. 2 appears in Exhibit B1-1, in
12 Appendix B-4, as does the January amendment -- January
13 '08 amendment to that Heritage Special Direction. So
14 I'm going to suggest that we mark the most recent
15 amendment, page 6-A of Appendix B-4, in Exhibit B1-1,
16 so that puts all those bits of that Special Direction
17 in that same place.

18 MR. GODSOE: Yeah, and there's one other little bit
19 that's attached to Exhibit B-10 which deals with
20 locking the Heritage contract in perpetuity. So, my
21 friend is right, though, most of it is indeed 1-1.

22 THE CHAIRPERSON: Thank you. We'll proceed then.

23 MR. FULTON: Thank you.

24 **(ORDER IN COUNCIL 074, DATED FEBRUARY 17, 2009, ADDED**
25 **TO EXHIBIT B-1, APPENDIX B-4 AS PAGE 6A OF 13)**

26 MR. FULTON: So, just to clarify again, the amendment

1 which is dated February 17th, 2009 will now form part
2 of Appendix B-4 to Exhibit B1-1, and it will be marked
3 page 6A of that appendix. Page 6 is the earlier
4 amendment in January of 2008.

5 THE CHAIRPERSON: Thank you, Mr. Fulton. Mr. Austin?

6 **CROSS-EXAMINATION BY MR. AUSTIN:**

7 MR. AUSTIN: Q: Good morning, Commissioners. Good
8 morning, panel.

9 MR. ELTON: A: Good morning.

10 MR. AUSTIN: Q: Panel, I'd like to start off in the
11 easiest area first, it's called "Burrard Thermal".
12 I'd like to refer you to Exhibit B-10, which is the
13 evidentiary update, page 29.

14 MR. ELTON: A: I've got it, yeah. Yes.

15 MR. AUSTIN: Q: And in addition to that, in Exhibit B-
16 10, I'd like to refer you to attachment 1, which is
17 the Order that B.C. Hydro's requested with respect to
18 these proceedings. And when I look at Table 2-10,
19 there is the line that says, "Existing and committed
20 supply," and the second entry is "Heritage
21 thermal/market purchases". Do you see that?

22 MS. VAN RUYVEN: A: We see that.

23 MR. AUSTIN: Q: And when I look across the entries with
24 respect to that line, it essentially shows that
25 Burrard is in this base resource plan at 3200 GWh. Do
26 you see that?

1 MS. VAN RUYVEN: A: I see that.

2 MR. AUSTIN: Q: And then --

3 MR. GODSOE: I think we can go back to an IR, but it's
4 not just Burrard. Prince Rupert is also in there.

5 MR. AUSTIN: Q: And that's what I want to confirm. I
6 want to confirm is that -- are you showing Prince
7 Rupert as 200 GWh in that table?

8 MS. VAN RUYVEN: A: Probably best to check with Panel
9 2, would be able to answer that.

10 **Proceeding Time 10:58 a.m. T31**

11 MR. AUSTIN: Q: Thank you. I'd like to refer you to
12 the AMEC report, which is Exhibit B-1-1, and that's
13 Appendix J-1. Do you have that? Just coming.

14 MR. GODSOE: And just while they're getting that, Mr.
15 Austin, if you want to follow up in Prince Rupert,
16 that would be with Panel 2.

17 MR. AUSTIN: Q: Thank you. And it's page 9 of the AMEC
18 report. And if this question is for another panel,
19 just let me know. Because we've noticed in the AMEC
20 report on page 9, second paragraph, it talks about

21 "The minimum capital investment over the
22 period 2010 to 2012 is however likely no
23 less than about 55 million to purchase the
24 critical spares..."

25 Do you see that?

26 MR. ELTON: A: Yes.

1 MR. AUSTIN: Q: And when we look at the order
2 requested, and this is under entry 2, you're
3 requesting expenditures of 1.6 million of sustaining
4 capital in F2010 required to ensure the reliability of
5 Burrard. Do you see that?

6 MS. VAN RUYVEN: A: Yes, we see that.

7 MR. AUSTIN: Q: Could you explain to me why there is
8 this apparent difference in terms of capital
9 expenditures as set out in the AMEC report, and
10 capital expenditures as requested in your order?

11 MR. GODSOE: I think virtually asked and answered, but
12 the panel if they can turn to Exhibit B-1, section
13 6.2.3 on Burrard, I think we lay out why we're asking
14 for a small amount now and what we plan to do with the
15 rest of the capital expenditures later.

16 THE CHAIRPERSON: Mr. Godsoe, I'm sorry, can you give me
17 the page number again?

18 MR. GODSOE: I'm just going to find that for you. So it
19 begins on page 6-14, line 12, where we talk about
20 business risk management, and continues over till page
21 6-16 into future approval processes.

22 MR. AUSTIN: Q: So perhaps somebody on the panel could
23 just enlighten me as to what the apparent discrepancy
24 is, and how you're going to cover it, and where you're
25 going to find the money and those sorts of things.

26 MR. ELTON: A: Well, I think the key point is under

1 6.2.3.4 which is page 6-15-16, that you're right,
2 we've referred to these expenditures referred to in
3 the AMEC report. Of course there's further work to do
4 to harden up that plan and to look at the precise
5 dollars on the precise plan. There will therefore be
6 a project plan, and as it says here, there'll be
7 further BCUC determinations sought, either with a
8 future RRA or with another application.

9 So in other words, we are just asking for a
10 small sum of money right now. The kind of amounts, if
11 they are the right amounts, to do the kind of work
12 described in the AMEC report will be dealt with
13 through our future application. And in the meantime
14 the capital we're spending on Burrard is already
15 reflected in the -- you know, in our overall
16 generation budget. And Panel 2 could certainly give
17 you more details of whatever views we have of, you
18 know, how far along are we in this process, what are
19 the likely scenarios and so on.

20 MR. AUSTIN: Q: So at the present time you're showing
21 it as being capable of approximately 3,000 GWh, but
22 the plan isn't in place in terms of the reliability
23 with respect to applying and receiving approval for
24 expenditures.

25 MR. ELTON: A: I'd say that we have, you know, a report
26 here and our own work done. Our own, you know, again

1 we are talking about?

2 MR. AUSTIN: Q: Yes.

3 MR. ELTON: A: Well, you know, I don't believe the word
4 "energy" is actually -- well, yes, sorry, it's the
5 third paragraph, "to replace the firm energy supply",
6 yes.

7 MR. AUSTIN: Q: Yes. It says, "firm energy supply",
8 doesn't it?

9 MR. ELTON: A: Yes, it does. That's the part that I
10 -- I think I read that out earlier, yes.

11 MR. AUSTIN: Q: And would you agree with me that there
12 is quite a big difference between energy and capacity?

13 MR. ELTON: A: I would.

14 MR. AUSTIN: Q: And if you turn to page 45 of the
15 energy policy -- excuse me, that's the wrong
16 reference.

17 MR. GODSOE: Do you want policy action number 22?

18 MR. AUSTIN: Just hang on a second.

19 MR. GODSOE: Page 57, if that's what you want.

20 MR. AUSTIN: Q: The tab got squashed. So let's go to
21 page 57.

22 MR. ELTON: A: Page 57 of?

23 MR. AUSTIN: Q: The policy.

24 MR. ELTON: A: Thank you. So this is page 57 of 84 of
25 the --

26 MR. AUSTIN: Q: Policy.

1 MR. ELTON: A: -- electricity policies. Yes, yes.

2 MR. AUSTIN: Q: And it says -- this is the actual
3 policies as opposed to the text:

4 "Government supports B.C. Hydro's proposal
5 to replace the firm energy supply from the
6 Burrard thermal plant with other resources.
7 B.C. Hydro may retain Burrard for capacity
8 purposes after 2014."

9 Does it say anything in there about B.C. Hydro may
10 retain Burrard for energy purposes after 2014?

11 MR. ELTON: A: No, it doesn't. And I talked about this
12 earlier. Again, I believe the wording here which
13 talks about the proposed approach by B.C. Hydro is
14 different from the wording of other policy statements
15 in that it specifically refers to a proposed approach
16 by B.C. Hydro. As you are aware, we have modified our
17 approach, and I still believe that the approach we've
18 taken is consistent with the direction of this policy
19 and reflects, you know, an appropriate view of reality
20 and of striking an overall balance.

21 MR. AUSTIN: Q: And although you are not the
22 government, if you look on page 14, it describes the
23 plant as being outdated, inefficient, and costly to
24 run. Why would a government set a policy that would
25 have Burrard producing energy when it's outdated,
26 inefficient and costly to run?

1 MR. ELTON: A: Well, first of all, I think the key
2 point about the plant is that it's old, and I think we
3 all probably recognize as we get older that that
4 doesn't necessarily mean that we are outdated or
5 inefficient or costly to run.

6 I couldn't resist that one.

7 More seriously -- but no, there is a
8 serious point there. In other words, given its age,
9 it actually is, you know, reasonably efficient, it has
10 good environmental standards given its age. But we
11 all recognize and we've talked about this before at
12 previous hearings, that it is old technology and it
13 doesn't have the same heat rate and so on.

14 But again, and I mean, I've -- you know, I
15 think I've used this analogy before. If you have an
16 old car that's outside on your -- you know, it's
17 outside your house and it keeps going and it keeps
18 going and it keeps going, you don't necessarily scrap
19 it as long it's not costing you too much to maintain,
20 because it's providing something for you. At a
21 certain point in the future, you're going to have to
22 make a decision. You know, what you do with that
23 site, what you do with that -- you know, do you --
24 what do you do?

25 Frankly, I think what we've tried to do
26 over the last few years is defer that decision as long

1 as possible because this is an asset that is valuable
2 for B.C. Hydro and for our ratepayers and for
3 particularly people that live in the Lower Mainland,
4 and, you know, and in other words people that live far
5 away from other generation sources that we have.

6 **Proceeding Time 11:09 a.m. T33**

7 So, I think from a government policy point
8 of view, you know that the government has looked in
9 the past at specifically -- should it specifically
10 just tell us to close the thing down? And they've
11 gone away from that. You know, they've not made that
12 decision. They had a panel of MLAs that looked into
13 that a few years ago, and the report that they
14 produced was never made public, and government did not
15 follow through on what, at that time, had been a
16 commitment to close Burrard.

17 So I think it's one of those things where
18 it works in practice, and maybe it doesn't work in
19 theory, and maybe it doesn't fit with everybody's idea
20 of what a plant should be, but it provides value and
21 you know, we should continue to get whatever value we
22 can from it.

23 MR. AUSTIN: Q: But you --

24 MR. ELTON: A: So in other words, I think that's why a
25 government would recognize the reality of what the
26 plant is, but at the same time would not necessarily

1 say, "B.C. Hydro, you must no longer rely on it for
2 energy." And they haven't said that.

3 MR. AUSTIN: Q: But you would agree with me that in
4 policy action item number 22, the word "energy" does
5 not appear.

6 MR. ELTON: A: Okay, I'll just check the precise
7 questions here.

8 MR. AUSTIN: Q: Other than it's to replace the firm
9 energy.

10 MR. ELTON: A: I was going to say, I thought that --
11 thank you, yeah. I think the word does appear in the
12 -- in that sentence, yes. That's right.

13 MR. AUSTIN: Q: But it's with respect to the
14 replacement of firm energy.

15 MR. ELTON: A: It is indeed, yes.

16 MR. AUSTIN: Q: Okay. I'd like to go at this issue in
17 a slightly different way.

18 MR. ELTON: A: Thank you.

19 MR. AUSTIN: Q: And what I'm putting to you is an
20 extract from the 2006 LTAP proceedings before the B.C.
21 Utilities Commission, and it's from volume 8. And
22 this is in relation to a discussion I had with Ms.
23 Farrell with respect to Burrard Thermal. I can't say
24 it's a cross-examination, because I'll just read
25 through this a bit.

26 Line 12, I say, this is me, Mr. Austin,

1 speaking:

2 "MR. AUSTIN: Q: You'll be happy to know
3 that I'm not going to ask any questions on
4 Burrard this time.

5 MS. FARRELL: A: Thank you, Mr. Austin.

6 MR. AUSTIN: Q: So that your '58
7 Chevrolet can stay right where it is."

8 So it seems, Mr. Elton, the concept of this old car
9 has caught on after about ten years.

10 "MS. FARRELL: A: You want it parked in
11 the garage still, right?"

12 Well, I didn't even ask a question. So this is the
13 part that is probably the most important.

14 "...So, those were the things that fell out.
15 The only thing I will say about [it] is --
16 and I will just give you a prelude to after
17 lunch, is that we're very clear that Burrard
18 is no longer economic for providing energy
19 and, really, when you think about providing
20 energy from Burrard, we're just buying from
21 the market. And it's been masking that for
22 several years."

23 Do you see that?

24 MR. ELTON: A: I do see that.

25 MR. AUSTIN: Q: And I'd like to refer you to Special
26 Direction number 10, and I believe that's Exhibit B1-

1 1, Appendix B-2.

2 MR. ELTON: A: I have it.

3 MR. AUSTIN: Q: And I'd like to refer you to Section 3,
4 which is self-sufficiency. And the goal of self-
5 sufficiency is set out in this Special Directive, in
6 Section 3, and at the bottom it says:

7 "Solely from electricity generating
8 facilities within the province.

9 Do you see that?

10 **Proceeding Time 11:13 a.m. T34**

11 MR. ELTON: A: I do.

12 MR. AUSTIN: Q: Now, can you tell me in view of what
13 Ms. Farrell said about Burrard, and the fact that all
14 it is is a mask for imports, how showing it as 3,000
15 GWh in your plan is consistent with the self-
16 sufficiency requirement of SD No. 10?

17 MR. ELTON: A: Thank you. As I read SD No. 10, it
18 says, as you've just read out, that you are capable of
19 meeting supply obligations from electricity generating
20 facilities within the province, and it refers to the
21 firm energy capability of hydroelectric. That's a
22 different issue. So is this plant capable of
23 generating gigawatt hours within the province? Yes,
24 it is, and again I defer to Panel 2 to discuss its --
25 you know, what we have done in terms of bringing units
26 back in service.

1 It's an important point, by the way. I
2 think one of the things we've done in the last few
3 years is actually do work on these units to make sure
4 that they can actually fire up where needed. And I
5 think if we hadn't, I think that would be a different
6 discussion. That would look more like an artificial
7 kind of thing. So it is capable.

8 So as I read that definition, Mr. Austin, I
9 believe that it clearly falls within that definition.
10 And in fact, frankly, its capability is higher than
11 3,000.

12 MR. GODSOE: And for my friend's assistance, it was this
13 IR I referenced yesterday and I said I can't say
14 enough about it. It's Exhibit B-4, a response to BCUC
15 IR 2.215.2, where I think we lay out Burrard vis-à-vis
16 SD 10, and I would invite my friend to visit that with
17 Panel 2.

18 MR. AUSTIN: Yes, I'm familiar with your IRs and the
19 answers, Mr. Godsoe, but sometimes what's written in
20 the IR and what witnesses may have to say might
21 differ.

22 MR. AUSTIN: Q: So the question that I have is, assuming
23 it's capable of production 3,000 GWh, might there be a
24 big difference in reality in terms of what actually
25 happens in relation to the plant, because it's old,
26 that's what the shareholder said; it's unreliable; and

1 is basically not a brand new asset.

2 MR. ELTON: A: Thank you. What we will do is -- you
3 know, we've just described for planning purposes what
4 the SD 10 says. What we will do, as we've always
5 done, is operate our system, or the system as
6 efficiently as we can, and that means at any given
7 time making what we believe to be the right marginal
8 decision with respect to the assets that are available
9 and what their marginal cost is. And again, Panel 2
10 would be able to give you more chapter and verse on
11 how that works.

12 MR. AUSTIN: Q: I'd like to refer to another area in SD
13 No. 10.

14 MR. FULTON: Before we do that, Mr. Chairman, is Mr.
15 Austin going to mark the excerpt from the transcript
16 that he referred to?

17 THE CHAIRPERSON: Probably should, yes.

18 MR. AUSTIN: I'm sorry, I didn't realize it wasn't
19 marked.

20 MR. FULTON: C17-9, I believe.

21 THE CHAIRPERSON: C17-9 was that?

22 MR. FULTON: Yes.

23 THE CHAIRPERSON: Okay, so it will be so marked.

24 THE HEARING OFFICER: C176-9.

25 (EXCERPT FROM VOLUME 8, B.C. HYDRO RRA/IEP/LTAP,
26 NOVEMBER 23, 2006, PAGE 983, MARKED EXHIBIT C17-9)

1 MR. ELTON: A: I'm going to just add one thing, as I'm
2 rereading Ms. Farrell's transcript, that when it talks
3 about masking, and I just want to be very clear that
4 we are not doing any masking of anything. In other
5 words, I believe we're very transparent about what we
6 plan to do and what Burrard can do, and I believe that
7 you'll get any questions answered you want, and I
8 don't think we're masking anything, just to be clear.

9 MR. AUSTIN: Q: Well, would it be fair to say that the
10 reality is that you're showing Burrard on the books as
11 3,000 GWh, but essentially what happens in reality is
12 that that translates into imports?

13 MR. ELTON: A: The reality is, though, that we are for
14 planning purposes putting forward a plan that, with
15 respect to both the Energy Plan Burrard comments you
16 made earlier and with respect to this SD 10, and that
17 for operational purposes we are doing the right thing,
18 and I believe again it's clearly anticipated by the
19 Energy Plan. The point I'm making here is we're not
20 masking anything. In other words we're very clear
21 about what we do.

22 MR. AUSTIN: Q: Let's go back to SD No. 10 and this is
23 in relation to what's commonly referred to as the
24 insurance requirement, and it's in paragraph 3(e). It
25 says:

26 "Exceeding as soon as practicable, but no

1 later than 2026, the electricity supply
2 obligations by at least 3,000 gigawatt hours
3 per year."

4 And it goes on to say,
5 "Solely from electricity generating
6 facilities within the province."

7 Do you see that?

8 **Proceeding Time 11:18 a.m. T35**

9 MR. ELTON: A: I do see that.

10 MR. AUSTIN: Q: Okay. And I'd like to refer you back
11 to page 29 of Table 2-10 from the evidentiary update,
12 which I believe is Exhibit B-10. So that's Exhibit B-
13 10, evidentiary update.

14 MR. ELTON: A: Yeah.

15 MR. AUSTIN: Q: Table 29.

16 MS. VAN RUYVEN: A: Yes, we have that.

17 MR. AUSTIN: Q: And I'd like to refer you to the line
18 under the heading "Surplus/deficit", and it's the
19 entry with respect to the mid-load forecaster plus
20 deficit. See that?

21 MS. VAN RUYVEN: A: Yes, we see that.

22 MR. AUSTIN: Q: Would it be fair to say that this is
23 the line that essentially shows how much "insurance"
24 you have?

25 MS. VAN RUYVEN: A: Yes, that shows that by 2026, as
26 according to Special Direction 10, we have a 3,000

1 gigawatt hour surplus.

2 MR. AUSTIN: Q: And this is not meant to be a legal
3 interpretation, but why is B.C. Hydro not capable of
4 attaining a 3,000 GWh level prior to 2026?

5 MS. VAN RUYVEN: A: We could acquire that surplus
6 sooner. If you read Special Direction No. 10, it
7 actually uses the word "practicable". And we think
8 practicable has a cost-effectiveness test to it, and
9 we think we need to do a lot more analysis before we
10 determine when it's practicable to bring on the 3,000
11 gigawatt hours of insurance. How much would it cost,
12 what could you sell it for in the market and,
13 importantly, do you have the transmission to actually
14 get the insurance out of the province? For example,
15 in a high water year, we could have as much as 13,000
16 gigawatt hours of surplus, and right now the
17 transmission capability is more like 10,000 gigawatt
18 hours. There's a lot of important questions that need
19 to be asked and answered and analyzed before I think
20 we'd be in a position to make a decision on when it's
21 practicable to bring on the insurance.

22 MR. AUSTIN: Q: And I believe this may have been
23 referred to in an IR, but is there anywhere in any
24 regulation or any law or any special direction or
25 similar instrument that defines what is practicable?

26 MR. GODSOE: So, I do object to that question. I think

1 that's calling for a legal interpretation, which I am
2 happy to address in argument, but I don't think it's
3 appropriate to this panel.

4 MR. AUSTIN: I'm not asking for any legal interpretation.
5 I'm just saying, are you aware of any instrument that
6 has the definition of "practicable" in it?

7 MR. ELTON: A: Why don't we go to the IR that you just
8 --

9 THE CHAIRPERSON: We'll go -- we'll look at the IR
10 together.

11 MR. GODSOE: Yes. So the IR is Exhibit B-12, response to
12 NaiKun three-point -- 1.3.1(h).

13 MR. AUSTIN: I'm very familiar with the IR, but I'm just
14 saying, is there anything out there that defines
15 practicable for the purposes of SD No. 10?

16 MR. GODSOE: Well, Mr. Chairman, I think we are getting
17 into legal interpretation questions here, which I can
18 address in argument, but I don't think are
19 appropriately put to this panel.

20 MR. AUSTIN: Q: Staying away from a legal
21 interpretation, because --

22 MR. GODSOE: You just asked for an interpretation of
23 "practicable".

24 MR. AUSTIN: No, I haven't. I just asked whether there's
25 any instrument that defines it for the purposes of SD
26 No. 10.

1 THE CHAIRPERSON: Can we go to the IR first and see how
2 that is responsive to your question, Mr. Austin?

3 MR. AUSTIN: Certainly. And that's what I would hope the
4 panel would do.

5 THE CHAIRPERSON: To go and -- can I have the reference
6 again, Mr. Godsoe?

7 MR. GODSOE: You can. It's Exhibit B-12, response to
8 NaiKun IR 1.3.1(h). I'm putting a 1 there, because it
9 was the first NaiKun IR. It's 3.1(h).

10 THE CHAIRPERSON: 3.1(h).

11 MR. ELTON: A: So, we have the IR. Okay?

12 MR. AUSTIN: Q: So is the answer -- is there anything
13 that -- any instrument that provides a definition of
14 practicable for the purposes of SD No. 10?

15 MS. VAN RUYVEN: A: Well, we think in section (e), if
16 you read through the whole section there on the
17 insurance,

18 "Exceeding as soon as practicable, but no
19 later than 2026, the electricity supply
20 obligations by at least 3,000 gigawatt hours
21 per year and by the capacity required to
22 integrate that energy in the most cost-
23 effective manner."

24 So we do believe that practicable does have a cost-
25 effective test that it must meet.

26 **Proceeding Time 11:23 a.m. T36**

1 MR. AUSTIN: Q: I understand that's your evidence, but
2 is there any instrument where practicable is defined
3 for the purposes of the interpretation of SD No. 10?

4 MS. VAN RUYVEN: A: I'm not aware of any regulation.

5 MR. GODSOE: And I will certainly address that in
6 argument.

7 MR. AUSTIN: I also just want to be fair to the panel, so
8 that they have an opportunity to respond to something
9 that clearly we are going to raise in argument.

10 MR. ELTON: A: We are not aware of any.

11 MR. AUSTIN: Q: Thank you.

12 MR. ELTON: A: I would add on this topic, I think that
13 the Section 5 inquiry is a place where I would expect
14 some of this discussion could usefully take place,
15 particular around the issue of transmission capability
16 and so on.

17 THE CHAIRPERSON: Mr. Bois.

18 MR. BOIS: Mr. Chair, I'm sorry to interrupt my friend's
19 examination, but I'm wondering if it's possible we
20 could turn up the sound on the sound system because
21 those of us that are 1958 Chevy's are having a hard
22 time hearing some of the panel members when they
23 answer questions. So if that would possible. Thank
24 you.

25 THE CHAIRPERSON: I think if the panel got closer to the
26 microphone too, it might help.

1 MR. ELTON: A: We will.

2 MR. AUSTIN: Q: I'd like to move on to another area and
3 that's essentially the reduction in the 2008 Clean
4 Power Call call size, and the first document that I'd
5 like to refer you to is an extract from the 2009/2010
6 revenue requirements application. It's from the
7 transcript, and I'd like to pass it up to the panel
8 and provide you with copies.

9 MR. ELTON: A: Thank you very much.

10 THE CHAIRPERSON: C17-10, Mr. Austin.

11 MR. AUSTIN: I'm advised that is now to be marked as
12 Exhibit C17-10.

13 THE HEARING OFFICER: Marked C17-10.

14 (EXCERPT FROM VOLUME 3, B.C. HYDRO REVENUE REQUIREMENT
15 F2009, F2010 PROCEEDING, OCTOBER 6, 2008, PAGES 371 TO
16 374, MARKED EXHIBIT C17-10)

17 MR. AUSTIN: Q: Mr. Elton, this is an extract from
18 testimony you gave in the revenue requirements
19 proceedings before the B.C. Utilities Commission on
20 October 6th, and I'd like to refer you to page 371,
21 line 21.

22 MR. ELTON: A: Yes.

23 MR. AUSTIN: Q: And it says:

24 "Strategically, when you look at the last 40
25 years of load growth, there almost always is
26 load growth. In other words, there have

1 been significant ups and downs in this
2 province in the last 40 years. The
3 difference it makes to electricity
4 consumption is not as much as you think,
5 either up or down. In other words, load
6 tends to grow fairly steadily. So we have
7 to be careful, I think, not to over-react to
8 -- you know, what is happening in the
9 newspapers every day versus what will happen
10 in what is sometimes called the "real
11 economy". You're right about what you just
12 said about some of the resource industries.
13 Some of them have already suffered a great
14 deal. And yet, you know, we still are
15 experiencing -- have been experiencing load
16 growth in other areas."

17 Do you see that?

18 MR. ELTON: A: I do.

19 MR. AUSTIN: Q: Is that as true today as it was on
20 October 6th, 2008?

21 MR. ELTON: A: Yes. It's a general statement about the
22 way that load tends to behave over a very long period
23 and I stand by it.

24 MR. AUSTIN: Q: Okay. I'd like to refer you to page
25 374 of this extract, starting at line 10. And this
26 is you speaking again:

1 **Proceeding Time 11:28 a.m. T37**

2 "It does. But again, it's interesting. If
3 you look at the results of all that, which
4 is the graph of load growth over a 40 or 50-
5 year period, frankly when I came into this
6 industry I was very surprised how regular it
7 was. I am [sic] very surprised by how it
8 didn't seem to go up and down in a way you'd
9 expect, given the kind of province that we
10 live in."

11 Is that as true today as it was on October the 6th of
12 2008?

13 MR. ELTON: A: Again, I think the quote, the last
14 sentence, I said, "I was very surprised," not "I am
15 very surprised." You just -- just to be clear. No,
16 yes, again, what I said is what I believed then and I
17 still believe it, and I think if you look at our load
18 forecasts and our evidentiary update, you'll see that.
19 I mean there's a pattern of steady growth and that's
20 what we would expect. I mean, I think, going back to
21 the discussion, today's discussion with Mr. Quail, you
22 know, there are all kinds of alarming things being
23 written about in the newspapers every day and
24 including some alarming real events. Talk about the
25 real economy. Like the closing of a significant
26 forestry asset this morning. We still believe that if

1 you -- once this recession is over, that growth will
2 resume and that we'll see substantial growth over a
3 20-30-40-year period.

4 MR. AUSTIN: Q: I'd like to refer you to another
5 extract from another proceeding, and this is the
6 proceeding with respect to the 2006 Integrated
7 Electricity Plan.

8 I'm advised that this should be marked
9 Exhibit C17-11.

10 THE HEARING OFFICER: Exhibit C17-11.

11 (EXCERPT FROM VOLUME 7, B.C. HYDRO RRA/IEP/LTAP,
12 NOVEMBER 22, 2006, PAGES 634 AND 635, MARKED EXHIBIT
13 C17-11)

14 MR. AUSTIN: Q: And I'd like to refer you to page 634
15 of the transcript from this proceeding.

16 MR. ELTON: A: Yes.

17 MR. AUSTIN: Q: Starting at line 10, and this is, just
18 to put it in context, this is your opening statement.

19 MR. ELTON: A: Yes.

20 MR. AUSTIN: Q: Line 10 it says:

21 "The province's commitment to self-
22 sufficiency was repeated by the Minister of
23 Energy, Mines and Petroleum Resources at the
24 recent Independent Power Producers of B.C.
25 Conference, and a transcript of the
26 Minister's marks at that conference is

1 attached as Attachment 1 to my opening
2 statement.

3 The actions that we propose to take
4 this year are necessary, whether those
5 actions are to meet expected requirements or
6 contingency steps necessary to be in a
7 position to be prepared for surprises. A
8 plan based on precise calculations would not
9 be a resilient plan. We are talking about
10 plans to meet domestic customer demand far
11 into the future, and that future is sure to
12 be different than we expect it, and we
13 cannot afford to come up short. If through
14 time it becomes apparent that some projects
15 can be delayed or have their scope reduced,
16 so be it. Those are actions that can be
17 taken as appropriate. However, the reverse
18 cannot happen. We won't be able to depend
19 on resources that don't exist. ...

20 B.C. Hydro's plans to manage risks and
21 uncertainties are documented in the long-
22 term acquisition plan. To account for
23 changes in gas and electricity prices,
24 customer demand forecast, existing plan
25 performances, IPP plant additions, and
26 legislative changes, the LTAP will be

1 and a potential plan of action. Would it be fair to
2 characterize it as that?

3 MR. ELTON: A: It's a letter which is intended to
4 clarify what we intended when we filed the evidentiary
5 update. I'd say that's the general --

6 MR. AUSTIN: Q: Okay, that's fair. I just wanted to
7 just get a general idea of what it is. There was no
8 specific objective in my question, it was just to get
9 some sort of general sense of what it is.

10 And at the very end of the letter it says,
11 the last sentence:

12 "Such EPAs would be subject to BCUC review
13 under Section 71 filing processes."

14 And I'd just like to explore the practical side of
15 this with this panel. And let's suppose for the
16 reasons set out in the letter that B.C. Hydro
17 contracts with an IPP or an industrial who has
18 additional supply and comes forward and says, "We're
19 going to take this through the regulatory review
20 process." And you describe a Section 71 filing
21 process. Would then B.C. Hydro file that under
22 Section 71 of the *Utilities Commission Act*? Pursuant
23 to Section 71.

24 MS. VAN RUYVEN: A: An individual contract, is that --

25 MR. AUSTIN: Q: Yes.

26 MS. VAN RUYVEN: A: Yes, we would, and that has been

1 our practice.

2 MR. AUSTIN: Q: And with respect to proving need, how
3 would you do that after, say for example, six months
4 to a year had passed after a decision came out from
5 the Utilities Commission with respect to this
6 application?

7 MS. VAN RUYVEN: A: Well, if the purchase is
8 significant enough, we would have to prove need during
9 the Section 71 filing as was evidenced in the Alcan
10 EPA hearing, which, first go round, didn't prove need,
11 and so we had to refile.

12 And the 2006 Call, we asked for the need to
13 be approved, I believe, subject to check, in the IEP
14 hearing.

15 MR. AUSTIN: Q: I believe that's correct. So then we
16 would have to -- with respect to that particular
17 contract, it's a hypothetical example, we would have
18 to reprove need. Is that essentially what you are
19 saying? If it's a large enough contract.

20 MS. VAN RUYVEN: A: I think if it is material enough, I
21 think that probably, possibly could be the case,
22 although I guess that's yet to be tested. Other than
23 -- I mean, the Alcan was a significant amount of
24 energy we were purchasing over a long period of time.

25 THE CHAIRPERSON: Mr. Austin? Sorry to interrupt, and I
26 apologize. I'm having a little trouble with the

1 premise of your question.

2 MR. AUSTIN: Well, it's just from a practical side, if
3 what this letter is saying is you can file under
4 Section 71, then the practical side says, "How long is
5 this going to take?"

6 THE CHAIRPERSON: That is your question then?

7 MR. AUSTIN: Q: Yeah, that's ultimately the question.

8 THE CHAIRPERSON: I mean you've got 68, whatever the
9 number is, bids, sitting at Hydro, over with B.C.
10 Hydro Are you asking will they be releasing those
11 over a period of the next few years?

12 **Proceeding Time 11:38 a.m. T39**

13 MR. AUSTIN: No, it's got nothing to do with it. This is
14 in relation to, subsequent to the award of any Clean
15 Power Call contracts. What this letter appears to say
16 is, if in the future something occurs, and B.C. Hydro
17 sees an opportunity, that despite the reduction in
18 Call size, it may come back and sign a contract with
19 somebody, and then if it signs a contract with
20 somebody, then it proposes to file it under Section 71
21 of the *Utilities Commission Act*.

22 THE CHAIRPERSON: Okay, thank you.

23 MR. AUSTIN: Q: And all I'm trying to do is get some
24 idea of how long this would take, what the steps might
25 be, and just leading to the practical side, is this
26 something that essentially would be practicable, or

1 would you end up waiting until you filed your next
2 LTAP to prove need?

3 MS. VAN RUYVEN: A: No, we wouldn't. If we signed EPAs
4 and filed under Section 71, and we bought more than
5 the Commission had approved on need, we would -- it
6 would really be a Commission decision whether or not
7 additional need would have to be proven in Section 71,
8 or if they would simply accept those contracts as
9 being in the public interest. I don't envision that
10 we would go to a separate mini-LTAP process separate
11 from the EPA filing to have those EPAs approved.

12 MR. AUSTIN: I'd like to move to another area, and it's
13 fuel switching. I'm wondering whether, if we were
14 supposed to break at 11:45, it might be a convenient
15 time to break before I go into this area, and just
16 come back five minutes earlier?

17 THE CHAIRPERSON: How long is it going to take?

18 MR. AUSTIN: It will take 10 or 15 minutes.

19 THE CHAIRPERSON: Let's break now and come back at --
20 five minutes earlier, then. Thank you.

21 **(PROCEEDINGS ADJOURNED AT 11:40 A.M.)**

22 **(PROCEEDINGS RESUMED AT 1:12 P.M.)** **T40/41**

23 THE CHAIRPERSON: Please be seated.

24 **CROSS-EXAMINATION BY MR. AUSTIN (Continued):**

25 MR. AUSTIN: Q: Now that I've got the coveted after-
26 lunch dead zone, I've got a couple of questions that

1 arose from my cross-examination this morning.

2 Approximately how long did it take to
3 negotiate and execute the Alcan electricity purchase
4 agreement?

5 MR. ELTON: A: Well, there were two of them, of course.
6 Is your question about the full process?

7 MR. AUSTIN: Q: Until you actually got -- until you had
8 a contract.

9 MR. ELTON: A: Yeah.

10 MS. VAN RUYVEN: A: I believe we started in the sort of
11 fall season of 2006, and then executed on the
12 agreement, filed it with the Commission in the middle
13 of our IEP hearing, and got a decision by December of
14 that year. But then, that was the first time.

15 MR. AUSTIN: Q: Right.

16 MS. VAN RUYVEN: A: And then basically we re-filed a
17 new EPA a year later.

18 MR. AUSTIN: Q: So it took approximately two years to
19 negotiate, and finally execute a contract?

20 MS. VAN RUYVEN: A: Probably more like a year and a
21 half.

22 MR. AUSTIN: Q: Okay. And how long approximately has
23 it taken to receive regulatory approval for that
24 contract, from the first time it was filed, keeping in
25 mind that that process might not be finished, but
26 until at least it was finished up until the Court of

1 Appeal decision.

2 MS. VAN RUYVEN: A: With the Alcan contract?

3 MR. AUSTIN: Q: Yeah.

4 MS. VAN RUYVEN: A: Well, the first time, it was very
5 quick, because I believe the old Alcan agreement was
6 expiring, so the Commission made a decision in 30
7 days. And the second time round, I'm not as certain,
8 because I wasn't part of that particular hearing. I'm
9 not sure how long the regulatory process was.

10 MR. AUSTIN: Q: But would you agree with me it wasn't
11 instantaneous?

12 MS. VAN RUYVEN: A: Well, 30 days was pretty quick, the
13 first time. That was --

14 MR. AUSTIN: Q: Yeah. But including the second
15 regulatory approval, it was not a very quick process,
16 was it?

17 MS. VAN RUYVEN: A: No, I would characterize it as a
18 bit of an unusual set of circumstances.

19 MR. AUSTIN: Q: But you'd agree with me that when you
20 file a contract for electricity purchasing on a one-
21 off basis there certainly is regulatory risk,
22 including the amount of time required to get a
23 contract reviewed.

24 **Proceeding Time 1:14 p.m. T42**

25 MS. VAN RUYVEN: A: I think it depends on the
26 materiality, the complexity of the situation. Alcan

1 took a long time because it was a complex deal.

2 MR. AUSTIN: Q: Approximately how long does it take to

3 execute and plan a Call for electricity supplied by

4 Independent Power Producers? How long does it take?

5 MS. VAN RUYVEN: A: Well, it depends on your starting

6 point. Whether or not you start with stakeholder

7 engagement and putting out a specimen electricity

8 purchase agreement for people to comment on, or when

9 you actually issue the RFP or CFT. So I'd say a year

10 to a year and a half.

11 MR. AUSTIN: Q: And does that include the time required

12 to review those contracts and actually have contracts

13 executed?

14 MS. VAN RUYVEN: A: Yes, it would.

15 MR. AUSTIN: Q: I'd like to move to the next area, and

16 I do this with some trepidation after the discussions

17 yesterday in relation to fuel switching. And the

18 first place I'd like to start is in Exhibit C-10-17,

19 which was an extract from the revenue requirements

20 hearing that I filed this morning.

21 THE CHAIRPERSON: You mean C17-10, do you?

22 MR. AUSTIN: Q: C17-10, yes. Do you have that?

23 MR. ELTON: A: We're just checking. Is this the --

24 MR. AUSTIN: Q: The extract from the revenue

25 requirements hearing.

26 MR. ELTON: A: Is that the one that Mr. Quail --

1 MR. AUSTIN: Q: Yes, that's correct.

2 MR. ELTON: A: Yes, that's the one. Yes, I have that.

3 MR. AUSTIN: Q: And Mr. Elton, starting around line 19
4 you say:

5 "Another open question is..."

6 MR. ELTON: A: So you're on page 372?

7 MR. AUSTIN: Q: 372, yes.

8 MR. ELTON: A: Thank you.

9 MR. AUSTIN: Q: Sorry.

10 "... Another open question is, will there be
11 fuel switching away from -- or towards more
12 electric cars or plug-in electric vehicles?
13 We haven't reflected any of that, or much of
14 that, in our current forecasts. But even
15 with an economic recession, that kind of
16 fuel switching could make a significant
17 difference. ..."

18 Do you see that?

19 MR. ELTON: A: I do.

20 MR. AUSTIN: Q: And is that statement as true today as
21 it was when you first made it?

22 MR. ELTON: A: Yes.

23 **Proceeding Time 1:17 p.m. T43**

24 MR. AUSTIN: Q: And I noticed that that statement was
25 fairly specific in relation to electric plug-in
26 vehicles, and I'd like to refer you to Exhibit B-10,

1 which is your evidentiary update.

2 MR. ELTON: A: Yes.

3 MR. AUSTIN: Q: Page 11.

4 MR. ELTON: A: Yes.

5 MR. AUSTIN: Q: And we'll go through this in a bit more
6 detail later on in the cross-examination, but would it
7 be fair to say that for the purposes of the current
8 application and the evidentiary update, that you
9 haven't reflected fuel switching with respect to
10 residential space heating and water heating, and oil
11 and gas facilities, as identified under those
12 headings?

13 MS. VAN RUYVEN: A: Well, if you look on page 12, you
14 will see that we have included some oil and gas sector
15 electrification load in our mid-load forecast, and Mr.
16 Ince, on Panel 2, can get very specific into exactly
17 the details on that.

18 On the electric plug-in vehicles and -- we
19 have not reflected any incremental load. We believe
20 we -- it's pretty hard to put something in there when
21 right now today there's only 15 electric vehicles in
22 British Columbia, and there's no manufacturer in North
23 America that's turning them out in the kinds of
24 numbers that you would start to see some trending, or
25 it would start to be visible on our system. So we
26 don't think now is the time to be making projections.

1 We do feel we will have time when we start to see that
2 kind of activity in the marketplace happen to reflect
3 it in our load forecast and to respond to it.

4 And then on the residential space heating
5 and water heating, I think I kind of answered that
6 yesterday, and that we are going to be doing an
7 extensive residential end use survey that will be an
8 input to our load forecast this year, and if we start
9 to see some significant changes in trends, which we
10 don't yet, that will be reflected in a new load
11 forecast.

12 MR. AUSTIN: Q: But they're not reflected in the
13 evidentiary update.

14 MS. VAN RUYVEN: A: Not on those two, but on the oil
15 and gas sector, yes, there is some in there.

16 MR. AUSTIN: Q: In the oil and gas sector, as I
17 understand it, it's restricted to the Dawson
18 Creek/Fort St. John area, not Fort Nelson?

19 MS. VAN RUYVEN: A: That's correct. Fort Nelson is not
20 part of our integrated area, and that's a separate
21 load forecast that you will also see in our filing,
22 supporting the Fort Nelson plans.

23 MR. AUSTIN: Q: Now, with respect to the
24 electrification scenarios, and this is on page 10 of
25 Exhibit B-10, do you see that?

26 MS. VAN RUYVEN: A: Yes, I do.

1 MR. AUSTIN: Q: In the first line, it says:

2 "The 2008 Load Forecast Update incorporates
3 relatively certain expected loads and future
4 demand trends."

5 Could you give me your views on what is meant by
6 "relatively certain expected loads and future demand
7 trends"?

8 MS. VAN RUYVEN: A: Well, I think that's exactly what
9 it was I was referring to. If we actually saw
10 something visibly happening in the marketplace, like
11 fairly significant take-up rates of electric vehicles,
12 infrastructure in place, vehicles being manufactured
13 and the stock changing out, we would see early
14 indications of that, and that would be -- we'd be able
15 to then say "We think that that's a trend that we're
16 going to see over the next 20 years." But we'd have
17 to wait till we were relatively certain that those
18 trends were long term in nature.

19 **Proceeding Time 1:20 p.m. T44**

20 MR. AUSTIN: Q: Does certain mean that a car has to be
21 -- say for example, electric plug-in has to be on
22 somebody's driveway as opposed to a manufacturer
23 announcing that they will have models available, say
24 for example, in 2012?

25 MS. VAN RUYVEN: A: Well, I think at the very least the
26 second one, we'd have to see vehicles being

1 manufactured in North America to the point that we
2 thought B.C. would have a certain percentage of that
3 marketplace in a market transformation scheme.

4 MR. AUSTIN: Q: And you said they would have to be
5 manufactured in North America. Would it be okay if
6 they were manufactured in Japan first?

7 MS. VAN RUYVEN: A: Wherever in the world someone was
8 manufacturing to the numbers required to change out
9 the stock in North America.

10 MR. AUSTIN: Q: And then in the second paragraph at the
11 very end of it it says:

12 "These prospective loads are not included in
13 the mid-2008 load forecast but have been
14 considered as scenarios for study and
15 potential inclusion in future load forecasts
16 when these loads become more visible and
17 quantifiable."

18 MS. VAN RUYVEN: A: That's correct.

19 MR. AUSTIN: Q: Now, what's the difference between
20 expected loads and future demand trends, and visible
21 and quantifiable?

22 MS. VAN RUYVEN: A: I think they're similar. I think,
23 on the opposite side of this, we cannot build things
24 into our load forecasts based on anecdotal evidence.
25 There's got to be evidence there supporting why the
26 load is growing over a 20-year period. And right now

1 we have a lot of anecdotal evidence about electric
2 plug-in vehicles. We don't see the infrastructure
3 there. We don't think that there are certain expected
4 loads at this point in time. However, we are studying
5 them and watching the trends so that we are able to
6 react when and if we see electric vehicles becoming
7 something that's on the near term going to hit our
8 load.

9 MR. AUSTIN: Q: Do you do that on a probabilistic
10 basis, or does the, as I suggested earlier, the plug-
11 in hybrid actually have to appear in somebody's
12 driveway before you start planning for that
13 eventuality?

14 MS. VAN RUYVEN: A: Well, right now on the sort of more
15 future looking, we're looking at it on a scenario
16 basis and we're doing some fairly high-level scenario
17 work on, you know, what kind -- how would those
18 electric vehicles end up transforming the market in
19 British Columbia? Would every single person who
20 drives a car, all 2.7 million of them, get rid of
21 their car immediately and go to an electric vehicle?
22 Probably not. So we've done some scenario planning
23 around take-up rates and amount of time it would take
24 to turn over the entire stock of vehicles in British
25 Columbia. And then what would that mean to our loads?
26 So it's fairly high-level scenario planning.

1 MR. AUSTIN: Q: I appreciate that, but wouldn't for the
2 purposes of long-term planning you put a probability
3 on a technology that appears imminent, and include
4 that as part of your demand forecast?

5 MS. VAN RUYVEN: A: Yeah, and again I think that's from
6 a probabilistic point of view. I think it's probably
7 a better question for Mr. Ince to answer on Panel 2.

8 MR. ELTON: A: I think if something appears imminent --
9 this is one of those very hard questions, right? I
10 mean, take fuel-cell vehicles where there are many
11 people who for several years have been predicting
12 large numbers of fuel-cell vehicles coming onto the
13 market by certain times, and it hasn't happened yet.
14 So with electric vehicles also.

15 So I think there's two stages to it
16 probably. One is that a high level, do you believe
17 that this is something that is quite likely to happen?
18 And I realize that we're using terms like "quite
19 likely" and "more visible" and "quantifiable".
20 They're all somewhat imprecise terms.

21 We discussed with our board of directors in
22 -- September? September at our strategic retreat, we
23 discussed each of these possible scenarios and
24 basically, you know, as a result of that discussion we
25 agreed that we would keep them off, continue to keep
26 them off the load forecast right now, for the reasons

1 MR. AUSTIN: Q: So could you please explain to me why
2 that you're prepared to take a certain amount of risk
3 with respect to the demand-side management programs
4 and, say for example, with respect to plug-ins,
5 essentially no risk at all?

6 MS. VAN RUYVEN: A: Well, I think those are two
7 different things. I mean, we have a well-thought-out
8 plan, it has deliverability risks, but it has clear
9 programs and funding, and people doing the work. The
10 electric vehicles aren't visible. I mean, as I said
11 before, there's 15 cars in British Columbia and
12 there's no infrastructure to support the electric
13 vehicles at this point in time. I do think we will
14 have plenty of time to plan for resources because we
15 will start to see actual things happening in the
16 marketplace, well in advance of having to then respond
17 with a supply or a demand-side solution to meet that
18 load.

19 MR. AUSTIN: Q: So your view is, it has to be parked,
20 essentially, in somebody's driveway before you start
21 to plan for it.

22 MS. VAN RUYVEN: A: No, I didn't say that. I said we
23 would watch the market trends very carefully and if we
24 saw cars being manufactured somewhere in the world,
25 and infrastructure being built in British Columbia to
26 facilitate electric vehicles, we feel we'd have plenty

1 of time to respond to that increased load. And it
2 wouldn't be till every car was parked in someone's
3 driveway, obviously. It would be well before that.

4 MR. AUSTIN: Q: I'd like to refer you to a statement,
5 or a slide, that was presented by Mr. Randy Jespersen
6 of Terasen in a presentation to the Vancouver Board of
7 Trade with respect to residential space heating and
8 water heating. And I appreciate that this is not a
9 B.C. Hydro slide. I'm somewhat handicapped in this
10 because as far as I know, Terasen's not going to be
11 calling any witnesses in this respect, so certainly
12 understand all that before I put it to you.

13 I understand it's to be marked Exhibit C17-
14 12.

15 THE HEARING OFFICER: Exhibit C17-12.

16 (DOCUMENT ENTITLED "SLIDE #13 - BIG CHALLENGE TO
17 SUCCEED", MARKED EXHIBIT C17-12)

18 MR. AUSTIN: Q: And I'd like to refer you to the part
19 that's underlined -- that's not the IPPBC underlining,
20 that's just the way the slide came out. And it says,
21 "We observe that the demand forecast does
22 not include the impact of plug-in vehicles,
23 electrification of Ports and assumes
24 historic levels of space heating load,
25 capture of some 20 percent market share. As
26 to the latter, as new housing stock in B.C.

1 has increasingly moved to multi-family
2 dwellings and gas prices has escalated in
3 absolute terms, as well as relative to
4 artificially priced electricity, natural
5 gas' capture of market share has declined.
6 Further, we have been advised it is the view
7 of the largest property developers in the
8 Lower Mainland that natural gas capture for
9 space heating applications in future multi-
10 family developments is about 20 percent.
11 That's 20 percent gas and 80 percent
12 electric, not the other way around."

13 Do you see that?

14 MS. VAN RUYVEN: A: I see that.

15 MR. AUSTIN: Q: And in response to a question that I
16 just asked, you said -- and what you said yesterday,
17 "Well, we're going to go look into that." Is that
18 about what your evidence is?

19 MS. VAN RUYVEN: A: Well, the marketplace is not going
20 to transform to 20/80 from 80/20 overnight. We will
21 see those trends through our load forecast, because we
22 load forecast every year, and this goes back to my
23 point. There are lots of people out there saying
24 these things and, you know, I'm not sure where Mr.
25 Jespersen's actual evidence is, but these are
26 anecdotal in nature at this point in time. And just

1 to talk about the electrification of ports, for
2 example, which is in his example, we are electrifying
3 the cruise ships. There is some distribution work
4 that needs to be done to ensure that we can get those
5 megawatt hours to the cruise ships, but they plug in
6 in the summertime, where we have lots of surplus,
7 because we're winter-peaking. And it doesn't add to
8 our load forecasts.

9 **Proceeding Time 1:30 p.m. T46**

10 So, that's an example of someone saying
11 something in a speech without really knowing
12 necessarily all the facts. Then again, on the
13 electric vehicles, we don't observe in the near term
14 that that's going to add to our load, and we'll have
15 lots of time, watching the trends. And then as we
16 look at the actual percentage of space heating and
17 water heating on our system every single year, and if
18 we start to see it trending up, we will make those
19 required adjustments to the load forecast.

20 MR. ELTON: A: If I could just add to that. I think
21 when you said -- I've forgotten how you phrased your
22 question, but it was along the lines of "Are you just
23 going to study it?" or something like that. I think
24 what Ms. Van Ruyven said yesterday was that we were
25 going to do an end-use survey. And I think -- I mean,
26 in other words, with all these questions, we believe

1 we've got to collect facts, evidence, that we can put
2 before the Commission and have it evaluated. And I
3 think that -- I mean, you said it yourself, Terasen's
4 actually participating in this hearing, and I would
5 have thought if they had evidence that supported this
6 view, that they would be putting it forward.

7 MR. AUSTIN: Q: Well, I certainly don't disagree with
8 that, and I certainly thought it might be helpful for
9 the fuel switching debate that Terasen said it wanted
10 to engage into, that it would present a witness or
11 witnesses. They haven't done that, and I'm just
12 looking at this from the perspective on the demand
13 forecast, and what risk associated with that demand
14 forecast is there with respect to coming up short?

15 MR. ELTON: A: And we certainly take that risk
16 seriously, and that's why we're doing this end-use
17 survey. And again, that's why we discussed with our
18 Board in September the various upside possibilities
19 around the demand forecast, and why, again, we
20 discussed how long have we got, and decided that with
21 respect of each of these, that the right thing to do
22 is to collect more evidence.

23 MS. VAN RUYVEN: A: And the other point to make is, we
24 also don't plan to a single-point forecast. We do a
25 high-load forecast as well which, quite frankly, takes
26 into account some of these risks that you're talking

1 about, Mr. Austin, and Mr. Ince can talk about
2 probabilities around why we do a high and a low
3 forecast as well as the most probable, which is the
4 mid-load forecast. But high-load forecast is meant to
5 take into account some of these things that we may not
6 be seeing on your -- in our marketplace today, and so
7 we stack up resources through the contingency resource
8 plan to ensure that if we end up in that trajectory of
9 a high load forecast, we're still able to meet the
10 needs of our customers.

11 MR. AUSTIN: Q: I'd like to refer you to Exhibit C17-6,
12 and this is the Throne Speech of February 16th, 2009.
13 And I'd like to refer you to page 23.

14 MR. ELTON: A: Yes.

15 MR. AUSTIN: Q: And on page 23 it says:

16 "The goal of a northeast transmission line
17 will be pursued."

18 Do you see that?

19 MR. ELTON: A: Yes.

20 MR. AUSTIN: Q: And we just went through this concept
21 of relatively certain expected loads and future demand
22 trends. These loads become more visible and
23 quantifiable, and in relation to Exhibit B-10, page
24 12, on the oil and gas facilities side of the
25 equation, does a statement in the Throne Speech that
26 the goal of a northeast transmission line will be

1 line is to connect Fort Nelson to our grid. Then the
2 growth in Fort Nelson would become part of our
3 integrated load forecast.

4 MR. ELTON: A: I think the -- I mean first of all, of
5 course, it's an announcement that a goal will be
6 pursued. It's not an announcement that there's going
7 to be a northeast transmission line. I don't read it
8 -- I mean that's how I read it.

9 I think second, the Fort Nelson problem is
10 a bit unusual problem in that you have an island as
11 part of our system but it's actually connected to
12 Alberta, with a relatively small number of potentially
13 very large loads, hard to predict exactly what they
14 will want to do. And Ms. Van Ruyven can probably
15 comment, we haven't had very many interconnection
16 requests as yet.

17 MS. VAN RUYVEN: A: We've only had one.

18 MR. ELTON: A: But at the same time, there's a lot of
19 confidence up there and which I think the government
20 is saying it shares, about the potential. So that's a
21 classic example of where it would take -- you know, if
22 you believe that's going to happen, it would take
23 something different from the normal regulatory process
24 to get something built in time; and where a government
25 therefore I think would often say in particular
26 jurisdictions, "We need to get involved with this."

1 And I think the government has made it pretty clear
2 that with respect to transmission planning generally,
3 and this is Section 5, there's a need to look at what
4 other ways there are of doing it.

5 So I just think that's a different type of
6 problem that's being solved in a different type of
7 way. And again, it isn't yet an announcement.

8 MR. AUSTIN: Q: I certainly appreciate that. So
9 essentially what you're saying, that for the purposes
10 of whether something is relatively certain in relation
11 to expected loads and future demand trends, and loads
12 that become more visible and quantifiable, a section
13 like that in the Throne Speech essentially makes no
14 difference.

15 MR. ELTON: A: I think the people that wrote the Throne
16 Speech are seeing what we're seeing, what we're all
17 seeing. It's an uncomfortable situation, where you
18 have potential customers that may well want two
19 substantial loads, and you don't have an easy way, a
20 quick way of serving them, and they're looking for a
21 solution as we're all looking for solutions. So I
22 don't think it's the existence of in the Throne
23 Speech. I think it's the -- you know, it's just the
24 reality, you know -- they're not even realities. The
25 projected -- the range of possibilities. We're all
26 aware of the same range of potential possibilities.

1 MS. VAN RUYVEN: A: Well, those are the loads that we
2 have included in our integrated load forecast in the
3 Fort St. John/Dawson Creek area, where we know there
4 are customers who are interested in electrifying the
5 oil and gas production. One customer has approached
6 us for an interconnection, and we know of several
7 others, and we have built some visibility into our
8 load forecast in that particular area. We have not
9 added the Fort Nelson in because, as Mr. Elton said,
10 you know, the transmission line is not a certainty at
11 this point in time. It also has a very long lead
12 time. Takes probably several years to build a
13 transmission line to the northeast sector, and we may
14 have to do some interim solutions to serve some of
15 that possible load that might be added in the Fort
16 Nelson area.

17 MR. AUSTIN: Q: So if I understand your evidence, that
18 if a customer or a potential customer approaches you,
19 and for lack of a better word, convinces you that
20 there is an expected load, it may be included in the
21 load forecast? Whereas, if there's a policy statement
22 or a recommendation from the B.C. Climate Action Team
23 to introduce policies and regulations to promote
24 electrification in new oil and gas developments, that
25 you would not do anything in particular in relation to
26 the load forecast?

1 MS. VAN RUYVEN: A: No, that's not what I said. I said
2 we have done something in the integrated area. Fort
3 Nelson is a special case, because it's not part of our
4 integrated area, therefore not part of our integrated
5 load forecast. We have done a separate load forecast
6 for Fort Nelson, and we have included an
7 electrification scenario in that load forecast.

8 MR. AUSTIN: Q: Okay. So the question I have is, what
9 caused you to include something in the Fort St.
10 John/Dawson Creek area? Was it the fact that you were
11 approached by a potential customer? Or was it because
12 of item 17 in the report from the B.C. Climate Action
13 Team with respect to promoting electrification in new
14 oil and gas developments?

15 MS. VAN RUYVEN: A: It's because we've been approached
16 by several customers in the Fort St. John/Dawson Creek
17 area, through several discussions about
18 electrification of the oil and gas sector in that
19 area, over the last number of months.

20 MR. ELTON: A: I don't think, though, that it's fair to
21 say that we don't consider the fact that there are
22 these statements by the climate action team. In other
23 words, it's part of the landscape, it's part of what
24 these companies are also dealing with. And then
25 again, these companies themselves are dealing with
26 climate change realities, as are other companies. So

1 it all fits together. But the question of what you
2 include in the load forecast surely has to relate to
3 some -- you know, something that you can see.

4 MR. GODSOE: And for everyone's benefit, the status of
5 those recommendations are set out in Exhibit B-12, in
6 response to BCUC panel IR 1.21.1.

7 MR. AUSTIN: Q: I'd like to move on to another area,
8 and this is in relation to a determination that the
9 Utilities Commission made in its 2006 Integrated
10 Electricity Plan. It's a very short determination,
11 and I don't think there's any need to enter an
12 exhibit. I'll just read it out to you, because
13 there's also a corresponding, in a sense, response in
14 your application. In the 2006 LTAP decision, it says:

15 "The Commission Panel directs B.C. Hydro to
16 file a report with the Commission in its
17 next IEP identifying significant trends in
18 the literature and summarizing the results
19 of its statistical analysis of historical
20 stream flows."

21 And if you turn to Exhibit B-1-1, Appendix C, that's
22 the application.

23 MR. GODSOE: What's the application?

24 MR. AUSTIN: Q: It's the directive to file the material
25 with respect to historical analysis of stream flows.
26 It's in Appendix C. It's point number 6. Do you see

1 LTAP, the 2011 LTAP is where you'll see this
2 information, and I think that complies with Directive
3 6.

4 MR. AUSTIN: Q: I just wanted to get some idea of when
5 it might be coming, and perhaps I don't need to take
6 it up with 3 and 4. It sounds like the answer is it's
7 coming the next time around. Would you agree with
8 that?

9 MR. ELTON: A: Yes.

10 MR. AUSTIN: Q: I'd like to change over to another area
11 and this is in relation to PowerSmart. And I'd like
12 to refer you to Exhibit B1-1, page 3-8. That's the
13 application.

14 MR. GODSOE: Sorry, what was that page reference?

15 MR. AUSTIN: It's page 3-8.

16 MR. GODSOE: Thank you. Eight did you say?

17 MR. AUSTIN: 3-8, yes.

18 MR. ELTON: A: Thank you.

19 MR. AUSTIN: Q: And I'd like to refer you to Table 3-5
20 and I'm just doing this for the purposes of not the
21 numbers in the table but just the various categories
22 of DSM. And first of all there's the category called
23 Codes and Standards.

24 MS. VAN RUYVEN: A: That's correct.

25 MR. AUSTIN: Q: And would it be fair to say that that's
26 essentially legislation or government regulation?

1 MS. VAN RUYVEN: A: Yes, at both the federal and
2 provincial levels.

3 MR. AUSTIN: Q: And would it be fair to say that B.C.
4 Hydro has no authority to pass codes and standards, or
5 put them into law or put them into operation?

6 MS. VAN RUYVEN: A: No, we don't, but we have a lot of
7 ability to influence, as do other utilities, through a
8 number of industry association groups that meet
9 regularly with both the federal and provincial
10 government, including our own ministry, and we belong
11 and sit on many of those advisory boards at a very
12 senior level and have quite a strong voice, both in
13 Ottawa and in Victoria, on changing codes. They do
14 look to utilities for a lot of the technical advice.

15 MR. AUSTIN: Q: But you would agree with me you don't
16 have the power to actually implement.

17 MS. VAN RUYVEN: A: No, we don't have the power to
18 change law.

19 MR. AUSTIN: Q: That's good to hear.

20 With respect to the concept of rate
21 structures, would you agree with me that it's the --
22 at least in British Columbia, it's the B.C. Utilities
23 Commission that has the authority to determine whether
24 a rate is to be implemented or not?

25 MS. VAN RUYVEN: A: Yes, and again I believe it's the
26 utility's job to bring forward rate design

1 applications as per the Energy Plan that promote
2 conservation. So we bring forward the application,
3 and the Commission decides whether that's in the best
4 interest of our ratepayers or not.

5 MR. AUSTIN: Q: And for the purposes of determining the
6 -- I think it's \$38 a megawatt hour for DSM savings,
7 as I understand it, you include the savings from the
8 codes and standards and rate structures. Is that
9 correct?

10 **Proceeding Time 1:50 p.m. T50**

11 MS. VAN RUYVEN: A: That's correct. So for the \$38 per
12 megawatt hour levelized cost we include the costs of
13 doing the codes and standards, the rate structures,
14 and the programs, as well as the savings derived from
15 them. If you take out the first two, codes and
16 standards and rate structures, that means the cost of
17 DSM just for the programs goes to \$56. However, we
18 believe that those should be included in the DSM plan,
19 and I believe the *Utilities Commission Act* actually
20 specifies that rates are considered demand-side
21 measures, and I would have to re-read the regulation
22 for DSM, but I also believe that codes and standards
23 can be counted towards the DSM targets.

24 MR. AUSTIN: Q: I'm certainly not disagreeing that they
25 cannot be counted towards DSM. I'm just trying to
26 determine, for the purposes of this \$38 a megawatt

1 hour, what goes in --

2 MS. VAN RUYVEN: A: Right.

3 MR. AUSTIN: Q: -- and what doesn't.

4 MS. VAN RUYVEN: A: So without codes and standards in
5 rates, which do have some costs to them, it would be
6 \$56 a megawatt hour levelized.

7 MR. AUSTIN: Q: I'd like to refer you to Exhibit B-12,
8 IPPBC Information Request 3.14.2. That's Exhibit B-
9 12, IPPBC Information Request 3.14.2. Do you have
10 that?

11 MS. VAN RUYVEN: A: Yes, we do.

12 MR. AUSTIN: Q: And I'd like to refer you to the table
13 that was prepared in response to this Information
14 Request. And the far right-hand column, entitled
15 "Total resource costs, levelized costs, dollars per
16 megawatt hour." Do you see that?

17 MS. VAN RUYVEN: A: I do.

18 MR. AUSTIN: Q: And if you go to page two of that
19 exhibit, it shows the levelized cost for certain
20 programs in excess of \$100 a megawatt-hour. Do you
21 see that?

22 MS. VAN RUYVEN: A: I do.

23 MR. AUSTIN: Q: And it also shows programs that are in
24 excess of \$120 a megawatt-hour, does it not?

25 MS. VAN RUYVEN: A: Yes, it does.

26 MR. AUSTIN: Q: So would it be fair to say that there's

1 certain aspects of the DSM program that are going to
2 result in electricity savings that cost in excess of
3 \$120 a megawatt hour?

4 MS. VAN RUYVEN: A: Yes, but I think this would be a
5 good question to put to Mr. Hobson, because I think
6 some of these programs are inter-related and have some
7 linkages back to each other, and so possibly when you
8 roll them up to the portfolio level, one program may
9 be linked to another as far as increasing benefits.
10 So I don't think you can look at them necessarily
11 completely in isolation, and we also look at the
12 overall portfolio results of our programs. We
13 generally don't take them individually, we do roll
14 them up to portfolios and then apply the cost tests on
15 a portfolio basis. And I believe the regulation even
16 speaks to how the Commission should potentially look
17 at portfolio costs of DSM.

18 MR. AUSTIN: Q: Could you --

19 MR. ELTON: A: And if I could also add, I think your
20 \$120 related to the right-hand column -- the big
21 stream right-hand column. In other words, assuming 78
22 percent of original program savings.

23 MR. AUSTIN: Q: That's correct.

24 MR. ELTON: A: And I think there's a comment in the IR
25 that that table assumes an equal scaling of savings
26 across programs, and that we haven't determined if,

1 you know, how that would work across programs. This
2 is to support Ms. Van Ruyven's point. Again, I think
3 Mr. Hobson would get the closest to it, though, in
4 terms of being able to explain what those
5 interrelationships area.

6 MS. VAN RUYVEN: A: Yeah, and I'm not even completely
7 sure now when I look at it more closely, it says
8 "Total resource cost levelized." That may be
9 something quite different than -- I don't know if this
10 is the total resource cost levelized including the
11 customer costs, or if it's our levelized cost. So
12 again, I think clarification from Mr. Hobson would be
13 helpful.

14 MR. AUSTIN: Q: It sounds like something that arose in
15 the revenue requirements hearing about an employee,
16 and it's full-time employee, and exactly what they
17 did. I'm sure I'll be there for a couple of days, but
18 I'll certainly consider the invitation to ask him
19 that.

20 Could you please broadly describe what a
21 renewable energy credit is?

22 **Proceeding Time 1:55 p.m. T51**

23 MS. VAN RUYVEN: A: Probably not very well, because --
24 you know, really again we have an expert on Panel 2, I
25 believe.

26 MR. GODSOE: Panel 3.

1 MS. VAN RUYVEN: A: 3.

2 MR. GODSOE: And there's a good definition in Appendix H.
3 I should stand up. There's a good definition of RECs
4 in Appendix H, Exhibit B-1-1, and certainly Panel 3 is
5 the best place to start.

6 MS. VAN RUYVEN: A: My basic understanding is if you
7 have green attributes above a renewable portfolio
8 standard or above a target that's been set for you,
9 you can sell that to someone else who has a renewable
10 portfolio standard, if the rules in that jurisdiction
11 say, rather than physically having the clean energy
12 there to meet your renewable portfolio standard you
13 can buy a renewable energy credit which becomes a
14 proxy for building it yourself. We do have green
15 attributes through our clean power Calls, which we
16 have paid for, and as this market starts to form and
17 trading of renewable energy credit starts to happen,
18 those may be of significant value to B.C. Hydro.

19 MR. AUSTIN: Q: So under the 2008 Clean Power Call,
20 B.C. Hydro acquires renewable energy credits for the
21 generation that's being supplied insofar as its
22 generation that qualifies to provide a green energy
23 credit.

24 MS. VAN RUYVEN: A: We have asked in this Clean Power
25 Call for proponents to put those green attributes to
26 B.C. Hydro.

1 MR. AUSTIN: Q: Do the PowerSmart programs produce any
2 renewable energy credits?

3 MS. VAN RUYVEN: A: No, they don't. They are
4 considered net zero because 90 percent of our energy
5 is produced by clean resources here in British
6 Columbia, therefore they don't carry a renewable
7 energy credit.

8 MR. AUSTIN: Q: This is the last area that I'll be
9 looking at for the purpose of this cross-examination,
10 and I'd like to refer you to Exhibit B1-1, page 4-21.
11 That's the application. And it's Figure 4-6.

12 MR. ELTON: A: Yes.

13 MR. AUSTIN: Q: And would it be fair to say that what
14 Figure 4-6 does is provide us with a view of the
15 average annual energy price forecast for mid-C?

16 MR. ELTON: A: I believe that's true, yes.

17 MR. AUSTIN: Q: And with B.C. Hydro's capability to
18 store energy, and subject to transmission access, that
19 might not necessarily represent the price that B.C.
20 Hydro could obtain, for example, by selling more of
21 its energy into high-load hours versus low-load hours?

22 MR. ELTON: A: That's correct.

23 MR. AUSTIN: Thank you, no further questions.

24 THE CHAIRPERSON: Thank you, Mr. Austin. Good afternoon,
25 Mr. Weafer.

26 MR. WEAFER: Good afternoon, Mr. Chairman, members of the

1 Panel.

2 **CROSS-EXAMINATION BY MR. WEAVER:**

3 MR. WEAVER: Q: Good afternoon, Ms. Van Ruyven, Mr.
4 Elton. My name is Chris Weaver. I'm appearing for
5 the Commercial Energy Consumers in this proceeding.

6 The customer representatives that appeared
7 before me covered some ground, and I hope to not
8 retread too much but may find I'm on similar topics
9 for the sake of getting to our point.

10 At a general level, and I think this is
11 consistent with your opening statement, Mr. Elton, I
12 take it that in terms of the long-term acquisition
13 planning of B.C. Hydro, diversity is important and
14 flexibility is also important. So diversity of
15 resources and a flexibility in the utilization of the
16 resources are part of your policy objectives. Is that
17 a fair summary of some of your early discussion?

18 MR. ELTON: A: Yes.

19 MR. WEAVER: Q: Thank you. And just with respect to
20 the role of this panel, and I appreciate it being
21 defined as the Policy Panel, but you're also the boss.
22 The buck stops here, right?

23 **Proceeding Time 1:59 p.m. T52**

24 MR. ELTON: A: That's a very interesting question.

25 MR. WEAVER: Q: For the purpose of this hearing.

26 MR. ELTON: A: We have a board of directors, and -- but

1 yeah, for the purpose of this hearing, yes. Yes.

2 MR. WEAVER: Q: Thank you. And I don't mean to be cute
3 about it. I'm just concerned -- we'll discuss some
4 areas that -- while it may appear I'm going to detail
5 that isn't in your area, that's not my intent. It's
6 really just to understand that the business judgment
7 that's been applied has been applied at the top level
8 of the company, and the Commission can accept that. I
9 think in your opening statement you refer to -- you've
10 got evidence, but at page 3 you state, and so the 2008
11 LTAP incorporates B.C. Hydro's professional judgment
12 as well. And I take it at the top level, from the
13 executive perspective, that's you. Is that fair to
14 say?

15 MR. ELTON: A: Well, I mean, different decisions are
16 made either by me or by the Board or by members of
17 management. But I'm certainly here prepared to attest
18 to that judgment, yes.

19 MR. WEAVER: Q: Thank you. The first area I'd like to
20 deal with in terms of policy is load forecast and
21 policy issues surrounding that. And that's received
22 some discussion, but clearly the load forecast is a
23 very important part of the B.C. Hydro LTAP
24 application, you'd agree with that.

25 MR. ELTON: A: Yes.

26 MR. WEAVER: Q: And from a policy perspective, the load

1 forecast leads you to make strategic and policy
2 decisions in terms of what resources should be
3 utilized to fill the gap created over time. That's in
4 summary the objective of the load forecast?

5 MR. ELTON: A: Yes.

6 MR. WEAFFER: Q: And the discussions this morning
7 focused on -- or one area of focus was on the risk
8 associated with EPAs, which can be significant
9 commitments for long-term versus DSM resources, which
10 can be a cost, but have more flexibility over the
11 course of time. Was that a fair summary of some of
12 the discussion this morning?

13 MR. ELTON: A: That was certainly part of some of the
14 discussion this morning, yes.

15 MR. WEAFFER: Q: And the sensitivity of change in the
16 load forecast is important, in terms of how you make
17 decisions over a long-term commitment versus a short-
18 term commitment, where there is a higher sensitivity
19 -- where there is a higher likelihood of change in the
20 forecast, there's higher risk in pursuing longer-term,
21 higher-cost resources. Is that a fair statement?

22 MR. ELTON: A: I think generally it is. I mean, of
23 course, that's one of the reasons why we do load
24 forecasts frequently, so that we try and take into
25 account potential changes.

26 MR. WEAFFER: Q: Right. And so, for instance, B.C.

1 Hydro wouldn't have come to this proceeding looking at
2 the 2006 load forecast, or even the 2007 load
3 forecast. You look to the most recent forecast in
4 order to make the best judgments around the resources
5 selected. Correct?

6 MR. ELTON: A: And in fact filed an evidentiary update
7 that updated -- yes, that's right, that updated our
8 most recent information.

9 MR. WEAFFER: Q: Right. And looking at that update, the
10 load forecast changed from 2007 to 2008 in the time
11 frame of 20 years, reduced the load by about 2500
12 gigawatt hours. Is that correct, subject to check?

13 MR. ELTON: A: Shall we go to the right places to look
14 for that?

15 MS. VAN RUYVEN: A: Yes, if you look --

16 MR. WEAFFER: Q: Sure. That's Exhibit B-10, page 9,
17 Figure 2.1.

18 MS. VAN RUYVEN: A: Yeah, page 8 actually has the
19 actual gigawatt hours, and Table 2-3. So it shows the
20 change from our application to the update, shows the
21 gigawatt hours and the percentage change. And then on
22 page 9 it shows you that in the graphs.

23 MR. WEAFFER: Q: And I have the graph in front of me.
24 And is it roughly 2500 gigawatt hours?

25 MS. VAN RUYVEN: A: By 2027, it's 2931 gigawatt hours
26 reduction.

1 MR. WEAVER: Q: So I -- so it's --

2 MS. VAN RUYVEN: A: By 2021, which is kind of the first
3 fiscal period after the 2020 date of meeting the
4 demand-side management, it is 2599 gigawatt hours.

5 MR. WEAVER: Q: Right. So, within the space of one
6 year change in the load forecast, there was a material
7 change in the volume that would have needed to be
8 acquired for the long term.

9 MS. VAN RUYVEN: A: Yes, I would -- 2900 gigawatt hours
10 is fairly significant.

11 MR. WEAVER: Q: Thank you. And faced with that, and I
12 think this again was covered this morning, the surplus
13 power which may have been acquired to cover that
14 forecast, it would have to be sold into the market.
15 It may have been sold at less than the cost of
16 acquiring the power. Is that a fair concern for
17 customers to have?

18 MR. ELTON: A: That would certainly be a fair concern
19 for customers to have, yes.

20 MR. WEAVER: Q: Now, Mr. Elton, in terms of the
21 confidence in the load forecasting of B.C. Hydro, are
22 you -- you're generally aware of the forecasting
23 success or veracity of B.C. Hydro over the longer-
24 term?

25 MR. ELTON: A: Yes, I am, generally.

26 MR. WEAVER: Q: So maybe if we could take a look at

1 Exhibit B1-1, Appendix D, Page 26.

2 **Proceeding Time 2:04 p.m. T53**

3 MR. ELTON: A: I'm on page 26 of 103, Appendix D.

4 MR. WEAVER: Q: Yes, Figure 5.2.

5 MR. ELTON: A: Yes.

6 MR. WEAVER: Q: Historical Actual and Forecast of Total
7 Gross Requirements. Do you have that in front of you?

8 MR. ELTON: A: Yes.

9 MR. WEAVER: Q: And I'm struck by the discussion with
10 Mr. Austin this morning in reference to earlier
11 testimonies in prior proceedings in terms of the
12 loads, to summarize, as always growing, and I really
13 want to focus on the forecast here. If we look back
14 to what would look to be the last economic drop in the
15 province back to 1996-1997, that by this graph would
16 indicate the last, most significant drop in the B.C.
17 economy. Would you agree with that?

18 MR. ELTON: A: Yes.

19 MS. VAN RUYVEN: A: However, you see that really sharp
20 dip? Is that what you're --

21 MR. ELTON: A: Yes.

22 MR. WEAVER: Q: Yes.

23 MS. VAN RUYVEN: A: Okay, that sharp dip is actually
24 due to one customer being on strike for nine months,
25 which was the Fletcher Challenge, now Catalyst mill
26 that's closed in Elk Falls, our single largest

1 customer. It would have been perhaps still a dip but
2 not that sharp, because that single customer caused
3 that sharp spike downwards.

4 MR. WEAFFER: Q: And that single customer came back on,
5 is that correct?

6 MS. VAN RUYVEN: A: After nine months, but that's
7 really what's causing that significant sharp dip.

8 MR. WEAFFER: Q: Right, and can you agree with me that
9 after the significant sharp dip and after the customer
10 coming back on, the load never came back up to the
11 levels that had been forecast prior to that time. Is
12 that an accurate reflection of the graph?

13 MS. VAN RUYVEN: A: Yes, I would say. We have a famous
14 name for this graph at B.C. Hydro. It's called our
15 feather duster chart, because it kind of looks like a
16 -- I don't know. Mr. Bell, who used to be the CEO,
17 called it that. But yes, I think that's fair to say.
18 Early on you could see we were projecting
19 significantly greater growth. But I think if you can
20 follow this, it's a difficult chart to see the
21 triangles versus the squares versus the stars.

22 You can see in more recent years we've
23 become quite a bit more accurate with our forecast,
24 and you can see that it follows much more closely the
25 dark line, which is the actual growth. So I'd say
26 that in the last four to five years, our forecasting

1 accuracy has improved significantly.

2 MR. WEAVER: Q: Thank you. Now --

3 MR. ELTON: A: I would add to that, by the way, that --
4 this is just a gratuitous comment, that may not be
5 unrelated to the fact of being regulated. In other
6 words, the forecasts that have been prepared in the
7 last few years were forecasts prepared in the light of
8 these kinds of hearings, whereas the forecasts
9 prepared previously, I assume were not.

10 MR. WEAVER: Q: I think we just, in terms of Ms. Van
11 Ruyven's comment in the forecasting getting more
12 accurate, I think we just confirmed that between 2007
13 and 2008 we saw a 2500-plus gigawatt hour drop in
14 those load forecast through the year, correct?

15 MS. VAN RUYVEN: A: Well, I think there's a bit of an
16 unusual set of circumstances. We have reflected that
17 in our new load forecast.

18 MR. WEAVER: Q: Are you aware of what the load forecast
19 variance was between 2006 and 2007 over a 20-year
20 timeframe?

21 MS. VAN RUYVEN: A: I am not, but Mr. Ince certainly is
22 prepared to answer that question on Panel 2.

23 MR. WEAVER: Q: Thank you, I'll leave that to Mr. Ince.
24 I was going to get to this document later
25 but perhaps it would be useful to go to it now. I
26 gave a copy to your counsel of what I understand to be

1 the cover note that went with the conservation
2 potential review, and I've given Mr. Bemister copies
3 of that as well.

4 I understand this will be -- from Mr.
5 Fulton, this would be C10-5.

6 (THREE-PAGE DOCUMENT ENTITLED "BC HYDRO...TO OUR
7 CUSTOMERS AND RESIDENTS ACROSS BRITISH COLUMBIA", FROM
8 BOB ELTON, MARKED EXHIBIT C10-5)

9 MR. WEAVER: Q: Do you have that document in front of
10 you, Mr. Elton?

11 MR. ELTON: A: I do.

12 MR. WEAVER: Q: Now, I understand this document to be a
13 cover note and an information piece that received
14 fairly wide circulation on the publication of the 2007
15 conservation potential review. Is that accurate?

16 MR. ELTON: A: That is accurate.

17 MR. WEAVER: Q: Now, while not a load forecast
18 document, if I could turn you to page 2 of the
19 document,

20 **Proceeding Time 2:09 p.m. T54**

21 MR. ELTON: A: Of this document that I'm looking at
22 now?

23 MR. WEAVER: Q: Yes.

24 MR. ELTON: A: Yes, sir, yes. Yes.

25 MR. WEAVER: Q: And here we have a graphical
26 illustration of what was then a proposed expectation

1 on electricity usage and the power as a result of the
2 success of the conservation potential review, and
3 obviously not a thoroughly researched forecast, and
4 not tabled for that --

5 MR. ELTON: A: Correct.

6 MR. WEAVER: Q: -- but would you agree that it would
7 indicate a direction that B.C. Hydro hopes to go in
8 terms of load forecast requirements?

9 MR. ELTON: A: I describe it as an aspirational
10 document, and if you read it carefully, it clearly is
11 that. It says that if we decided to live differently,
12 if we -- if all of our buildings, if all of our
13 industries, were first-quartile rather than whatever
14 they are, then we would be able to achieve these kinds
15 of results. So, in other words, there are parts of
16 the world that have the kinds of characteristics that
17 I've just described, and therefore if we had those
18 characteristics, we could achieve this kind of result.

19 So it isn't a prediction of what B.C. Hydro
20 thinks will happen, it's an aspiration of what we
21 would like to see happen, and points out that we would
22 all need to work together to do that.

23 MR. WEAVER: Q: And we agree wholeheartedly with that,
24 Mr. Elton.

25 MR. ELTON: A: Thank you. And I should say that I
26 think Ms. Van Ruyven can comment, that the kind of

1 spirit of this, and the thinking behind this, was very
2 much helped by the work of that advisory panel that we
3 had on the energy conservation efficiency. In other
4 words, what we were getting from customer groups and
5 others was an increased commitment to demand-side
6 management.

7 MS. VAN RUYVEN: A: Yes, I'd completely agree with
8 that.

9 MR. WEAVER: Q: And thank you for that. And again, we
10 support you in that objective. But in terms of
11 focusing on the load forecast issue, if we look at the
12 last sentence on page 1,

13 "In the short-term, consumption will go up,
14 but with concerted action, we can bring it
15 back down to levels in 2007."

16 You'll agree with me that consumption has gone down
17 significantly in the short term.

18 MR. ELTON: A: Well, I don't think we were hoping that
19 this goal would be achieved as a result of customers
20 closing down plants. In other words, this is saying
21 that if we have -- this was an aspiration that, from
22 2007, that if economic growth continued, we would at
23 the same time find enough ways to conserve and to use
24 energy efficiently, that eventually we'd go back down
25 to today's levels.

26 Now, what has been happening since 2007 is

1 load going down, largely for other reasons which are
2 not, frankly, good reasons, which we're not obviously
3 encouraging, which is economic reasons. But once that
4 recovery occurs, the same principle applies.

5 MR. WEAVER: Q: Yes, and --

6 MS. VAN RUYVEN: A: And it's important just to add --
7 it's important to note that over the next 20 years,
8 our load is going to continue to grow. So, in the
9 short-term you do see some downturn. It won't catch
10 up to what it was before, but it will start to grow at
11 the same kinds of rates it was before. And I believe
12 the load growth over the next 20 years is still in the
13 neighbourhood of over 10,000 gigawatt hours.

14 MR. WEAVER: Q: I simply table the document, and the
15 discussion of -- we have two material events occurring
16 which are putting downward pressure on load. Economic
17 circumstances, and a significant proposed investment
18 in a cultural change and creation of the culture of
19 conservation. You'd agree with those two points?

20 MR. ELTON: A: Yes.

21 MR. WEAVER: Q: And in terms of looking at the load
22 forecast, and the Commission looking at the load
23 forecast in terms of what is reasonable, those are two
24 significant downward pressures on load of B.C. Hydro.

25 MR. ELTON: A: Yes, and we believe they are reflected
26 in the load forecast that is part of our evidentiary

1 update.

2 MR. WEAFFER: Q: The conservation culture described in
3 C10-4 was prepared before the update, is that correct?

4 I believe that's correct.

5 MS. VAN RUYVEN: A: Is that this -- what --

6 MR. WEAFFER: Q: Yes.

7 MR. ELTON: A: Yes. Yes, I'm sorry, this is not a
8 dated document, I see. I don't know when the -- I
9 don't remember when the CPR was filed, but we could --

10 MS. VAN RUYVEN: A: I believe it was early 2007.

11 MR. ELTON: A: Thank you.

12 MR. WEAFFER: Q: So well before the load forecast.

13 MR. ELTON: A: Yes.

14 MR. WEAFFER: Q: Thank you. I'll move on from that
15 document for now, and the next area -- or sorry, one
16 topic related. And in the -- one of the pre-hearing
17 conferences, the Chair of the BCUC, the Chair of the
18 Commission asked the IPPs if they were comfortable
19 proceeding with the Clean Call when the volumes
20 required had not been confirmed by the Commission, and
21 they indicated that there really wasn't an option,
22 they needed to pursue. But would you agree with me
23 that the decision to go forward with the Call prior to
24 knowing what is approved by the Commission creates
25 some policy issues in terms of tensions, and dealing
26 with what is the appropriate level for the Call?

1 **Proceeding Time 2:14 p.m. T55**

2 MS. VAN RUYVEN: A: Well, my recollection of those
3 conversations was that the IPPs were supportive of us
4 putting the need for the Call in this LTAP hearing,
5 giving them more certainty prior to awarding EPAs and
6 going into Section 71. So they were supportive of us
7 seeking an order for certainty around the volume of
8 the IPP Call. That was my recollection of the
9 conversation, and hence you see us seeking that order
10 in this hearing.

11 MR. WEAFFER: Q: Thank you, and we'll come back to that
12 in discussion of IPPs. But would you agree with me
13 that we're now dealing with that in a period of
14 significant of economic uncertainty as has been
15 discussed with prior cross-examiners?

16 MS. VAN RUYVEN: A: Dealing with --

17 MR. WEAFFER: Q: What the volume should be in terms of
18 the call. That the economic circumstances are raising
19 some serious questions as to what the appropriate
20 volume should be.

21 MS. VAN RUYVEN: A: Well, you can see in our
22 evidentiary update we've made some adjustments to our
23 LTAP based on the new load forecast. One of them was
24 reducing the need for the Call from 5,000 gigawatt
25 hours pre-attrition to 3,000 gigawatt hours pre-
26 attrition.

1 MR. WEAVER: Q: Thank you, and we'll discuss that
2 shortly.

3 The economic conditions in the province
4 were discussed a fair length with Mr. Quail, and I
5 just wanted to confirm, Mr. Elton, there was
6 discussion around forecasts by third parties, and wide
7 discussion around issues in terms of indicators in the
8 British Columbia economy. I'm not sure if the
9 question was asked that the economic turmoil we've
10 seen in the United States is coming to British
11 Columbia later in time. Would you agree with me?

12 MR. ELTON: A: Well, yes and no. I mean, I think
13 because of the nature of our export industries to the
14 United States, there's some truth to that. At the
15 same time, compared with other Canadian provinces,
16 British Columbia is less dependent on U.S. exports
17 than, for example, Alberta or other Canadian
18 provinces. I think from memory it's round about 58
19 percent of our exports are to the United States,
20 whereas Ontario, Alberta much higher than that.

21 The question I don't think we know yet is
22 whether we will experience the same degree of pain as
23 they have in the United States. Let's face it, there
24 were some issues there around maybe housing prices,
25 maybe loans and so on, financial institutions that are
26 worse there than here. So I think that's all very

1 hard to predict.

2 MR. WEAVER: Q: We're not immune, but the level of
3 illness is yet to be seen.

4 MR. ELTON: A: Certainly hope so.

5 MR. WEAVER: Q: Thank you. I did go through a series
6 of similar questions with your chief financial officer
7 at the revenue requirement proceeding, and I put to
8 him that -- and he described the circumstances as the
9 perfect storm, and I put to him that it's going to get
10 worse before it gets better, and he agreed with that.
11 Do you agree with that?

12 MR. ELTON: A: That was in October?

13 MR. WEAVER: Q: Yes.

14 MR. ELTON: A: So I think there was no doubt. Sorry,
15 there was no doubt. It's clear with hindsight that he
16 was right. And it's hard to tell now, frankly,
17 whether it will get worse before it gets better. But
18 personally I suspect that it will. I think we have to
19 plan our businesses on that basis in the short term.

20 MR. WEAVER: Q: And in terms of reacting to that,
21 you're aware of the budget that was tabled this week.
22 You're also aware, I take it, that the province
23 revised legislation allowing the province to pursue
24 deficit financing where previously legislation existed
25 to prevent a deficit budget.

26 MR. ELTON: A: Yes.

1 MR. WEAVER: Q: So serious steps have been taken by the
2 province to recognize the challenges.

3 MR. ELTON: A: I'm aware, yes, of the legislation
4 around deficit budgeting, yes.

5 MR. WEAVER: Q: And I did have a -- this may be a
6 convenient time. With respect to the province's
7 reaction, and we were all surprised this morning by
8 Exhibit B1-1, Appendix B-4, the order, and I'm not
9 sure you need to refer to it, Mr. Elton, but just to
10 make sure it's in the record. Can you help us as
11 customers understand what we should take from this?
12 Or as the policy witness for B.C. Hydro, what this
13 should indicate to customers in terms of the
14 shareholder's view of the role of B.C. Hydro within
15 the B.C. economy?

16 MR. ELTON: A: Well, that's a difficult question for me
17 to answer. And I'll make just two or three comments.
18 I mean first --

19 MR. WEAVER: Q: And I don't wish to be unfair, but if
20 it's not appropriate to ask you at this time, Mr.
21 Elton, I'm not sure how new this is to you, I don't
22 wish to be unfair, but I do -- I would like to get
23 some sort of understanding as to what B.C. Hydro's
24 policy position is with respect to a legislated change
25 in --

26 MR. ELTON: A: That is what I am prepared to talk

1 about, rather than what the government intended,
2 although I'll make the comment that it was a
3 government-wide -- it's part of a government-wide
4 initiative around budgets.

5 **Proceeding Time 2:19 p.m. T56**

6 I think first of all, as was noted earlier,
7 it is a three-year thing, it's not a -- it's not said
8 to be a permanent thing. And I think second that, you
9 know, you know that government has talked about a
10 disciplined operating cost regime throughout
11 government, as part of its budget, and you can assume
12 that, as we look at this, that is an important lesson
13 for us to take from this. In other words, that is --
14 you know, our reaction to this is to look at our
15 operating cost regime.

16 MR. WEAVER: Q: Thank you. I'll move on, and the next
17 area is utilization of Burrard, which has received
18 some discussion. But I'll focus my attention on
19 Burrard. We talked about flexibility as a policy
20 objective, but I'll be very direct with you, and I'd
21 like to explore with you policies just for the
22 existing system of Burrard, using 3,000 gigawatt hours
23 versus 4,000 gigawatt hours. So I'll try and not go
24 too far afield from that topic.

25 And now, Hydro relies -- the level at which
26 B.C. Hydro selects to rely on Burrard has a

1 significant effect on other options in the current
2 circumstances, correct?

3 MR. ELTON: A: Yes.

4 MR. WEAFFER: Q: And so, if, for example, B.C. Hydro
5 were to select to plan for the Burrard plant at 4,000
6 gigawatt hours a year, that would deliver
7 approximately one-half of what is being pursued in the
8 Clean Power Call, is that correct?

9 MR. ELTON: A: Of the post-attrition target of a Clean
10 Power Call, which will be 2100, yes, it would be
11 almost one-half.

12 MR. WEAFFER: Q: And in the filing, B.C. Hydro looked at
13 the operational reliance for planning purposes as from
14 zero to 6,000 gigawatt hours, and not to pursue the
15 detail, but those options were looked at in the
16 evidence, correct?

17 MR. ELTON: A: I think it's probably six -- ten to six
18 thousand, but yeah, we certainly considered all
19 options, yes. Yeah.

20 MR. WEAFFER: Q: Now, the choice to go to the 3,000
21 gigawatt hours in the plan, it's not a bright-line
22 choice. There's not a sudden precipitous event that
23 occurs at 3,001, is that correct?

24 MR. ELTON: A: As I said earlier, what I did was to ask
25 our staff, I'm including Chris O'Riley, our vice-
26 president, to look into it, and to -- we agreed we

1 would have various studies done, and I just said, "I
2 don't know what the answer is. I want you to come
3 back with what you genuinely believe is the right
4 answer." Knowing that the answer would not be zero,
5 and it would not be 6,000.

6 They came back with 3,000 and so, you know,
7 my understanding, and belief, is that the 3,000 is
8 supported by that work that was done, and I think that
9 questions about that are best put to them. In other
10 words, from a policy point of view, you know, I wanted
11 a number that we could all believe was supportable,
12 based on whatever evidence we could get.

13 MR. WEAVER: Q: And that analysis was done prior to the
14 economic developments we've experienced from October
15 on, I take it.

16 MR. ELTON: A: It was.

17 MR. WEAVER: Q: And here's where I want to get an
18 understanding of another comment you make in your
19 opening statement. And I'll just read you the line,
20 and you can respond. And it's on page 5.

21 "Long-term resource planning is a dynamic
22 process and during the time between LTAP
23 filings, the public and regulatory oversight
24 of activities identified in the LTAP allow
25 for the discussion and adjustment of the
26 LTAP as warranted."

1 So I take it from that comment that there is some
2 flexibility. And I'd just like to understand when
3 that flexibility gets applied, and so focusing firstly
4 on this Burrard opportunity, where there is nothing in
5 the system that prevents you from utilization of the
6 resource. And you have had a significant dynamic
7 change in circumstances. Would you agree with me that
8 that's a time to look at flexibility?

9 MR. ELTON: A: So, two parts to the answer. Part one
10 is the kinds of things that I was referring to in the
11 opening statement include things like the Alcan
12 transaction, where we had done an IEP, which I don't
13 think included the Alcan power, but it became
14 available and we brought it forward as a cost-
15 effective option. So, I think that's always something
16 that we would do if the opportunity arises, whether it
17 was, you know, Alcan or tech or any other kind of
18 potential power source.

19 When we received the evidentiary update,
20 what we clearly did, as a management group, was to sit
21 down and look at the evidentiary update and to look at
22 our options, and we looked at the question of Burrard,
23 whether three was still appropriate, we looked at the
24 call and whether it should be reduced, and if so, to
25 what amount. And we looked at the DSM and whether it
26 should be reduced.

1 **Proceeding Time 2:24 p.m. T57**

2 In other words, we looked at all of our
3 options, and what we came up with was the evidentiary
4 update that you see, which reflects those decisions.
5 And I believe it represents a balance, frankly, where
6 we did consider, I think, all of the options that
7 you're talking about. But there was no event relating
8 to Burrard that would have led us to change the 3,000
9 number. And as I've said, my belief, which you can
10 test with the Panel 2, is that the 3,000 number is
11 supported by whatever evidence we have.

12 MR. WEAVER: Q: Are you aware, and if it's too much
13 detail, that's fine, that the weighted present value
14 difference between 3,000 and 4,000 is \$250 million?

15 MR. ELTON: A: I'm not familiar with that particular
16 number. I mean, I have been but I can't -- I'd need
17 to see it in something to be able to confirm it for
18 you.

19 MR. WEAVER: Q: If you were to look at -- I'll pursue
20 that with another panel, but subject to check would
21 you consider that to be a material value that
22 customers in these economic times would have an
23 interest in seeing B.C. Hydro pursue?

24 MR. ELTON: A: \$250 million?

25 MR. WEAVER: Q: Yes.

26 MR. ELTON: A: I'd consider that to be material value.

1 MR. WEAFFER: Q: And if on top of that the move from
2 3,000 to 4,000 reduced potentially the need for 1,000
3 gigawatt hours of Call energy, that would have further
4 value to customers, if it's energy not required.

5 MR. ELTON: A: I'm sorry, I was about to speak and then
6 realized -- do you mind now repeating the question,
7 because I lost half of it as I was thinking.

8 MR. WEAFFER: Q: The way the present value -- if the
9 retention of Burrard at 4,000 as opposed to 3,000
10 mitigated the need for acquisition of EPAs from the
11 Call, that would have a material value to customers as
12 well.

13 MR. ELTON: A: Well, the challenge is, as I mentioned
14 earlier in response to a different cross-examination,
15 that we are trying to strike a balance here. In other
16 words, we do have the energy plan to consider, and
17 then we have Special Direction 10 to consider and what
18 they both say, and we have the question of the
19 technical work that was done and the environmental
20 work that was done and so on. So, I mean, of course
21 you could make different assumptions about different
22 things that you could buy, based on numbers, and say
23 that you'd lost value. But what I'm saying is that
24 we're trying to strike a balance with respect to
25 government policy, and I think that -- I think we have
26 to be justified in saying that Burrard can be -- that

1 we can rely on it for 3,000. If we push to 4,000 and
2 we can't really be justified, to me that will be a
3 challenge to government policy that we should not be
4 making.

5 The key question is can we justify it based
6 on the kind of evidence that we're filing.

7 MR. WEAFFER: Q: Yes, and there's no specific government
8 policy that says 3,000 versus 4,000. That's the
9 judgment of B.C. Hydro being applied, correct?

10 MR. ELTON: A: Right. As I said, I think the
11 government -- I think I've more or less said this. In
12 my view, wisely said that it was something that we
13 should have some discretion over and it's up to the
14 Commission. I think having that flexibility and
15 discretion is valuable for all of us, and I think that
16 what we put forward is appropriate.

17 MR. WEAFFER: Q: Would you agree with me that the
18 utilization for the short term of 4,000 as opposed to
19 3,000 would give all stakeholders some comfort in
20 terms of what the short-term economic future holds,
21 and its impact on load?

22 MR. ELTON: A: Well, with respect to the very short
23 term, we operate as we operate. You know, we operate
24 based on the economics of the day, and we will only
25 operate Burrard if it makes sense to operate it that
26 day or that hour. Or that day, I should say. So I

1 don't think it makes any difference. In other words,
2 we will optimize the resources we have available to us
3 from day to day, and with respect to Hydro assets from
4 minute to minute.

5 MR. WEAVER: Q: Let's define short-term more clearly
6 then. In terms of a three-year window or a four-year
7 window. Let's go four years out. And utilization at
8 4,000 as opposed to 3,000, which based on your plan
9 would mitigate the need to acquire 1,000 gigawatt
10 hours from the Call.

11 **Proceeding Time 2:29 p.m. T58**

12 MR. ELTON: A: You'd have to look at what you were
13 displacing. So probably the bio-energy, I would think
14 it would be the bio-energy projects, for example, or
15 some of them that would be displaced. And you know,
16 this is a philosophical discussion. But then I look
17 at the direction with respect to the Bio-energy Call
18 project and see that, you know, we are to look at
19 things other than just economic factors. You know,
20 just in other words, the price of energy. So again --
21 you know, when I look at the Energy Plan, and
22 obviously I look at it very, very often, and at the
23 related legislation and Special Direction, to me it's
24 a plan that asks us to try and achieve a balance. And
25 it very clearly says, I think, it's not one of the
26 above, it's all of the above, and we have to try and

1 find that balance. And you know, I recognize that --
2 it goes back to the conversation I was having with Mr.
3 Quail earlier about different priced eggs. You could
4 always go to a place where you only looked at the
5 cheapest thing, or the apparently cheapest thing, and
6 just did that. But there's risks to that too.

7 I think the balance that we've stuck is --
8 does reflect the energy plan, and also, frankly, gives
9 the customers -- I think it generally reduces customer
10 risk, you know, by making sure that we have a wide
11 variety of sources.

12 MR. WEAVER: Q: At a significant cost, though.

13 MR. ELTON: A: With respect to what?

14 MR. WEAVER: Q: With respect to a weighted present
15 value difference of \$250 million, of 3,000 versus
16 4,000.

17 MR. ELTON: A: Again, I think it will be best if you --
18 if we all considered what the evidence is with respect
19 to Burrard, and what -- you know, what is the
20 difference between running Burrard -- or between
21 assuming you could run Burrard at four versus three,
22 what are the things that would be stressed by that? I
23 think that is a good Panel 2 discussion.

24 MR. WEAVER: Q: So in terms of the social contract at
25 Burrard, on the air quality issues, those are to be
26 dealt with with Panel 2?

1 MR. ELTON: A: Yes, and, you know, the operational
2 ability of the plant to do that.

3 THE CHAIRPERSON: Mr. Weafer, is this a time for a break?

4 MR. WEAFER: That's fine, Mr. Chairman.

5 THE CHAIRPERSON: We'll break for 15 minutes, then.

6 **(PROCEEDINGS ADJOURNED AT 2:31 P.M.)**

7 **(PROCEEDINGS RESUMED AT 2:46 P.M.)**

T59/60

8 THE CHAIRPERSON: Please be seated.

9 MR. WEAFER: Thank you, Mr. Chairman.

10 **CROSS-EXAMINATION BY MR. WEAFER (Continued):**

11 MR. WEAFER: Q: Panel, I'm going to move --

12 MR. GODSOE: My apologies.

13 MR. WEAFER: Q: Oh, sorry. I'll leave the rest of
14 Burrard to the subsequent panel and I'd like to move
15 on to just policy issues for filling the gap, and DSM-
16 A versus B versus IPPs. And some of this again was
17 covered by earlier cross-examiners, but I understand
18 the evidence to be that the energy plan, B.C. Hydro's
19 strategy, the *Utilities Commission Act*, without asking
20 for a legal interpretation, is all towards pursuing
21 all cost-effective and competitive DSM. That's an
22 accurate summary of the evidence given?

23 MR. ELTON: A: Yes.

24 MR. WEAFER: Q: And this is the position of B.C. Hydro?
25 So, with respect to the balance between the Clean Call
26 and DSM, I just want to get a better understanding as

1 to whether B.C. Hydro is truly treating DSM as a
2 priority. Where you can, B.C. Hydro would utilize DSM
3 as opposed to Call energy. Is that correct?

4 MS. VAN RUYVEN: A: Well, we've built our plan based on
5 the UCA requirement to pursue all cost-effective DSM
6 first, before turning our minds to supply-side
7 options. We've talked also in this hearing that cost-
8 effective is broader than lowest-cost. By the very
9 nature of the fact that our DSM plan, as it stands to
10 date in the evidentiary update at 9600 gigawatt hours
11 by 2020 accounts for 72 percent of our resource needs
12 going forward between now and 2020, shows that we've
13 really put a very large emphasis on the demand-side
14 management portion of the plan.

15 MR. WEAFFER: Q: Right. And that's DSM Option A, and
16 with respect to Option B, which you're not pursuing, I
17 take it that the assessment is -- there's a risk
18 associated with not delivering the DSM if you pursue
19 more.

20 MS. VAN RUYVEN: A: Well, if you plug in Option B,
21 based on our new load forecast, and do the same kind
22 of math, I don't have the exact number, and you
23 certainly can have this confirmed by Mr. Hobson, but
24 it's probably in the high nineties of our total
25 resources if it was Option B would be met through DSM,
26 and that doesn't really pass the test of having some

1 diversity of resources in your plan. It would pretty
2 much close the entire gap.

3 MR. WEAFFER: Q: So the assessment is that the risk of
4 pursuing that justifies the pursuit of the Clean Call
5 volumes at 3,000 gigawatts a year to deliver a net of
6 2100. Is that correct?

7 MS. VAN RUYVEN: A: That's correct.

8 MR. WEAFFER: Q: Do you believe that the risk, in terms
9 of this level of assessment, would change over time
10 with additional information?

11 MS. VAN RUYVEN: A: It could. If, over a number of
12 years, we actually see that we're significantly over-
13 performing on the DSM side, and getting more cost-
14 effective energy through DSM, we could potentially
15 shift more of our incremental resources to that, once
16 we have some evidence that we're able to be saving at
17 that rate. And that's why we do long-term acquisition
18 plans every couple of years.

19 MR. WEAFFER: Q: So if -- sorry.

20 MR. ELTON: A: Sorry, if I could add to that, I think
21 -- I mean, the Act actually says that it's up to the
22 utility to say why it hasn't chosen all DSM. So I
23 think clearly the energy policy of the government
24 allows for the possibility that at some point we will
25 indeed say it's all DSM. I think a legitimate reason
26 for saying it isn't all DSM is the issue of

1 deliverability risk, which is what we've said, and I
2 agree with Ms. Van Ruyven that over time it may well
3 be that we'll become more and more confident of the
4 deliverability of DSM programs.

5 MR. WEAFFER: Q: With respect to Plan A, you are relying
6 on Plan A to continue to fill the gap after the Clean
7 Call. Your Plan A is for the long-term and you see
8 it's going to be reliable enough, based on what you
9 know today, to assist in filling the gap, even after
10 -- if there is a Call, and the EPAs are executed,
11 correct?

12 MS. VAN RUYVEN: A: Well, that Plan A is a long-term
13 plan. The Plan A at the 9600 gigawatt hours takes you
14 to 2020. The Clean Power Call, 2100 gigawatt hours,
15 gets delivered to fill the remainder of the gap to
16 meet Special Direction No. 10 around self-sufficiency.

17 **Proceeding Time 2:51 p.m. T61**

18 MR. WEAFFER: Q: So there's a confidence in Plan A, and
19 there was a continued pursuit of further DSM
20 opportunities during the course of the plan.

21 MS. VAN RUYVEN: A: That's correct. That plan --
22 actually the plan that's filed in the LTAP goes beyond
23 2020. It actually goes out 30 years. We have a lot
24 more certainty in the shorter term around programs,
25 and even more certainty in the three years of the
26 expenditures we're asking for. There's a lot more

1 detail in the near term than there is in the longer
2 term.

3 MR. WEAFFER: Q: So as you review Option A over time,
4 and your comfort in the deliverability risk grows,
5 you're satisfied that Plan A is working and more DSM
6 is available, how do you react to that if you've
7 already filled the gap with EPA purchases?

8 MR. ELTON: A: The challenge, I think, is that with all
9 these things there's a lot of uncertainty. You know,
10 we're planning obviously -- I mean, the way we do
11 planning, the way we discuss planning, we talk about
12 all these numbers, like 3,270 whatever, as if they're
13 precise numbers. The fact is that there's a lot of
14 imprecision, a lot of uncertainty. And so I don't
15 think you can really say, Mr. Weafer, what would
16 happen if -- you know, we'll keep doing these load
17 forecasts and we'll keep doing these plans and we'll
18 keep adjusting.

19 MR. WEAFFER: Q: How long do you think it will take to
20 develop some confidence that the deliverability risk
21 is less than you anticipated today?

22 MS. VAN RUYVEN: A: I think it'll vary. I think we'll
23 need, you know, certainly the next three years to see
24 the uptake on our programs. We're relying quite a bit
25 on codes and standards and just pointed out earlier we
26 don't always have complete control over when those get

1 legislated.

2 One area, we're not sure about the price
3 elasticity. In a low-cost jurisdiction like we are
4 in, you know, price elasticity, is it really going to
5 drive the kinds of savings that we've said it will? I
6 think that will take a few years to see whether or not
7 that price elasticity trend is actually coming to
8 fruition.

9 So I don't have a precise answer, but I
10 would say it's, you know, three to five years before
11 we're completely clear and may take longer on some of
12 those or shorter on others.

13 MR. WEAFFER: Q: And if successful you'd be able to
14 defer future calls for power. That's the objective.
15 If DSM is the priority, that will be the objective, I
16 take it.

17 MS. VAN RUYVEN: A: Yes. I mean, I think if you look
18 at, again, page 29 of the evidentiary update, you will
19 see that we, into the future, still need future
20 resources. And we've just stuck those in there as a
21 proxy starting in 2018, we still need to continue to
22 add gigawatt hours out to 2028 to make sure we meet
23 self-sufficiency, plus have the 3,000 of insurance.
24 If those gigawatt hours can be met through cost-
25 effective DSM and we're pretty sure of the
26 deliverability risk, you would see more of that future

1 resources coming from DSM than you would from other
2 resources.

3 MR. WEAFFER: Q: Thank you.

4 MS. VAN RUYVEN: A: And that does give us some time,
5 you know, before we start to reach, you know, 2018 to
6 know whether or not we could ramp up DSM to an even
7 greater level.

8 MR. WEAFFER: Q: How much more confidence do you think
9 you're going to have in a shorter period of time, say
10 two years, in terms of DSM deliverability?

11 MS. VAN RUYVEN: A: We'll have two more years of
12 confidence. I mean, we'll be able to monitor some of
13 our programs in quite a bit of detail. And again,
14 we're going from an environment where we had a ten-
15 year target for 3600 gigawatt hours. We now have a
16 9600 gigawatt hour target over the next 11 years.
17 That's a significant ramp-up of DSM, with many
18 programs relying on many customer groups to actually
19 participate in the programs, including some
20 significantly greater expenditures on behavioural
21 programs which we've never done before as well.
22 Behavioural programs is kind of a new area we're
23 moving into, to build awareness and to get people to
24 change behaviour and sustain those changes, and that
25 will take some time, I think, before we gain
26 confidence that those are getting traction in the

1 marketplace.

2 **Proceeding Time 2:56 p.m. T62**

3 MR. WEAFFER: Q: Would you agree with me that B.C.
4 Hydro's experience with PowerSmart has been very
5 successful?

6 MS. VAN RUYVEN: A: Yes, since PowerSmart was launched
7 almost exactly 20 years ago, we've saved over 4400
8 gigawatt-hours in a 20-year period. But again, that's
9 -- we're taking quite a step-change here to more than
10 double that over an 11-year period.

11 MR. WEAFFER: Q: But your experience is, you've set your
12 targets and you've essentially met them with
13 PowerSmart.

14 MS. VAN RUYVEN: A: We have, and I have a lot of
15 confidence in our PowerSmart group. If you look
16 worldwide, we are considered, you know, best in class
17 in doing demand-side management programs. People come
18 from all over the world to talk to our PowerSmart
19 folks about how they do demand-side management, and I
20 have confidence that, you know, we can get there.
21 We've got a good foundation.

22 MR. WEAFFER: Q: And you rigorously test those programs,
23 and you're -- when you implement them, you're
24 generally successful.

25 MS. VAN RUYVEN: A: Yes, we do have a very rigorous
26 monitoring and verification process.

1 MR. WEAVER: Q: And there's no reasons from past
2 experience to expect that your DSM initiatives will
3 not be successful?

4 MS. VAN RUYVEN: A: Well, we're certainly pursuing it
5 with that belief, that we can get there. But as I
6 said before, it is a significant shift or ramp-up or
7 step-change to go from where we were before to more
8 than doubling it in a shorter period of time.

9 MR. ELTON: A: If I could add to that, I think that,
10 you know, you heard the discussion earlier about codes
11 and standards and rate structures as well as programs.

12 I think with codes and standards, an
13 interesting -- you asked about what we would know in
14 two years. I think an interesting question will be,
15 will governments, federal, provincial, will their
16 enthusiasm for energy conservation and efficiency
17 continue through the economic conditions? In other
18 words, will they be prepared to make -- continue to
19 make the kinds of changes they've said they would?

20 And second, with rate structures, we will
21 have more experience with the residential inclining
22 block rate. We are looking, of course, to bring, you
23 know, a two-tier rate of some description through on
24 the commercial side. So I think we will, within two
25 years, have more information about that, although of
26 course you can always get more information.

1 MR. WEAVER: Q: Thank you. So two years, I'm hearing,
2 is a reasonable time frame to buttress the evidence
3 that your PowerSmart initiatives, which have proven
4 successful historically, look positive going forward.

5 MR. ELTON: A: We'll have more information. I think
6 the -- I think you said three to five years?

7 MS. VAN RUYVEN: A: I think that is.

8 MR. ELTON: A: I think the three to five years that Ms.
9 Van Ruyven was talking about would be -- again, you'd
10 then have -- you would then have experience with each
11 of the classes of customer on the two-tier rate, which
12 I think is quite important.

13 MR. WEAVER: Q: And again, we -- that is the lowest-
14 cost power available to B.C. Hydro, and from a
15 customer perspective the source we would like to see
16 you pursue.

17 MS. VAN RUYVEN: A: Well, DSM is the lowest cost, yes.

18 MR. WEAVER: Q: And looking the DSM A versus B again,
19 that's not a bright line in terms of the differences.
20 There's nothing that changes drastically on either
21 side of Plan A versus Plan B, if incremental steps are
22 taken to increase the Plan A objectives.

23 MS. VAN RUYVEN: A: Well, as I said yesterday, Plan B
24 really sees us going to the maximum potential of all
25 of the programs, which doesn't leave you much room if
26 you find that you are failing in one area to

1 compensate for it in another, because you've assumed
2 that you're going to go to the maximum of what you
3 thought was achievable in the first place. So I
4 believe it has greater deliverability risks than
5 Option A.

6 MR. WEAFFER: Q: But Plan A is not an exhaustive set of
7 options. I mean, B.C. Hydro is going to continue to
8 develop other options, and other initiatives, to
9 promote and develop DSM success in the province,
10 correct?

11 MS. VAN RUYVEN: A: We will continue to do that. If we
12 can be significantly more successful than 9600
13 gigawatt-hours by 2020, and even more successful
14 beyond that date, we will try our hardest to pursue
15 that.

16 MR. WEAFFER: Q: And the conservation potential review
17 was an effort to potentially qualify potential or
18 additional DSM across a number of options, correct?

19 MS. VAN RUYVEN: A: Yes, it's a fairly exhaustive study
20 of all of our customer classes, the end uses, the
21 economic potential, the achievable. I think you know
22 we had an outside advisory committee help us over a
23 year-long piece of work to come up with the
24 conservation potential review. And it forms one of
25 the inputs into our planning. It's not the only thing
26 we look at, but it is an important input.

1 MR. WEAFFER: Q: And it shows more achievable potential
2 than B.C. Hydro was capturing in its DSM programs,
3 correct?

4 MS. VAN RUYVEN: A: Yes. And Mr. Hobson can talk in a
5 lot more detail, more achievable at higher cost,
6 potentially, and with some additional risk.

7 **Proceeding Time 3:01 p.m. T63**

8 MR. WEAFFER: Q: And for example, beyond the CPR
9 identifiable opportunities there are also rate
10 planning opportunities that B.C. Hydro is pursuing,
11 that weren't identified in the CPR, that may generate
12 other DSM --

13 MS. VAN RUYVEN: A: Right, and we've included our
14 projection of what we think the rate design work
15 around things like the residential inclining block and
16 the larger general service tiered rate will mean to
17 the DSM plan that's included in there.

18 MR. WEAFFER: Q: That's included in Option A?

19 MS. VAN RUYVEN: A: Yes, it is. If you look in the --
20 I think in the evidentiary update, I'm not sure if
21 it's in there or -- there's a breakdown of what we
22 expect from the various programs. There's a chart
23 that breaks down how many gigawatt hours we expect
24 from codes and standards, from rates, and from
25 programs. And then it shows you the breakdown between
26 residential, commercial and industrial customers.

- 1 MR. GODSOE: Showing that I can also go to the
2 application, not just IRs, page 6-3, Table 6-2 is the
3 energy, and Table 6-3 is the capacity broken down by
4 the three components.
- 5 MR. WEAFFER: Thank you, I'll pursue that further with the
6 next panel, that's --
- 7 MR. GODSOE: If you want to pursue that, I think the
8 breakdown goes to Panel 4.
- 9 MR. WEAFFER: Q: Thank you. Thank you, Ms. Van Ruyven.
10 This was discussed with earlier cross-
11 examiners as well, so let's skip through it. In terms
12 of the probability of achievement for DSM, B.C.
13 Hydro's record in terms of success is higher with
14 respect to DSM than it with respect to attrition
15 levels on its IPP Calls, is that correct?
- 16 MS. VAN RUYVEN: A: We have generally met our DSM
17 targets in most every year. Well, certainly in the --
18 I won't say the last 11 years I've been at B.C. Hydro
19 because we weren't always doing PowerSmart. We
20 drifted away from it in the mid to late '90s. But
21 since PowerSmart got back on board in about 2001, we
22 have met our targets each year.
- 23 MR. WEAFFER: Q: And I understood the evidence this
24 morning, the attrition from the '06 Call was 60
25 percent?
- 26 MS. VAN RUYVEN: A: Well, it's 41 percent if you don't

1 consider the coal projects as part of that. They skew
2 it to a much higher number.

3 MR. WEAVER: Q: Fair enough, thank you, thank you.

4 With respect to the IPP issues, and as I
5 highlighted earlier on in the discussion, what the CEC
6 is interested in is higher levels of flexibility with
7 respect to IPP initiatives with a view to preserving
8 the opportunity to pursue more DSM. And a concept
9 that we've advanced in the past and I'd like to
10 advance with you now is pursuing a higher level of
11 flexibility with respect to the IPP initiatives. And
12 I was struck by Exhibit B-11, which was the letter of
13 January 12th, which speaks of creating more flexibility
14 in terms of the Call as opposed to the 3,000 gigawatt
15 hours identified in the plan, potentially going to
16 5,000 gigawatt hours. And what I took from that, and
17 just to read from the second paragraph in the letter:

18 "As a result of all of these uncertainties
19 and opportunities, and the 2007 Energy
20 Plan's goal to achieve electricity self-
21 sufficiency by 2016, B.C. Hydro does not
22 want to limit its opportunities to acquire
23 cost-effective renewable power through
24 competitive processes with independent power
25 producers."

26 And I took from that that B.C. Hydro was

1 looking to have a more flexibility opportunity in
2 terms of contracting with IPPs. Is that a fair
3 understanding of that objective?

4 MR. ELTON: A: No. I think the -- I mean, with respect
5 to the letter you're quoting from?

6 MR. WEAVER: Q: Yes.

7 MR. ELTON: A: No, I think the purpose of that was
8 simply to point out that what I think was already
9 known here, that while the Commission rules on need
10 through this LTAP process, that it's always --
11 something that we can always do is to bring back
12 specific contracts to say, "These contracts look to us
13 to be very cost-effective. We'd like you to consider
14 them," as we did with the Alcan contract. That was
15 the purpose of that. So in other words, we didn't
16 want -- we wanted to be clear that we would not --
17 would not and should not foreclose the possibility of
18 such contracts being brought to the Commission.

19 **Proceeding Time 3:06 p.m. T64**

20 MR. WEAVER: Q: Fair enough and I'll pursue that
21 further.

22 The other discussion with Mr. Austin this
23 morning and he referenced your opening statement,
24 November 22nd, 2006 in the 2007 RRA application. And
25 the quote at the bottom of page 634 -- I don't think
26 you need to turn to it, I'll just give you your

1 sentence:

2 "If through time it becomes apparent that
3 some projects can be delayed or have their
4 scope reduced, so be it. Those are actions
5 that can be taken as appropriate."

6 So again, I'm seeing a concept of flexibility in terms
7 of projects and scope of projects.

8 Has B.C. Hydro assessed in its IPP
9 contracting relationships opportunities for
10 contracting for projects up to the level of
11 construction? Tying up the project without incurring
12 the material cost of construction and even more
13 importantly, the material cost of energy from the
14 project? Has that opportunity been investigated to
15 try and create some flexibility in contracting for
16 power?

17 MS. VAN RUYVEN: A: So, do you mean like having a
18 project get to a certain point so it's shelf-ready?

19 MR. WEAVER: Q: Yes.

20 MS. VAN RUYVEN: A: We haven't pursued that, mostly
21 because we don't see how a private-sector partner
22 could finance that and kind of be hanging around
23 shelf-ready and go to the bank and get the money to do
24 that. So, I don't -- we don't see how they could get
25 their project financed to that point in time, and kind
26 of wait, hoping to get a contract. I don't think any

1 bank would back that.

2 MR. GODSOE: For my friend's benefit, the actual
3 assessment we've done on that, I think, could be put
4 to Panel 4. They could provide you with additional
5 details on that.

6 MR. WEAFFER: Q: Fair enough. So let's just discuss the
7 concept briefly, and I don't wish to -- we can discuss
8 the economic merits of it, and the prospects of
9 investors investing in that, but would you agree with
10 me that there's a material risk to IPPs investing in
11 the existing processes, where they can spend
12 significant amounts of money and get nothing? Would
13 you agree with me, that's a risk of the present
14 process?

15 MS. VAN RUYVEN: A: That is a risk, yes.

16 MR. WEAFFER: Q: And would you agree with me that's a
17 risk that has potentially impacted on the
18 attractiveness of the parties participating in B.C.
19 Hydro's Calls?

20 MS. VAN RUYVEN: A: Well, apparently not in this Clean
21 Power Call. We had 68 proponents bid in for 17,000
22 gigawatt hours. That's a pretty good response, and
23 that should create some very good competitive
24 tensions, especially in light of looking for 3,000
25 gigawatt hours. So that's been a very good response.

26 MR. WEAFFER: Q: If any of those proponents were not

1 successful with receiving a contract, had the
2 opportunity of securing an option for the next level,
3 be it beyond 3,000 or below 2100, as we may advocate,
4 would you believe that any would stay at the table?

5 MS. VAN RUYVEN: A: That's possible. Again, I haven't
6 had that discussion with my staff. They may have
7 discussed it amongst themselves. And if they've done
8 some analysis and thought more about it, the
9 appropriate person to ask would be Jim Scouras on
10 Panel 4.

11 MR. WEAFFER: Q: Fair enough. Just in terms of the
12 investment risk, and from a customer perspective, B.C.
13 Hydro is proposing to spend a significant amount of
14 money on the investigation of Site C. Correct?

15 MR. ELTON: A: Yes.

16 MR. WEAFFER: Q: And that's -- that is possibly, we may
17 argue it at another proceeding, a risk that will pass
18 to customers, in terms of that cost. And that project
19 may not be built. Is that a fair statement?

20 MR. ELTON: A: Yes, it's a fair statement, yes.

21 MR. WEAFFER: Q: And could you see how customers may be
22 interested in spending less on opportunities which may
23 create more flexibility over time, in terms of lower
24 levels of investments to secure options that may in
25 fact be financeable by proponents?

26 MR. ELTON: A: No, I could see that. I think -- let me

1 just think through this.

2 The approach we've taken to IPPs so far has
3 been fairly straightforward. We've had contracts --
4 sorry, we've had competitive processes, we've ended up
5 with a model where the IPP takes the risks, builds the
6 project, if they're successful, and so on. There are,
7 obviously, various hybrids that we have thought about,
8 but have not adopted. And I think that many of them
9 would require clarifications of government policy as
10 to what risks and ownership we were taking. In other
11 words, I think the government policy that was set up
12 around IPPs was a fairly simple one where we would not
13 take those risks.

14 But I think that the type of thinking --
15 you know, if there are models along the lines you're
16 describing that are practicable in the sense that IPPs
17 would be able to get, you know, financial support or
18 whatever to do what was necessary, those are the
19 things we should consider.

20 **Proceeding Time 10:58 a.m. T31**

21 MR. WEAVER: Q: And would you agree with me that that
22 would be consistent with that policy objective of
23 flexibility and diversity in terms of resource
24 options?

25 MR. ELTON: A: Clearly having more ways of doing it
26 than we do today would increase flexibility for sure.

1 MR. WEAVER: Q: And would you agree with me, that
2 flexibility which would enable B.C. Hydro not to
3 pursue the contract, if the first priority being DSM
4 was available, would be consistent with Energy Policy
5 and the pursuit of DSM as the first priority?

6 MR. ELTON: A: Could you repeat that one? That was a
7 complex sentence.

8 MR. WEAVER: Q: Sorry.

9 MR. ELTON: A: That's all right.

10 MR. WEAVER: Q: Let me break it down. Would you agree
11 with me that by creating that flexibility, which may
12 enable B.C. Hydro to defer the actual purchase of
13 high-cost energy by replacing it with DSM that proves
14 out as viable, would be positive for ratepayers?

15 MR. ELTON: A: It should be. I think the challenge
16 right now is that you've got an IPP community that is
17 obviously affected by the same financial conditions we
18 have all been talking about, and therefore deals that
19 are more complex may not be helpful. You're dealing
20 with a call that's in progress, where we have, you
21 know, 68 people that have put bids in. And I think
22 right now I think it's important that we get to find
23 out what those bids are and to negotiate real prices
24 and bring back what we can, because I think we're --
25 you know, that train, if you like -- sorry, no, no
26 more analogies. That's a process that's quite far

1 along, and we think it's important to test the prices.
2 MS. VAN RUYVEN: A: And just to add to that, back to
3 your initial theory around getting shelf-ready
4 projects, I would think that our customers and
5 ratepayers would be better off with the process we
6 have now, because you have 68 people out there
7 prospecting for arguably, presumably what you end up
8 with the best projects that you buy through this
9 competitive process, and our ratepayers don't bear the
10 cost of the prospecting of the other 60 that don't get
11 a contract. I mean, the private sector bears that
12 risk and that cost. That doesn't go to the ratepayer.
13 MR. WEAFFER: Q: Yes, Ms. Van Ruyven, but if that risk
14 and cost of contracting with those you select is in
15 excess of what it would have been to implement DSM by
16 having the value of time to wait and find DSM prove
17 out, would prove beneficial, would have a net benefit.
18 Would you agree with that?
19 MS. VAN RUYVEN: A: Yes, it would. But back to our
20 arguments about the fact that the deliverability risk
21 on DSM and the cost-effectiveness of having diversity
22 of resource options.
23 MR. WEAFFER: Q: But let me try and summarize, in case I
24 haven't been clear. If the opportunity existed to put
25 it in the context of the economic times we face, and
26 decreasing load volumes which we've talked about, and

1 in the context of DSM being the top priority and the
2 conversation culture that Hydro has advocated, and
3 that DSM is the best alternative possible. But we
4 don't know if in three years DSM will prove as
5 deliverable as we hope. But the opportunity exists to
6 defer the purchase of power through more flexible
7 contract.

8 MR. ELTON: A: I think the challenge with this
9 conversation is that we may be having it with the
10 wrong people, i.e. us. In other words -- well, no, I
11 think the conversation with the independent power
12 producers is a very interesting conversation. In
13 other words, my understanding is that with a lot of
14 these companies that, you know, they work on
15 developing a project, they secure people, teams of
16 people who could -- you know, and increasingly they
17 have, teams of operational people that could actually
18 build and develop things. If they're then on hold,
19 then what are they? You know, what kind of company is
20 it? How do they get financing? How do they grow?
21 That's I think the challenge.

22 So I think it would be -- I think our IPP
23 strategy inevitably has to take into account the need
24 to make sure that we end up with a group of solid
25 producing companies in British Columbia, so that 10
26 years from now or 20 years from now we'll all have

1 more options, which would be to the benefit, clearly
2 to the benefit of the ratepayer.

3 So I think the idea you're putting forward
4 is interesting, but I think it will be great to
5 discuss it with independent power producers.

6 MR. WEAVER: Q: Well, we may have an opportunity to do
7 that, but just consistent with that discussion, if the
8 first priority is to pursue DSM and there's a material
9 cost saving in achieving, filling the gap with DSM,
10 would you agree that it may be worthwhile investing in
11 having shelf-ready contracts? Which don't go to the
12 point of having to buy the power?

13 **Proceeding Time 3:16 p.m. T66**

14 MR. ELTON: A: So, I'll answer it a bit differently. I
15 think it is worthwhile, looking at our IPP strategy to
16 date -- this is a medium-term answer, and I'll then
17 come back to the short-term. Has our IPP strategy
18 been successful? Have we got contracts at decent
19 prices? Have we got enough of them? Is the process
20 working? And is the process working in situations
21 like we're in now? Those are very relevant questions.
22 And are there more models we could be using to get to
23 a better answer? And that's an excellent question,
24 and we should address that, and we will address that.
25 We'll address it with government, because -- and with
26 the IPPs, because I think government does have some

1 policy interests in how it wants to see the IPP
2 industry developed. So I think you're absolutely
3 right that those kinds of ideas need to be pursued.

4 In the short term, we have a Call that is,
5 you know, substantially quite a lot -- quite a way
6 through, where we think it would be beneficial for
7 everybody to let it continue and to bring back
8 specific contracts at specific prices. We think
9 that's very important information. So, if the
10 question is, should we therefore -- should we defer
11 the Call in order to do this kind of investigation,
12 I'd say no, we shouldn't. But I think the
13 investigation you're talking about should be done.

14 MR. WEAVER: Q: Fair enough. If the result of this
15 proceeding is that it is determined that the level of
16 Call is in excess of what is required, and DSM is
17 encouraged as the right solution to fill the gap, do
18 you see an ability to keep IPPs at the table? As
19 you've suggested you'd like to do in increasing the
20 volume that you may acquire. I'm looking at it now
21 the other way. We want an option of reducing that
22 which gets acquired, because as discussed, once it's
23 bought, it's a high-cost resource for a long time.

24 MR. ELTON: A: I think the challenge is that there are
25 other jurisdictions that are also buying IPP power.
26 Ontario just announced a wind acquisition. And the

1 prices, frankly, looked quite high. And I mean, that
2 -- I realize it's a relative term. So the question
3 would be, if you were a developer, would you look at
4 British Columbia and say, "Hmm, these people look like
5 they're going all for DSM, I'm not sure I want to
6 spend time here, I'd rather spend time somewhere
7 else." And is that in the best long-term interest of
8 the customers? That's an important question you have
9 to answer. So, I think there's risks that they would
10 -- you know, that you would lose what appears to be a
11 gradually developing industry, and we could talk about
12 the size of it. And I think Panel -- there is a panel
13 that could maybe talk a bit more about that.

14 MR. GODSOE: Panel 4.

15 MR. ELTON: A: Panel 4.

16 MR. GODSOE: I'm dumping everything on Panel 4.

17 MR. ELTON: A: Yeah.

18 MR. WEAFFER: Q: That -- fair enough. I appreciate that
19 exchange.

20 Mr. Chairman, those are my questions for
21 this panel. Thank you, panel.

22 THE CHAIRPERSON: Thank you, Mr. Weafer. Mr. Andrews.

23 Mr. Andrews, as I made it clear this
24 morning, I will be terminating this proceedings at
25 four o'clock promptly, so I'll give you notice. So if
26 you think you've come to -- five to four, you think

1 you've come to a prudent point to quit for the
2 afternoon, that will be fine with me.

3 MR. ANDREWS: Oh, I'm going to be a hero if I quit early
4 here.

5 THE CHAIRPERSON: No, I'm not saying -- if you just come
6 to a point in your cross-examination that would take
7 you past four o'clock, I would ask you to --

8 MR. ANDREWS: Yes, I understand. Thank you. I have two
9 preliminary points while I'm on my feet. The first is
10 with respect to the BCSEA/SCBC witness panel. To
11 address Mr. Godsoe's concern, what I'm going to do is
12 have Tom Hackney of BCSEA and SCBC on the panel with
13 John Plunkett. So, anyone with questions about the
14 evidence can ask John Plunkett, and questions about
15 BCSEA/SCBC policy can ask Mr. Hackney.

16 The second matter is I have a transcript
17 errata. Volume 3, page 222, line 10, the phrase "the
18 illegal regimes" should read "the legal regimes".

19 **Proceeding Time 3:21 p.m. T67**

20 THE CHAIRPERSON: So they should.

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

22 MR. ANDREWS: Q: Members of the witness panel, first
23 I'm going to address DSM electricity savings
24 estimates, and I'm going to direct you here in a
25 moment to Exhibit B-1, page 555 and 556. So I'm not
26 going to be looking at the size of these numbers but

1 the directions. And my first sort of point to seek
2 your confirmation on is that the numbers in terms of
3 electricity savings from a DSM package that we tossed
4 around, like a 9600 gigawatt hour per year and so on,
5 is a mean number, it's an average that -- it's the
6 result of a distribution of possibilities, some of
7 which are higher than that and some of which are lower
8 than that. Is that generally correct?

9 MS. VAN RUYVEN: A: Yes, and I think all of the Chapter
10 5 and then risk framework and decision-making treaties
11 and the probability, that's really -- Panel 3 can go
12 into a lot more detail of how they landed exactly on
13 these aspects.

14 MR. ANDREWS: Q: Yeah, and I'm not asking for anything
15 to do with the numbers and how they got there, though
16 --

17 MS. VAN RUYVEN: A: But you can see that mid-
18 probability at 60 percent is what Option A and Option
19 B were then based on, and those were the original
20 Option A and B numbers.

21 MR. ANDREWS: Q: Yeah, and just using -- again it's the
22 original numbers, but just to understand the chart
23 under the high increase from mid, that 20 percent
24 means that that whole 20 percent end of the
25 distribution curve would end up being an extra 2,000
26 gigawatt hours in DSM Option A, for example.

1 MS. VAN RUYVEN: A: I believe that's right.

2 MR. ANDREWS: Q: And then correspondingly, the low side
3 is -- the other 20 percent end of the distribution
4 would be 1800 less than mean. That's what those
5 numbers mean.

6 MS. VAN RUYVEN: A: I believe so, yes.

7 MR. ANDREWS: Q: Yeah. And we could also observe that
8 these two numbers aren't necessarily symmetrical. For
9 example, in this particular instance, the high side of
10 the DSMA, 2,000, is in absolute terms larger than the
11 low side at 1800.

12 MS. VAN RUYVEN: A: Yes.

13 MR. ANDREWS: Q: Yeah. And a point that Hydro makes
14 later is that in relation to DSM Option B, the range
15 of uncertainty is larger than the range of uncertainty
16 is for DSM Option A. Correct?

17 MS. VAN RUYVEN: A: Is that referenced later in Chapter
18 5?

19 MR. ANDREWS: Q: It's in throughout the -- certainly in
20 here, and it's evident on these numbers, and I
21 understand that it's one of the basic rationale why
22 B.C. Hydro is not proceeding with DSM Option B, but --

23 MS. VAN RUYVEN: A: Well, the option -- I think we've
24 given some evidence over the last couple of days as to
25 why we're not proceeding with Option B, and I'm not as
26 familiar with the risk matrix, decision-making trees

1 and the probabilities assigned, and hence would be a
2 much better question to ask Panel 3.

3 **Proceeding Time 3:26 p.m. T68**

4 MR. ANDREWS: Q: Okay. I may not have -- I will,
5 though I think I may not have explained the question
6 fully there. But I'll move on, because we're going to
7 get to that in any event.

8 MS. VAN RUYVEN: A: I mean, we -- there's a helpful IR
9 that we answered to the CEC, IR 1.6.1, that talks
10 about deliverability risk and why we chose option A
11 over option B, and it does talk about the
12 deliverability risk.

13 MR. ANDREWS: Q: Okay. And -- well, I'll get to
14 deliverability risk right now, then. And there are,
15 as I understand it, three basic reasons that Hydro
16 points to to justify its proposal to go with DSM
17 option B and not with -- excuse me. To justify its
18 proposal to go DSM Option A and not with DSM Option B.
19 And those are, (1), deliverability risk, (2),
20 diversity, also known as over-reliance on DSM, and (3)
21 the need for more experience operating at this higher
22 level of effort.

23 MS. VAN RUYVEN: A: I think that's fair to say, yes.

24 MR. ANDREWS: Q: Okay. Turning to deliverability risk.
25 I'm going to explore exactly what that is, not in
26 terms of numbers but in terms of your understanding of

1 the concepts here. And I would ask you first, is --
2 am I correct in the understanding that when you talk
3 about delivery risk, you're talking about something
4 that goes to the contingency resource plans?

5 MS. VAN RUYVEN: A: No, I think I'm talking about
6 deliverability risk of the programs that we have built
7 to meet the 9600 gigawatt hour target by 2020.

8 MR. ANDREWS: Q: Okay. Well, we've been through that
9 there is uncertainty about the figure 19 -- and I'm
10 using that example, 9600. It could be less, it could
11 be more. And when you're talking about deliverability
12 risk, you're particularly focusing on the downside,
13 that is the possibility that the electricity savings
14 are lower than expected, correct?

15 MS. VAN RUYVEN: A: That's correct.

16 MR. ANDREWS: Q: And so one way to look at that is that
17 the unit cost of achieving those savings is higher
18 than had been predicted originally. That is, in a
19 scenario where you achieve less savings with a given
20 DSM package.

21 MS. VAN RUYVEN: A: Potentially, although if you
22 exceeded your savings on codes and standards and
23 rates, which are very cost-effective, but under-
24 performed on your programs, you may end up with the
25 same levelized cost. But I think it really depends on
26 where you get your savings and where you don't get

1 your savings.

2 MR. ANDREWS: Q: Okay, well, let me take this step by
3 step, then. Let's say that we're just -- we're
4 talking about a hypothetical DSM package. And it has
5 a cost, and it has an estimated amount of electricity
6 savings.

7 MS. VAN RUYVEN: A: Right.

8 MR. ANDREWS: Q: And now we're trying to -- we're
9 talking about the deliverability risk of this DSM
10 package. And the risk there is that the actual DSM
11 savings after the program has been approved and then
12 implemented, the actual savings will be lower than the
13 expected savings on which the original decision to
14 approve the program was -- the package was made.
15 Right?

16 MS. VAN RUYVEN: A: Yes. So your premise is, then,
17 that would increase the costs overall, if your savings
18 were lower. Is that what you're saying?

19 MR. ANDREWS: Q: If the -- one way to look at that is
20 that at the end of that package, the unit cost of the
21 electricity savings is higher than you had originally
22 thought it would be.

23 MS. VAN RUYVEN: A: Yes, I think that's fair to say.

24 MR. ANDREWS: Q: Right. But the harm that we're
25 talking about, in terms of deliverability risk, is not
26 just that the unit cost would be higher than you

1 thought it was going to be. Because if that's all it
2 was, then we'd be saying that the unit cost was going
3 to be, say, \$41 or \$42 per unit, and it was a total
4 disaster, and so it doubled to \$80, it would still be
5 less than many other alternatives. So when you talk
6 about deliverability risks, you're presumably not
7 talking about the chance that the unit cost of that
8 DSM package is going to rise. Is that right?

9 **Proceeding Time 3:31 p.m. T69**

10 MS. VAN RUYVEN: A: No, we're not. However, if it
11 doesn't deliver, you have to find some other resource
12 to replace it, to still meet self-sufficiency by 2016
13 and every year thereafter. So that's an important
14 part of the equation.

15 MR. ANDREWS: Q: Yes. So the harm component of the
16 deliverability risk is the effect that not achieving
17 the estimated amount of electricity savings has an
18 impact on the load supply gap.

19 MS. VAN RUYVEN: A: Yes, it has an impact on what
20 resource do you now choose if you've not delivered
21 your DSM to fill the gap.

22 MR. ANDREWS: Q: Okay. And is there any other
23 alternative that I should be thinking of here than new
24 generation, to meet that gap? I mean, using the term
25 "new generation" broadly enough to include either
26 Resource Smart or IPP acquisitions. We're talking

1 about if you don't meet your gap via your DSM package,
2 then the alternative is generation?

3 MS. VAN RUYVEN: A: I believe that's generally the only
4 options most utilities worldwide have --

5 MR. ANDREWS: Q: Okay, but --

6 MS. VAN RUYVEN: A: -- are demand-side reductions or
7 supply-side additions.

8 MR. ANDREWS: Q: So now let me come back to contingency
9 resource plans. Is not the purpose of a contingency
10 resource plan to be a plan that, for the eventuality
11 or for the possibility of a scenario in which there
12 are shortfalls in the delivery of planned resources,
13 either on the supply side or on the load side though
14 DSM?

15 MS. VAN RUYVEN: A: I would agree, and it also is there
16 if we end up in a very different load growth
17 situation, for example in a high load growth
18 situation. So it takes into account deliverability
19 risk of demand and supply side as well as the risk of
20 load forecasts.

21 MR. ANDREWS: Q: And in terms of contingency resource
22 plans, the primary concern is capacity, not energy.
23 Is that right? I'm referring, if you're hesitating,
24 to B-1, page 6-58.

25 MS. VAN RUYVEN: A: So on page 6-58 it actually cites
26 both capacity and energy shortfalls.

1 MR. ANDREWS: Q: Yes, and then it says:

2 "Capacity requirements are the primary
3 concern for B.C. Hydro since capacity is
4 required to meet peak load requirements and
5 maintain system security and reliability."

6 MS. VAN RUYVEN: A: Yes, I would say that is really
7 what utilities at the end of the day are held to, is
8 making sure the lights are on at that peak load day.

9 MR. ANDREWS: Q: So then is it fair to say that the
10 answer to the question on whether capacity is the
11 primary concern of B.C. Hydro for the CRPs, the answer
12 is --

13 MS. VAN RUYVEN: A: Yes, that's fair to say that.

14 MR. ANDREWS: Q: Okay. Now, the evidentiary update
15 didn't change the contingency resource plans, and
16 perhaps we can just turn to page 34 of Exhibit B-10.

17 MR. ELTON: A: Yes.

18 MR. ANDREWS: Q: Can you confirm that the timing of 5
19 and 6 and the potential timing for Site C are
20 unchanged as a result of the updated inputs and the
21 2008 LTAP actions shown in the evidentiary update?

22 **Proceeding Time 3:36 p.m. T70**

23 MS. VAN RUYVEN: A: Yes, we can.

24 MR. ANDREWS: Q: Yeah. Now, the next sentence is:

25 "The capacity demand change was largely
26 offset by reduced IPP capacity contribution,

1 and the methods for assessing the capacity-
2 related uncertainty as shown in the CRPs has
3 not been altered."

4 Let me take that in stages here. The capacity demand
5 change, we're referring here to a reduction in
6 capacity demand because of the load forecast being
7 lower in the evidentiary update, correct?

8 MR. ELTON: A: Yes, I think Table 2-12 summarizes it,
9 yeah.

10 MR. ANDREWS: Q: And so that's saying they're -- the
11 capacity demand has gone down. That was offset by
12 reduced IPP capacity contribution. That would be a
13 reference to the proposed change downward in the pre-
14 attrition size of the Clean Call.

15 MS. VAN RUYVEN: A: I think it was due to increased
16 attrition in the '06 Call, because we actually have no
17 idea what the attrition is going to be in the Clean
18 Call, because we haven't awarded any contracts. So we
19 had greater attrition in the '06 Call, which is what
20 the offset is talking about. I believe that --

21 MR. ANDREWS: Q: Well, the capacity demand change,
22 we've agreed, is -- refers to the changed -- due to
23 the evidentiary update. There's lower capacity
24 requirements than there had been before the update.
25 And in explanation, this sentence is an explanation of
26 why the CRPs didn't change, and the explanation is

1 that the reduced capacity demand was offset by reduced
2 IPP capacity contribution. And I suggest to you that
3 that is a reference to the proposed reduction in the
4 size of the Clean Call.

5 MR. ELTON: A: I think if you go to page 32 there's a
6 bit more explanation of this, I think. So this is a
7 graph showing basic resource plan capacity, and talks
8 about, as you just said, the reduced load forecast
9 means there's less capacity needed, increased
10 attrition for the 2006 Call, as Ms. Van Ruyven just
11 said, in a particular critical time frame --

12 MR. ANDREWS: Q: Excuse me, Mr. Elton, I can tell that
13 you may need to speak up and into the microphone a
14 little. Although I can hear you, I'm not sure others
15 can.

16 MR. ELTON: A: I'm sorry, yes. Sorry. I was just
17 saying that if you go to page 32 and look at the
18 chart, and then the explanation underneath, I think it
19 confirms what Ms. Van Ruyven just said, that the
20 attrition, I think, from the 2006 Call which reduced
21 supply in the 2012 to 2014 time frame, is part of the
22 explanation. I think the explanation is probably more
23 complete on that page than on the other paragraph you
24 were referring to.

25 MR. ANDREWS: Q: Well, if -- that explanation appears
26 to go in the opposite direction. Because if there is

1 attrition in the '06 Call, then it reduces the amount
2 of capacity that is available.

3 MR. GODSOE: Right. Hence the term "offset", but I think
4 in fairness this should go to Panel 2. It's about --
5 I did say attrition really should be -- sorry, Panel
6 4, but that is why the term "offset" is used.

7 MR. ANDREWS: Q: Okay. Is that --

8 THE CHAIRPERSON: Sorry, was that Panel 2 or Panel 4?

9 MR. GODSOE: So, existing committed resources is for
10 Panel 2, but I did say that I would take attrition
11 away from that panel and give it to Panel 4. So I
12 think it is best addressed to Panel 4, if we're going
13 to get into the specifics of the attrition rate used
14 for the F2006 Call.

15 MR. ANDREWS: See, my question -- I didn't think my
16 question raised the issue of the attrition from the
17 2000 Call. I thought my question had to do with the
18 change in capacity that would be delivered from the
19 Clean Call. And --

20 MR. GODSOE: I think -- asked and answered. They've
21 given you the explanation that the attrition reference
22 here is the fiscal 2006 Call. So I'm not sure why
23 we're still questioning that.

24 MR. ANDREWS: Well, because I don't have the answer that
25 I'm -- the question that I'm looking --

26 MR. ANDREWS: Q: Let me ask you this way. Isn't it

1 true that, in the evidentiary update B.C. Hydro
2 proposed a smaller size for the Clean Call?

3 **Proceeding Time 3:40 p.m. T71**

4 MS. VAN RUYVEN: A: That's correct.

5 MR. ANDREWS: Q: And isn't it true that by having a
6 smaller size for the Clean Call, there would be a
7 smaller amount of capacity delivered from that call?

8 MS. VAN RUYVEN: A: Yes, I think what we're getting
9 into is the puts and takes of what then built up our
10 new plan in the evidentiary update. So we have --

11 MR. ANDREWS: Q: I'm just trying to take it very step
12 by step here. By reducing the size of the Clean Call,
13 Hydro is proposing a reduced size of capacity from the
14 Clean Call, correct?

15 MS. VAN RUYVEN: A: The resulting capacity that came
16 with that energy, yes.

17 MR. ANDREWS: Q: Yes. And --

18 MS. VAN RUYVEN: A: But that was offset by less coming
19 through on the 2006 Call because of greater attrition.
20 So there were a number of things, as I call them, puts
21 and takes, that went into our evidentiary update. I
22 think the best table to see how it all stacks up now
23 is on page 29, and you can see how all of those
24 resources now stack up to get to self-sufficiency by
25 2017.

26 MR. ANDREWS: Q: Yeah, but I think that if -- what

1 you're telling me, if there's an increase in attrition
2 from the 2006 Call, then that goes back to what's
3 being offset here which is the beginning part of this
4 sentence, which is the capacity demand change, which
5 is that it's going down. The demand for capacity is
6 going down because of the evidentiary update. So
7 Hydro is then sort of -- the question is then begged,
8 okay, if the demand for capacity is going down,
9 presumably Hydro is going to need less capacity.

10 Now, if you tell me that less capacity has
11 come from the 2006 Call, then that may be one way in
12 which less capacity is arrived at.

13 MS. VAN RUYVEN: A: So we had built in more capacity
14 from the '06 Call because our attrition rates weren't
15 as high as they now are. So that becomes the offset.

16 MR. ELTON: A: One offset.

17 MS. VAN RUYVEN: A: One offset.

18 MR. WEAVER: Q: One of the two, okay. And is in
19 addition to that, that is the higher predicted
20 attrition from the '06 Call, that there would be less
21 capacity coming from a smaller-sized Clean Call as
22 proposed in the evidentiary update?

23 MS. VAN RUYVEN: A: That would have been factored into
24 these new charts.

25 MR. WEAVER: Q: Thank you.

26 MS. VAN RUYVEN: A: So it would have originally been

1 5,000 --

2 MR. ELTON: A: He's talking about capacity.

3 MS. VAN RUYVEN: A: Right.

4 MR. ELTON: A: Okay.

5 MS. VAN RUYVEN: A: The relating capacity that comes
6 with the calls would have been factored in. So 3500
7 gigawatt hours of energy with the relating capacity
8 would have been reduced to 2100 gigawatt hours with
9 whatever, and I don't know how to do the capacity
10 calculation.

11 MR. ELTON: A: I mean, it's in the table as what is
12 obviously, as you're aware is -- we're now, sorry,
13 we're now on page 30. In the table are the new amounts
14 from 50 megawatts to 150. I don't remember what the
15 capacity was that was expected in the original Call,
16 Mr. Andrews. I'm sure that you're right, that the
17 capacity was reduced as a result of the Call being
18 reduced in size.

19 MR. ANDREWS: Q: Okay. And just to go back to the
20 starting point that got into this, what all this is
21 explaining is that there's no change in the
22 contingency resource plans as a result of all of this
23 evidentiary update.

24 MR. ELTON: A: Correct.

25 MR. ANDREWS: Q: Okay. Now, if I could direct you to
26 Exhibit B-12, the response to BCSEA 3.35.3. If I can

1 sketch the context because it's not this particular
2 question that was asked that I'm going to focus on
3 here. I'm going to ask you to look at the bullet
4 paragraph at the bottom of the first page of the
5 response. The question related to different DSM
6 scenarios, that is different amounts of expected
7 savings and what would be or not be the consequence
8 for the size of the Clean Power Call. And Hydro says,
9 in answer to that, that Hydro would not necessarily
10 reduce the size of the Clean Power Call on a gigawatt
11 for gigawatt -- gigawatt hour for gigawatt hour,
12 basis, even if it were to consider some additional DSM
13 volume to be cost-effective. Do you see that, and --

14 **Proceeding Time 3:45 p.m. T72**

15 MS. VAN RUYVEN: A: Yes, we do.

16 MR. ANDREWS: Q: And is that something that you can
17 speak to?

18 MS. VAN RUYVEN: A: Yes, at a high level, we can.

19 MR. ANDREWS: Q: Yeah. So, my next question, then,
20 would be that if Hydro was to do DSM Option B, would
21 there be a change in the size of the Clean Power Call,
22 as distinct from what's said here, there wouldn't
23 necessarily be a reduction. Here I'm saying if you
24 did specifically DSM B, would there be a change in the
25 size of the Clean Power Call?

26 MS. VAN RUYVEN: A: Well, if we did Option B, and we've

1 given you some evidence as to why we didn't choose
2 that path, what you would find is Option B would take
3 up pretty much 100 percent of the entire resource gap
4 going forward which, if you then proceeded with the
5 Call, you'd end up with a pretty substantial surplus.
6 So, I'm not sure what decision we would have made if
7 we had chosen to go completely with Option B, whether
8 we would have continued with a smaller Call, or just
9 with a bioenergy and standing offer Calls. Because we
10 didn't choose Option B, we -- for all the reasons
11 we've said around the deliverability risk and
12 diversity of resources, and when we add that 3,000
13 Call in there, you see that we come up with a very
14 small surplus of about 300 gigawatt hours. By the
15 time we're required to be self-sufficient.

16 MR. ANDREWS: Q: Now, I'm going to ask a similar
17 question to do with capacity. If B.C. Hydro were to
18 adopt DSM B, would there be a change in the timing of
19 Mica 5, 6 or Site C?

20 MS. VAN RUYVEN: A: There may be, because DSM does come
21 with capacity savings. But I don't know -- I don't
22 know the magnitude of the capacity that comes with the
23 difference between A and B, so I'm not in the best
24 position to answer that.

25 MR. ANDREWS: Q: And that would be Panel 4?

26 MR. GODSOE: Correct.

1 **Proceeding Time 3:48 p.m. T73**

2 MR. ANDREWS: Q: Perhaps, then, Panel 4 could be on
3 notice that we'll be asking that question at that
4 point.

5 Now, I'm going to -- I'm getting looks at
6 the clock here. I have a new -- the second of the
7 third reason, of the three reasons that Hydro puts
8 forward for not doing DSM B, which is the diversity
9 topic. This may indeed be a good point to break, Mr.
10 Chairman.

11 THE CHAIRPERSON: Okay. We'll break until 9:00 on Monday
12 morning. Thank you.

13 **(PROCEEDINGS ADJOURNED AT 3:49 P.M.)**

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