

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

and

RE: British Columbia Hydro and Power Authority
2015 Rate Design Application

Vancouver, B.C.
August 16th, 2016

PROCEEDINGS

BEFORE:

D. Morton,	Panel Chair
K. Keilty,	Commissioner
D. Cote,	Commissioner

VOLUME 3

APPEARANCES

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J. CHRISTIAN C. FERGUSON	Counsel for British Columbia Hydro and Power Authority (BCH)
C. WEAVER	Counsel for Commercial Energy Consumers' Association of British Columbia (CEC)
S. KHAN E. PRITCHARD A. PULLMAN	B.C. Old Age Pensioners Organization, Active Support Against Poverty, B.C. Poverty Reduction Coalition, Council of Senior Citizen's Organizations of B.C., Disability Alliance B.C., Together Against Poverty Society, and the Tenent Resource and Advisory Centre (BCOAPO)
W.J. ANDREWS	Counsel for B.C. Sustainable Energy Association and Sierra Club of British Columbia (BCSEA-SCBC)
L. WORTH	Counsel for Movement Of United Professionals (MoveUP)
M. KEEN M. MANHAS	Counsel for Association of Major Power Customers (AMPC)
F. WEISBERG	Counsel for Non-Integrated Areas Ratepayers Group (NIARG)
L. HERBST	Counsel for FortisBC Energy Inc. and FortisBC Inc.
L. DONG L. GUENTHER	Zone II Ratepayers Group
D. AUSTIN	Counsel for Clean Energy Association of BC(CEABC)

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RANDY REIMANN, Affirmed.

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CAARS

VANCOUVER, B.C.

August 16th, 2016

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

THE CHAIRPERSON: Please be seated.

Good morning, ladies and gentlemen. My name is Dave Morton. With me are Commissioners Karen Keilty and Dennis Cote.

Welcome to the oral phase of the proceedings to consider various matters related to BC Hydro's RDA Application. It's my pleasure to acknowledge and introduce a number of individuals who will play an important role in the review of this application.

Eileen Cheng, Senior Economist, is lead Staff. With her are Sarah Walsh, Senior Regulatory Specialist, Yolanda Domingo, acting Director to Rates, along with Jim Fraser and Bill Grant, consultants for the Commission on this application.

Seated at the front, Commission Counsel for the proceeding are Paul Miller and Lino Bussoli from Boughton Law Corporation. Our Hearing Officer is Mr. Hal Bemister.

The oral hearing will generally follow the procedures outlined in BCUC Exhibit A-38. We will begin with appearances, starting with BC Hydro, and

1 followed by interveners. When a participant's name is
2 called, the participant or its representatives should
3 come forward to the microphone and identify who they
4 are and whom they represent. Please spell your name
5 for the record. At that time, also please identify
6 whether there are any preliminary matters you wish to
7 bring to the Panel's attention.

8 After appearances each party will have the
9 opportunity to provide an opening statement, starting
10 with BC Hydro. The opening statement is an
11 opportunity to advise the Panel of your interest in
12 the proceeding, and highlight the issues of interest
13 to you.

14 BC Hydro will be calling three witness
15 panels. The first panel will be the policy panel, the
16 second will be the pricing panel, and the third panel
17 is the terms and conditions panel. Counsel for BC
18 Hydro may then make a further statement identifying
19 its three witness panels and outlining the evidence it
20 expects from those panels. Hydro counsel will then
21 call its first witness panel. The witness panel will
22 be sworn and adopt the pre-filed evidence that the
23 witness panel members will be speaking to. Following
24 the adoption of the evidence, one of the witnesses may
25 make a short opening statement. The opening statement
26 should not introduce new evidence.

1 Following the opening statement of the
2 witness panel, BC Hydro's witnesses are available for
3 cross-examination. Commission counsel will cross-
4 examine last, followed by any questions from the
5 Commission Panel, and then any re-examination by
6 counsel for BC Hydro.

7 One intervener, BCOAPO, will also be
8 calling two witnesses, Mr. Seth Kline and Mr. Roger
9 Colton. BC Hydro and BCOAPO have together proposed
10 the following schedule, which the Panel is in
11 agreement with. Today and tomorrow will be the BC
12 Hydro witness panels, and we'll get through however
13 much of those panels as we can in those two days. And
14 then on Thursday Mr. Seth Kline, BCOAPO's witness,
15 will take the stand. And then if there is any time
16 remaining on Thursday, then we'll re-continue the BC
17 Hydro witness panels that we stopped on Wednesday.

18 And then on Tuesday we'll continue with the
19 BC Hydro witness panels until they are complete. And
20 then following that, we'll have Mr. Roger Colton, the
21 witness for BCOAPO. And then following that, if Hydro
22 requests, then there will be time for BC Hydro's
23 rebuttal panel.

24 When their panel is called, counsel for the
25 intervener may make a further statement identifying
26 the intervener's witness panels and outlining the

1 evidence of the intervener's witnesses, and outlining
2 the evidence expected from those witnesses. The
3 witness will be sworn and will adopt the pre-filed
4 evidence that the witness will be speaking to.
5 Following the adoption of the evidence, the witness
6 may make a short opening statement. And again, it
7 shouldn't introduce any new evidence.

8 Finally, a few housekeeping matters. We'll
9 take a mid-morning and a mid-afternoon break. The
10 actual time will be flexible so we minimize the
11 disruption to the flow of the proceeding, although
12 generally they will be around 10:30 in the morning and
13 3:00 in the afternoon. I'd like to break for an hour
14 and 15 minutes for lunch, at noon. And today, we
15 expect to end at 4:30. We'll see how things are going
16 tomorrow, and see if that schedule still looks
17 reasonable. If we need to perhaps stay a little later
18 tomorrow we will. And we can review that schedule
19 mid-day tomorrow.

20 You've probably all noticed it's a little
21 warm in here. And I'm not sure when the heat -- when
22 the air conditioning kicks in. So if anyone wants to
23 take their jacket off, please go ahead, that's fine --
24 fine with me, fine with the Panel.

25 So, Mr. Miller, I guess we're ready to go,
26 please. All right.

1 MR. MILLER: Thank you, Mr. Chair. The first in the
2 order of appearances is BC Hydro and Power Authority.

3 MR. CHRISTIAN: Good morning, Mr. Chairman. Jeff
4 Christian for BC Hydro. On my right is Claire
5 Ferguson and to her right is Mr. Tom Loski, Chief
6 Regulatory Officer of BC Hydro. One or both of Ms.
7 Ferguson or I will be here through the entire
8 proceeding, and we have no preliminary motions. I
9 have a few comments, shortly, but no motions. And
10 thank you very much for the opportunity to remove our
11 jackets.

12 THE CHAIRPERSON: No problem. Thanks.

13 **Proceeding Time 9:05 a.m. T2-4**

14 THE CHAIRPERSON: Thanks, Mr. Christian.

15 MR. MILLER: Commercial Energy Consumers Association of
16 B.C.?

17 THE CHAIRPERSON: Thank you.

18 MR. WEAVER: Good morning, Mr. Chairman, members of the
19 panel, my name is Chris Weaver, spelled W-E-A-F-E-R,
20 appearing for the Commercial Energy Consumers
21 Association of B.C. and I have no preliminary matters,
22 and I will take advantage of the opportunity to make a
23 brief opening statement as offered this morning, and I
24 also thank you for allowing us to remove our jackets.
25 And we have no other preliminary matters. Thank you.

26 THE CHAIRPERSON: Thanks Mr. Weaver.

1 MR. MILLER: B.C. Old Age Pensioners Association et al.
2 MS. KHAN: Good morning panel, my name is Sarah Khan, K-
3 H-A-N. I am here representing -- well together I am
4 with Erin Pritchard, P-R-I-T-C-H-A-R-D, who is co-
5 counsel with me in this proceeding, and also Tony
6 Pullman who you might be familiar with, P-U-L-L-M-A-N,
7 and he is our case manager in this proceeding. We are
8 here representing the B.C. Old Age Pensioners
9 Organization, et al -- or sorry, B.C. Old Age
10 Pensioners Organization, Active Support Against
11 Poverty, B.C. Poverty Reduction Coalition, Council of
12 Senior Citizen's Organizations of B.C., Disability
13 Alliance B.C., Together Against Poverty Society, and
14 the Tenant Resource and Advisory Centre. I don't have
15 any preliminary motions to bring before you.
16 THE CHAIRPERSON: Thank you, Ms. Khan.
17 MR. MILLER: B.C. Sustainable Energy Association and the
18 Sierra Club of B.C.?
19 MR. ANDREWS: William Andrews, A-N-D-R-E-W-S,
20 representing the B.C. Sustainable Energy Association,
21 and the Sierra Club B.C. I have no preliminary
22 matters.
23 THE CHAIRPERSON: Thank you, Mr. Andrews.
24 MR. MILLER: Movement of United Professionals?
25 MS. WORTH: Good morning, Mr. Chair, members of the
26 Panel, Leigha Worth, here as counsel for the Movement

1 of United Professionals, W-O-R-T-H. My clients are
2 also known as MoveUP or COPE 378 in this proceeding,
3 and I have no preliminary matters to raise. Thank
4 you.

5 THE CHAIRPERSON: Thank you, Ms. Worth.

6 MR. MILLER: Association of Major Power Customers?

7 MR. KEEN: Good morning Mr. Chairman, Commissioners,
8 Matthew Keen for the Association of Major Power
9 Customers of B.C., known as AMPC. With me as counsel
10 is Michael Manhas, his last name is spelled M-A-N-H-A-
11 S, mine is spelled K-E-E-N. Also with us is Richard
12 Stout. Thank you, we also have no preliminary
13 matters.

14 THE CHAIRPERSON: Thank you, Mr. Keen.

15 MR. MILLER: Non-Integrated Ratepayers Group?

16 MR. WEISBERG: Good morning, Mr. Chairman, Commissioners,
17 my name is Weisberg, W-E-I-S-B-E-R-G, initials F.J. I
18 am appearing for the Non-Integrated Areas Ratepayers
19 Group, or NIARG. We have no preliminary matters. We
20 will also have no opening statement as our previous
21 submissions I think have indicated that our interest
22 relates to Zones 1B and Zone 2 and any implications
23 for them, which we expect to be dealt with in Module
24 2. Thank you.

25 THE CHAIRPERSON: Thank you, Mr. Weisberg.

26 MR. MILLER: FortisBC?

1 MS. HERBST: Good morning, Mr. Chair, panel members, my
2 name is Ludmilla Herbst, H-E-R-B-S-T and I am here for
3 FortisBC Energy Inc., and FortisBC Inc., and I have no
4 preliminary matters to raise, thank you.

5 THE CHAIRPERSON: Thank you, Ms. Herbst.

6 MR. MILLER: Zone II Ratepayers Group?

7 MR. DONG: Good morning, Mr. Chairman and panel. Linda
8 Dong, D-O-N-G, and Lloyd Guenther, G-U-E-N-T-H-E-R,
9 are representing the Zone II Ratepayers Group which
10 consists of Kwadacha Nation in Fort Ware, B.C. We
11 have no preliminary matters to bring forward, but we
12 will be making an opening statement.

13 THE CHAIRPERSON: Thank you, Ms. Dong.

14 MR. MILLER: Mr. Chair, there is an addition to the list
15 I had previously distributed, that is the Clean Energy
16 Association?

17 THE CHAIRPERSON: Okay.

18 MR. AUSTIN: Good morning, Panel, my name is David
19 Austin, A-U-S-T-I-N, I am representing the Clean
20 Energy Association of British Columbia. I thank you
21 very much for allowing us to take our jackets off. I
22 haven't had mine on for 30 years unless it's been cold
23 in the room. I will be doing a very brief opening
24 statement, and I have no preliminary matters.

25 THE CHAIRPERSON: Okay. Thank you, Mr. Austin.

26 **Proceeding Time 9:11 a.m. T05**

1 MR. MILLER: Is there anyone else who wishes to appear
2 that I have failed to call? That concludes the order
3 of appearances, Mr. Chair.

4 With regard to the opening statements, you
5 indicated Hydro would go first. I would then suggest
6 we just follow the order of appearances.

7 THE CHAIRPERSON: Sounds fine. Thank you, Mr. Miller.

8 Mr. Christian, would you like to give your
9 opening statement?

10 **OPENING STATEMENT BY MR. CHRISTIAN:**

11 MR. CHRISTIAN: Yes, thank you, Mr. Chairman. I don't
12 have much to say that hasn't already been put on the
13 record, so I will be brief. BC Hydro filed Exhibit B-
14 38 in this proceeding last week, on August 9th.
15 Exhibit B-38 has set out a number of matters that
16 would normally be part of an opening statement. We
17 identified the three witness panels that we'll be
18 putting forward to answer questions with respect to BC
19 Hydro's application.

20 As you indicated in your opening comments,
21 Mr. Chairman, we'll be putting forward a policy panel
22 to address questions related to the overarching policy
23 objectives behind BC Hydro's proposals. In addition,
24 a witness on that panel will speak to BC Hydro's load
25 resource balance and LRMC issues.

26 Our second panel, the pricing panel, will

1 be dealing with BC Hydro's -- what I call pricing
2 proposals. That is, the per-unit energy charges and
3 demand charges and the rest of the charges one
4 typically finds in the rate schedules of BC Hydro.
5 And those witnesses on panel 2 will answer questions
6 with respect to BC Hydro's proposals in that regard.

7 The third panel we'll refer to as the terms
8 and conditions panel. It's prepared to answer
9 questions with respect to all of BC Hydro's proposals
10 contained in its electric tariff, in the terms and
11 conditions sections of the electric tariff.

12 We may have a rebuttal panel. The rebuttal
13 evidence was filed by BC Hydro on August 2nd under
14 Exhibit B-36, and we may seek leave of the Commission
15 to tender that evidence and put forward a panel to
16 speak to it, after the conclusion of Mr. Colton's
17 testimony.

18 With Exhibit B-38, we also filed direct
19 testimonies of all the witnesses, seven of them in
20 total. And those direct testimonies are meant to
21 identify for the benefit of participants the specific
22 areas of responsibility that witnesses have to speak
23 to elements of the application.

24 We also filed with Exhibit B-38 the opening
25 statement of Keith Anderson, BC Hydro's Vice-President
26 of Customer Service, and he'll be delivering that

1 opening statement after he adopts his direct
2 testimony. In his opening statement, we'll summarize
3 BC Hydro's positions with respect to the outstanding
4 matters still that haven't been resolved in this
5 proceeding to date. And in addition, we'll be
6 updating the Commission with respect to a number of
7 other developments that have occurred since the IR
8 filings that have happened in the course of
9 conversations with the BCOAPO.

10 In Exhibit B-38, BC Hydro identified that
11 it wouldn't be putting forward a witness to speak
12 specifically to demand-side management issues, DSM
13 issues. That statement prompted a number of calls
14 from my friends who were inquiring as to whether BC
15 Hydro's witnesses would be answering questions at all
16 with respect to DSM. Before I get to that, I just
17 want to put the DSM issue in context a little bit.

18 BC Hydro, of course, is not seeking any
19 relief with respect to DSM in this proceeding.
20 Meanwhile, on July 28th, just a few weeks ago, BC Hydro
21 filed its F-2017 to F-2019 revenue requirements
22 application. And included in that application BC
23 Hydro has sought Commission approval of several
24 hundred million dollars' worth of DSM expenditures.
25 In fact, I think BC Hydro describes \$375 million of
26 DSM expenditures in that application.

1 There is a 55-page chapter, Chapter 10, in
2 the revenue requirement application that I just
3 described that is all about DSM, and there are six
4 fairly extensive appendices devoted to the topic of
5 demand-side management activities of BC Hydro.

6 So it's in that context that you'll hear BC
7 Hydro's response to the questions, will your witnesses
8 be answering questions. The answer is, yes, they
9 will. BC Hydro comes to this proceeding prepared to
10 be transparent and forthcoming. And when witnesses
11 have answers to questions that are posed to them, on
12 DSM in specifically, they will answer those questions.
13 If the question can be answered by an undertaking,
14 that doesn't require a significant amount of effort by
15 people back at the office or in particular by
16 witnesses, then BC Hydro will provide undertaking
17 responses to DSM questions.

18 The only situation I anticipate where we
19 may have some difficulties is if there are DSM
20 questions that require undertakings that require some
21 significant amount of work, some material amount of
22 work or analysis or effort to put together. In that
23 context we may -- we'll be dealing with that issue if
24 and when it arises. But based on my conversations
25 with counsel, I am anticipating that to be quite
26 unlikely. So I think that the DSM issue, despite the

1 concerns of participants, arising from the B-38 and
2 the comments on DSM evidence, I think those concerns
3 are largely not going to be realized, at least in this
4 proceeding.

5 In B-38, BC Hydro asked for 24 hours'
6 notice of any aids to cross-examination, and I can say
7 that I've got about 50 pages of aids to cross last
8 night. And my witnesses have looked at them, and are
9 prepared to answer questions about them, although it
10 was actually quite a bit we got in at the last minute.
11 So -- not the last minute, but last night. So they
12 will be familiar with all those aids to cross, and
13 they'll be prepared to answer questions on them, as I
14 say.

15 And the last comment I had to make you have
16 addressed already, Mr. Chairman. That was with
17 respect to the testimony of Mr. Klein and Mr. Colton.
18 And so I don't need to reiterate any of that, but I
19 just want to confirm that you've endorsed -- the
20 Commission Panel has endorsed the proposal made by
21 BCOAPO and BC Hydro and all the counsel with respect
22 to their testimony.

23 **Proceeding Time 9:17 a.m. T6**

24 My apologies. I'm advised that I referred
25 to rebuttal evidence of BC Hydro filed as B-36. In
26 fact that was Exhibit B-31 and it was filed on July

1 6th. And those are all the opening comments I have.

2 THE CHAIRPERSON: Thank you, Mr. Christian. Mr. Weafer?

3 **OPENING STATEMENT BY MR. WEAFER:**

4 Thank you, Mr. Chairman. Just a few brief
5 opening comments. The CEC, as the Panel knows, is a
6 representative of ratepayers which are general service
7 customers of BC Hydro and has appeared before this
8 Commission for about the last 12 years representing
9 those interests. In this proceeding the CEC
10 participated actively in the consultation process that
11 BC Hydro undertook over the last 18-odd months and we
12 want to commend BC Hydro for those efforts. They were
13 responsive to the 2007 decision of this Panel to have
14 consultation at the end of it. We don't agree on
15 everything, but it's been a helpful process and we
16 want to extend our thanks to BC Hydro for those
17 efforts.

18 In this proceeding the CEC filed evidence,
19 Exhibit C1-10, evidence of Mr. Craig on the proposed
20 pilot interruptible rate, and the IRs were answered on
21 that evidence. As a result of a process the
22 Commission has determined that that should be dealt
23 with post-hearing in a consultation process in the
24 fall, and the CEC looks forward to the consultation
25 with BC Hydro and appreciates the order of the
26 Commission, and obviously as a result Mr. Craig will

1 not appear as a witness in the proceeding, but he will
2 be in the room assisting.

3 We have filed two sets of cross-exam, two
4 sets of information requests in this proceeding and
5 there is a significant bulk of evidence on the record
6 that leaves us in a position to move to final argument
7 on a number of our topics without having to spend time
8 on cross-examination in the proceeding. We will
9 cross-examine the BC Hydro panels on -- four areas
10 remain open to clarification and discussion. The
11 principles applied by BC Hydro in the rate design and
12 the consistency of application of those principles.
13 The CEC also has concern around the utilization of the
14 RMC and consistency of utilization of that test for
15 justifying the rate design proposed and the varying
16 ways in which it's been used and we'll pursue that
17 through cross-examination. The CEC is interested in
18 the Plus proposal that is on the record, not only
19 because the CEC is interested in interruptible rates.
20 We wish to understand the proposal and the benefits as
21 identified for this extended residential customer
22 rate.

23 And lastly on the low income topic, I'll
24 say now that the CEC is generally in agreement with a
25 legal position we understand BC Hydro holds, which is
26 that the *Utilities Commission Act* does not provide

1 jurisdiction to implement the low income rates. So in
2 terms of the rate issue, we'll deal with that in final
3 argument, but that's our general position.

4 With respect to programs, we'll have
5 questions for both the BC Hydro panel and Mr. Colton
6 of the BCOAPO when he appears, in terms of fleshing
7 out the program proposals that have been discussed in
8 this proceeding.

9 So those are the areas of primary concern
10 for cross-examination and those are my opening
11 comments. Thank you.

12 THE CHAIRPERSON: Thank you, Mr. Weafer. Ms. Khan?

13 **OPENING STATEMENT BY MS. KHAN:**

14 Panel, I have a bit more of a fulsome
15 opening statement just because we are presenting
16 evidence and I thought it would be useful for us to
17 set out our position on a number of things contained
18 in BC Hydro's application, but also to summarize the
19 evidence that we're presenting.

20 So the seven organizations that we're
21 representing in this proceeding are collectively known
22 as BCOAPO *et al*, and these organizations represent the
23 interests of low and fixed income residential energy
24 consumers within B.C. and more specifically in this
25 process, the interests of B.C.'s low income
26 electricity -- low and fixed income residential

1 electricity ratepayers.

2 Some of our client organizations provide
3 services on a provide-wide basis such as B.C. Old Age
4 Pensioners' Organization, the B.C. Poverty Reduction
5 Coalition, Council of Senior Citizens' Organizations
6 of B.C., Disability Alliance B.C., and Tenant Resource
7 and Advisory Centre. And while some of them, such as
8 Active Support Against Poverty, which -- some of them
9 provide services in specific areas of the province, so
10 Active Support Against Poverty provides services in
11 Prince George, and Together Against Poverty Society
12 provides services in Victoria and much of -- and quite
13 a bit of Vancouver Island as well.

14 So as our client organizations represent
15 the interests of B.C.'s low and fixed income
16 residential energy consumers, BCPEAC -- or BCOAPO, we
17 attempt to ensure that residential electricity rates
18 are kept to a minimum and that barriers to
19 affordability are addressed so that the most
20 vulnerable members of our society can access the
21 essential services that are provided by BC Hydro and
22 FortisBC and Pacific Northern Gas.

23 **Proceeding Time 9:22 a.m. T07**

24 BC Hydro has acknowledged in this
25 application that about 10 percent, or 170,000 of its
26 residential customers have incomes below -- at or

1 below Statistics Canada's low-income cut-off measure.
2 BC Hydro residential electricity rates have been on an
3 upward trajectory for the last ten years, having risen
4 by about 50 percent. At that same time, Income
5 Assistance and minimum wage rates have not increased
6 at the same pace. So over this period of time, for
7 example, Social Assistance rates haven't been
8 increased since 2007. For a single person, the Income
9 Assistance rate is \$610 a month. And that has not
10 changed since 2007.

11 The province's minimum wage has also not
12 kept up with Hydro's rate increases. And we say that
13 electricity is an essential service. And while people
14 who have sustainable incomes are able to cope with
15 rising BC Hydro rates, rate increases are causing
16 significant hardship for customers whose incomes have
17 stagnated in real terms. While the government
18 consistently touts BC Hydro residential rates as being
19 the third-lowest in North America, this framing fails
20 to take into account the very low incomes of poor
21 people in B.C., and that other jurisdictions have or
22 are in the process of implementing bill-affordability
23 programs.

24 This problem will only get worse as Hydro's
25 rates are set to increase by another 32 percent over
26 the remaining years of the provincial government's

1 ten-year rates plan. Rates are projected to continue
2 to rise significantly in future years for a number of
3 reasons, including due to dropping demand for
4 electricity and the rate impact imposed -- sorry, the
5 rate caps imposed by the provincial government. BC
6 Hydro is unable to collect enough revenue from
7 ratepayers to pay its expenses and must defer the
8 shortfall.

9 BC Hydro is incurring and deferring
10 financial losses from its electricity purchases from
11 independent power producers. Up to March 31st of 2016,
12 BC Hydro had put about \$6.5 billion of expenses into
13 deferral accounts, money that will have to be
14 collected from ratepayers in future years through rate
15 increases. And despite this, the government still
16 requires Hydro, through its ratepayers, including
17 ratepayers who are on income assistance, to maintain
18 the dividend that Hydro pays to the provincial
19 treasury.

20 On top of this, the government has approved
21 BC Hydro to build the Site C dam at a projected cost
22 of about \$9 billion, and the government exempted Site
23 C from a full public review by the Commission with the
24 risk that the final cost of Site C could be much
25 higher. Hydro will likely ask that the full cost be
26 collected from ratepayers starting in 2024.

1 Hydro offers two demand-side management
2 programs to low-income customers; energy saving kits
3 comprised of a few energy saving products, which if
4 fully installed may have a cut -- may save a customer
5 about \$30 a year on average. And in more limited
6 cases, energy efficiency audits and home upgrades
7 through the Energy Conservation Assistance Program.
8 We think that these programs, these energy-savings
9 programs, are important. But they're not a stand-
10 alone response to the rising Hydro rates.

11 Prior to filing the 2015 RDA, Hydro entered
12 into a lengthy dialogue with its customer groups and
13 held numerous workshops which we attended, and
14 solicited feedback from participants. We really
15 comment Hydro for carrying out that process, because
16 much of our support for BC Hydro's proposals in its
17 application arises from the extensive and
18 collaborative pre-application consultation process
19 that Hydro engaged in.

20 Hydro's rate design includes Hydro's 2016
21 cost of service study, their proposed rate structure
22 for residential general service, medium general
23 service, and large general service rates, along with
24 transmission rates, and a number of proposed
25 amendments to Hydro's electric tariff, including
26 changes to several standard charges.

1 At this point, we anticipate generally
2 supporting Hydro's proposals regarding GS and
3 transmission rates, subject to some clarification
4 questions that we'll be asking. We also support
5 Hydro's proposal to maintain current residential and
6 inclining block rates, and the associated pricing
7 principles. We will have a few questions also about
8 those things, but in general we anticipate supporting
9 it.

10 We also support the majority of the
11 proposed amendments to the electric tariff, such as
12 the significant reduction in the reconnection charge,
13 which has already been approved on an interim basis.
14 Reduction of the return payment charge, the increased
15 flexibility in the amount of security deposits when
16 one is assessed, an elimination of the collection
17 charge, to name a few.

18 **Proceeding Time 9:28 a.m. T8**

19 We may object to some of the proposed
20 changes in the tariff, specifically we have concerns
21 about the appropriateness of a standard \$50 deposit
22 for customers who live in apartments and we're also
23 unsure about some aspects of the proposed meter test
24 charge. We have some concerns about the amount of the
25 late payment charge, and the time when it is imposed.
26 We won't be taking a position on residential E-Plus

1 rates.

2 We are making a number of proposals on
3 behalf of BCOAPO in this proceeding, which have been
4 developed by Roger Colton, who is an expert in low
5 income rate design and has testified extensively
6 throughout North America on low income rate
7 structures, customer rules, emergency assistance
8 programs and demand-side measures. His direct
9 testimony can be found at exhibit C2-12, and our
10 proposals reflect the fact that low income customers
11 are already struggling to pay their electricity bills.
12 They will have a more difficult time responding to
13 future rate increases, and they don't have the same
14 ability to reduce bills through usage reduction.

15 Mr. Colton's proposals are as follows:
16 first we are seeking the implementation of what he
17 calls an essential services usage block, or ESUB rate.
18 And that the ESUB takes the form of a discounted rate
19 of 4 cents per kilowatt hour for the first 400
20 kilowatt hours of electricity per month for about
21 160,000 of Hydro's low income residential customers,
22 being those customers who are at or below Statistics
23 Canada's LICO. We are asking that all low income
24 customers who receive the discounted rate will be
25 approached to participate in Hydro's low income
26 demand-side management programs in order to improve

1 their home energy efficiency moving forward.

2 Costs of offering this rate would be spread
3 out over all residential consumption, resulting in a
4 negligible financial impact on non-low income
5 customers. We are also recommending a staged
6 eligibility process for ESUB with the 130,000 people
7 who currently receive social assistance from the
8 provincial Government and who therefore make up a
9 large part of the 170,000 people who would be
10 eligible, being the first group to become eligible for
11 the ESUB.

12 Mr. Colton finds that without an ESUB Hydro
13 is increasing rates to households for whom services
14 already unaffordable, who lack the ability to mitigate
15 those rate increases through usage reduction, and who
16 are facing the higher rates, even though they impose
17 lower costs on the company. The proposal for the
18 ESUB, however, isn't based exclusively on
19 affordability concerns, it's the mechanism through
20 which Hydro can simultaneous address affordability
21 concerns, improve cost reflectivity in rates, and
22 improve the efficiency of its operations, and also to
23 reduce overall operating costs.

24 The ESUB will mitigate, but not completely
25 protect low income customers against rate increases
26 over the next few years. This is why it must be

1 viewed as part of a more comprehensive suite of
2 proposals. And to that end, we will be proposing that
3 BC Hydro is required to implement a crisis
4 intervention fund through which low income customers
5 who have arrears with Hydro and are facing
6 disconnection can apply for a grant of up to \$500 per
7 year to avoid disconnection. The cost of this program
8 would be recovered through a 25 cent monthly charge on
9 all BC Hydro accounts, so a very minor charge, and
10 would be available to customers who have incomes up to
11 LICO plus 30 percent, making this income qualification
12 the same as for BC Hydro's low income energy
13 conservation assistance program.

14 We are also proposing the introduction of
15 specific terms and conditions of service for low
16 income customers, including waiver of security
17 deposits, account charges, reconnection charges, and
18 late payment charges, and also more flexible
19 installment plans. In addition, we are asking for a
20 range of customer service rules for all residential
21 customers including the following: time-based winter
22 shutoff restrictions from November through April, a
23 renewable 60 day delay on disconnections for seniors,
24 people with young children and people with medical
25 emergencies. A reduction in the late payment charge
26 to the weighted average cost of debt, and delay in

1 Klein has been writing about poverty in B.C. for many
2 years and has authored a number of peer-reviewed and
3 published studies about poverty in B.C., and is a
4 recognized authority on the subject. His evidence
5 provides context for the need for Mr. Colton's
6 proposals, and Mr. Klein will be available, as has
7 been stated, this Thursday for cross.

8 We have also provided detailed statements
9 from six advocates from across the province. These
10 include the statements of Patty Edwards, who is the
11 constituency assistant for MLA Scott Fraser of
12 Alberni-Pacific Rim; Emma Gauvin, who is the social
13 work team lead with Vancouver Coastal Health's STOP
14 HIV/AIDS program; Stephen Portman, who is the advocacy
15 lead at Together Against Poverty Society in Victoria;
16 Audrey Schwartz, who is the executive director of
17 Active Support Against Poverty; Keith Simmonds, who is
18 the coordinating minister of the Duncan United Church
19 and is the current chair of the B.C. Conference of the
20 United Church of Canada; and Stacey Tyers, who is the
21 manager of Counselling Support Services at Terrace and
22 district Community Services Society.

23 These advocates provided evidence about
24 their clients' increasing inability to pay BC Hydro
25 bills, and how difficult it is for low-income people
26 to get reconnected once their service is disconnected.

1 No one had any Information Requests for those
2 witnesses or any requests to cross-examine them, so we
3 are not bringing them forward to testify in this
4 proceeding, at the oral hearing.

5 In addition, we have submitted statements
6 from five individual BC Hydro residential ratepayers
7 including Curtis Barton, Conrad Dennis, and
8 Christopher Shay. The two additional ratepayers who
9 have provided statements are single mothers, and we
10 ask that their witness statements be kept
11 confidential, in order to protect the privacy of their
12 children, who could be readily identifiable based on
13 the contents of their statements. Those statements
14 are available to any participants in this proceeding
15 who provide a signed confidentiality agreement.

16 These ratepayers and their children have
17 all personally experienced hardship as a result of
18 increasing hydro rates and these individuals include
19 First Nations people, people with disabilities, single
20 mothers, and a family that came to Canada through the
21 refugee process. Their evidence gives powerful
22 examples of the serious impact that rate increases and
23 the lack of low-income customer-specific services are
24 having for people struggling to maintain electricity
25 service. Again, no one had any Information Requests
26 or cross questions, so we haven't presented them;

1 we're not presenting them at the oral hearing.

2 BCOAPO's low-income proposals fall within
3 the Commission's jurisdiction to order. That's our
4 submission. Our proposals are reasonable, are not
5 unduly discriminatory or unduly preferential. They
6 also encourage Hydro to increase efficiency, reduce
7 costs, and enhance performance.

8 In Hydro's 2008 residential inclining block
9 application, which resulted in the implementation of
10 the current two-step inclining block structure, BCOAPO
11 made submissions on establishing a lifeline rate for
12 Hydro's residential ratepayers, arguing both that the
13 Commission had the jurisdiction to consider a lifeline
14 rate, and that it should exercise its jurisdiction to
15 do so. In its decision, the Commission Panel held
16 that it didn't need to decide whether it had the
17 jurisdiction to implement a lifeline rate because even
18 if it had the jurisdiction to do so, it wouldn't
19 exercise that discretion at the time. The reason for
20 that decision was that the vast majority of Hydro's
21 low-income customers would experience some rate relief
22 from the two-block rate structure.

23 In 2008 it was certainly true that the
24 majority of low-income customers were slightly better
25 off under the RIB than the previous flat rate. Since
26 the RIB rate was introduced, however, electricity

1 prices have shot up, and there is no end in sight to
2 those rate increases.

3 **Proceeding Time 9:38 a.m. T10**

4 The Ontario Energy Board has implemented
5 over the last number of years a comprehensive
6 residential electricity assistance program, including
7 a monthly on-bill credit, an emergency assistance
8 program, and low income customer rules. Manitoba
9 Hydro was also directed last July by the Public
10 Utilities Board to lead a collaborative process with
11 stakeholders to develop a bill affordability program
12 harmonized with Manitoba Hydro's other programs
13 supporting low-income ratepayers, and that process is
14 well underway.

15 Both Ontario and Manitoba's approaches
16 recognize the impact of higher electricity rates on
17 low-income ratepayers, and the importance of a
18 harmonized multi-pronged approach to electricity bill
19 affordability issues in order to ensure access to the
20 essential service.

21 While our proposals do draw distinctions
22 between low-income and non-low-income members of the
23 residential rate class, the discrimination that we are
24 proposing is not undue. If the Commission is to order
25 that B.C. Hydro to implement BCOAPO's proposals, the
26 relief that will accrue to low-income BC Hydro

1 ratepayers who are struggling to maintain services
2 significant to those ratepayers, but has a limited
3 cost to other ratepayers. Mr. Colton, in both his
4 testimony and in repeated responses to information
5 requests has demonstrated and documented how a more
6 affordable rate, particularly when combined with the
7 crisis intervention fund, low-income terms and
8 conditions, and expanded DSM is a cost effective
9 response to the inability to pay and resulting non-
10 payment problems.

11 I'd also like to just touch briefly on the
12 RIB review that is being carried out by the
13 Commission. B.C.'s Minister of Energy and Mines has
14 asked that the Commission to report back to the
15 government on five specific questions concerning the
16 impact of B.C. Hydro's and FortisBC's residential
17 inclining block rates. Minister Bennett's letter
18 states that he has heard concerns that the RIB rate
19 may have unreasonable bill impacts on some customers
20 including low-income customers and rural customers
21 without access to natural gas. The Minister has asked
22 the Commission to conduct the RIB review in order to
23 look into questions such as the potential for DSM
24 programs to mitigate bill impacts for low-income
25 customers without access to natural gas.

26 BCOAPO made detailed submissions on the RIB

1 rate review process in mid-October of 2015, focusing
2 on the need for the review to properly consider low-
3 income energy efficiency programs, and the fact that
4 low-income ratepayers are not financially able to fuel
5 switch even if they live in areas where natural gas is
6 available.

7 As I've already said, we don't see any
8 reason to depart from the existing RIB structure. As
9 Hydro has pointed out, there is a small but beneficial
10 positive impact of the RIB rate for the majority of
11 low-income residential customers. We do, however,
12 view the RIB rate review process as an important
13 opportunity for Hydro to identify any additional DSM
14 measures that could help offset the higher bills
15 already being experienced by low-income customers, and
16 customers without access to natural gas, by targeting
17 the factors that lead to high energy use by these
18 specific customer groups.

19 So as stated by Mr. Colton in his direct
20 testimony, based on the company's representations that
21 it believes it more appropriate to leave the actual
22 design of low-income DSM programs to the forthcoming
23 DSM proceeding, and given the inextricable link
24 between program design and program budget, he is
25 proposed to defer actual program design and budgeting
26 to that proceeding. However, in response to the RIB

1 review, we do anticipate asking the Commission to
2 recommend that BC Hydro be required to expand installs
3 of B.C. Hydro's low-income ECAP program to serve a
4 much higher percentage of the low-income households
5 than it's currently serving. We are going to ask the
6 Commission to recommend serving up to 50 percent of
7 these households within a 15 year time frame.

8 Again, though, we are not seeking an
9 expenditure order in this proceeding, we are just
10 asking for those recommendations as part of the RIB
11 review.

12 **Proceeding Time 9:42 a.m. T11**

13 Throughout the pre-application and RDA
14 process we have attempted wherever possible to work
15 with BC Hydro and active interveners in good faith,
16 and in a non-adversarial manner, in order to try to
17 identify the problems, particularly in relation to
18 low-income customers, and to propose solutions. We
19 have developed proposals that are not unduly
20 discriminatory or unduly preferential. We understand
21 that a number of intervener groups will be supporting
22 our proposals. And as set out in the opening
23 statement of Keith Anderson, BC Hydro is making a
24 number of changes to its business practices and
25 electric tariff in recognition of the hardship that
26 low-income and other vulnerable ratepayers face in

1 paying for and maintaining electric service. Some of
2 these proposals that Hydro is adopting were proposed
3 by -- or some versions of them were proposed by BCOAPO
4 during our numerous meetings with BC Hydro over the
5 last year.

6 And should the Commission approve our
7 proposals, we will continue to work with the company
8 and the Commission to ensure efficient and successful
9 implementation.

10 And subject to any questions that you might
11 have, those are our opening submissions.

12 THE CHAIRPERSON: No, we have no questions. Thanks, Ms.
13 Khan. Mr. Andrews?

14 **OPENING STATEMENT BY MR. ANDREWS:**

15 Mr. Chairman, members of the Panel. The
16 B.C. Sustainable Energy Association is a non-profit
17 association of citizens, professionals, and
18 practitioners, committed to promoting the
19 understanding, development and adoption of sustainable
20 energy, energy efficiency, and energy conservation in
21 B.C. BCSEA works toward the province's transition to
22 a lower-carbon economy. BCSEA has five chapters
23 across B.C. and approximately 400 individual and
24 corporate members.

25 Sierra Club B.C. is a non-profit
26 organization of British Columbians who care about a

1 broad range of environmental issues, including climate
2 change and clean energy. Sierra Club has five local
3 groups and over 12,000 members and supporters across
4 the province.

5 Many of the members of BCSEA and SCBC are
6 ratepayers of BC Hydro. They are green ratepayers.
7 They want the electricity they purchase to be produced
8 and transmitted sustainably, and in ways that minimize
9 harm to the natural environment.

10 Regarding rate design, BCSEA and SCBC's
11 members want rates that are fair and reasonable and
12 that give appropriate price signals to encourage
13 energy conservation and efficient use of energy. The
14 interests of BCSEA and Sierra Club in these
15 proceedings are as non-profit, public-interest,
16 environmental and energy policy organizations, and as
17 representatives of their members' interests as
18 ratepayers.

19 BCSEA/SCBC have an extensive background of
20 participation in BCUC proceedings, and BC Hydro
21 consultation processes, both broadly and also
22 specifically regarding the topics that are within the
23 scope of the current 2015 RDA proceeding. Key
24 examples include proceedings regarding BC Hydro's
25 residential inclining block rate, the RIB rate; the
26 transmission service inclining block rate; general

1 service conservation rate; and the 2007 RDA Phase 1.
2 In addition to the remedies sought by BC
3 Hydro within the RDA application, the current
4 proceeding also addresses the Commission's report to
5 the Minister of Energy regarding RIB rates of both BC
6 Hydro and FortisBC Electric. And in that context, I
7 would add that BCSEA/SCBC have experience
8 participating in the Commission proceeding regarding
9 FBC's electric -- FBC electric's RIB rate. And as
10 well as demand-side management, which I'll refer to as
11 DSM, programs of both BC Hydro and Fortis Electric.
12 And also to the extent that it may be relevant to that
13 report, FortisBC Energy, the natural gas utility's
14 service extension policies.

15 **Proceeding Time 9:47 a.m. T12**

16 BCSEA and SCBC participated actively in BC
17 Hydro's stakeholder workshops regarding the 2015 rate
18 design application. We commend BC Hydro for this pre-
19 application process, both the concept of it and the
20 implementation of it. BCSEA/SCBC were able to learn
21 about numerous topics and potential topics within the
22 RDA rubric in a way that was much more efficient and
23 more effective than a written Information Request
24 process would have been.

25 Many questions and concerns were resolved
26 through that informal process, and won't have to be

1 dealt with in the current proceeding or specifically
2 in the current oral hearing. In addition, the
3 selection of topics and the content of the topics that
4 would form the first module of the RDA application
5 evolved over the course of the process based at least
6 in part on input from stakeholders.

7 In final argument, BCSEA/SCBC anticipates
8 asking the Commission Panel to comment in its reasons
9 for decision on the value of the pre-application
10 stakeholder engagement process undertaken in
11 anticipation of this proceeding.

12 I'll briefly discuss several topics that
13 are key to BCSEA/SCBC, and this list is not intended
14 to be comprehensive. Residential rates, the main
15 topic of course is the RIB rate design. BCSEA/SCBC
16 support continuation of the RIB rate as the default
17 residential rate because it achieves measurable energy
18 conservation. Design elements such as the threshold,
19 the basis for setting the Tier 1 and Tier 2 prices,
20 and the pricing principles, are always a matter of
21 balancing multiple objectives and impacts. Based on
22 the information and analysis to date, and subject to
23 evidence that may emerge during the oral hearing,
24 BCSEA/SCBC are inclined to support the existing design
25 elements.

26 Low-income residential rates. BCSEA/SCBC

1 are inclined to support OAPO's proposals for rate
2 design elements aimed at mitigating the negative
3 impact of high electricity rates on low-income
4 customers. BCSEA/SCBC see this as the right thing to
5 do. In addition, pragmatically, the ratepayer members
6 and supporters of BCSEA and Sierra Club are more
7 likely to support rate increases to the extent that
8 rate increases have been proven to be essential to
9 maintaining a sustainable BC Hydro electricity system,
10 if there are measures in place to reduce the adverse
11 impact of these higher rates on the most vulnerable
12 customers.

13 Legally, BCSEA/Sierra Club will argue in
14 final written argument that carefully-designed low-
15 income measures would not be unduly discriminatory.
16 BCSEA/SCBC do not intend to cross-examine OAPO's
17 witnesses on the low-income issues.

18 Regarding residential E-Plus, BCSEA/SCBC
19 will make written submissions on those issues when the
20 time comes in this proceeding.

21 I mentioned earlier the Commission's report
22 to the Minister of Energy regarding RIB rates. The
23 current status is that the Commission Panel in a
24 different proceeding has approved the methodology for
25 Hydro and for FBC to prepare reports, and those
26 reports are now being prepared. Their due date stands

1 at September 16th. And in those circumstances I won't
2 be cross-examining BC Hydro during this oral hearing
3 on the RIB report issues.

4 General service rates. The most
5 substantial change proposed by BC Hydro in this
6 application is to move to a flat rate -- a flat energy
7 rate and flat demand charge for the medium general
8 service, MGS, and large general service, LGS, rate
9 classes. This would replace the existing complicated
10 multi-tier rate structures that were intended to
11 incent customers to reduce electricity usage.

12 During the RDA stakeholder consultation
13 sponsored by BC Hydro, BCSEA and Sierra Club carefully
14 examined and accepted reports indicating that the
15 existing MGS and LGS rate structures have yielded
16 little or no discernable energy conservation, and that
17 the rate structures are too complicated to be
18 understood. BCSEA/SCBC have supported in principle BC
19 Hydro's proposed move to a flat rate structure for MGS
20 and LGS energy and demand.

21 **Proceeding Time 9:52 a.m. T13**

22 BCSEA/SCBC see the complicated MGS and LGS
23 rate structures as the laudable initiatives that
24 didn't turn out to meet the original conservation
25 objective. BCSEA/Sierra Club hope that the stark
26 simplicity of the proposed flat rates will help MGS

1 and LGS customers see more clearly the financial
2 benefits of significant conservation and efficiency
3 measures.

4 Regarding transmission service rates and
5 rate design, BCSEA/SCBC have historically supported in
6 principle the conservation-oriented inclining block
7 TSR energy rate design and they continue to do so.
8 During the stakeholder consultation, BCSEA/Sierra Club
9 supported the option that would retain the spread
10 between the Tier 1 and Tier 2 energy prices within the
11 context of the legal constraints applicable to changes
12 to the RS 1823 rate. And I emphasize that there are
13 considerable legal constraints on TSR rate design that
14 are applicable.

15 Regarding electricity tariff terms and
16 conditions, BCSEA/SCBC are interested in these
17 proposals. And I would note that while they may be
18 thought of as minor for the customers that they have
19 an impact on, they can be very major indeed and I
20 won't go through them in detail right now.

21 In terms of issues that are not in scope,
22 I'll comment that there are two issues that were in
23 the original application that have already been dealt
24 with. Hydro's TSR Freshet Rate Pilot Project that was
25 subject of a streamlined review process and Order G-
26 17-16, and the Cost of Service Study and Rate Class

1 Segmentation Issues that were the subject of a
2 negotiated settlement agreement approved by Order G-
3 47-16. And BCSEA/SCBC participated in those hived-off
4 proceedings.

5 As Mr. Christian said earlier regarding DSM
6 spending, BC Hydro's F17 to F19 DSM expenditure
7 schedule has recently been filed and will be addressed
8 in a separate proceeding from the current one, and
9 BCSEA/SCBC are content with that procedural approach.
10 They intend to participate in the revenue requirement
11 application and DSM proceeding or proceedings.

12 Finally there are a number of issues that
13 have been designated for the second module of the RDA
14 application and that includes a rate for electric
15 vehicle at-home charging, in which BCSEA/Sierra Club
16 are very interested, an interruptible general service
17 rate, non-integrated areas rates, and commercial E-
18 Plus. The procedure for developing an interruptible
19 general service rate, as Mr. Weafer mentioned, has
20 already been addressed in this proceeding. As for the
21 other topics that I mentioned, BCSEA/SCBC are content
22 that they be addressed in Module 2 in order to allow
23 time for rigorous stakeholder engagement before the
24 Module 2 application is finalized and filed.

25 In conclusion, with the exception of the
26 low income rate issues while I'll address in a moment,

1 BCSEA and Sierra Club's cross-examination of BC Hydro
2 witnesses in this oral hearing will be relatively
3 limited. BC Hydro's current proposals are largely
4 consistent with the submissions that BCSEA/SCBC made
5 during the engagement process. I'm mindful of the
6 appropriate limits on friendly cross-examination. My
7 cross-examination of BC Hydro witnesses will be on new
8 information that is subsequent to the engagement
9 process, and on points of clarification.

10 Regarding the low income rates, issues
11 raised by OAPO, BCSEA/Sierra Club do not support BC
12 Hydro's basic position, and so BCSEA/Sierra Club do
13 not feel constrained in the scope of their cross-
14 examination of BC Hydro witnesses on those issues.
15 But to be clear, I expect that BCOAPO will take the
16 leading cross-examining the BC Hydro witnesses on the
17 low income issues.

18 Subject to any questions, those are the
19 opening statements of the Sustainable Energy
20 Association and Sierra Club.

21 **Proceeding Time 9:57 a.m. T14**

22 THE CHAIRPERSON: Thank you, Mr. Andrews.

23 MR. ANDREWS: Thank you.

24 THE CHAIRPERSON: Ms. Worth? Sorry, go ahead, Ms. Worth.

25 **OPENING STATEMENT BY MS. WORTH:**

26 Mr. Chair, members of the Panel. My

1 client, MoveUP is the sole-certified bargaining agent
2 for the majority of BC Hydro's inside or office
3 workers. Their members come to these processes with a
4 unique perspective. They participate as a group of
5 workers with a vested interest in ensuring that their
6 employer continues to be a strong, stable utility with
7 public support going for their programs going forward.
8 And it is in their collective best interest to ensure,
9 to whatever degree is possible, that BC Hydro is able
10 to provide safe, reliable, and affordable electricity
11 going forward. Their very jobs actually depend on
12 that, as well as their personal finances.

13 More than that, though, the members of the
14 -- they come to these as members of the labour
15 movement and as members of British Columbia's
16 community. The men and women of MoveUP want to see BC
17 Hydro live up to its commitments and responsibilities
18 to the community through innovative and
19 environmentally and socially responsible rate designs,
20 properly calibrated to do the greatest good, while
21 protecting BC Hydro's economic and structural
22 integrity.

23 It is no secret that my socially
24 progressive client strongly supports the idea of a
25 rate design that will help the growing segment of BC
26 Hydro's population facing energy poverty. Now, that

1 is energy poverty in the sense that the customers have
2 to choose between heating and eating, not the actual
3 lack of infrastructure that provides access to energy.

4 BCOAPO has presented evidence in this
5 process to highlight this growing problem, and it has
6 presented a plan to help deal with this issue. MoveUP
7 sees this process as a valuable opportunity to kick
8 the tires on BCOAPO's plan through a review of the
9 evidence all of us here have formed our preliminary
10 opinions, and through our IRs we did our research.
11 But now we are here to apply what we know in really
12 what boils down to a visual inspection. Is this a
13 thoughtful and well conceived plan? Of that I have no
14 doubt. But is it the proper plan for B.C. and BC
15 Hydro's low-income ratepayers? That remains to be
16 seen and will likely be determined through cross-
17 examination of both BC Hydro and BCOAPO witnesses.

18 In its opening statement in Exhibit B-38,
19 BC Hydro stated that this application had prioritized
20 three rate design criteria: customer understanding and
21 acceptance, stability, and fair apportionment of
22 costs. This raises three fundamental concerns for
23 MoveUP. First it is apparent in that statement, and
24 we believe specific proposals in the RDA that
25 conservation is no longer a priority for BC Hydro.
26 While some might argue that conservation is not needed

1 given BC Hydro's current forecast supply and demand
2 balance, we believe that it is shortsighted and a
3 counter productive point of view. Conservation is not
4 something that you should start and stop in accordance
5 with the latest forecasts. We have all seen how those
6 can change. Conservation is an integral part of BC
7 Hydro's plans, including its rate design.

8 And second, while we agree that fairness
9 should be a key rate design criteria, we believe that
10 allocating costs in accordance with a myriad of
11 assumptions about the allocation of historic imbedded
12 costs is a very limited view of fairness. It is
13 backward-looking in terms of cost causation, it gives
14 too much weight to what is in many respects arbitrary
15 allocation principles, and it fails to take into any
16 account the common sense notion of fairness and equity
17 in terms of people's ability to actually pay.

18 Third, completely missing from the set of
19 criteria and proposals is innovation in rates that can
20 better signal costs in order that customers both large
21 and small can take advantage of the latest energy
22 management technologies, and rates that can be better
23 tied to efficiency in which the -- in the ways that
24 energy are being used. We will pursue these concerns
25 in cross-examination of BC Hydro and other witnesses
26 during the hearing, and we intend to address the

1 following specific issues.

2 **Proceeding Time 10:02 a.m. T15**

3 The inconsistency in the rate that is
4 apparently needed to protect customers from the impact
5 of large LNG loads, and what BC Hydro itself describes
6 as status quo proposal for the standard industrial
7 tariff. Proposals with respect to the basic customer
8 charge in the residential sector and the small general
9 sector. The shift in cost recovery from energy rates
10 to the demand charge in the demand for medium and
11 large general sector customers. And the best manner
12 in which low income customers can be protected from
13 the rate increases BC Hydro will be implementing now
14 and in the foreseeable future.

15 Subject to any questions, that's my opening
16 statement.

17 THE CHAIRPERSON: Thank you, Ms. Worth.

18 MS. WORTH: Thank you.

19 THE CHAIRPERSON: Mr. Keen?

20 **OPENING STATEMENT BY MR. KEEN:**

21 Thank you, Mr. Chairman, Commissioners. My
22 remarks will be brief and aimed to help you understand
23 why AMPC is here and what its interests are. As we
24 know, AMPC is a longstanding industry association. It
25 represents major industrial load customers in matters
26 of electricity regulation in British Columbia. AMPC

1 members are BC Hydro customers in the pulp and paper,
2 forestry, mining, electrochemical and petrochemical
3 sectors. Clearly, competitive and well designed
4 electricity rates are important to them. AMPC members
5 all take transmission or TSR service under Rate
6 Schedule 1823. Some are large general service or LGS
7 customers as well.

8 Now, AMPC has actively participated in the
9 written argument and negotiated settlement processes
10 already completed, and it was likewise active during
11 the extensive consultation process that preceded BC
12 Hydro's application. More than that, in fact. AMPC
13 and BC Hydro and other interveners all worked hard to
14 resolve many issues and find compromises within a
15 process that was very constructive. And partially for
16 that reason, AMPC is not sitting a witness or calling
17 evidence in this proceeding. AMPC's user document is
18 on the record.

19 Another reason, in passing, is the
20 government directive to the Commission that prohibits
21 any rate rebalancing, foreclosing important rate
22 design options that are normally available in a rate
23 design hearing.

24 So our expected hearing participation may
25 include appropriate and limited cross-examination of
26 BC Hydro and in any event will include the submission

1 of focused argument target AMPC's TSR and LGS
2 positions.

3 And so let me tell you what those positions
4 are, very briefly. For TSR matters and RS 1823
5 pricing principles, AMPC supports what BC Hydro terms
6 Option 1, because pragmatically it achieves its
7 revenue goals without adversely affecting customers
8 who have previously made conservation investments.
9 Turning to LGS, AMPC firmly supports cleaning up the
10 LGS rate mechanics and price signal with fly energy
11 and fly demand charges, but doing so in a way that
12 does not disproportionately burden and unfairly burden
13 high consumption, high load factor customers who
14 already make efficient use of the system. And so for
15 that reason, raising the proportion of demand related
16 costs that the demand charge recovers is critical. I
17 should add that AMPC also looks forward to Module 2
18 examination of the so-called X LGS concept and having
19 it send a clear pricing.

20 So, as a result, Mr. Chairman, AMPC will be
21 arguing that the Commission ought to -- not to approve
22 these rate designs as applied to. And subject to any
23 questions, those are my submissions.

24 THE CHAIRPERSON: Thank you, Mr. Keen. Ms. Herbst, do
25 you have any opening remarks?

26 MS. HERBST: Thank you, Mr. Chair, I don't have an

1 opening statement, thanks.

2 THE CHAIRPERSON: Thank you. Ms. Dong, any? Ms. Dong,
3 do you have any opening remarks? No.

4 **OPENING STATEMENT BY MS. DONG:**

5 Mr. Chairman, Panel, the Zone II Ratepayers
6 Group currently consists of Kwadacha Nation, whose
7 interests and rates will be impacted by this
8 proceeding both in Module 1 and Module 2. We have
9 been in touch with other remote communities on their
10 issues and representations of issues.

11 For background, Kwadacha Nation was
12 relocated to the more remote Fort Ware when BC Hydro's
13 W.A.C. Bennett Dam was built in the '60s. As a result
14 of this flooding, BC Hydro and Kwadacha Nation
15 eventually entered into the 2008 Settlement Agreement.
16 And in 2013 the people of Kwadacha Nation became BC
17 Hydro customers under the Remote Community
18 Electrification Program, and BC Hydro generates
19 electricity by a diesel generating station.

20 Kwadacha Nation is a First Nation community
21 in Fort Ware and has approximately 400 people, 380 of
22 which are Kwadacha Nation members. The employment in
23 Fort Ware consists of band and health administration,
24 education, public works and forestry, as well as
25 active mining and oil and gas industries.

26 **Proceeding Time 10:08 a.m. T16**

1 About 10 to 12 percent of the community
2 members rely on income assistance, providing an
3 average of about \$540 per month. Fort Ware is located
4 about 600 kilometers north of Prince George. The
5 closest town is Mackenzie, which is about 400
6 kilometers away. Fort Ware is accessible by small
7 plane or, since 1992, by a logging road which is about
8 eight to ten hours' drive, depending on weather and
9 road conditions.

10 In some homes, wood is the predominant heat
11 source, and electricity is required to operate the
12 circulation fans and to heat the crawl spaces. Many
13 homes in the community are substandard and in need of
14 major renovations and/or upgrades. Due to the
15 extremely cold weather climate, remoteness, need for
16 food storage, high electricity bills, and low incomes
17 in the community, electricity affordability is a key
18 issue. And therefore, demand-side management programs
19 and terms and conditions such as disconnection
20 policies and billing practices are very important to
21 this community.

22 In some cases, there has been some good
23 cooperation between BC Hydro and Band administration.
24 However, some areas need improvement.

25 So this concludes our opening statement.

26 THE CHAIRPERSON: Thank you, Ms. Dong.

1 MS. DONG: Thank you.

2 THE CHAIRPERSON: Mr. Austin, do you have an opening
3 statement?

4 MR. AUSTIN: Yes, I do.

5 **OPENING STATEMENT BY MR. AUSTIN:**

6 The Clean Energy Association of B.C. and
7 its members have been involved in Commission
8 proceedings for about 25 years. In this particular
9 proceeding, there are two main areas of interest that
10 the Association's members have.

11 The first is the need for a tiered rate
12 structure. While it's supposed to be a price signal
13 based on a long-run marginal cost, or opportunity
14 cost, or whatever cost can be discerned in relation to
15 new supplies of electricity, it appears to be an
16 anachronism in an era where there is a dire need to
17 reduce greenhouse gas emissions.

18 And I think this is a point that hasn't
19 been mentioned by any of the speakers that preceded
20 me. There is environmental considerations that this
21 Commission has to take into account when it sets rate
22 structures. It may have not had to do that in the
23 past, but it's imperative that it do that now.

24 The tiered rate structure needs to be
25 materially adjusted or eliminated in relation to BC
26 Hydro's residential customers, so that investment in

1 such matters as electric cars, electric heat pumps,
2 electric hot water systems, and electric space
3 heating, isn't discouraged by an artificial increase
4 in electricity prices because of a tiered rate
5 structure.

6 The Clean Energy Association of B.C.
7 supports the elimination of the tiered rate structure
8 in relation to BC Hydro's commercial customers, and
9 it's ironic that it's based on the fact that they
10 don't understand it.

11 The CEABC has no position with respect to
12 the elimination of the tiered rate structure for BC
13 Hydro's industrial customers. It's a very complicated
14 area that seems to be interwoven with customer
15 baseline loads, energy conservation and a whole number
16 of matters, but ultimately somebody's going to have to
17 look at that and pry that apart to see whether it's
18 having the effect of increasing or decreasing
19 greenhouse gas emissions.

20 The second area that the Association is
21 interested in is BC Hydro's long-run marginal cost,
22 opportunity cost, or whatever it is that anyone wants
23 to call it. And it is part of the tiered rate
24 structure system. So elimination of the tiered rate
25 structure system means that it's not as important as
26 it normally would be.

1 It's supposed to be a price signal to BC
2 Hydro's customers to conserve electricity, nothing
3 more, nothing less. The CEABC wants to probe this
4 area because the evidence that is currently on the
5 record is, for lack of a better word, confusing. What
6 does it actually mean? What does the long-run
7 marginal cost of electricity mean? Is it an
8 opportunity cost? Is it reflective of a broad enough
9 sector of generation costs, because it doesn't appear
10 to include demand charges, to have some sort of weight
11 to it, some sort of substance to it, or is it looking
12 at too narrow a band of costs?

13 **Proceeding Time 10:13 a.m. T17**

14 The long-run marginal cost examination is
15 important, especially at a time of declining
16 generation for costs for certain types of renewable
17 generation such as wind and solar. Everybody's used
18 to increasing costs of generation. They are not used
19 to declining costs. So, this area needs to be
20 examined as well. And there has to be some new
21 thinking in this area by all the people in the room,
22 including the Commission Panel. We're too used to
23 generation costs rising on an incremental basis and
24 not declining on an incremental basis, and we're not
25 used to the idea of the need to reduce greenhouse gas
26 emissions. And those are the Clean Energy Association

1 of B.C.'s submissions.

2 THE CHAIRPERSON: Thank you, Mr. Austin.

3 So, that brings us to the end of
4 submissions. I think we should take a 10 minute break
5 while B.C. Hydro gets its panel ready for cross-
6 examination, so we'll come back at 10:25. Thank you.

7 **(PROCEEDINGS ADJOURNED AT 10:14 A.M.)**

8 **(PROCEEDINGS RESUMED AT 10:26 A.M.)**

9 THE CHAIRPERSON: Please be seated, thank you.

10 Mr. Christian, are you all set?

11 MR. CHRISTIAN: I am, Mr. Chairman, thank you very much,
12 I present to you B.C. Hydro's policy panel number 1.
13 Furthest away from you is Mr. Randy Reimann, then Mr.
14 Gordon Doyle, and then Mr. Keith Anderson, and if we
15 could have the witnesses be sworn at this time?

16 THE CHAIRPERSON: All right.

17 **BC HYDRO PANEL 1 - POLICY PANEL:**

18 **KENNETH KEITH ANDERSON, Affirmed;**

19 **GORDON DOYLE, Affirmed,**

20 **RANDY REIMANN, Affirmed.**

21 **EXAMINATION IN CHIEF BY MR. CHRISTIAN:**

22 MR. CHRISTIAN: Q: Thank you. We'll start with you,
23 Mr. Reimann. Can you please confirm that your name is
24 Mr. Randy Reimann?

25 MR. REIMANN: A: It is.

26 MR. CHRISTIAN: Q: And you're an employee of BC Hydro?

1 MR. REIMANN: A: I am.

2 MR. CHRISTIAN: Q: And you are the director of energy
3 planning for BC Hydro?

4 MR. REIMANN: A: That's correct.

5 MR. CHRISTIAN: Q: And you've had that position since
6 2005?

7 MR. REIMANN: A: That's correct.

8 MR. CHRISTIAN: Q: Can you please turn to your direct
9 testimony that is attached to and part of Exhibit B-
10 38?

11 MR. REIMANN: A: I have that.

12 MR. CHRISTIAN: Q: Do you have any corrections, sir,
13 you'd like to make to that direct testimony?

14 MR. REIMANN: A: I do not.

15 MR. CHRISTIAN: Q: Is your direct evidence, your direct
16 testimony and the evidence referred to therein, is it
17 accurate and true to the best of your knowledge and
18 belief?

19 MR. REIMANN: A: It is.

20 MR. CHRISTIAN: Q: And do you adopt your direct
21 testimony in this proceeding?

22 MR. REIMANN: A: I do.

23 MR. CHRISTIAN: Q: Mr. Doyle, please confirm your name
24 is Gordon Doyle?

25 MR. DOYLE: A: It is.

26 MR. CHRISTIAN: Q: And you are an employee of BC Hydro?

1 MR. DOYLE: A: I am.

2 MR. CHRISTIAN: Q: And you are a manager of tariffs and
3 regulatory, is that correct?

4 MR. DOYLE: A: That's correct.

5 MR. CHRISTIAN: Q: And you've had that positions since
6 November 2012, I believe?

7 MR. DOYLE: A: Yes.

8 MR. CHRISTIAN: Q: Can you please turn to your direct
9 testimony as part of Exhibit B-38?

10 MR. DOYLE: A: I have that in front of me.

11 MR. CHRISTIAN: Q: Do you have any corrections, sir,
12 that you'd like to make to your direct testimony?

13 MR. DOYLE: A: I do not.

14 MR. CHRISTIAN: Q: And is your direct testimony and the
15 evidence referred to therein accurate and true to the
16 best of your knowledge and belief?

17 MR. DOYLE: A: It is.

18 MR. CHRISTIAN: Q: Thank you, and do you adopt your
19 direct testimony in this proceeding?

20 MR. DOYLE: A: I do.

21 MR. CHRISTIAN: Q: Thank you. And last but not least,
22 Mr. Anderson, please confirm that your name is Keith
23 Anderson?

24 MR. ANDERSON: A: It is.

25 MR. CHRISTIAN: Q: And you are the vice president of
26 customer service at B.C. Hydro?

1 MR. ANDERSON: A: Yes, I am.

2 MR. CHRISTIAN: Q: And you've had that position since
3 early 2015?

4 MR. ANDERSON: A: That is correct.

5 MR. CHRISTIAN: Q: And could I have you please turn to
6 your direct testimony at Exhibit-B38?

7 MR. ANDERSON: A: I have it.

8 MR. CHRISTIAN: Q: And do you have any corrections that
9 you'd like to make to your direct testimony?

10 MR. ANDERSON: A: No, I do not.

11 MR. CHRISTIAN: Q: And can you confirm that your direct
12 testimony and the evidence referred to therein is
13 accurate and true to the best of your knowledge and
14 belief?

15 MR. ANDERSON: A: It is.

16 MR. CHRISTIAN: Q: And do you adopt your direct
17 testimony in this proceeding?

18 MR. ANDERSON: A: Yes, I do.

19 MR. CHRISTIAN: Q: And you have an opening statement to
20 give on behalf of B.C. Hydro, are you prepared to give
21 that statement at this time?

22 MR. ANDERSON: A: Yes I am.

23 MR. CHRISTIAN: Q: Please proceed.

24 **Proceeding Time 10:29 a.m. T18**

25 THE CHAIRPERSON: Please go ahead, Mr. Anderson.

26 MR. ANDERSON: A: Thank you. Good morning, my name is

1 Keith Anderson and I am the vice president of customer
2 service at BC Hydro. I am pleased to be in front of
3 you today to outline some of the key components of our
4 2015 rate design proposals.

5 This is our first full rate design
6 application since 2007. Based on feedback from the
7 Commission we've undertaken a different process in the
8 past. Specifically, we underwent an extensive
9 stakeholder engagement process.

10 Rate design is a complex process that must
11 take into account multiple and competing objectives
12 and multiple stakeholder interests. Throughout our
13 application you will see that we prioritized the
14 following criteria over others:

15 1) Customer understanding and acceptance.
16 Rates should be clear, transparent and cost effective
17 to implement. 2) Stable rates for customers.
18 Minimize unexpected changes that can be adverse to
19 exiting customers. Where rates are generally working
20 and well understood they should not be replaced. 3)
21 Fair apportionment of costs. Cost recovery of various
22 cost drivers such as fixed demand related costs should
23 be reflected in the charges.

24 I would now like to take a few minutes to
25 highlight the key rate proposals that we're making in
26 this application.

1 Residential inclining block. We propose to
2 restrain the status quo inclining block rate structure
3 that has been in place since 2008. This step rate has
4 delivered energy conservation and is well understood
5 by our customers. We are also proposing to continue
6 to apply the rate increases of future revenue
7 requirement applications equally to step 1, step 2,
8 and the basic charge.

9 Small general service. We propose to
10 retain the existing flat rate structure while
11 increasing the cost recovery of the basic charge from
12 approximately 33 percent to 45 percent which aligns
13 with the residential inclining block rate basic charge
14 and adjust the energy rate to retain the revenue
15 neutrality for the customer class.

16 Medium general service. This is where
17 we're proposing one of our biggest changes. In
18 talking to our medium general service customers we
19 identified that the existing rate was neither well
20 understood or accepted by a large number of them. We
21 also found that there was no conservation happening
22 because of the rate and that customers looked at their
23 overall bill more than their particular incremental
24 rate.

25 As such, we are proposing to move to a flat
26 energy rate as well as a flat demand charge for this

1 customer class. We also propose increasing the demand
2 cost recovery through the demand charge from 15
3 percent to 35 percent which better represents cost of
4 service allocation and to adjust the energy rate to
5 retain revenue neutrality for the customer class.

6 Large general service. Similar to the
7 medium general service rate, through engagement with
8 large general service customers we know that many find
9 the current rate challenging with little understanding
10 of the exact rate structure. We also know that it's
11 essentially not driving conservation.

12 As such, we are proposing to move to a flat
13 energy rate as well as a flat demand charge. We also
14 propose increasing the demand cost recovery through
15 the demand charge from 50 percent to 65 percent to
16 better align charges with cost causation and to adjust
17 the energy rate to retain revenue neutrality for the
18 customer class.

19 Transmission service rate. We're proposing
20 to retain the status quo for the transmission rates.
21 Per Rate 1823, which the majority of transmission
22 customers are on, we have proposed to continue with
23 the application of future rate increases equally to
24 both the Tier 1 and Tier 2 of the stepped rate
25 starting in fiscal 2018. For fiscal 2017 we are
26 proposing a one-time adjustment to the Tier 2 rate to

1 align it with BC Hydro's long-run marginal cost and to
2 adjust the Tier 1 rate accordingly, to achieve bill
3 neutrality.

4 Though a streamlined review process, a
5 freshet rate pilot for our transmission service
6 customers has already been approved to encourage
7 increased consumption during the period of May to July
8 when BC Hydro traditionally has an oversupply of
9 energy.

10 For electric tariff. Our proposed changes
11 to the electric tariff can be separated into three
12 categories. Number 1, update of standard charges.
13 These were last updated in 2007 and we need to adjust
14 general increases in the cost of delivery. They also
15 need to be adjusted to reflect the different realities
16 of how we now deliver some services. For example, the
17 smart meters we now have the ability to disconnect and
18 reconnect remotely for most meters rather than having
19 to dispatch a crew to site.

20 Number 2, proposed changes to the
21 application of security deposits. Changes to allow
22 for when they are applied and how much is required
23 will allow theses to be more effective.

24 Number 3, update the tariff language to
25 improve customer understanding and make it more
26 consistent with modern drafting concepts.

1 **Proceeding Time 10:34 a.m. T19**

2 Residential E-Plus service. E-Plus is an
3 interruptible rate put in place in 1987, in which
4 customers on the rate receive a discount of
5 approximately 50 percent in exchange for BC Hydro to
6 have the ability to interrupt service if needed.

7 We propose amendments to the residential E-
8 Plus rate terms and conditions that enable the
9 interruption of the service to provide value to BC
10 Hydro, and its non-E-Plus customers, while maintaining
11 the discounted rate for E-Plus customers. The
12 amendments align the terms and conditions with those
13 of BC Hydro's other interruptible rates.

14 Low-income customers. The British Columbia
15 Old Age Pensioners' Organization, BCOAPO, has made a
16 number of proposals in support of low-income
17 customers. In particular, advocating for a specific
18 rate for low-income customers, as well as specific
19 terms and conditions on matters such as payment
20 arrangements for low-income customers. While we are
21 not proposing any amendments or approvals in terms of
22 low-income customers specifically, we are taking steps
23 which will assist low-income customers within the
24 boundaries of the *Utilities Commission Act*.

25 In particular, within the application, we
26 proposed reducing the minimum reconnection charge from

1 \$125 to \$30; reducing the returned payment charge from
2 \$20 to \$6; and sustaining the account charge at \$12.40
3 despite cost pressures to the provision of a lower-
4 cost online alternative. In addition, within customer
5 service operations we've either implemented changes
6 already or are working on changes which will help low-
7 income customers. We have established processes with
8 Ministry of Social Development and Social Innovation
9 to avoid security deposits, and postpone
10 disconnections for customers awaiting Ministry of
11 Social Development and Social Innovation decisions on
12 applications for support. We have opened in-person
13 customer service desks at our Dunsmuir and Edmonds
14 offices, with plans to explore providing similar
15 services in other district offices.

16 We are working on business process changes
17 to relax installment plans to allow repayments over
18 longer periods. These have typically been only up to
19 three months, provided that bills are paid before the
20 next winter heating season. We are implementing
21 changes that will delay disconnections where customers
22 demonstrate a medical reason for requiring power. We
23 will establish a low-income advisory group. We will
24 post business practices, in consultation with
25 interveners and Commission staff, regarding payment
26 plans and other customer-facing business practices.

1 And later this fall we will bring forward tariff
2 changes as necessary to allow another customer to take
3 responsibility for a customer's account.

4 Some of these changes are already described
5 on the record of this proceeding. However, some have
6 arisen from recent ongoing discussions with BCOAPO and
7 are not reflected anywhere else on the record.

8 There is one final element I'd like to
9 raise in terms of how we're taking steps to respond to
10 the needs of low-income customers, and how we've
11 listened to the input from BCOAPO. It's in regard to
12 BCOAPO's request for a winter moratorium. We are
13 happy to say that we will be implementing a pilot
14 moratorium on winter disconnections from the 2016/2017
15 winter. This will not require a Commission Order, so
16 no amendment to this rate design application will be
17 required.

18 We continue to have concerns about the
19 impacts that a moratorium on disconnections for non-
20 payment could have on receivables and bad debts.
21 However, we do acknowledge that being without
22 electricity in the colder areas of our province during
23 the winter is a significant hardship. For this
24 reason, BC Hydro will implement a pilot temperature-
25 based moratorium for the 2016/2017 winter. In mid-
26 2017, we will submit a report to the Commission

1 identifying the impacts of the moratorium and a
2 proposal for standard business practices going
3 forward.

4 Module 2. BC Hydro expects to file Module
5 2 of the 2015 rate design application in the
6 spring/summer of 2017. The scope of Module 2 will,
7 among other things, address extension policies,
8 optional rates for commercial customers, including
9 Commercial Energy Consumers' proposed interruptible
10 rate, an extra-large general service rate, as well as
11 a review of the non-integrated rates. BC Hydro will
12 begin its engagement on these topics in the fall of
13 2016, to help refine the scope and inform BC Hydro's
14 proposals.

15 **Proceeding Time 10:39 a.m. T20**

16 So, thank you, and on behalf of BC Hydro,
17 I'd like to say we're excited to be here today. This
18 rate design application has been a long time in the
19 making, but we truly believe it's yielded some
20 proposals which will have a significant benefit to our
21 customers, and we look forward to questions today from
22 Commission and interveners, and then moving on with
23 Module 2. So thank you.

24 THE CHAIRPERSON: Great. Thank you very much, Mr.
25 Anderson. Mr. Weafer, are you ready?

26 MR. WEAFER: Thank you, Mr. Chairman.

1 **CROSS-EXAMINATION BY MR. WEAFER:**

2 MR. WEAFER: Q: Good morning, panel. My name is Chris
3 Weafer, and I'm counsel for the Commercial Energy
4 Consumers' Association of British Columbia. And, Mr.
5 Anderson, I'm testing your credibility at the
6 beginning to say that you're excited to be here, in
7 the middle of August, when it's 40 degrees in this
8 room. I really -- I admire your commitment to the
9 cause.

10 MR. ANDERSON: A: We're excited about the proposals.

11 MR. WEAFER: Q: Thank you, sir. I'm going to primarily
12 refer to your opening statement to walk through at a
13 high level some of the principles that BC Hydro has
14 relied on in its application. And the only other
15 document, that I don't even think you need to turn to
16 it, but I will be talking about the Bonbright
17 principles which you have set out in your application
18 at B-1, at pages 256 to 262. As I say, I don't think
19 you need to go there. I'm not going to probe them in
20 depth, but just as a contextual list of principles as
21 we go through this cross-examination.

22 I'd like to start by just getting some
23 historical context to this application, and you
24 highlighted page 1 of your opening comments. So this
25 is before -- first full rate design application since
26 2007. And just to highlight one of the directions

1 from the Commission at that time was setting revenue-
2 to-cost ratios and targeting unity, and subsequent to
3 that decision, an order from the government saying,
4 "No rate rebalancing." And that's the environment we
5 continue to operate in, and we're operating in this
6 2015 RDA. Correct?

7 MR. ANDERSON: A: That's correct.

8 MR. WEAFFER: Q: Okay. And we've got a Module 1, this
9 process, a Module 2 to follow in the next 18 months or
10 so, and then just to confirm, as I understand it, the
11 company may have a rate design application in 2019
12 once we're out of the existing rate freeze. Is that a
13 correct understanding?

14 MR. DOYLE: A: Yeah. So, the pricing principles that
15 we have applied for are good through fiscal '19 for
16 both the RIB and the transmission service rate. So
17 come -- for fiscal 2020, we'll need to bring forward
18 some proposal with respect to the pricing principles.
19 We have also committed through the negotiated
20 settlement process earlier this year of doing an
21 updated cost of service, and bringing forward any
22 rebalancing recommendations at that time.

23 MR. WEAFFER: Q: Okay. Thank you. And one of the
24 reasons for asking is, one of your principles is
25 stable rates for customers. And does Hydro have any
26 concerns around -- we've had very few rate design

1 processes in the past, and now we're seeing a number
2 of them lining up in a short period of time. From a
3 policy perspective, is that something that Hydro is
4 concerned about, in terms of potential rate changes
5 for customers?

6 MR. DOYLE: A: No, so I don't think what we've -- what
7 we're proposing is actually uncommon. So typically we
8 have come back on numerous occasions for changes to
9 the pricing principles for both the RIB and the
10 transmission service rates. So that's consistent with
11 what we've done. I guess the one change would
12 obviously be any rebalancing, given that we haven't
13 done that to date.

14 MR. WEAFFER: Q: Right. And just again not to pursue it
15 -- I mean, one of the issues in this proceeding is --
16 a significant topic is the low-income rate. I mean,
17 one of the issues that is a concern to rate classes
18 is, the residential class of customers is already
19 paying less than its cost of service. Is that
20 correct? And that continues to be locked in as a
21 result of legislative direction.

22 MR. DOYLE: A: So the cost of service -- the revenue-
23 to-cost ratio for the residential class, I believe, is
24 in the 93 to 95 percent. So they're below unity.
25 That being said, it's not far off, given the number of
26 assumptions required when you're making cost of

1 service determinations. It's sort of a reasonable
2 amount.

3 MR. WEAFFER: Q: Right. But in effect, they're under
4 their cost of service, and that's a -- the government
5 has directed you to keep those rates at those levels,
6 and not do any rate rebalancing, in recognition of a
7 concern around residential rates. Is that a fair
8 comment?

9 **Proceeding Time 10:44 a.m. T21**

10 MR. DOYLE: A: So, the government, I believe, the
11 government has directed the Commission not to
12 rebalance rates.

13 MR. WEAFFER: Q: And so as a result, it was not part and
14 parcel with this application for Hydro, it wasn't
15 considered, you couldn't do it, and that's a benefit
16 to the residential class of customers at this point in
17 time in any event?

18 MR. DOYLE: A: Sorry, could you repeat that question?

19 MR. WEAFFER: Q: It's a benefit to the residential class
20 of customers at this point in time, that there is no
21 proposal for rebalancing, you can't make one?

22 MR. DOYLE: A: I mean, I guess I could say the
23 residential customers remain at the revenue-to-cost
24 ratio as do all the other customers, so there would be
25 no change.

26 MR. WEAFFER: Q: Right, some are paying above their cost

1 of service, some are paying below.

2 MR. DOYLE: A: Some below.

3 MR. WEAVER: Q: Thank you. Just one other change since
4 2007, and it has been talked about peripherally, but
5 since 2007 and that rate design decision, BC Hydro has
6 made a fairly material investment in smart meters,
7 correct?

8 MR. ANDERSON: A: That's correct, yes.

9 MR. WEAVER: Q: And I suppose the layman's view of
10 that, smart meters would be an investment that would
11 improve the company's ability to monitor energy usage,
12 monitor who is causing what it costs on the system, is
13 that a fair general assumption of what smart meters
14 might do?

15 MR. ANDERSON: A: Well, amongst other things,
16 absolutely, there is benefits to smart meters in many
17 regards, but in terms of answering your question
18 directly, yes, it helps us with our ability to -- and
19 have a better understanding of who is consuming what
20 and where on the system.

21 MR. WEAVER: Q: Because fundamentally, in rate design,
22 the better your information is around who is causing
23 the costs, the better in terms of the quality of the
24 application, is that a fair comment?

25 MR. DOYLE: A: Yes, that's a fair comment, and I
26 believe we stated that when we were developing our

1 cost of service. We had better information than we
2 did in the past, and will continue as smart meters are
3 in place for a longer period of time, we'll have
4 better information on our cost of service analysis.

5 MR. WEAFFER: Q: Right, and that's one of the things, as
6 I understand it, for 2019, you'll have more data
7 available in 2019 in terms of looking at cost
8 allocations as a result of smart meters, is that one
9 of the benefits? You don't have enough data at this
10 time, but for 2019 you are going to have a better data
11 set --

12 MR. DOYLE: A: Yeah, we'll have more data set come
13 2019.

14 MR. WEAFFER: Q: And so something that obviously wasn't
15 available in 2007 and as time goes on, as you get
16 better information, the quality of your cost of
17 service studies, the quality of your evidence in terms
18 of allocating costs is improving?

19 MR. DOYLE: A: Yeah, I mean the quality of the data
20 that we have would be improved for sure.

21 MR. WEAFFER: Q: Okay, so when we look at items in this
22 application process, we're -- we've got improvements
23 to Hydro's tools since 2007, and we're on an improving
24 path because we've made the investment, ratepayers
25 have made the investment, the company has made the
26 investment, we should be in a better position to

1 allocate cost to the cause?

2 MR. DOYLE: A: Yeah, again we'll have better data,
3 there will be a number of assumptions that need to be
4 made when we do that that could impact the final
5 outcomes.

6 MR. WEAFFER: Q: Okay, thank you. Just moving down to
7 the principles on page 1 of your evidence, and you've
8 selected from the Bonbright Principles, the eight
9 principles and you've prioritized these. Would you
10 agree with me that this is, and I think you've said
11 this on the record, but this is -- the absence of
12 efficiency is one of the top principles. Would you
13 agree with me that in the prior rate design, the
14 efficiency and conservation was a higher priority
15 principle than you put forward today?

16 MR. DOYLE: A: Yes, in the past we had -- we did
17 prioritize efficiency in prior rate design
18 applications, and it really goes around reflecting the
19 environment in which we're operating in.

20 MR. WEAFFER: Q: And that continues to be a primary
21 principle that the company is pursuing, not just for
22 efficiency purposes, but also for reduction in costs.
23 If we can avoid building on the system because of
24 misuse or overuse on the system, that's an advantage,
25 not just an environmental advantage, but also a cost
26 advantage, would you agree with that?

1 MR. DOYLE: A: Yeah.

2 MR. WEAFFER: Q: In terms of the rate classes then, and
3 again we're just dealing at high level of this policy
4 panel, would you agree with me that for your
5 residential inclining block rate you've maintained the
6 priority of delivering energy conservation, but you've
7 essentially abandoned that objective for SGS, MGS and
8 LGS?

9 MR. DOYLE: A: No, I wouldn't characterize it that way.
10 I don't think we've abandoned the efficiency
11 criterion. I think when you're doing rate design, it
12 requires tradeoffs. It requires tradeoff amongst the
13 various criteria. And you know, in this case, we've
14 prioritized if there is a conflict what we're
15 prioritizing is the customer understanding, fairness,
16 and stability. So, I wouldn't say we've abandoned
17 efficiency, it's just where you have a conflict we
18 would probably -- we would put more weight on the
19 other factors that we've identified as our priority.

20 **Proceeding Time 10:49 a.m. T22**

21 MR. WEAFFER: Q: So where have you developed anything in
22 the SGS rate that contributes to deficiency, since
23 2007?

24 MR. DOYLE: A: So, with respect to the small general
25 service rate, so it's a flat rate. That being said,
26 the flat rate is reflective of BC Hydro's long-run

1 marginal cost of service. So, you know, I guess by
2 definition is there is an efficient price signal in
3 that rate.

4 MR. WEAVER: Q: But nothing has been changed other than
5 your recovery of the basic charge, increasing from 33
6 percent to 45 percent in this application, from your
7 2007 application.

8 MR. DOYLE: A: That is correct. And that's consistent
9 with the feedback we heard throughout our engagement
10 process. There was very little feedback or desire to
11 make changes to the small general service rate. You
12 know, given the heterogeneous nature of the class, an
13 inclining block rate was determined not to be suitable
14 and clearly if the baseline approach that we used for
15 the medium general service and large general service
16 had large layers of complexity, which was challenging
17 for those more sophisticated, larger customers, we
18 didn't believe it was appropriate for the small
19 general service customer class.

20 MR. WEAVER: Q: And so the change in the basic charge
21 from 33 to 45 percent, basically now matching the RIB
22 residential rate,- was that based on any cost
23 assessment, or simply an alignment -- seemed like a
24 sensible thing to do, to have the same --

25 MR. DOYLE: A: Or the latter. It was -- you know, I
26 mean clearly it's based on cost -- the cost, the 45

1 percent reflects the cost, the customer-related costs
2 for that class. And it was really -- we increased it
3 to align with the residential charge.

4 MR. WEAVER: Q: So what, it was a -- the judgment was,
5 SGS should be similar to residential in terms of
6 recovery demand charge? Sorry, the cost of the basic
7 charge. Just -- any cost justification or is it
8 basically, we were doing it for residential, SGS is
9 similar, let's do it for SGS.

10 MR. ANDERSON: A: Well, it's our principled approach to
11 it.

12 MR. DOYLE: A: Yes. I think it was a very principled
13 approach to it, and it goes to -- when you're looking
14 at the fairness, and that's the recovery of sort of
15 our fixed costs related to the customer costs. You
16 know, we were at 35 percent for our small general
17 service, which we thought was low. We made an
18 increase to 45 percent in this application, as we did
19 with -- we changed the demand recovery in our medium
20 general service and large general service. And that's
21 all related to fairness, within the Bonbright
22 criteria.

23 MR. WEAVER: Q: Fairness within Bonbright, but if you
24 have better information, do you see Smart Meters being
25 used for SGS in the coming years, to have a better
26 assessment of those charges, a better ability to

1 monitor and --

2 MR. DOYLE: A: Well, Smart meters may provide some
3 benefit. I think that largely the costs that are
4 being captured within the customer -- within the basic
5 charge are mainly fixed customer-related costs. And
6 there are more fixed assets, less variables. So I
7 don't think it would be a huge benefit there.

8 MR. WEAFFER: Q: Fair enough. With respect to the RIB
9 rate, and the RIB rate is being assessed in a couple
10 of processes. But would you agree with me that one of
11 the criticisms of the RIB rate is that there's
12 discrimination against electric heat, where options
13 are limited for the customer? That customers are
14 getting Tier 2 if they don't have other options?

15 MR. DOYLE: A: Yeah, so, I wouldn't characterize it as
16 discrimination. Clearly customers that use more
17 energy under the RIB rate will pay -- they'll have
18 more exposure to the second tier. Space heating
19 customers obviously have another electricity source
20 which would increase their consumption, and as such,
21 you know, would have greater exposure to the Step 2.

22 MR. WEAFFER: Q: And the other area, and again, just a
23 couple of examples -- larger families in one home are
24 potentially getting more electric heat, and hitting
25 Tier 2 rates.

26 MR. DOYLE: A: Yeah, larger families with or without

1 electric heat will use more energy than others -- than
2 smaller families.

3 MR. WEAVER: Q: Yeah. And has Hydro done any
4 investigation to look at options to mitigate those
5 impacts where customers don't have an option, and
6 they're getting that Tier 2 rate? Other than the
7 discussions with BCOAPO in terms of low-income
8 customers?

9 MR. ANDERSON: A: Well, I think in terms of
10 opportunities for customers generally to reduce their
11 consumption, we do have our demand-side management
12 programs that do encourage conservation, and customers
13 generally like those because it is an opportunity to
14 reduce costs off their bill.

15 MR. WEAVER: Q: As I understand it, the Step 2 rate is
16 now higher than your LRMC. Is that correct?

17 **Proceeding Time 10:54 a.m. T23**

18 MR. DOYLE: A: So with respect to the step 2, our step
19 2 rate is -- yeah, it would be in fiscal 2017, 12.43
20 cents and our long run marginal cost after inflation
21 would be about 11.02 cents, and that's just on energy.
22 That being said, when a customer conserves energy at
23 the meter and reacts to the price signal that the RIB,
24 sends there's obviously going to be some level of
25 savings with respect to distribution related costs,
26 transmission costs. None of those are included in

1 long-run marginal costs, so there are additional
2 savings beyond just the long-run marginal cost of
3 energy.

4 MR. WEAVER: Q: Well, is this the panel to go into some
5 detail into on LRMC, is this -- or that the subsequent
6 panel? Because you've put out some comments on LRMC
7 than the sort of big questions, so can we out those to
8 you now? You're going to be on the next panel as
9 well, so.

10 THE CHAIRPERSON: Mr. Christian?

11 MR. CHRISTIAN: I was just going to suggest that Mr.
12 Weafer should put the questions to the panel, and if
13 they're unable to answer or think they're better
14 answered by the subsequent panel, they'll be able to
15 advise Mr. Weafer. And that way avoid the risk of --

16 MR. WEAVER: Yeah, sure.

17 Q: And it's come up in the opening comments and it's
18 really just having a general discussion around
19 utilization of LRMC, because the phrases used and
20 often -- and we are often unclear as to what's being
21 referred to when it's used. So as we've broken down
22 LRMC in use for rate design, under classified costs
23 and cost of service, you'll have LRMC for energy, LRMC
24 for demand, and LRMC for customer components. Is that
25 correct?

26 MR. DOYLE: A: Sorry, I believe we've only identified a

1 long-run marginal cost for energy, for generation
2 capacity. I don't believe we've identified a long-run
3 marginal cost for customer.

4 MR. WEAFFER: Q: Would there be one? Are there customer
5 costs that are incurred in terms of coming on the
6 system? New customers incurring new costs?

7 MR. REIMANN: A: So I think you could get to a customer
8 LRMC by adding the different cost components together.
9 And so we had an energy LRMC, we had a generation
10 capacity LRMC, and in the course of the discussion we
11 did identify transmission and a distribution capital
12 cost.

13 MR. WEAFFER: Q: Okay. And functionalizing the cost
14 components you've got LRMC for generation, LRMC for
15 transmission, LRMC for distribution. And, again, LRMC
16 in terms of cost components for customer you would be
17 amalgamating those to come up with what the total LRMC
18 cost is.

19 MR. REIMANN: A: That's correct. We broke the
20 generation LRMC into an energy and a capacity
21 component.

22 MR. WEAFFER: Q: Okay. And in terms of the valuation of
23 the costs for LRMC, I think \$85 was the number you've
24 used in this application for energy LRMC. And that's
25 -- sorry, is that correct?

26 MR. REIMANN: A: Yes, we have reaffirmed in the most

1 recent evidentiary update -- I believe it's Exhibit B-
2 37, we reaffirm that the \$85 a megawatt hour is an
3 appropriate long-run marginal cost for generation
4 energy costs.

5 MR. DOYLE: A: And that's twenty thirty-four, twenty
6 thirty-three hundred dollars.

7 MR. REIMANN: A: Right.

8 MR. WEAVER: Q; Sorry, that's the generation energy
9 cost. That's just energy cost, right? These --

10 MR. REIMANN: A: That's right. Yeah, and then there's
11 been a bit of an evolution or ongoing discussion here
12 that it's probably worthwhile walking through quickly
13 while we're on the topic.

14 MR. WEAVER: Q: That's fine.

15 MR. REIMANN: A: And maybe I can take people to the
16 most recent evidently update. This is Exhibit B-37
17 and I'm looking at page 3-46.

18 MR. WEAVER: Q: At what page?

19 MR. REIMANN: A: Page 3-46.

20 MR. WEAVER: Q: Sorry, 346?

21 MR. REIMANN: A: Yeah, sorry, 3-46.

22 MR. DOYLE: A: Or 7 of 11 on the bold of the bottom of
23 you page.

24 MR. WEAVER: Q: What line are you on, Mr. Reimann?

25 MR. REIMANN: A: And so I'm looking at section 3.4.4.2,
26 and this is specifically the energy load on marginal

1 cost, so it's that component of generation cost to
2 produce the energy. And so traditionally we've looked
3 at what is the incremental resource for new generation
4 and in particular energy, and prior to the 2013 IRP
5 that was based on a green field clean or renewable
6 resource.

7 **Proceeding Time 10:59 a.m. T24**

8 And back in -- based on the acquisition
9 that we'd done in 2010, the clean power call, based on
10 those actual bids into our acquisitions, we'd had a
11 price that was in 2013 of about \$135 a megawatt hour.
12 But as Mr. Austin had noted, some of the resource
13 costs had been coming down. And so this greenfield
14 resource cost in the IRP went from 135 to 125, and
15 most recently we've done some resource options work
16 and it's mentioned here on line 21 that that
17 greenfield cost of new resources is currently
18 estimated at \$100 a megawatt hour. That's the cost of
19 energy delivered to Lower Mainland.

20 And so the traditional way of looking at
21 that long run marginal cost is at a point when we have
22 need for it again, and at this point that would start
23 happening in fiscal 2034 beyond, we would be back to
24 that sort of a long run marginal price signal.

25 What we realized in the IRP was the world
26 had changed in terms of what resources we needed for

1 an interim period. And so with the approval of Site C
2 and with the standing offer program being the required
3 program, the two resources that ended up being the
4 marginal supply was demand-side management and IPP
5 renewals. And specifically within those, the high
6 cost items would have been demand-side management
7 programs and biomass energy projects contract
8 renewals. And so distinguishing that from the long
9 term, for a period up to fiscal 33, we were looking at
10 so what is that marginal price that one would pay to
11 acquire enough DSM and do enough IPP contract
12 renewals? And when we started the Integrated Resource
13 Plan we had a range of 85 to 100 dollars. The \$100
14 was essentially where we started with the price signal
15 saying okay, if we set it at \$100, how much DSM would
16 you acquire and how many IPP renewals would you
17 acquire using that as an upper limit of what you pay?

18 We did identify that we'd anticipated that
19 if demand softened, that would bring it back down
20 towards 85. So we did the evidentiary update in
21 February. We confirmed that in fact demand had
22 softened and that we felt more comfortable that at an
23 \$85 price signal we'd be able to renew sufficient IPP
24 contracts and acquire sufficient DSM on the margin to
25 meet our needs.

26 Most recently now we have reaffirmed that,

1 and those numbers are shown on page -- well, it's 10
2 and 11, Table 3-10. That summarizes what we're
3 saying. And so that marginal cost for that interim
4 period is \$85 a megawatt hour. That's the price
5 signal that Hydro is using. Once you get to fiscal
6 2034 and beyond, we'll be back into the greenfield
7 resources on an expected basis, and that would take us
8 up to the \$100 a megawatt hour again.

9 THE CHAIRPERSON: And that's delivered to the Lower
10 Mainland.

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

12 MR. WEAVER: Q; That includes the transmission costs
13 from the north or wherever the source is added, and
14 the \$11 that's --

15 MR. REIMANN: A: Right. So there's a -- when we do
16 deliver it to Lower Mainland and we look at the
17 transmission cost or price signal, we use our cost for
18 incremental firm transmission as a study that we
19 undertake periodically, and it gives a price signal of
20 what resources delivering to the Lower Mainland would
21 incur. And so included in the \$85 delivered to the
22 Lower Mainland would be the cost to get it to the bulk
23 transmission. What we also identified in the
24 application is, while we hadn't done a full marginal
25 cost study, some of the work we'd done for DSM
26 programs back in 2011 identified how much regional

1 transmission and distribution would be saved from
2 implementing DSM programs, and we came out with \$11 a
3 kilowatt year and a \$1 a kilowatt year marginal value
4 of savings on the system. So we think that's
5 reasonably appropriate to use as a capacity price
6 signal. Sorry, as a capacity cost.

7 And maybe let me add that comment too, is I
8 think there's two aspects to this. One is what costs
9 are we incurring, and where? A second is what's an
10 appropriate price signal within the rate design? And
11 Mr. Doyle will speak to that.

12 **Proceeding Time 11:04 a.m. T25**

13 MR. WEAVER: Q: Just to make sure we've captured all
14 the costs, in terms of the included components, is
15 that including the transmission losses to the Lower
16 Mainland, the 6 percent, when you come up with that
17 amount, or that number?

18 MR. REIMANN: A: That would be included in the \$85 a
19 megawatt-hour.

20 MR. WEAVER: Q: Okay. And would it include
21 distribution losses of 6 percent?

22 MR. REIMANN: A: It would not.

23 MR. WEAVER: Q: It would not. And would it include the
24 14 percent spending reserves?

25 MR. REIMANN: A: So, we haven't priced out separately
26 any of the ancillary services that one might typically

1 acquire with generation, largely because our system
2 has the capability it needs, and we haven't gone out
3 to buy additional, like, spinning reserves and
4 whatnot. When we buy capacity, it really serves all
5 purposes, so it's included in our generation costs.

6 MR. WEAFFER: Q: So while normally on our your own
7 assets, you include the 14 percent, but you don't if
8 you're adding IPP or third-party capacity? Like, on
9 the system, don't you require the 14 percent reserve?
10 Isn't that a new cost that arises as a result of
11 acquiring the new --

12 MR. REIMANN: A: Yeah, so the numbers we're looking at
13 are the megawatts produced and delivered. How much of
14 that we then need to acquire to meet system needs, we
15 would hold the 14 percent reserve margin on capacity.
16 It doesn't really come into the energy costs.

17 MR. WEAFFER: Q: It comes into the demands -- the
18 demand-side.

19 MR. REIMANN: A: The generation capacity value, yeah.

20 MR. WEAFFER: Q: Okay. Thank you. I may come back to
21 the second panel, now that I've got the picture put
22 together. But I just want to make sure I'm not
23 missing anything at this point.

24 MR. REIMANN: A: I'm not sure the other panels are
25 going to be able to add a lot of information on the
26 LRMC, so if you have a question --

1 MR. WEAVER: Q: Okay, well, then I'll keep going. I
2 keep on looking down at this, customer understanding
3 and acceptance point, as I listen to this. And I'm --
4 it's been a bit of a moving target in terms of
5 understanding the LRMC, and so it's helpful that
6 you've laid out the full picture.

7 In terms of going forward, in terms of
8 what's also not included, are soft costs included,
9 indirect soft costs or externalities in terms of the
10 LRMC? Particularly looking at new additions.

11 MR. REIMANN: A: Yes. So when we price out the energy
12 long-run marginal cost, it would include, in
13 estimating those costs, any soft costs that we would
14 have for including permits and any First Nation
15 issues. And that would be added to any capital costs
16 of direct equipment that we estimate. Yes, it's
17 included.

18 MR. WEAVER: Q: It's included in the evidentiary update
19 number, the \$87?

20 MR. REIMANN: A: That's correct.

21 MR. WEAVER: Q: Thank you. In terms of looking -- in
22 terms of timing of future additions, is that number
23 looking at the point in time versus future streams of
24 additions, in terms of the \$87 that you've identified?
25 So future additions that will be higher in cost and
26 maybe located in the north, where you'll have the \$11

1 transport costs -- if you look at the \$87, is that
2 based on future stream? Or is it based on next-point
3 capacity?

4 MR. REIMANN: A: So the \$85 a megawatt hour, fiscal
5 \$13, that's based on today's view of the world in
6 terms of what we estimate as being the next lowest
7 cost resource that we would acquire if we needed it
8 today. We have not gone out and tried to estimate
9 whether or not at some point in the future different
10 resources would have different rates of cost decline.
11 So it's very much a current view today.

12 MR. WEAFFER: Q: But it's not just Revelstoke --
13 Revelstoke 5, so it's -- is it just Revelstoke 5,
14 Revelstoke 6? Or you're also adding in simple-cycle
15 gas turbines, or other future projects?

16 **Proceeding Time 11:08 a.m. T26**

17 MR. REIMANN: A: Yeah, so what I'm taking from your
18 question is, we're starting to now talk about
19 generation capacity, as opposed to generation energy.
20 And in that same exhibit, if we go to Table 3-11, this
21 is page 11 of 11. And so in terms of generation
22 capacity, if you were going to include capacity costs,
23 you would apply the marginal costs or generation
24 capacity resources, and currently we have that based
25 on Revelstoke Unit 6, as the next most cost-effective
26 resource that we would build. And that is estimated

1 at \$50 to \$55 a kilowatt year.

2 MR. WEAFFER: Q: And so the future stream is the one
3 below the single-cycle gas turbine, the \$117 to \$115.
4 Those are the future avoided costs if conservation
5 messages are sent, and it's -- looking forward. As I
6 understand the evidence, Hydro does have concerns
7 around capacity going forward, and sees it as an area
8 that they need to work to, to avoid incurring these
9 costs for the ratepayers. Is that correct?

10 MR. REIMANN: A: That's correct.

11 MR. WEAFFER: Q: There's a bigger number coming.

12 MR. REIMANN: A: Yes. And as it's noted on line 21
13 here, the next capacity resource after Revelstoke Unit
14 6 is not needed until fiscal 2029. So, notionally
15 then the cost of a simple cycle gas turbine, \$115 a
16 kilowatt year, would start to apply in fiscal '29 and
17 beyond. For the energy one, we don't need energy till
18 fiscal '34. There was a bit of a difference between
19 when we need energy and capacity.

20 MR. WEAFFER: Q: Thank you, Mr. Reimann. I appreciate
21 the time to go through that. That's helpful. I'm
22 sure others will follow up. I think that's helped the
23 record.

24 So back to the conservation initiatives and
25 efforts by BC Hydro since 2007, and dealing with MGS.
26 And here you've got the most significant changes to

1 rate structure in the application. And back to the
2 point, the evidence would appear to be that you --
3 RIB, you've pursued a conservation rate successfully
4 and you're continuing it. MGS hasn't worked. There's
5 been customer understanding issues, there's been no
6 conservation resulting. And so you've abandoned it,
7 and you've not implemented a rate which is focused on
8 conservation.

9 MR. DOYLE: A: So I think the first part is fairly
10 contingent with the residential inclining block. It's
11 well understood by our customers. It is delivering
12 conservation. With the MGS, it isn't well understood
13 by our customers, based on feedback we received in the
14 numerous forums. But I don't think we abandoned it
15 lightly. We did engage on a number of alternatives,
16 and I think what we heard from our stakeholders and
17 customers was that, you know, for the group of
18 customers that MGS represents, like the conservation-
19 type rates, it would not be overly effective.

20 MR. WEAVER: Q: And so we've put the default rate in in
21 this process, but Hydro is still open to looking at
22 opportunities to try and find conservation rates that
23 may work. Maybe -- may meet your criteria of
24 acceptability and understanding, and incent customers
25 to manage load for conservation. But Hydro hasn't
26 abandoned that initiative.

1 MR. DOYLE: A: No, and I think we need to be clear. We
2 haven't abandoned the idea of, you know, conserving
3 rates -- conservation rates. Clearly our transmission
4 service rate continues, our RIB continues. That being
5 said for the default for MGS and LGS, they weren't
6 well understood. But you know, we are open, as part
7 of our engagement, to working at options and the
8 extra-large general service rate is one of those areas
9 that we're going to explore, if potentially some of
10 our largest large general service customers could
11 react to a price signal.

12 MR. WEAFFER: Q: And the proposal that was put in
13 evidence in this proceeding, which has been deferred
14 to post-proceeding consultation with the Commercial
15 Energy Consumers around the -- an interruptible rate
16 for MGS customers is something BC Hydro is -- sees
17 some merit in, and is open to the discussions. Is
18 that correct?

19 MR. DOYLE: A: Yes, as Mr. Anderson -- we've committed
20 to working with CEC on those, and we'll begin that
21 following the hearing.

22 MR. WEAFFER: Q: So, in summary, the efficiency
23 principle has not been abandoned. You just haven't
24 figured it out yet with respect to that rate class.
25 We just haven't got a rate proposal that has worked.

26 **Proceeding Time 11:13 a.m. T27**

1 MR. DOYLE: A: I mean, I think where we have is, we
2 haven't discovered a rate, at least a default rate,
3 that would be understandable for all of our customers
4 and be expected to actually deliver conservation, and
5 that is why we've moved off of the conservation rate
6 as a default rate. For optional rates, that's clearly
7 an area where we want to look at.

8 MR. WEAFFER: Q: Thank you. With respect to the default
9 rate, there are a number of changes that are being
10 implemented as outlined in the evidence and in the
11 opening comments. The challenge with rates is you
12 don't always know how they are going to impact all
13 customers. And what is -- BC Hydro has done the
14 analysis. For customers who, as a result of these
15 changes are going to see bill impacts in excess of 10
16 percent, has BC Hydro got a policy or a process they
17 expect to implement to deal with those? Because there
18 will be customers impacted by what's been filed,
19 correct?

20 MR. DOYLE: A: There will be, and one of the things
21 we're definitely going to need to work on once there
22 is approval of rates is the communication strategy out
23 to our customers of the changes, and how that's going
24 to impact specific customers.

25 MR. WEAFFER: Q: And in terms of those impacts, where
26 there are customers who may have proposals which could

1 mitigate the impact, is that part of the module 2 as
2 well? If you're seeing groups of customers that are
3 impacted, that rate design could assist in terms of
4 mitigating those bill impacts, is Hydro amenable to
5 those discussions as part of the module 2 process?
6 Has that been part of your thinking?

7 MR. ANDERSON: A: I think from an engagement standpoint
8 we are certainly -- what we've said is we're willing
9 to work with customers, in particular in this case
10 commercial customers to see what options there might
11 be that would be effective for that group, but like
12 any of our proposals, that's -- or any of the
13 considerations we look at, we've got to make sure that
14 there is a cost basis for them, and that there is no
15 impact to their customer groups in doing so. But,
16 certainly this -- you know, looking first to set our
17 baseline rates, and then looking in the future to
18 additional options which can help different groups of
19 customers is again, as long as they don't impact
20 negatively the rest is a great thing.

21 MR. WEAFFER: Q: And that process would occur as part of
22 the consultation for module 2, is that the intent?

23 MR. ANDERSON: A: That's correct.

24 MR. WEAFFER: Q: Okay, and is it BC Hydro's anticipation
25 that they'll have a similar consultation process for
26 module 2 as they have for Module 1? That there will

1 be a series of workshops and proposals and exchanges?
2 Is that the plan?

3 MR. DOYLE: A: Yeah, I think the consultation process
4 will be generally similar I think. That being said,
5 some of the areas are a little bit more targeted,
6 obviously with the non-integrated areas, some of the
7 farm rates, irrigation, we may do more sort of
8 customer specific engagement there, but we will
9 definitely have the broader stakeholder engagement
10 that we had for -- as we did for module 1.

11 MR. WEAVER: Q: With respect to the stakeholder
12 engagement, just to step back, you heard the
13 interveners all commenting favourably for BC Hydro's
14 efforts on that, including the CEC. Has Hydro got a
15 view as to -- while that was directed by the
16 Commission as part of the 2007 decision, has Hydro got
17 a view as to whether that worked well for Hydro and
18 for the process or is it something you are doing
19 begrudgingly because the Commission has said "talk to
20 the ratepayers?" And the stakeholders.

21 MR. ANDERSON: A: No, yeah -- no, I think from BC
22 Hydro's perspective, you know, this has certainly set
23 a new bar for us in terms of what engagement has been
24 done and what it should look like going forward. I
25 think we've certainly heard good comments from
26 interveners that this process, and that's frankly nice

1 to hear, because there has been a lot of effort put
2 into it, but you know, it's a lot of effort, just not
3 from BC Hydro's standpoint, but from Commission and
4 interveners, and so, you know, from our -- in our
5 perspective, that's a great thing. It's a
6 consultation engagement process that through that
7 effort you can get to a better result, and that's the
8 intent.

9 MR. WEAVER: Q: Thank you. Just moving on then, the E-
10 Plus rate which you mentioned in your opening comment,
11 just a couple of clarification questions. Is the E-
12 Plus rate a closed rate that is not going to be
13 available to all residential customers who may not
14 have alternative energy sources? Am I understanding
15 correctly that proposal is a closed rate?

16 **Proceeding Time 11:18 a.m. T28**

17 MR. DOYLE: A: Yes, it's been closed since, I believe,
18 around 1991.

19 MR. WEAVER: Q: And it's not part of this process to --
20 as I understand BC Hydro's evidence, they see benefits
21 in the rate. They see benefits potentially to system
22 capacity and energy, and has taken a more favourable
23 approach to it. Is that a fair takeaway?

24 MR. ANDERSON: A: Yeah. I think that's fair. I mean,
25 E-Plus rate was a difficult one, frankly, for us to
26 look at through this engagement process, a difficult

1 one to come to a proposal on. There's been lots of
2 history with it, and what we tried to look at, as we
3 were encouraged by others, and through the engagement
4 process, as we looked at it, we tried to find a
5 balance. And what we proposed, we think, is a balance
6 in that -- and a fair balance, in that E-Plus
7 customers get to retain that discounted rate, but that
8 we change the terms and conditions so that it can be
9 interruptible. And in doing so, we allow benefit to
10 the rest of the non-E-Plus customers in terms of that
11 capacity benefit. And again, that's -- that was a
12 tough proposal to come up with, but again, in the end,
13 given the history and everything that's gone on with
14 E-Plus, we think it's fair.

15 MR. WEAVER: Q: And as I understand the rate, there's a
16 50 percent discount for E-Plus service for demand
17 cost. Is that correct?

18 MR. REIMANN: A: Sorry, it's generally about a 50
19 percent discount -- discounted energy rate. There's
20 only an energy rate for the --

21 MR. WEAVER: Q: Sorry. And is that a cost-based
22 number? Like that's been there for some time, as I
23 understand it. Is that a cost-based number or is that
24 a good guesstimate? What's the basis of the 50
25 percent discount?

26 MR. REIMANN: A: Yeah, that's -- the 50 percent rate is

1 a historic number. If we were to apply a similar sort
2 of discount to what we've offered up for industrial
3 load curtailment program, it'd be more in the order of
4 two cents a kilowatt hour reduction.

5 MR. WEAFFER: Q: And as I understand this rate, in some
6 areas you have tried to align it with your other
7 interruptible rates. Is that a policy of BC Hydro?
8 Or is BC Hydro open to looking at more different
9 classes of customers may have different
10 characteristics. You don't necessarily align with
11 other interruptible rates.

12 MR. DOYLE: A: So at a high level, it's -- I think it's
13 generally good that our big -- the terms by which
14 we're interrupting are as similar as possible. So,
15 you know, the language for interruption is very
16 similar if we need energy or capacity. That being
17 said, when we get into more of the detailed design,
18 it's very important to take into account the
19 individual characteristics of those customers, whether
20 it be for notice periods, length of interruption,
21 their ability to come on and off the system. So all
22 of those things obviously need to be taken into
23 account when we're designing those rates.

24 MR. WEAFFER: Q: So BC Hydro isn't locked in, in terms
25 of -- these are the criteria that we'll do an
26 interruptible rate. The dialogue will occur, and BC

1 Hydro's open to looking at the characteristics,
2 recognizing any rate has to be of benefit to other
3 customers, in terms of capacity or energy issues. Is
4 that fair?

5 MR. DOYLE: A: Yeah, we are.

6 MR. WEAVER: Q: Okay.

7 MR. REIMANN: A: So let me add to what Mr. Doyle's
8 saying, is that there's two aspects to this. One is,
9 what is it that you might require within the system in
10 order to rely on these resources in replacement of
11 other capacity. And in terms of that, we've gone
12 through and essentially the principles of what the
13 industrial load curtailment was, that we felt that we
14 would be comparably comfortable if we could, on
15 aggregate, from rate measures, get three sets of
16 interruptions of up to two weeks in a winter period.
17 And that was sort of sufficient certainty that we felt
18 that that could come into the stack and displace
19 future capacity.

20 While that's the technical requirement in
21 order to meet the adequacy of the system, our hope and
22 belief is that moving forward, in terms of acquiring
23 clean capacity resources, that many different types of
24 customer interruptibility could be combined in
25 aggregate, similar to what we're doing on the DSM
26 programs. A whole bunch of different types of savings

1 will add up to make a difference in the system.

2 The trick with all of that, of course, is
3 to the extent that you're available for fewer hours of
4 interruption, then there's proportionately less value
5 to those.

6 MR. WEAFFER: Q: Thank you. Just a quick question.
7 Smart meters are also mentioned in the evidence. And
8 I understand it's -- and this is in relation to tariff
9 updates. And you can now connect and disconnect
10 remotely by -- with Smart meters. Is this a new
11 development? Just timing-wise, is -- are Smart meters
12 evolving, and your tariffs are changing as a result of
13 increased implementation of Smart Meter aspects? Or
14 is this just something that's just come about and we
15 need to adjust the tariffs?

16 **Proceeding Time 11:23 a.m. T29**

17 MR. DOYLE: A: So with the deployment of the Smart
18 meters we did received the ability to remotely
19 disconnect and reconnect. And, you know, if you go
20 back to -- so with that, that's what we identified,
21 obviously the change in cost drivers with respect to
22 the reconnection and disconnection charge, and that's
23 the reason we've made our proposals to make that
24 change.

25 MR. ANDERSON: A: Maybe just to add to Mr. Doyle, from
26 a timing perspective Smart meters were first rolled

1 out in terms of a mass deployment by the end of 2012,
2 calendar 2012. Since then we've continued to augment
3 and build out the network capability. The remote
4 disconnect/reconnect would have been available at some
5 level through that period of probably mid to late 2012
6 in terms of full operations of it.

7 MR. WEAFFER: Q: So why has it taken so long to
8 implement it in the tariff, that's four years ago?

9 MR. DOYLE: A: I guess the -- you know, we began the
10 engagement back in 2014 and it is an area where we did
11 seek interim approval of it and ultimately the
12 Commission advanced it even more quickly than what we
13 were seeking. I believe we were seeking for April 1st,
14 the Commission determined it was more appropriately
15 implemented in late 2015, so we've implemented it at
16 that time.

17 MR. WEAFFER: Q: Okay, fair enough. The last area I
18 wanted to spent a little time with you on is on the
19 low income rate and then -- and I'm partially captured
20 by the last comment in terms of talking about low
21 income at page 5 of your opening statement. After you
22 list the programs and changes that you've worked with
23 with BCOAPO you state,

24 "Some of these changes are already described
25 on the record in this proceeding. Some have
26 risen from recent ongoing discussions with

1 BCOAPO and are not reflected anywhere else
2 on the record."

3 And I'm just wondering what's missing? Is
4 there -- I take it was in your opening statement is
5 the complete list and the evidence on the record is
6 essentially what -- before the Commission in this
7 proceeding. Is there anything you care to tell us
8 about?

9 MR. ANDERSON: A: So nothing else in terms of what's
10 listed here if that's your question.

11 MR. WEAFFER: Q: Well, it says it's not reflected
12 anywhere else on the record, so I'm just wondering if
13 there's anything that we should be chatting about
14 that's not on the record in relation to discussions
15 with BCOAPO and low incomes rates and polices. Am I
16 misunderstanding the comment here?

17 MR. ANDERSON: A: No, what we were referencing is the
18 ones that we have been working towards in some of our
19 business practice and implementing since the record
20 has closed, other than obviously Mr. Anderson's
21 opening statement.

22 MR. WEAFFER: Q: Okay, okay. So as I understand Hydro's
23 evidence then, and I'm not asking for any legal
24 comment, that the position remains that a
25 jurisdictional question as to whether under the
26 *Utilities Commission Act* there's authority to

1 would be absorbed by non-residential
2 customers."

3 And his response was, "Confirmed."

4 MR. CHRISTIAN: Mr. Weafer, can you just --

5 MR. WEAFER: Q: Oh sorry, it's IR not -- CEC IR 9.1 and
6 it's Exhibit C2-20 at page 10. I'm sorry, yes, page
7 10. Do you have that question? And as I understand,
8 leaving aside the jurisdictional question, assuming
9 for a moment that it can be done, that this would not
10 be B.C. Hydro's view if such a block was created, that
11 those costs would be allocated across all customer
12 classes and not restricted to --

13 MR. DOYLE: A: My understanding of the design is that
14 it would be done within the residential class. So the
15 residential class would be held sort of revenue
16 neutral to what it would be without the essential
17 services block. So to make up the difference required
18 from the decrease in rate for the essential services
19 block, the residential customers would pick that up.

20 In contrast, the crisis fund I believe he's
21 proposed to be, all customers will pay the 25 cents
22 per month.

23 MR. WEAFER: Q: So if BC Hydro had the jurisdiction to
24 implement the rates, BC Hydro's position would be that
25 it could be constrained within the residential
26 customer class? That's what I'm trying to understand.

1 I didn't understand that to be BC Hydro's position, so
2 perhaps you could think about that.

3 MR. DOYLE: A: We haven't formulated a position on how
4 we would design that rate given, you know, we believe
5 the barriers there with being able to implement such a
6 rate. We haven't looked at the design of whether it
7 would be done -- appropriately through the residential
8 class or whether they would be a separate class.
9 There's a variety of options you could look up.

10 MR. WEAVER: Q: And the response here is not based on a
11 discussion with BC Hydro. That's simply the witness's
12 expectation without consult with Hydro.

13 MR. DOYLE: A: That would be my understanding of it.
14 Yeah.

15 MR. WEAVER: Q: Okay. With respect to the changes to
16 minimum reconnection charges and return payment
17 charges and the significant reductions, is it a fair
18 assertion that a significant portion of that benefit
19 would go to low income customers? That those are
20 often a higher proportion of the population that needs
21 reconnection or has returned payment charges?

22 MR. DOYLE: A: So I'm not sure we have that data and if
23 we did it would be best -- that would probably be an
24 area be better dealt with on Panel 3.

25 MR. WEAVER: Q: Fair enough, fair enough. It's more an
26 intuitive comment and we can deal with it with the

1 next panel.

2 Has BC Hydro on the record in this
3 proceeding tallied the costs of the implementation of
4 those initiatives that it has agreed to undertake on
5 behalf of low income customers? And if not could you
6 undertake to provide that estimate?

7 **Proceeding Time 11:32 a.m. T31**

8 MR. ANDERSON: A: I think if you're referring to the --
9 kind of an enumerated list in my opening statement
10 again, it's these initiatives, as he said, are really
11 available for all customers, not just low income
12 customers. We haven't tallied a cost, if you will,
13 related to them individually, but -- for instance if
14 you look at things like our in-person service that
15 we've opened in Dunsmuir and Edmonds, we did that over
16 the last year. And so again that's open to all and
17 every customer and it involves just having some of our
18 customer service agents who would have sat in
19 different floors and offices, now sit down in kind of
20 the main floor lobby. So I would say there's no real
21 and current cost to something like that.

22 MR. WEAVER: Q: So BC Hydro, it's fair to say, is
23 looking at ways to meet the objective of better
24 serving low income customers without incurring
25 material costs if they can be avoided.

26 MR. ANDERSON: A: I think that's fair to say. Yeah --

1 no, I think that's fair to say. Looking at the list
2 there would be -- you know, there are obviously some
3 incremental costs, but I think they're mostly small
4 dollar costs when you look at things like a low income
5 advisory group or better relations within Ministry of
6 Social Development and Social Innovation. Those
7 aren't material costs for us in terms of how we work
8 those.

9 MR. WEAVER: Q: So you're finding better and more
10 efficient ways to try and meet the need as you're
11 identifying it.

12 MR. ANDERSON: A: Yeah, I think for all of our
13 customers, but in this case yes, for long term as
14 well.

15 MR. WEAVER: Thank you, panel, those are my questions.
16 Thank you, Mr. Chairman.

17 THE CHAIRPERSON: Thank you, Mr. Weaver. Ms. Khan, I'm
18 wondering if you could please let me know about a half
19 hour in, a convenient place to take a break for lunch.

20 MS. KHAN: Sure, okay, thank you.

21 THE CHAIRPERSON: Thank you.

22 **CROSS-EXAMINATION BY MS. KHAN:**

23 MS. KHAN: Q: Good morning, panel. I would like to
24 start by taking you to Exhibit B-1 of your
25 application, Chapter 8, which is -- I'd like to take
26 you to Tables 8-1, 8-2 and 8-3. And I'm sorry, I

1 don't actually have the page references in the
2 application. I have the PDF pages which are 416 to
3 418. Well, actually page 8-6 to 8-8. These are the
4 various standard charges that you're proposing.

5 So I was wondering if you could explain
6 what your overall policy is on when it is appropriate
7 to charge customers an additional standard charge for
8 an activity or service, as opposed to assuming that it
9 is part of the normal activity or service associated
10 with providing electrical service to a customer and
11 therefore is included in the service that the customer
12 receives and billed for under the standard rate
13 schedule applicable to that customer.

14 MR. DOYLE: A: Sorry. Could you clarify the question?
15 I'm not sure we understood the question.

16 MS. KHAN: Q: Sure, sorry. It's a bit long. I'll
17 start again. So we're wondering if you could explain
18 what your overall policy is on when it's appropriate
19 to charge customers an additional standard charge for
20 an activity, as opposed to assuming that it's part of
21 the normal activity or service associated with
22 providing electric service. And then just billed for
23 it under the standard rate schedule.

24 **Proceeding Time 11:37 a.m. T32**

25 MR. DOYLE: A: So, I'm not sure about a policy per se,
26 but if I -- when we look at -- I think what we look at

1 is, you know, if you have an identifiable service and
2 the costs are clearly identifiable to providing that
3 service, it seems to make sense that, you know, where
4 we can, we propose these sort of standard charges.

5 But, you know, many of these are sort of
6 one-time, one-offs or, you know, not reoccurring
7 charges such as the taking of electricity at your
8 home, where you take it on a, I guess, minute-by-
9 minute type basis.

10 MS. KHAN: Q: Okay. So something that's clearly
11 identifiable.

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

13 MS. KHAN: Q: As distinct. So in those situations
14 where you've determined that a separate standard
15 charge is appropriate, what pricing principles do you
16 use in determining the level of the charge? For
17 example, do you apply some kind of an incremental cost
18 principle?

19 MR. DOYLE: A: So, we're probably best on -- for the
20 actual charges to deal with panel 3. But, yes.

21 MS. KHAN: Q: Okay. Now, can you confirm that BC Hydro
22 is required to publish an annual comparison of its
23 rates with other utilities in Canada?

24 MR. DOYLE: A: Yes, we are.

25 MS. KHAN: Q: And BC Hydro does this every year, I
26 understand, by relying on data that's contained in a

1 report that's generally produced annually by Hydro-
2 Quebec?

3 MR. DOYLE: A: That's my general understanding.

4 MS. KHAN: Q: And the two lower-priced jurisdictions
5 that are generally referenced in those reports are
6 Quebec and Manitoba?

7 MR. DOYLE: A: I don't have the report in front of me,
8 but I know they're both low-cost jurisdictions.

9 MS. KHAN: Q: Okay. So, I'd like to take you to
10 Appendix C-3D of Exhibit B-1. And the pages that we'd
11 like to go to here are pages 43 and 44 of 67. The PDF
12 pages, for anyone on the computer, are 2496 and 2497.

13 THE CHAIRPERSON: Sorry, could you repeat the page
14 number?

15 MS. KHAN: Sure. It's -- so it's Appendix C-3D, and it's
16 pages 43 and 44 of 67.

17 THE CHAIRPERSON: Thank you.

18 MR. DOYLE: A: I have it in front of us.

19 MS. KHAN: Q: Okay, thank you. Here, this document
20 discusses Hydro-Quebec's effort to assist -- efforts
21 to assist its low-income ratepayer groups under the
22 heading "Governing legislation". And, et cetera,
23 there, on the page. And can you confirm that Hydro-
24 Quebec is obliged to take low incomes into account
25 when setting rates, is obliged to accommodate low-
26 income ratepayers with special long-term payment

1 arrangements, has disconnection restrictions in four
2 winter months, offers a fridge replacement program for
3 low-income customers, and an Econo-lodges program,
4 which I understand is an energy efficiency program,
5 for low-income ratepayers.

6 MR. CHRISTIAN: Mr. Chairman, I rise only because the
7 question, arguably at least, requires the witnesses to
8 comment on whether there is a legal obligation or not.
9 The word used in the question by my friend was, are
10 they "obliged" to do a number things. And I would say
11 that it's probably not appropriate for the witnesses
12 to comment on what the lawful obligations of Hydro-
13 Quebec are, but rather what perhaps they understand
14 the tariff practices are, or the tariff rules.

15 MS. KHAN: That's fine.

16 THE CHAIRPERSON: Would you like that question repeated?
17 Or are you --

18 MR. DOYLE: A: No, I can confirm that the list in the,
19 I guess, far-right column of that table for Hydro-
20 Quebec does include some of those, the initiatives
21 that you discussed.

22 **Proceeding Time 11:42 a.m. T33**

23 MS. KHAN: Q: And a few pages earlier in that same
24 document, at pages 38 and 39 of 67, which is PDF page
25 -- which are PDF pages 2491 and 2492, the document
26 discusses Manitoba Hydro's effort to assist its low-

1 income ratepayers in that chart. Can you confirm that
2 to the best of your understanding, Manitoba's Public
3 Utilities Board, in July 2015, directed Manitoba Hydro
4 to develop a bill affordability program?

5 MR. DOYLE: A: Yes, that's what we have in our document
6 in June 2015.

7 MS. KHAN: Q: July 2015, I believe.

8 MR. DOYLE: A: I had June 24th, but --

9 MS. KHAN: Q: Perhaps, I can't remember. Okay,
10 thanks. Next I'd like to take you to Exhibit B-26-1,
11 and that's the -- this is the revised response, I
12 think it is revision to a response to our information
13 request number 192.1.

14 MR. DOYLE: A: Can I --

15 MS. KHAN: Q: B-26-1. That was B-26-1, it's the IR
16 1.192.1, attachment 1. It's at page 37 of 65 in the
17 hardcopy, and page 56 of the PDF.

18 MR. DOYLE: A: Sorry, that was page 37, right?

19 MS. KHAN: Q: Page 37 of 65, that's right.

20 MR. DOYLE: A: Thank you.

21 MS. KHAN: Q: And here you'll see there is a chart
22 showing the number of disconnections for F2012 to
23 F2016. And you already confirmed with Mr. Weafer that
24 AMI, your smart meter program essentially went
25 operational in 2012, and I assume there was still a
26 bit of implementation going on in 2013? But as far as

1 I know, it was almost fully operational around April
2 of 2013, is that correct?

3 MR. ANDERSON: A: Yeah, so there is varying stages to
4 the smart metering program. The meters were installed
5 and the network through 2012. There continued to be,
6 through 2013 and 2014 even, build-out and optimization
7 of the network which really looks at a capability of
8 all the meters to come back and send their signals.
9 There was also a kind of a technical upgrade to the
10 meters to help with increased functionality along the
11 way as well.

12 MS. KHAN: Q: Okay. And so when your smart meters were
13 mostly -- I assume they had the remote
14 disconnection/reconnection function though, pretty
15 much enabled by the end of 2012 and into early 2013?

16 MR. ANDERSON: A: Yeah, I'd have to check on the exact
17 numbers of meters that had that capability at that
18 time, but certainly, absolutely it started to roll out
19 with the meters and network gear, and continued to
20 improve to the state we are at today.

21 MS. KHAN: Q: And that happens to be, according to this
22 chart, this pretty much coincides with the time when
23 the number of disconnection orders and percentage of
24 disconnections completed by BC Hydro started to trend
25 up. So if we look at the chart, we see for F2013 the
26 number is 4995 and then for F2014 it jumps up almost

1 four-fold to 20,940.

2 MR. ANDERSON: A: Yes.

3 MS. KHAN: Q: And would you agree that the numbers also
4 show a dramatic rise in the number of disconnections
5 after Hydro's rates increased by I believe 9 percent
6 in 2014, and 6 percent in 2015? So, we see for
7 example from this chart, in F2014, the number of
8 disconnections is over 20,000, and then it jumps up
9 significantly in 2015 to 32,564?

10 **Proceeding Time 11:47 a.m. T34**

11 MR. ANDERSON: A: So I don't think we've done anything
12 to correlate the data of number of disconnections with
13 rate increases. But certainly with smart meters
14 rolling out and optimizing the number of disconnects
15 has gone up. The number of disconnects that we have
16 the ability to do has gone up significantly.
17 Previously we would issue a disconnect order and it
18 would be something that the field crew had to get to
19 along with all of their other work. And so we've got
20 the information to show that there was a big gap
21 between the orders issued and the numbers that were
22 implemented. Now that we've got effectively the real
23 time capability to do that over the air, that's really
24 what's causing the large increase in disconnects that
25 are taking place.

26 MS. KHAN: Q: And the timing also happened to coincide

1 with some pretty big rate increases for BC Hydro
2 customers.

3 MR. ANDERSON: A: Certainly in those years there have
4 been rate increases that have been established.

5 MS. KHAN: Q: Okay. And would you agree that the
6 dramatic increase in the percentage of completed
7 disconnections is likely due in part to the fact that
8 prior to implementation of Smart meters, Hydro
9 personnel might have been reluctant to physically go
10 out to properties to disconnect customers'
11 electricity?

12 MR. ANDERSON: A: Yeah, I don't think I'd agree with
13 reluctance to out and disconnect to customers. We do
14 disconnect customers for non-payment, for safety, and
15 for other elements. Again as stated, I think the
16 dramatic increase is really just the capability that
17 we have to do it over the air now as opposed to crews
18 having to slot it in with the other work that they
19 have.

20 MS. KHAN: Q: Okay, so it just wasn't a priority
21 before. Now it's a easy and it can be done remotely,
22 so. Do you think that -- would you agree that Hydro
23 personnel might have been reluctant to disconnect
24 customers when it was very cold outside? So for
25 example if they came -- when they used to have to
26 physically go out to properties, they might encounter

1 a family with young children and they might have been
2 reluctant to disconnect that family in the middle of
3 winter.

4 MR. ANDERSON: A: Well, I mean I can't speak to, you
5 know, what individual mindset would have been, but I
6 would say that our crews follow our policies generally
7 and would have looked to carry out a disconnect work
8 order if that's what they were given. Of course, you
9 know, if in the course of doing that they find a
10 circumstance that is untenable, then they'll use
11 discretion to do that, just as we would if a customer
12 called in and were kind of articulating a similar
13 circumstance.

14 MS. KHAN: Q: And can you confirm that all customers
15 who BC Hydro had disconnected who then had to restore
16 power to their premises had to pay the reconnection
17 fee of \$125 plus GST?

18 MR. ANDERSON: A: Again I would expect they would have.
19 I don't have the data to show if there's any
20 circumstances that that did not occur, but I expect
21 that's certainly the general course. If you're
22 disconnected for non-payment you would have had to pay
23 the reconnection charge.

24 MS. KHAN: Q: And as BC Hydro dramatically increased
25 its disconnections of residential customers, its
26 revenues from the reconnection charge became a great

1 source of revenue for BC Hydro. We calculated some
2 amounts of revenue assuming that just about every
3 customer you disconnected during the years of 2014 to
4 2016 were reconnected to the BC Hydro system. And for
5 F2014, what we've done is we've taken the number of
6 the 20,940 customers and multiplied it by \$125, and if
7 that amount comes out to \$2.6 million in 2014. In
8 2015 we've multiplied the 32,564 customers who were
9 disconnected by \$125 and that comes out to about \$4.07
10 million. And for 2016 we've multiplied the 30,283
11 customers by 125 and that's come up with about \$3.7
12 million in revenues that Hydro collected.

13 Now, I understand that perhaps not every
14 single customer was able to reconnect to Hydro's
15 system. However, in general would you accept those
16 figures subject to check?

17 track 35

18 **Proceeding Time 11:52 a.m. T35**

19 MR. DOYLE: A: Subject to check, I think '14 and '15,
20 you know, if the multiplication probably makes sense.
21 The thing with fiscal 2016 is there obviously was an
22 adjustment on that price for --

23 MS. KHAN: Q: Right.

24 MR. DOYLE: A: -- maybe the last quarter.

25 MS. KHAN: Q: Right, okay.

26 MR. DOYLE: A: So there would be some difference there.

1 MS. KHAN: Q: Right, okay. Because of the --

2 MR. DOYLE: A: Because o

3 MS. KHAN: Q: -- starting in December of 2015.

4 MR. DOYLE: A: We like to start --

5 MS. KHAN: Q: -- the cost was reduced. Okay, fair
6 enough.

7 So, in fact, it was such a good revenue
8 source for Hydro that Hydro wanted to keep the
9 reconnection charge in place at \$125 until the end of
10 March this year, didn't it?

11 MR. DOYLE: A: I would say that, you know, our original
12 reason for asking it to be implemented on April 1st was
13 to align with what we had forecast in our revenue
14 requirement. Ultimately the Commission decided
15 otherwise and we implemented it in December.

16 MS. KHAN: Q: And so during each of these years, when
17 BC Hydro was charging customers a reconnection fee
18 that was much higher than actual cost to reconnect,
19 Hydro's residential customers all faced rate
20 increases, correct?

21 MR. DOYLE: A: So, I think just one important element
22 as well in response to that, and we don't have the
23 information in front of us, but again we'd need to go
24 back and look at what the costs were of carrying out
25 that work. Because again, it certainly was a blend of
26 the ability to carry out remote disconnects,

1 reconnects over the air while still having a field
2 force in place in many cases that they're doing meter
3 reading that we're paying for in any respect. And so
4 I think it's not as black and white during those years
5 to say that we just -- at one point in time switched
6 to a, you know, a cost that's really \$30 and we should
7 have been looking back, you know, a number of years
8 into that. I think there's a transition period into
9 it.

10 MS. KHAN: Q: Yes, of course. There were some legacy
11 meters that you were -- it took some time to change
12 over to smart meters, I understand that. So, during
13 -- but back to the question. It's true, though, that
14 during these years of the -- when the \$125
15 reconnection fee was being charged, despite that most
16 of the -- many of the costs had disappeared, or gone
17 down significantly, BC Hydro's rates were increasing
18 in all of those years, right?

19 MR. DOYLE: A: Again, I don't think I could agree with
20 the premise. I don't -- that BC Hydro's costs to do
21 that had gone down. We'd need to go back and look at
22 what our actual costs to serve that, through 2013/14
23 and '15 were, given the transition. There were rate
24 increases, as we know, during those years. But again,
25 what our costs to carry out that -- the reconnection
26 were, during that period, we'd have to go back and

1 look at what the actual costs were.

2 MS. KHAN: Q: And so customers during these years of
3 the rate increases and implementation of multiple --
4 you know, pretty widespread implementation of smart
5 meters, customers who were receiving income assistance
6 of \$610, and \$906 a month, still had to pay those --
7 that \$125 reconnection fee. Correct? If they wanted
8 to reconnect to the system.

9 MR. DOYLE: A: Yeah, any customer who was reconnected
10 to the system would have paid the \$125.

11 MS. KHAN: Q: Okay. And Mr. Weafer touched on this
12 already, but I just wanted to clarify. So at no time
13 until the RDA application in September of 2015 -- and
14 in fact it was after when Hydro applied to do it on an
15 interim basis, but at no time did Hydro apply to the
16 Commission to lower its reconnection fee to reflect
17 the reduced cost of disconnecting customers prior to
18 September of 2015?

19 MR. DOYLE: A: No. And, I mean, I think what's
20 important to look at also was, you know, throughout
21 the engagement there was a fair bit of discussion
22 around the various models of how the costs are
23 allocated. So there's fixed costs associated with the
24 IT infrastructure for the reconnection and
25 disconnection functionality. And there was discussion
26 throughout that engagement process of whether it's

1 properly allocated to the reconnection charge, or if
2 that's a benefit overall to the customer -- to the
3 customer base as a whole. And that engagement led us
4 to a proposal of the reconnection charge, and the
5 allocation that we have, which reflects -- which
6 underpins the \$30.

7 So I think it was an evolution to say that
8 one day just because we have smart meters, it was \$30,
9 isn't fair. There is various ways you can look at the
10 allocation of the costs associated with reconnection
11 and disconnection, and particularly those fixed IT
12 costs. And ultimately the way that we allocated based
13 on the feedback we received resulted in the \$30, which
14 was proposed in the application.

15 **Proceeding Time 11:58 a.m. T36**

16 MS. KHAN: Q: Did BC Hydro make any changes to its
17 dunning procedures during the period of April 1st, 2013
18 to March 31st, 2016 whereby non-paying customers could
19 be disconnected more quickly?

20 MR. DOYLE: A: So, that's a question I think we could
21 take better on Panel 3, with Mr. Sanders.

22 MS. KHAN: Okay, thank you. This is a good place in my
23 questions to break, if that would be preferable -- if
24 that would be -- if that's the panel's -- if you'd
25 like to do that.

26 THE CHAIRPERSON: Thank you, Ms. Khan. That would be

1 great. Thank you. So we'll take a break for lunch,
2 then, and come back at 1:15, and Ms. Khan will
3 continue her questioning then. Thank you.

4 **(PROCEEDINGS ADJOURNED AT 11:59 A.M.)**

5 **(PROCEEDINGS RESUMED AT 1:14 P.M.)**

6 THE CHAIRPERSON: Are you ready to continue, Ms. Khan?

7 MS. KHAN: Q: Panel, the next thing I'd like to do is
8 take you to page 5 of Keith Anderson's opening
9 statement, which is Exhibit B-38, I think.

10 So here at point 1, and I'll just add, I
11 don't think anyone needs to turn to this, at -- also
12 in response to BCOAPO's IR 1.192.1, you state that you
13 have established processes with the Ministry of Social
14 Development and Social Innovation, which is the
15 provincial government's Ministry that administers
16 Social Assistance in this province, to avoid security
17 deposits and postpone disconnections for customers
18 awaiting MSDSI decisions on applications for support.
19 Can you identify what these changes are?

20 MR. ANDERSON: A: I can identify it at a high level.
21 And then I think if you want to get into more detail,
22 so it would be best for Mr. Sanders on panel 3.

23 But at a high level, we met with the
24 Ministry and talked about those customers that are
25 either having -- you know, their bill's already paid,
26 their BC Hydro bill's already paid by the Ministry.

1 MR. ANDERSON: A: Again, I don't have any specifics on
2 that. It doesn't sound like a bad idea, we could look
3 at that specifically through the low-income advisory
4 group might be a good way to offer up ideas that can
5 again benefit customers in understanding of any
6 aspects of our tariff. But again, if there are
7 specifics already discussed on that, Mr. Sanders would
8 be better able to know what they are.

9 MS. KHAN: Q: Okay. And you also state at point 2,
10 that Hydro has opened in-person customer service desks
11 at your Dunsmuir and Burnaby offices with plans to
12 explore providing similar services in other district
13 offices, and that they've been open since October and
14 November 2015. First, I want to say thank you. In-
15 person offices can be so helpful for customers needing
16 assistance, so that's a nice development.

17 What steps have you taken to publicize the
18 opening of these offices?

19 MR. ANDERSON: A: We haven't taken steps yet to
20 publicize it, and so that's part of our next step of
21 both exploring what other offices we can open, and how
22 we would source that, and then getting to how we would
23 publicize it for the ones we have opened it. So we
24 opened it -- a bit of background. We opened both of
25 these as a pilot effectively to say, you know, we
26 think in-person service, we've heard from customers,

1 we've seen specific examples from customers where
2 having in-person service we think would be beneficial,
3 and so we did pilot it, and again, I don't have the
4 exact numbers, but it's been successful, and what we
5 found both with Dunsmuir and Edmonds is you're getting
6 customers who have questions that, you know, maybe
7 they just weren't able to get adequately addressed on
8 the phone or are uncomfortable in doing so, so it has
9 worked out well for us. And another part of the pilot
10 is again figuring out how we would staff it with the
11 right people, and to try and do so without an
12 incremental cost.

13 Now, as we look throughout the rest of the
14 province, it is really just an extension of that,
15 where can we pilot it next? There are some locations
16 where again, we'll have customer service personnel who
17 we can put in an entry way to an office. There is
18 other offices where we don't have people with that
19 capability so what can we do? And so we are exploring
20 all of those.

21 MS. KHAN: Q: Thank you. Do your customer service
22 agents, in person or on the phone, offer services in
23 languages other than English?

24 MR. ANDERSON: A: Again, I think Mr. Sanders will
25 probably be able to answer that better. I don't know
26 for sure. We did look at that at one time, but I

1 don't recall what the answer is.

2 MS. KHAN: Q: Next on that page, you state at point 3
3 that Hydro is working on business process changes to
4 relax installment plans to allow repayment over longer
5 periods, and it has been typically only up to three
6 months, provided that bills are paid before the next
7 winter heating season. Can you describe these more
8 flexible payment plan terms?

9 MR. DOYLE: A: I'll describe them at a high level what
10 the intention is. So currently, as we stated in Mr.
11 Anderson's statement, the payment terms roughly are
12 about three months, and there has been some discussion
13 in BCOAPO has brought up the, you know, the idea of
14 extending those. And while we think that that's a
15 good idea, our concern is we would want those, the
16 balances to be paid off before going into the next
17 winter period, because that's typically where the
18 large increases in the amounts due, come due, and what
19 we don't want is sort of a compounding effect there.
20 So we are trying to mitigate those challenges by
21 asking for them to be paid off before the winter.

22 MS. KHAN: Q: Okay. And you don't require a down
23 payment prior to entering into an installment plan on
24 arrears, do you?

25 MR. DOYLE: A: I'm not sure.

26 **Proceeding Time 1:22 p.m. T38**

1 MS. KHAN: Q: Okay, panel 3. And do you know whether
2 customers are able to enter into those payment
3 arrangements with Hydro over the phone or at your in-
4 person service desks in Vancouver and Burnaby?

5 MR. ANDERSON: A: I believe you are able to do that at
6 both other the phone and at our in-person service
7 desks, but again we can clarify that for certain with
8 Mr. Sanders.

9 MS. KHAN: Q: Okay, I am just going to go through the
10 remaining questions in this series to make sure I'm --
11 are the flexible payment arrangements that you offer
12 now set out publically on your website?

13 MR. ANDERSON: A: I don't believe so, but again, Mr.
14 Sanders will have better information on what is set
15 out.

16 MS. KHAN: Q: Next, Mr. Anderson states that BC Hydro
17 is implementing changes that will delay disconnections
18 where customers demonstrate a medical reason for
19 requiring power. Can you describe these changes and
20 when they're going to be implemented?

21 MR. ANDERSON: A: Yeah, so again, at a high level, what
22 we're looking to do is where we have a customer who
23 has been contacted for non-payment, and they indicate
24 that they have a medical condition of some sort, we
25 would be looking to allow an additional kind of 20
26 business day period where they can figure out a way to

1 ultimately enter into an installment plan for payment,
2 and it really is a mechanism for us to allow those
3 customers ultimately to pay, recognizing that they're
4 going through something, or they have a specific
5 circumstance where they -- they or family member,
6 what-have-you may have, need more time to be able to
7 enter into payment arrangements ultimately.

8 MS. KHAN: Q: The next point is at point 7, is that you
9 are going to bring forward tariff changes as necessary
10 to allow another customer to take responsibility for a
11 customer's account. Does this mean that customers can
12 act as sureties so that their recipient customer will
13 not have to pay a security deposit?

14 MR. DOYLE: A: Yeah, so I am not sure about the surety
15 and the terminology there, but the intent is that
16 another customer could sort of guarantee the payment
17 of the bill of a customer. So, if that customer were
18 -- if the customer were to default, then it would go
19 over to the other customer's bill, and they would be
20 responsible for that.

21 MS. KHAN: Q: Okay. And so the guarantor, perhaps I
22 could frame it that way. A guarantor could be any
23 other -- does it have to be a BC Hydro customer? Does
24 the guarantor have to be a BC Hydro customer? And
25 also, could they be organizations? Or government
26 agencies?

1 MR. DOYLE: A: So, it's probably an area that Mr.
2 Sanders could provide more clarity on.

3 MS. KHAN: Q: Okay. I'll just ask one last question,
4 just in case it should have been directed, just to
5 make sure. When are you planning to bring forward
6 this change?

7 MR. DOYLE: A: So, I think we'd start looking at and
8 engaging on it after the hearing, and looking at what
9 actually needs to be done. So it's something that has
10 come up more recently through our dialogs with BCOAPO
11 and yeah, we'll start working on that after the
12 hearing, so in the fall I would imagine.

13 **Proceeding Time 1:26 p.m. T39**

14 MS. KHAN: Q: Okay, thanks. And at page 6, Mr.
15 Anderson adds that there is one final element you'd
16 like to raise, and that's the winter moratorium. And
17 so I'm just wondering if you can describe at a high
18 level what the moratorium will involve.

19 MR. ANDERSON: A: Sure. And we've laid out, I guess,
20 elements of that in our response to the IR that you
21 had referenced previously. But really what we're
22 looking at is to run the pilot for this fiscal -- or
23 for 2016/2017 winter. It's really setting it into two
24 jurisdictions. The Lower Mainland and Vancouver
25 Island is one area, and then the rest of our service
26 territory is the other.

1 And for the Lower Mainland and Vancouver
2 Island, it's looking at not disconnecting service for
3 customers where in that next 24-hour period we will go
4 below zero degrees. And the difference for outside of
5 the Lower Mainland is, we are looking at a time-based
6 moratorium as well as temperature. And so it's
7 looking at the period -- correct me if I'm wrong,
8 November to March, and saying during that period for
9 outside the Lower Mainland and Vancouver Island, we
10 would not proceed with disconnections. And for other
11 periods of time outside of that time bound, where the
12 temperature in the next 24-hour period is going to
13 again drop below zero, we would not be proceeding with
14 the disconnection.

15 MS. KHAN: Q: Okay. I'll save my more detailed
16 questions on that for Panel 3, for Erin.

17 MR. ANDERSON: A: Thank you.

18 MS. KHAN: Q: And so, to be clear, all the changes
19 listed in Mr. Anderson's statement, is it correct to
20 say that the only one that will involve an amendment
21 to the electric tariff is allowing a customer to take
22 responsibility for another customer's account?

23 MR. ANDERSON: A: I think that's certainly what we
24 believe, yes.

25 MS. KHAN: Q: And so the rest are business practice
26 changes that can be altered by BC Hydro at any time

1 without Commission approval?

2 MR. DOYLE: A: Yeah.

3 MS. KHAN: Q: Okay. I'd like to move on to a new
4 topic, the deferral accounts. Deferred costs that you
5 have. So can you estimate the amount of deferred
6 charges in this instance, costs or balances that
7 relate to the provision of service prior to March 31st,
8 2016, and which would have been expressed -- sorry.
9 Which would have been expensed normally sitting on BC
10 Hydro's balance sheet as of March 31st, 2016?

11 MR. DOYLE: A: Sorry, are you referring to like the
12 costs within the revenue requirement?

13 MS. KHAN: Q: Yeah. Like how much deferred costs as of
14 March 31st, 2016 are you not currently collecting?

15 MR. DOYLE: A: I'm not sure of --

16 MS. KHAN: Q: How much sitting on the balance sheets?

17 MR. DOYLE: A: I'm not sure, sorry. That's not --

18 MS. KHAN: Q: Is it in the \$6 billion range, I guess is
19 what I'm trying to get at.

20 MR. DOYLE: A: I don't know. I don't know.

21 MS. KHAN: Q: You don't know. Okay. How much -- do
22 you know how much the deferral account rate rider
23 collects each year?

24 MR. ANDERSON: A: No, and are you referring to any
25 documentation or evidence that we could --

26 MS. KHAN: Q: No, not -- no.

1 MR. ANDERSON: A: Okay. Okay.

2 MS. KHAN: Q: You don't know off the top -- is that
3 something that you could provide us with? As an
4 undertaking?

5 MR. DOYLE: A: Yeah, we can undertake to find that
6 information.

7 **Information Request**

8 MS. KHAN: Q: And similarly, could you undertake to
9 tell us -- can you undertake to provide us with the
10 amount of deferred charges that are sitting on your
11 books right now, or sitting on your books as of March
12 31st, 2016?

13 MR. CHRISTIAN: I rise so I can get some clarification.
14 Are we looking for the balance of the entirety of BC
15 Hydro's regulatory accounts?

16 MS. KHAN: Yes.

17 MR. CHRISTIAN: And I ask only because I think earlier in
18 your question you drew a distinction between that
19 larger bucket that I've just described, I think, and
20 expenses that would normally be -- or costs that would
21 normally be expensed. And so I want to be clear for
22 the record which of those undertakings you are -- or
23 which of those balances you're looking for.

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

25 MS. KHAN: Q: That's fine, thanks. I think we'll just
26 stick with the amount, and the amount that the DARR

1 collects each year. So --

2 MR. DOYLE: A: Sorry, so not the overall balance?

3 MS. KHAN: Q: That's right.

4 MR. DOYLE: A: Just the amount that the DARR covers?

5 MS. KHAN: Q: Yeah, that's fine. And the government
6 has fixed the deferral account rate rider at 5 percent
7 and the Commission can't increase this amount, can it?

8 MR. DOYLE: A: That's my understanding.

9 MS. KHAN: Q: Do you know when the DARR is going to be
10 eliminated?

11 MR. DOYLE: A: I do not.

12 MS. KHAN: Q: So in other words there are no plans
13 currently for the government to eliminate it?

14 MR. DOYLE: A: No, that's not what I said. I'm not
15 sure of when it will be eliminated. Like I don't know
16 the mechanism of it. I think that's within the
17 revenue requirements sort of world of -- and that's
18 just not something I'm aware of.

19 MS. KHAN: Q: Is that something that you could can
20 undertake to provide us with, to let us know whether
21 there are any plans to eliminate the DARR, and if so,
22 when?

23 MR. DOYLE: A: We can undertake to see if the
24 information is available and provide it if so.

25 **Information Request**

26 MS. KHAN: Q: Thank you.

1 Now, I'm going to move into some questions
2 about demand-side management programs and I understand
3 there are -- you know, that you don't have a DSM
4 witness specifically. I think that these questions --
5 actually I think, Gordon, you'll be able to answer
6 most of them, and if not, take them as undertakings.
7 We're not trying to -- the questions we have are not
8 meant to be onerous on BC Hydro, but we do have some
9 questions because we do think that DSM programs -- for
10 low income people are related to the RIB review.

11 MR. DOYLE: A: Okay.

12 MS. KHAN: Q: So according to Hydro's website, each
13 Energy Savings Kit contains LED bulbs, weather
14 stripping to reduce drafts around windows and doors,
15 high efficiency shower heads -- or shower head, water
16 saving tap aerators, an LED night light, fridge and
17 freezer thermometer, and a step-by-step instruction
18 guide.

19 Can you confirm that the customer in most
20 cases, so the residential customer in most cases, has
21 to install all components of the ESK herself, and by
22 that I mean without assistance from BC Hydro, and that
23 BC Hydro has no way of knowing whether all or none --
24 or sorry, all, some or none of the components were
25 installed properly, if at all?

26 MR. DOYLE: A: So I'll respond. At a general level I

1 think it's fair to say that the Energy Saving Kits are
2 generally installed by the homeowner. There may be
3 instances where they are installed by someone else, a
4 contractor or otherwise, but generally I believe it is
5 the homeowner. As far as our ability to know whether
6 they are actually installed, I know we do evaluations
7 on our programs and I would imagine there's some
8 evaluation of that, but I don't know for sure.

9 MS. KHAN: Q: I'm not sure that you need to turn to
10 this reference, but I'll give it to you anyway.
11 Exhibit B-1, Appendix C3-B, page 387 of 609, which is
12 the PDF page 2182. Here I'll just tell you what it
13 says and I don't think you'll have an issue with it.
14 So the annual savings from an Energy Savings Kit
15 around 2009 was thought to be \$14 a year for an
16 average install, and \$51 a year for a full install
17 electric hot water heat. But these savings seem to
18 have been increased in your application to an average
19 annual savings of \$30 and to a maximum of \$30 for an
20 ESK to a maximum of close to \$100 for an ESK, and
21 that's found -- that reference is at your application
22 page 5-75.

23 **Proceeding Time 1:36 p.m. T41**

24 Now, the document I'd like to take you to,
25 and I've made copies because this is a spreadsheet
26 response from you. So this -- I'll be handing out

1 copies. What this is is a document found at Exhibit
2 B-19. It's the revised response to BCOAPO 1.108.4 at
3 page 2 of the PDF and I'll just hand out copies.

4 And do you recognize this as a document
5 that was prepare by Hydro in response to that IR?

6 MR. DOYLE: A: Yes.

7 MS. KHAN: Q: So the first sheet calculates -- you'll
8 see in the bottom right it calculates the estimated
9 savings from an energy savings kit to be \$30.23. I
10 believe that's on an annual basis.

11 MR. DOYLE: A: Okay.

12 MS. KHAN: Q: And those savings are after bumping up
13 the savings by 85 kilowatt hours a year as a
14 "evaluation savings factor" or 30 percent. Do you see
15 that? And "Evaluation savings factor" there is one of
16 the last lines on the chart -- on the left-hand side
17 of the chart. And that's also explained underneath in
18 the note.

19 MR. CHRISTIAN: Ms. Khan, can you tell me where the 30
20 percent appears on this? I'm just trying to follow
21 along here.

22 MS. KHAN: That's a calculation that we did.

23 MR. CHRISTIAN: Maybe you could explain the calculation
24 for the purpose of the record and the question.

25 THE CHAIRPERSON: Yes, what is it 30 percent of, please?

26 MS. KHAN: I believe it's --

1 THE CHAIRPERSON: Also Ms. Khan, we should mark this as
2 an exhibit number, shall we? I know, but is it not --
3 it becomes an exhibit number, a witness aid, does it
4 not?

5 MS. KHAN: Pardon me, sorry?

6 THE CHAIRPERSON: The witness aid does?

7 MS. KHAN: This document is already part of the record,
8 so we're just handing it up as a witness aid just
9 because the Excel spreadsheets weren't included in the
10 hardcopies of the binders that we received. So we
11 just thought it would be helpful to provide this.

12 THE CHAIRPERSON: Okay.

13 MS. KHAN: So the 30 percent is how we calculated the
14 bump up of the savings factor taking into account all
15 of the savings that are listed and then adding that
16 evaluation savings factor. So that's how we came to
17 that number. So we added up all of the numbers in the
18 right-hand column and 85 kilowatt hours per year was
19 30 percent of it.

20 THE CHAIRPERSON: 30 percent of the numbers above it
21 added up?

22 MS. KHAN: That's right.

23 THE CHAIRPERSON: Not including the 85?

24 MS. KHAN: That's right.

25 THE CHAIRPERSON: Right.

26 MS. KHAN: Q: And the second sheet in this document

1 Q: Okay, next, I'd like to ask if you could confirm
2 BC Hydro currently only has one contractor to carry
3 out energy assessments, and that is Carillion Canada
4 Incorporated? There are some responses, I think in
5 this series they're at 109 -- BCOAPO 1.109, I believe
6 also at Exhibit B-19.

7 MR. DOYLE: A: Sorry, can you please repeat the
8 question? There was a qualification of what the
9 contractor was responsible for that I missed?

10 MS. KHAN: Q: No, it's just can you confirm that BC
11 Hydro only has one contractor to carry out energy
12 assessments? Residential energy assessments, and that
13 is Carillion?

14 MR. DOYLE: A: So, in BC Hydro's response to BCOAPO IR
15 1.109.1, we confirm that Carillion Canada is the
16 program contractor for the ECAP.

17 MS. KHAN: Q: Okay.

18 MR. DOYLE: A: That's the only program contractor for
19 ECAP.

20 MS. KHAN: Q: Okay. And how many assessments is
21 Carillian obligated to perform as part of its
22 contracts with BC Hydro each year?

23 MR. DOYLE: A: One moment.

24 MS. KHAN: Q: You can take that as an undertaking, we
25 don't need to have it right now.

26 MR. DOYLE: A: Sorry, the question was asked in IR

1 109.3, I'm just --

2 MS. KHAN: Q: Yeah, I believe that response shows the
3 number of assessments actually done, not that what
4 they are required to provide.

5 MR. DOYLE: A: Oh, okay.

6 MS. KHAN: Q: Is there -- well, let me take it back
7 then, or ask for a bit more background information.
8 Is Carillion required to perform a certain number of
9 assessments each year?

10 MR. DOYLE: A: I'm not aware -- I'm not familiar with
11 the contract.

12 MS. KHAN: Q: Is that something that you could provide
13 to us? Not the actual contract, but the number --
14 whether or not they are required to provide a certain
15 number of assessments and if so, what the number is
16 currently?

17 MR. DOYLE: A: Yes, we could undertake to see if that
18 information is available.

19 **Information Request**

20 MS. KHAN: Q: And do you know where Carillion staff are
21 based? Are they based mostly in Vancouver and
22 Southern B.C., for example?

23 MR. DOYLE: A: I'm not familiar with where their staff
24 are based.

25 MS. KHAN: Q: Okay, I'd like to take you to BCOAPO
26 1.109.3 which can be found at Exhibit B-19.

Proceeding Time 1:46 p.m. T43

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MR. CHRISTIAN: I'm not sure that we got the right reference. B-19 looks like a compliance filing on our laptop here.

MS. KHAN: I believe B-19 was a --

MR. DOYLE: A: No, we did update the IRs. B-19.

MS. KHAN: Q: Yes. Yes.

MR. DOYLE: A: So dated February 29th, 2016.

MS. KHAN: Q: Yes. So if you could turn to 109.3 and go to page 4 of the -- sorry, 109.3, and it's found at page 4 of the PDF of that exhibit.

And this document shows the number of assessments that were done for ECAP since 2010. And we'd just like to point out the minute number of assessments and installs in the North Interior. Which can be found at -- in the third column. So you see for the North Interior, in total, only 137 have been done. For the North and Interior region of the province.

And just while I'm on the same IR response, what percentage of the assessments and installs -- because it looks like it also includes some installs -- in this chart are basic versus advanced ECAPs? Do you have any idea?

MR. DOYLE: A: I don't, sorry.

MS. KHAN: Q: Okay. And do you know -- and assessments

1 and non-profit apartment installs -- or sorry, do you
2 know whether advanced ECAPs are even included in this
3 IR response?

4 MR. DOYLE: A: I'm not sure whether they do. The
5 footnote seems to indicate they may not. These
6 numbers include basic ECAP assessments, so I would
7 have to -- I'm not sure.

8 MS. KHAN: Q: Staying in the same IR response, can you
9 explain what the direct install of energy-saving
10 measures in non-profit apartment suites means? Is
11 this part of ECAP? Are these ESK installs?

12 MR. DOYLE: A: I'm not sure, sorry.

13 MS. KHAN: Q: Is that something that you could provide
14 to us by undertaking?

15 MR. DOYLE: A: So, sorry, could you clarify exactly
16 what it is you want us to find out?

17 MS. KHAN: Q: What are direct install of energy saving
18 measures in non-profit apartment suites? That are
19 referenced in the bottom, in the footnote to that IR.

20 MR. DOYLE: A: Yes, we'll undertake to see what that
21 is.

22 **Information Request**

23 MS. KHAN: Q: Now, non-profit housing units, as I
24 understand it, are generally considered to be fairly
25 low-hanging fruit for BC Hydro in terms of completing
26 energy efficiency upgrades? Just because they're easy

1 to find, they're easy to identify, it might be easier
2 to get into the buildings, having a government
3 landlord or a non-profit housing association landlord.
4 Have BC Hydro contractors completed ESK and ECAP
5 installs in all non-profit housing units in B.C.?

6 MR. DOYLE: A: I am not aware.

7 MS. KHAN: Q: Is that something you could undertake to
8 provide to us?

9 MR. DOYLE: A: We can undertake to see whether the
10 information is available and provide it if it is.

11 **Information Request**

12 MS. KHAN: Q: Okay. And in particular what we'd like
13 to know is, you know, if -- you might not have the
14 exact numbers, but to give a general percentage, even,
15 of which non-profit housing units have yet to receive
16 fully-installed ESKs.

17 I'm sorry for the flipping around. Next I
18 take you to -- like to take you to Exhibit B-5, which
19 is your response to BCOAPO 1.109.11. And it's page
20 936 of the PDF version.

21 **Proceeding Time 1:51 p.m. T44**

22 And here you say that your F2016 ECAP
23 target is 1500 basic units and 50 advanced units.
24 What's your estimate of the total number of units
25 eligible in BC Hydro service area for ECAP?

26 MR. DOYLE: A: I don't know that answer, sorry.

1 MS. KHAN: Q: Could you undertake to provide us with
2 that information?

3 MR. DOYLE: A: Yeah, I don't know whether we would have
4 that information given we wouldn't know what customers
5 would meet the eligibility requirements until they
6 would actually apply, so I'm not sure.

7 MS. KHAN: Q: Right, but I guess in general terms. I
8 mean we're really looking more at a high level,
9 because I assume that the ECAP program has looked at,
10 you know, where can we try to find ECAP -- people who
11 might be eligible for ECAP and so I assume they've
12 done some kind of assessment of what numbers of
13 households might be eligible for ECAP. So it doesn't
14 need to be an exact figure, just at a high level.

15 MR. DOYLE: A: I can undertake to see whether the
16 information is available and if it is provide that.

17 **Information Request**

18 MS. KHAN: Q: Thank you. Now next I -- if you can stay
19 in that same exhibit at 1.109.12, your response to our
20 IR 1.109.12, page 937 of the PDF. And here BC Hydro
21 states that meeting this target will require heavy and
22 concerted efforts with a range of partner
23 organizations to recruit customers into the program.
24 Which partner organizations are you referred to?

25 MR. DOYLE: A: Just give me one moment. Sorry, I'm
26 just looking to see whether it's on the record. So if

1 I refer to BCOAPO IR -- BC Hydro's response to BCOAPO
2 IR 2.258.1 I believe some of the partnerships we've --
3 that we're referencing would be BC Housing, Food
4 Banks, Christmas Bureaus, Better at Home, Ministry of
5 Social Development and Social Innovation. Those are
6 some that we have listed, as well as working with
7 Fortis BC on the offers themselves.

8 MS. KHAN: Q: Okay, great. So those are mostly just
9 about all organizations that work with low income
10 people, sort of larger institutions and you're still
11 working with them to try to identify potential ECAP
12 installs.

13 MR. DOYLE: A: That would be my understanding.

14 **Proceeding Time 1:55 p.m. T45**

15 MS. KHAN: Q: And you talk about heavy and concerted
16 efforts. What do you mean by that?

17 MR. ANDERSON: A: Our response to BCOAPO 1.113.1 might
18 help shed a bit of light onto that. And maybe I can
19 just read out the third paragraph, if that helps for
20 people.

21 "In the case of ECAP, the early
22 participation came from bulk participations,
23 First Nations and non-profit housing
24 providers. These were the easy-to-target
25 groups who provided significant volume of
26 participation. Approximately 80 percent of

1 ECAP participants came from these groups in
2 the first years of the program. Significant
3 efforts were also made to attract individual
4 applicants, but this audience is harder to
5 reach and contributed a smaller proportion
6 of the overall participation rates. As the
7 bulk organizations come to participate in
8 ECAP, the remaining eligible audience is
9 more difficult to identify and target."

10 MS. KHAN: Q: Your recently-filed revenue requirements
11 application talks about refocusing and reducing DSM
12 spending in 2017 to 2019. And that could be found at
13 Exhibit B-1-1. And I've got copies of that to hand up
14 to you.

15 I'd like to have that --

16 THE CHAIRPERSON: Sorry, go ahead.

17 MS. KHAN: Sorry, go ahead.

18 THE CHAIRPERSON: You're going to have it marked as an
19 exhibit number? Okay, good.

20 MS. KHAN: Yes. So we'd like -- I understand from Mr.
21 Miller that the next exhibit in the BCOAPO series is
22 Exhibit C2-30. If we could have it marked as an
23 exhibit.

24 THE HEARING OFFICER: Exhibit C2-30.

25 **(PAGE 1-28 FROM FISCAL 2017 TO FISCAL 2019 REVENUE**
26 **REQUIREMENTS APPLICATION MARKED EXHIBIT C2-30)**

1 MS. KHAN: Q: So, DSM is one of the means available to
2 residential customers, particularly low-income
3 customers, to help offset the impact of bill
4 increases. Does BC Hydro plan to refocus and reduce
5 DSM spending on residential low-income programs in
6 F2017 to 2019? And if so, how do you plan to do that?

7 MR. DOYLE: A: So, while I am not fully aware of the
8 full DSM plan, my understanding is that BC Hydro did
9 not reduce the funding for low-income DSM programs as
10 part of its 2017 -- fiscal 2017/2019 revenue
11 requirements application. That those numbers remained
12 as they were prior, before.

13 MS. KHAN: Q: Okay. So you don't have plans to reduce
14 DSM spending as far as you're aware.

15 MR. DOYLE: A: That's as far as I'm aware.

16 MS. KHAN: Q: On low income. And does BC Hydro have
17 plans to refocus or reduce DSM spending on residential
18 programs aimed at electric space and water heating
19 during the same period of 2017 to 2019? And if so,
20 what does BC Hydro plan to do to refocus and reduce
21 that spending?

22 MR. DOYLE: A: Sorry, I am not aware of the overall DSM
23 plan with respect to what's been applied for in the
24 revenue requirements application.

25 MS. KHAN: Q: Now, would you agree with me that one of
26 the problems that BC Hydro has in attracting

1 participants for ECAP is just identifying those
2 participants? Or potential participants?

3 **Proceeding Time 2:00 p.m. T46**

4 MR. ANDERSON: A: I think certainly until what I had
5 read out just a minute ago, that was one of our
6 statements, remaining eligible audience is more
7 difficult to identify and target, yes.

8 MS. KHAN: Q: And so I'd like to just hand up another
9 page from your 2017 to 2019 revenue requirements
10 application. This is from page 12 of Appendix V,
11 which is page 1277 of the PDF version. And if this
12 document could be marked as an exhibit? And this
13 would be Exhibit C2-31?.

14 THE HEARING OFFICER: C2-31.

15 **(PAGE 12 FROM FISCAL 2017 TO FISCAL 2019 REVENUE**
16 **REQUIREMENTS APPLICATION MARKED EXHIBIT C2-31 MARKED)**

17 MS. KHAN: Q: At this page, Hydro discusses DSM
18 initiatives, and under low-income activity highlights
19 states that

20 "One of the biggest challenges facing the
21 program..."

22 Low-income DSM,

23 "...has been finding participants. To address
24 this, BC Hydro is coordinating with agencies
25 and non-profit organizations who are already
26 working with the low-income community in

1 order to identify qualifying customers.

2 A targeted offer for First Nations is
3 also being designed which will include
4 energy conservation education for community
5 members, band staff and businesses, and will
6 extend the energy savings assessments and
7 installation measures to commercial and
8 community buildings."

9 Now, we talked earlier about the fact that
10 you've been disconnecting 30,000 customers a year for
11 the last couple of years. Did you canvas any of those
12 customers who you were disconnecting, either prior to
13 or after they reconnected, in any way to see whether
14 they might be eligible for ECAP?

15 MR. ANDERSON: A: So, I can't speak specifically to
16 obviously individual circumstances, but generally our
17 customer agents who take calls on our call centre will
18 promote the ECAP or energy savings kits as part of a
19 dialogue with customers around payment alternatives.
20 Whether and how many that occurred, I don't obviously
21 have data on that, but that is the general practice
22 for us.

23 MS. KHAN: Q: But as far as you know, it's not an
24 actual standard practice to talk to customers who have
25 been disconnected or reconnected due to inability to
26 pay, whether or not they might be eligible for ECAP?

1 MR. ANDERSON: A: Yeah, again, Mr. Sanders can probably
2 answer the specific details on when it occurs, but
3 generally it is our practice earlier in the cycle of
4 looking for customers as they enter into payment
5 arrangements and things like that to talk about
6 measures that can help them. Whether or not that
7 occurs at the tale end once a customer has been
8 disconnected, again Mr. Sanders will have more details
9 on that.

10 MS. KHAN: Q: Okay, and now this is my last series of
11 questions. This relates to your 10-year rates plan.
12 So I'd like to hand up a copy of page 1-16 to 1-18 of
13 your 2017 to 2019 revenue requirements application.
14 And this can be found at PDF page 45 -- pages 45 to
15 47. I'd like to ask that this document be marked as
16 Exhibit C2-32?

17 THE HEARING OFFICER: C2-32.

18 **(PAGES 1-16 TO 1-18 12 FROM FISCAL 2017 TO FISCAL 2019**
19 **REVENUE REQUIREMENTS APPLICATION MARKED EXHIBIT C2-32**
20 **MARKED)**

21 **Proceeding Time 2:05 p.m. T47**

22 MS. KHAN: Q: Now, in this document, and I'm going to
23 quote from various parts of it, they're not
24 consecutive quotes but -- in the first -- or sorry,
25 they're consecutive but just not necessarily
26 immediately following each other.

1 "In the first two years of the 2013 10 Year
2 Rates Plan, (i.e., fiscal 2015 and fiscal
3 2016) rate increases of 9 percent and 6
4 percent were prescribed by Direction No. 6.

5 ...

6 The test period of this application
7 represents the third, fourth and fifth years
8 of the 2013 10 Year Rate Plan. The rate
9 increases over the test period are limited
10 by Direction No. 7 to no more than 4.0
11 percent, 3.5...and 3.0 percent for fiscal
12 2017, fiscal 2018 and fisal 1019,
13 respectively. Over the three-year test
14 period Hydro's revenue requirements as
15 originally planned are higher than the
16 revenue to be recovered under the maximum
17 rate increases. If the caps on rate
18 increases set out in Direction No. 7 were
19 not in place, it's estimated that BC Hydro's
20 proposed rate increases for these years
21 would have been 8.9 percent, 5 percent, and
22 3 percent, respectively. Pursuant to
23 Direction No. 7, the difference between the
24 amount collected in rates and Hydro's
25 overall allowed forecast revenue
26 requirements is recorded in the Rate

1 Smoothing Regulatory account. ...

2 The final five years of the 2013 10
3 Year Rates Plan target rate increases of 2.6
4 percent in each of fiscal years 2020 to
5 fiscal 2024, subject to [the Commission's]
6 review and approval. The 2013 10 Year Rates
7 Plan also includes fully recovering the
8 balance in the Rate Smoothing Regulatory
9 account at the end of fiscal 2024. ...

10 Government has also fixed the Deferral
11 Account Rate Rider at 5 percent for the
12 duration of the 2013 10 Year Rates Plan and
13 stipulated that the amount of forecast
14 revenue from the [DARR], above the amount
15 applied to reduce the balance of the cost of
16 energy deferral accounts be reflected as
17 revenue."

18 In other words BC Hydro's rates are going
19 nowhere but up over the next seven years. And from a
20 base of, at April 1st, 2016 --

21 MR. CHRISTIAN: I have to interrupt there, because I
22 think the last comment here was not actually in the
23 document that you read from.

24 MS. KHAN: Oh, no, sorry, that was ours.

25 MR. CHRISTIAN: I know everybody in this room knows it,
26 but the transcript will not reflect that, so.

1 MS. KHAN: Q: I have a few other things I'd like to add
2 to your revenue requirements application, such as
3 this.

4 From a base of April 1st, 2016, they'll
5 increase by more than -- by almost one-third, more
6 than 30 percent over the period ending March 31st,
7 2024.

8 So does Hydro see the minimum wage and
9 income assistance rates increasing by a similar period
10 -- similar percentage over the same period of time
11 between now and 2024? It's really more of a
12 rhetorical question but do you have -- you don't have
13 any insight onto that, I take it?

14 MR. ANDERSON: A: No, we don't.

15 MS. KHAN: Q: And how many disconnections do you see
16 yourself doing each year between now and 2024? Do you
17 anticipate the same levels of around 30,000
18 disconnects a year, or do you anticipate that amount
19 going up?

20 MR. ANDERSON: A: Yeah, I mean, I guess that would be
21 something have to look at a little bit more. I have
22 no reason to right now see any reasons why that would
23 change kind of from our current volumes, with I guess
24 -- and maybe the extent to which we continue to get
25 better at our processes and working with customers on
26 it, then ultimately we could have less customers who

1 kind of bridge the mandates between panel 1 and panel
2 2, so I think I'm going to err on the side of caution
3 and ask most of my questions to this panel and feel
4 free to refer to panel 2 if that's more appropriate.

5 Now, I understand that BC Hydro does not
6 have any data about how many of its low-income
7 ratepayers use electric heat. Is that correct?

8 MR. DOYLE: A: So, my understanding is, we don't
9 collect it at a billing level. However, from the
10 residential end-use survey that we collect, we have
11 low-income customers and we have their heating source.
12 So there is some -- we do have some insights into that
13 based on a sample.

14 MS. WORTH: Q: Okay. Would BC Hydro agree that the
15 greatest savings in an electrically heated home can be
16 achieved through keeping the home cooler? During the
17 cold winter months.

18 MR. DOYLE: A: That's probably a question better for
19 panel 2. I'm not sure what that breakdown is there.

20 MS. WORTH: Okay. Okay, and I have a document that I'm
21 going to be referring to. I've provided it to my
22 friend, Mr. Christian, earlier. We need to have this
23 actually marked as an exhibit, please.

24 We're just checking on what the exhibit --
25 the proper exhibit number would be right now.

26 C4-12? Okay, let me have this marked as

1 Exhibit C4-12.

2 THE HEARING OFFICER: Marked C4-12.

3 **(FIVE PAGE LETTER TO BCUC FROM TOM LOSKI, DATED JUNE**
4 **23, 2016, MARKED EXHIBIT C4-12)**

5 MS. WORTH: Q: Okay. So, panel, as you can see, this
6 is BC Hydro's application to the B.C. Utilities
7 Commission in regards to the FortisBC Energy Inc.
8 Tilbury Island liquid natural gas facility. In
9 particular, about the tariff supplement 91,
10 electricity supply agreement, and TS 92, which is the
11 load interconnection agreement. I'm going to be
12 asking questions and referring to Section 2.1 as I do
13 so. And that's on page 4 of five pages. About
14 Halfway through the page.

15 Now, can you please confirm what BC Hydro
16 would characterize in general as a large new load?

17 **Proceeding Time 2:14 p.m. T49**

18 MR. DOYLE: A: So I'm not sure we have a definition of
19 a large load. I think what this is referring to is
20 new liquefied natural gas loads.

21 MS. WORTH: Q: Okay, but in general though, you know,
22 is there a point where BC Hydro would look at
23 something and say that's a rather sizable -- you know,
24 that's a larger load?

25 MR. DOYLE: A: So I guess the example I would bring
26 would be under our tariff supplement 6 at 150

1 megawatts the contribution formula, there's a change
2 there of how the allocation of cost is determined. So
3 within our existing tariff that's an example of where
4 there's a delineation of -- based on size.

5 MS. WORTH: Q: Okay, so an LNG plant would potentially
6 fall above that 150 megawatt?

7 MR. REIMANN: A: There's quite a range of different
8 load sizes that one can see from LNG facilities and
9 over the course of the last few years of looking at
10 these it can be anywhere as high as 1200 megawatts and
11 down as low as 30. So it really depends on what the
12 individual facility is.

13 MS. WORTH: Q: Okay. Can you please confirm what the
14 actual load size for this particular project was?

15 MR. DOYLE: A: I don't have the load size in front of
16 me. I know typically we do keep the load information
17 confidential because it's customer specific. I'm not
18 sure in the case of Fortis whether it was in the
19 application or not. I can't recall. But either way I
20 don't have it off the top of my head.

21 MS. WORTH: Q: Okay, all right. Can you please confirm
22 that the current industrial energy rate is \$46.98 per
23 megawatt hour?

24 MR. DOYLE: A: I believe that is correct for the flat
25 energy rate for the transmission service rate.

26 MS. WORTH: Q: Okay. Now I'm going to refer you to

1 that letter that I just provided and it's been marked
2 as Exhibit C4-12. The letter states in Section 2.8 on
3 page 4, that

4 "...to protect existing ratepayers from a
5 large domestic load results in a major
6 difference in the price for electricity
7 supply."

8 Can you please confirm that TS 91 calls for
9 an energy rate of \$75.35 as opposed to the current
10 industrial energy rate, the flat rate that you've just
11 referred to of \$46.98?

12 MR. DOYLE: A: Yeah, so my understanding is Tariff
13 Supplement 91, so consistent with the domestic long-
14 term sales contract regulation which lays out the
15 rates for liquefied natural gas customers, the \$75.35
16 would be applicable to Fortis as an LNG customer.

17 MS. WORTH: Q: Okay, and that rate is calculated based
18 on the anticipated impacts of this new load on your
19 system, is that correct?

20 MR. DOYLE: A: I'm not sure how it's calculated. I
21 believe it's a prescribed rate.

22 MR. REIMANN: A: I think that's generally correct.

23 MS. WORTH: Q: Okay. So if it's actually looking at
24 the anticipated impacts, it's a forward-looking
25 calculation isn't it?

26 MR. REIMANN: A: That's correct.

1 MS. WORTH: Q: Can you please confirm that the Tariff
2 Supplement 92 included provisions that facilitated the
3 recovery of required system upgrades not normally
4 included in standard agreements?

5 **Proceeding Time 2:19 p.m. T50**

6 MR. DOYLE: A: Yes. So under tariff supplement 92, the
7 customer is responsible for other costs that -- under
8 tariff supplement 6, customers may not be responsible
9 for.

10 MS. WORTH: Q: All right. Now, you've already
11 indicated that you're not sure of what the Tilbury LNG
12 facility's expected load is. I'm going to suggest to
13 you that the -- that it's going to be in the range of
14 150 gigawatt hours. Is that -- does that sound
15 reasonable to you?

16 MR. REIMANN: A: Yeah, again, we generally don't share
17 individual customer load information. Not necessarily
18 that we're not aware of what it is.

19 MS. WORTH: Q: Okay. So what exactly is the \$75.35 per
20 megawatt rate protecting existing customers from?

21 MR. REIMANN: A: So in very general terms, I mean this
22 ultimately was something that was directed by the
23 government. But in general terms, the intent was to
24 look at the incremental cost of supply through the LNG
25 facility so that it wouldn't be a burden on the rest
26 of the ratepayers.

1 MS. WORTH: Q: So a rate like this would be necessary
2 to protect existing customers from negative impacts of
3 any new large industrial load. Is that correct?

4 MR. REIMANN: A: I think the intent for this is
5 specific to LNG, that there could have been, may still
6 be a large impact due to these large facilities coming
7 on line, and the desire was to protect the other
8 ratepayers. It was a commitment the government made
9 that isn't generally speaking how we approach new load
10 in any of our other tariffs. Normal customers would
11 all have a share of embedded costs, with postage-stamp
12 rates.

13 MS. WORTH: Q: So the negative impact of a new load
14 would normally be absorbed by all customers in that
15 rate class. Is that your testimony today?

16 MR. REIMANN: A: Generally speaking, any new resources
17 that we acquire tend to be higher-cost than the
18 embedded-cost resources that we have in our system.
19 So any new load adds to the system in fact over time
20 adds to cost, raises rates. Yeah, residential,
21 commercial or industrial.

22 MS. WORTH: Q: Okay. Does BC Hydro consider it fair
23 that it sets rates for one customer, Fortis in this
24 particular case, in a manner that protects existing
25 customers, but then sets rates for other new
26 industrial loads that don't -- that does not provide

1 embedded costs?

2 MR. DOYLE: A: I think again, we are required by
3 direction to apply for the rate as prescribed for
4 liquefied natural gas customers.

5 MS. WORTH: Q: So I'm going to move on to another
6 topic. You would agree with me that BC Hydro and its
7 customers are facing change and cost pressures that
8 will require innovative and flexible responses to
9 these pressures going forward?

10 MR. ANDERSON: A: I think I would want more
11 clarification on what you mean by pressures or --

12 MS. WORTH: Q: Well, costs are going up. You know,
13 that's very clear -- Ms. Khan made it crystal clear
14 for everybody. And there are other pressures on the
15 system such as, you know, projects that are not yet
16 online, you know, things that need to be kept up in
17 order to maintain the stability of the system. And I
18 am assuming that BC Hydro is looking for innovative
19 ways to deal with those pressures on ratepayers as
20 well as its own operations.

21 MR. ANDERSON: A: Yeah, I'd say generally that from our
22 perspective, customer expectations are changing, we
23 have a new customer strategy at BC Hydro focused on
24 that. We obviously understand that rates are
25 increasing and it's one of the reasons we are
26 continuing with our DSM programs the way that we are,

1 is that again, customers generally like those, there
2 is an opportunity to save money off of their bill,
3 which is again a good thing. And absolutely, I think
4 we've demonstrated that to the extent we can come up
5 with a creative rate options or programs that benefit
6 a customer group without impacting negatively the rest
7 of our customers, then absolutely we are interested in
8 looking at those.

9 MS. WORTH: Q: Okay, now on June 29, 2015, BC Hydro met
10 with MoveUP, my clients, and actually with me, to
11 discuss issues that arose during the workshop and pre-
12 filing consultation process. Now, like I said, I was
13 present at that meeting, but I note that actually
14 nobody on this panel was, but were you made aware of
15 that meeting and what actually took place during that
16 meeting?

17 MR. DOYLE: A: Yeah, I believe there is a summary on
18 the record.

19 MS. WORTH: Q: Okay, have you reviewed that summary?

20 MR. DOYLE: A: I have reviewed it. I'm not sure
21 whether I remember the exact -- which meeting it was,
22 but.

23 MS. WORTH: Q: All right, well in that meeting, MoveUP
24 proposed an innovative alternative to the status quo,
25 which was moving the residential class off of the RIB
26 rate to a flat one, with -- that was actually

1 calibrated to BC Hydro's LRMC with the resulting over-
2 collection of revenue to be distributed to ratepayers
3 who qualified on the basis of income, primarily low-
4 income, and then also on the basis of efficiency. Or
5 efficiencies that they were able to achieve.

6 Now, were you aware that BC Hydro's
7 response to this proposal included a statement that
8 due to IT and technological constraints anything like
9 this would be 10 to 15 years away from being able to
10 be implemented?

11 MR. DOYLE: A: Yeah, I think the 10 to 15 year, from my
12 understanding, is not necessarily related to just IT,
13 it's related around the efficiency. Right now, like
14 in order to have some sort of mechanism that
15 distributes rates based on efficiency, there would
16 need to be some sort of standardized mechanism by
17 which we assess the efficiency of a home or building
18 or otherwise. So, I think that's where we were
19 getting at, is that that infrastructure to implement
20 sort of an efficiency based rate is not in place
21 today, and it would actually take quite some time to
22 implement.

23 MS. WORTH: Q: Okay, but presumably if we didn't look
24 at maybe building code improvements and things like
25 that, but actual efficiency in use, the smart meters
26 would facilitate that kind of thing, wouldn't it? If

1 differentiations on something like a time of use rate.
2 That smart meters could facilitate.

3 MS. WORTH: Q: Okay. So if we were looking at maybe
4 efficiency in when a person uses their -- you know,
5 for peak-shaving purposes, if they were able to shift
6 their load to another time, thereby saving BC Hydro
7 and their fellow ratepayers expenses to expand that
8 particular area of BC Hydro's operations, then that --
9 the smart meter would allow BC Hydro to track that.
10 Is that right?

11 MR. DOYLE: A: Yes, definitely. And that was something
12 we engaged with on during the engagement process, was
13 time of use rates. Mandatory time of use rates are
14 contrary to government policy, so they weren't
15 advanced on a voluntary basis, at least, for the first
16 module. There wasn't support of moving forward with
17 general -- large support for moving forward with
18 voluntary time of use rates at this time. That's
19 something that, you know, potentially could be looked
20 at later with the smart meters.

21 MS. WORTH: Q: On what basis did BC Hydro formulate
22 that 10 to 15 years, do you know?

23 MR. DOYLE: A: Do you have the reference -- do you
24 happen to know the reference to --

25 MS. WORTH: Q: The reference that I had, I actually
26 went to the BC Hydro website and looked at the

1 workshop engagement stream. So I actually didn't have
2 the one from this particular process. I should have
3 actually got that before you, sorry.

4 MR. CHRISTIAN: Do you have a date, maybe, that would
5 allow us to search electronically?

6 MS. WORTH: It was -- there were notes that were
7 generated from a June 29th, 2015 meeting. And I
8 believe -- actually if you give me a moment, I'm
9 pretty sure I have it on my laptop. I can go grab
10 which workshop material it was. Unless Mr. Doyle is
11 finding it right now. Okay, I'll go get my --

12 THE CHAIRPERSON: Ms. Worth, should we take a short break
13 and perhaps you can look up the reference?

14 MS. WORTH: And I'll get that reference for you. Yes,
15 thank you.

16 THE CHAIRPERSON: So we'll come back at quarter to three,
17 then.

18 MS. WORTH: Thank you.

19 THE CHAIRPERSON: Thank you.

20 **(PROCEEDINGS ADJOURNED AT 2:32 P.M.)**

21 **(PROCEEDINGS RESUMED AT 2:45 P.M.)** **T53**

22 THE CHAIRPERSON: Please be seated. Thank you.

23 And ready to continue? Okay.

24 MS. WORTH: We've actually had discussions over the
25 break. Because none of the members of this panel were
26 party to the discussion that I had with BC Hydro's

1 representatives, and two of the members from panel 2
2 actually were, we've agreed that I'll be dealing with
3 those issues with panel 2, despite the sort of
4 difference in the mandates.

5 THE CHAIRPERSON: Okay.

6 MS. WORTH: Q: And I actually was speaking to my friend
7 and the BC Hydro witnesses, and I wanted to refer to
8 the attachment A, Section 3.4 to the document that I
9 had referred you to, the ESA for Fortis's proposed LNG
10 plant in Tilbury. And the contract demand in that
11 document, which unfortunately I don't have to provide
12 in paper form at the moment, but that I did show to my
13 friend, expressing kilovolt amps, that the contract
14 demand was roughly 15 to 21 megawatts. And subject to
15 check, I'm just going to ask my friend, the BC Hydro
16 witnesses, to confirm that.

17 MR. DOYLE: A: Yes, subject to check, we're fine with
18 that.

19 MS. WORTH: All right, thank you. And based on the
20 witnesses' answers to certain of my questions, I've
21 actually referred the rest of my questions to panel 2.

22 THE CHAIRPERSON: Okay.

23 MS. WORTH: So those are my questions for today, thank
24 you.

25 THE CHAIRPERSON: All right, thank you, Ms. Worth.

26 Mr. Andrews.

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

2 MR. ANDREWS: Q: As I mentioned to Mr. Doyle earlier,
3 my questions will focus on Exhibits B-17 and B-37, the
4 two evidentiary updates. Do you have those?

5 MR. DOYLE: A: We do.

6 MR. ANDREWS: Q: Yes, thank you. So, I'm going to be
7 focusing on the long-run marginal cost, LRMC, and its
8 relationship to the rate design application issues.
9 So, just to get -- to set the stage, in the 2013
10 integrated resource plan, the energy LRC was \$85 to
11 \$100 per megawatt hour, delivered to the Lower
12 Mainland. In 2013 dollars. Is that correct?

13 MR. REIMANN: A: That's correct.

14 MR. ANDREWS: Q: And then the B-17, February 18, 2016
15 evidentiary update said that the -- Hydro's view of
16 the long-run energy LRMC is that it has shifted to \$85
17 per megawatt hour from the \$85 to \$100 per megawatt
18 hour range. Correct?

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

20 MR. ANDREWS: Q: And that's the same apples-to-apples
21 that is, for example, delivered to the Lower Mainland,
22 \$85 price.

23 MR. REIMANN: A: That's correct.

24 MR. ANDREWS: Q: And on page 1, which is about the
25 third or fourth page in to the evidentiary update,
26 under the heading "Introduction", it says that the

1 energy LRMC -- you don't necessarily even need to go
2 here, because I'll just read it in, that -- but I'm
3 referring to the bottom paragraph where it says that
4 the energy LRMC of \$85 per megawatt hour is based on
5 Hydro's assessment that it can acquire what it needs
6 in the plan from its marginal resources, DSM, and EPA
7 renewals, at or below \$85 per megawatt-hour. And so
8 that is the basis for the \$85 per megawatt hour LRMC
9 at the time of this evidentiary update.

10 MR. REIMANN: A: That's

11 **Proceeding Time 2:51 p.m. T54**

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

13 MR. ANDREWS: Q: First of all, is that basis for the
14 \$85 figure different than the basis for the \$85 figure
15 in the 2013 IRP?

16 MR. REIMANN: A: No, that's the same basis.

17 MR. ANDREWS: Q: Okay. Now on the next page there's a
18 definition of LRMC, which I'll just read. The last
19 paragraph, it says:

20 "In general LRMC can be defined as the price
21 of the most cost effective way of satisfying
22 incremental customer demand beyond existing
23 and committed resources as guided by the
24 government approved IRP, which insures
25 reliable and cost effective electricity
26 service both in the near and long term while

1 balancing multiple policy objectives."
2 First question is, is that definition
3 materially different than the definition of LRMC in
4 the 2013 IRP?
5 MR. REIMANN: A: I don't believe so.
6 MR. ANDREWS: Q: Okay. One of the phrases in that
7 definition is the price both in the near and long
8 term. Would you agree that sometimes the price in the
9 near-term is different than in the long-term?
10 MR. REIMANN: A: I'm sorry, can you repeat the
11 question?
12 MR. ANDREWS: Q: The LRMC is defined as the price of a
13 certain thing both in the near-term and the long-term,
14 and I'm asking you to comment on whether it can be
15 that the price in the near-term is different than the
16 price in the long-term?
17 MR. REIMANN: A: Yeah. Okay. I think I read the
18 statement slightly different than maybe you're
19 interpreting it.
20 MR. ANDREWS: Q: Yes, please explain then.
21 MR. REIMANN: A: Yeah, I think it's the IRP which
22 insures reliable and cost effective service in both
23 the near and long term as apposed to as opposed to the
24 LRMC. So the reference to near and long term refers
25 to the IRP not the LRMC.
26 MR. ANDREWS: Q: All right. Okay, thank you. All

1 right, so then if I may turn your attention to Exhibit
2 B-37. This is an August 4, 2016 evidentiary update
3 regarding updated LRMC. And beginning on page 1 of 11
4 there's a discussion of the planning view of the load
5 resource balance as so on. Is there something
6 different in this document in terms of what is being
7 examined and reported on than in the February
8 evidentiary update and/or in the 2013 IRP in terms of
9 LRMC as it applies to rate design application?

10 MR. REIMANN: A: There's nothing different about the
11 LRMC part of it. A change that we've made in some of
12 our tables, particularly the energy load-resource
13 balance tables, is that we've gone to looking at both
14 and planning and an operating view of the energy
15 that's delivered.

16 So if I can take you to page 4 of 11. It's
17 table 3-8. And if you look at the fourth from the
18 bottom lines, third and fourth from the bottom, so it
19 says, "Surplus/deficit operation view" and the line
20 below it is "Surplus/deficit as a percentage of net
21 load planning view".

22 So what we were finding is that people were
23 getting confused between the energy that we actually
24 have to move out of the system as opposed to how much
25 of our planning criteria we were meeting. And so for
26 instance, we have a gas facility on the island that we

1 count on for some 2200 gigawatt hours of energy. It's
2 available when needed, low water conditions, if the
3 markets are expensive, but we don't generally run it
4 for more than maybe 150 gigawatt hours.

5 And so people are always getting concerned
6 about the amount of energy that they saw on there that
7 we were going to have to move. This wasn't physical
8 energy that we get delivered, it was more of -- it's
9 planning capability.

10 And so what those two lines show -- and
11 there's a little bit of a difference if you look in
12 fiscal 32 you'll see that on an operational view we
13 start to have a shortfall of energy, but it's not
14 until fiscal 34 that on a percentage of our planning
15 needs basis that we drop below 100 percent.

16 **Proceeding Time 2:56 p.m. T55**

17 So, there's a bit of a differentiation.
18 And so what we're generally showing in these tables in
19 terms of the numbers, then, is how we expect the
20 system to operate. And that aligns more with the way
21 our operational folks have historically looked at the
22 first three years of operations.

23 MR. ANDREWS: Q: So one of the points of significance
24 to be taken from this table is the fact that, under
25 the column heading "Fiscal 2034" the surplus deficit
26 as a percentage is less than 100. And that allows you

1 to conclude that there is an energy gap in fiscal '34.

2 Is that right?

3 MR. REIMANN: A: That's correct. As we discussed
4 before.

5 MR. ANDREWS: Q: Yes. And the other -- just so that
6 we're -- just to explain this document, the other
7 tables have -- there is another set of tables to do
8 with the capacity version of the same gap analysis.

9 MR. REIMANN: A: Yeah. You don't end up having that
10 same issue on the capacity side. The planning and
11 operational and capacity is the same thing. It's on
12 the energy side that the difference is, depending on
13 how often you run the facility.

14 MR. ANDREWS: Q: Thank you. So turning to page 6 of
15 11, under the heading "How long-run marginal cost is
16 used," it says:

17 "Long-run marginal cost can be defined as
18 the price for acquiring resources to meet
19 incremental customer demand beyond existing
20 and committed resources."

21 I just want to confirm that that is intended to be the
22 same definition as the one that was provided in
23 February, Exhibit B-17.

24 MR. REIMANN: A: It is. Probably suggests that we
25 should have a standard definition somewhere, but yes.

26 MR. ANDREWS: Q: Well, different wording but the same

1 -- there is no intention to change the concept.

2 MR. REIMANN: A: It's the same concept.

3 MR. ANDREWS: Q: Now, in the next sentence, it says:

4 "A consideration in setting the long-run
5 marginal cost is providing a steady and
6 consistent price signal for
7 determining/screening the cost-effectiveness
8 of different resources."

9 Is that something that is intended to be literally
10 correct, in that it's saying that the methodology for
11 setting the LRMC includes consideration of the purpose
12 for which the LRMC is going to be used? And if so,
13 can you give me an example of how that would look?

14 MR. REIMANN: A: Yeah, actually, I think the intent of
15 this section here was to say that one might look at
16 different time frames of LRMC depending on what the
17 application is. And so for instance, if you were
18 looking to give customers a signal to have a certain
19 level of conservation in mind, that it's probably
20 better not to be bouncing it up and down, and to be
21 relatively constant. That might lead you to look at
22 the longer-run marginal cost and think about
23 greenfield facilities. Greenfield is also one that we
24 interpret as being used in the demand-side management
25 regulation.

26 But in terms of when ordering equipment or

1 making capital decisions for the company, we still
2 felt it was appropriate, given the length of time
3 before we got back to greenfield resources, that we
4 should be reducing that expectation.

5 So the intent was to say, depending on
6 where you apply it, you might use a different number.
7 That should not be interpreted to say that there's a
8 different long-run marginal cost depending on how you
9 want to apply it.

10 MR. ANDREWS: Q: All right.

11 THE CHAIRPERSON: Could I ask a follow-up question? Do
12 you mind?

13 MR. ANDREWS: Certainly.

14 THE CHAIRPERSON: So, as I understand it, what you just
15 said was that under some circumstances you may
16 consider the cost of acquiring greenfield energy as
17 part of your marginal cost calculation. And that may
18 result in a more -- a different price for the long-run
19 marginal cost. Is that correct?

20 MR. REIMANN: A: Right. And maybe as the -- I would
21 say that the numbers don't change, but it's just which
22 one you use in a particular application.

23 THE CHAIRPERSON: Because back in Exhibit B-17, on page
24 2, it says -- LRMC is defined as a price of the most
25 cost-effective way.

26 MR. REIMANN: A: Right. So when we discussed earlier

1 about that between now and fiscal 2033 --

2 THE CHAIRPERSON: Yes.

3 MR. REIMANN: A: -- it was the \$85.

4 THE CHAIRPERSON: Yes.

5 MR. REIMANN: A: I think that's -- that is the number
6 of those marginal resources. And then from fiscal '34
7 and beyond, you're at the \$100.

8 THE CHAIRPERSON: Okay.

9 MR. REIMANN: A: And so I think the numbers are what
10 the numbers are.

11 THE CHAIRPERSON: Right.

12 MR. REIMANN: A: The question is, is do you pick one or
13 the other, depending on how you want to apply them?
14 And so, should you be looking out very long-term for
15 rate price signals? Possibly. It doesn't change the
16 numbers.

17 THE CHAIRPERSON: But your only choice, then, is the date
18 range over which you're doing your analysis. It's not
19 over what kind of facility you're getting the energy
20 from.

21 MR. REIMANN: A: Right. That was the intent.

22 THE CHAIRPERSON: Okay, thank you.

23 **Proceeding Time 3:02 p.m. T56**

24 MR. ANDREWS: Q: Thank you. And so on the next page,
25 page 7 of 11 at the bottom, it's -- on line 21 it
26 says, it, that is the cost of clean energy from

1 greenfield IPPs, is now estimated at \$100 per megawatt
2 hour in fiscal 2015 dollars, line 20 and 21?

3 MR. REIMANN: A: That's correct.

4 MR. ANDREWS: Q: So, just so that I am clear on that
5 statement, because this is in the context of a
6 discussion about a quick history of the coming out of
7 the IRP. When it says "now", that means at the time
8 -- in August, but also at the time of the IRP, is that
9 correct? That before the IRP there were higher prices
10 based on the clean call, and then they got reduced and
11 at the time of the IRP it was 100 and now it is 100 as
12 well?

13 MR. REIMANN: A: So, greenfield IPP resources on an
14 expected basis we don't expect to be required until
15 fiscal 34 and beyond. The price of those greenfield
16 resources, as we know it today, has dropped from the
17 135 to 125, to now 100, in our more recent resource
18 options report. So, it is the current cost of the
19 resource. We don't anticipate it to be required until
20 fiscal 34.

21 MR. ANDREWS: Q: So maybe if I could put -- another way
22 of putting it that isn't addressed here, is that what
23 has changed since the IRP is not the \$100 per megawatt
24 cost, but the year in which Hydro expects to need
25 greenfield IPP generation?

26 MR. REIMANN: A: Okay, let me -- yeah, let me try to do

1 this one more time. If we think about two columns,
2 what is needed between now and fiscal 2033, and what's
3 needed in fiscal 34 and beyond.

4 MR. ANDREWS: Q: Yes.

5 MR. REIMANN: A: Okay, so in the IRP, originally, what
6 was needed in that more near term was 85 to 100, and
7 the longer run was 125. Come forward to today, what's
8 needed in that more near term is 85, the long run has
9 dropped to 100.

10 MR. ANDREWS: Q: All right, so on the next page --

11 COMMISSIONER COTE: I'm right with you.

12 MR. ANDREWS: Q: On page 8, it says at line 3, "the
13 greenfield clean and renewable IPP long range marginal
14 cost", which would be the \$100 per megawatt hour
15 referred to in the previous page, "is still relevant
16 in the case of", and then bullet two is, "longer term
17 stable pricing signals for rates." Is that correct?

18 MR. REIMANN: A: I think that's --

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

20 MR. ANDREWS: Q: So, when this panel is looking at LRMC
21 figures, and applying them to the second tier of
22 conservation rates, it would be the \$100 per megawatt
23 hour greenfield IPP LRMC that they would be looking at
24 in Hydro's evidence?

25 MR. DOYLE: A: So, I think when we're looking at rates,
26 I think what we've said is it's really a range of

1 THE CHAIRPERSON: Beyond 2034.

2 MR. DOYLE: A: Beyond 2034.

3 COMMISSIONER COTE: Thank you.

4 MR. ANDREWS: Q: So, just to perhaps repeat but say it
5 again, to make sure that we're on the same page here,
6 the \$85 per megawatt hour LRMC is not the one that is
7 applicable in comparison with Tier 2 rates, it's the
8 \$100 per megawatt hour LRMC, is that correct?

9 MR. DOYLE: A: No, I think again, you know -- to me
10 there is a range in which the LRMC -- it's 85 in the
11 short term, it's \$100 in the longer term. When we are
12 looking at rates, we are trying to send long term
13 signals, but we also need to recognize that some
14 investments being made are going to be shorter term in
15 nature. Some will be longer term. So, I think the 85
16 to 100 seems to make sense.

17 THE CHAIRPERSON: When you use the term LRMC, the L means
18 long?

19 MR. DOYLE: A: The long run, yeah.

20 THE CHAIRPERSON: So, do you have a general rule of thumb
21 over what range that long is? As it's used generally,
22 by the rest of the world in the term LRMC?

23 MR. REIMANN: A: So, when we think about the short run
24 marginal cost, typically is one where capital doesn't
25 apply, so you don't have time to build new facilities.

26 THE CHAIRPERSON: Right.

1 MR. REIMANN: A: Long run is when you can build new
2 facilities. And so three years sort of is a minimum,
3 three to five years, anything beyond that, capital is
4 at play.

5 THE CHAIRPERSON: Right, so you're saying then, you could
6 pick any range beyond three to five years and it would
7 be long run? Is that correct?

8 MR. DOYLE: A: Yeah, I think that is fair.

9 THE CHAIRPERSON: Sorry, Mr. Andrews.

10 MR. ANDREWS: No, no problem.

11 Q: Let me turn to the next page. Table 3-10,
12 titled "Marginal Energy Resources and Related Costs."
13 This sets out the same information that we've had,
14 that we've talked about earlier, but in table format,
15 where the first row is DSM and EPA renewals, and then
16 there are dollar per megawatt figures on the right-
17 hand column. Do you have that?

18 MR. REIMANN: A: I do.

19 MR. ANDREWS: Q: There, and then it shows greenfield
20 IPPs fiscal 2034 and beyond and LRMC for that. And my
21 question is, does the existence of a table like this
22 summarizing what we've just discussed indicate that
23 there are two different LRMCS?

24 MR. REIMANN: A: I think the short answer is yes,
25 differentiated by time.

26 MR. ANDREWS: Q: Okay. Now, I am going to go back --

1 or turn to the \$85 LRMC. So, if I understand
2 correctly, please confirm if this is right, that the
3 \$85 figure was based on the cost of energy savings
4 from demand-side management? Is that generally
5 correct? And you can make that more precise if you'd
6 like?

7 MR. REIMANN: A: The \$85, so, I think what we've said
8 is it wasn't an easily visible supply curve. It is
9 very difficult to plot out a DSM supply curve, and
10 then chop it off at a certain point. And then
11 similarly with the EPA renewals, we have some
12 estimates of what these are going to look like, but
13 until we finish negotiations and get into signing some
14 of them, we won't really know where we're going to
15 land.

16 And so the approach we took is to say,
17 okay, if I gave you a price signal of \$85 as a
18 marginal price so that you wouldn't try to pursue
19 individual DSM savings above that, you would try not
20 to go above that for IP, EPA, IPP, EPA renewals. At
21 \$85 what sort of volumes would you get? And that's
22 where we then saw those volumes and said, well that's
23 an adequate amount of supply.

24 So, it was rather more of a price signal
25 given to the designers of the programs and to the EPA
26 negotiators to use as a cap within which to estimate

1 \$85 per megawatt hour was used to inform the
2 development of the plan, including by ensuring all DSM
3 initiatives were cost-effective in a total resource
4 cost test against the 5 megawatt hour threshold."

5 That's correct?

6 MR. REIMANN: A: That's correct.

7 MR. ANDREWS: Q: And so, just in terms of that \$85
8 threshold, we can go back to -- where is it? Footnote
9 32. Where is it? Yes, footnote 32 at the bottom of
10 page 8 says that the DSM regulation requires that BC
11 Hydro's long-run marginal cost of acquiring
12 electricity generated from cleaner renewable resources
13 in B.C. should be used in the total resource cost
14 test. And BC Hydro interprets this LRMC in the DSM
15 regulation to be the cost of acquiring greenfield
16 clean or renewable IPP estimates -- or resources,
17 estimated at \$100 per megawatt hour in fiscal 2015
18 dollars. Correct?

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

20 MR. ANDREWS: Q: So the DSM plan calls for DSM
21 resources costing up to \$85 but the cost-effectiveness
22 was evaluated against an avoided cost of \$100.

23 MR. REIMANN: A: So, this starts to get into legal
24 interpretation, so I'll look for our counsel to guide
25 me on this. But as I understand the DSM regulation,
26 that it's to the Commission in terms of its

1 fiscal '17, '18, and '19, and the one for fiscal '17
2 for reference is 11.23 cents. And that is Exhibit B-
3 1, Appendix C-2A, PDF page 45. Now that I -- that
4 can't be the PDF page because it should be four digits
5 at that stage, but it's April 24, 2015 Workshop 3
6 presentation. Appendix C-2A of Exhibit B-1.

7 And then with those two numbers, also this
8 morning in response to Mr. Weafer's question I heard
9 an indication that the LRMC price was -- and I
10 actually couldn't hear the decimal, but what I thought
11 it was is 11.02 cents, but it may have been something
12 other than 02. And that was in comparison to a fiscal
13 '17 residential price, Tier 2 price of 12.43.

14 And so, I'm trying to now invite you to
15 clarify where each of these numbers came from and
16 maybe we could start with the B-23 9.46, where would
17 that have -- what would have been the genesis of that?

18 MR. DOYLE: A: So the B-23 9.49 number, that would
19 relate to the lower end -- so the \$85 in fiscal 2017
20 dollars.

21 MR. ANDREWS: Q: And how did it get up -- so in fiscal
22 '17 dollars, so it's just an inflation above 85?

23 MR. DOYLE: A: It'd be an inflation.

24 MR. ANDREWS: Q: Okay. And then --

25 MR. DOYLE: A: Sorry, that also includes distribution
26 losses.

1 MR. ANDREWS: Q: But no capacity?
2 MR. DOYLE: A: No capacity.
3 MR. ANDREWS: Q: And then the 11.23 in the Workshop 3
4 presentation would be what?
5 MR. DOYLE: A: So let me bring that one up. You said
6 that was C-2, right?
7 MR. ANDREWS: Q: That's correct.
8 MR. DOYLE: A: Sorry, you didn't have a page reference
9 in that one? C-2A. So you said C-2A?
10 MR. ANDREWS: Q: Yes. It's April 24, 2015 Workshop 3
11 presentation. It's a chart with a table of numbers
12 below. And has SQ RIB rate. Based on principle
13 option 1.
14 MR. DOYLE: A: We're getting closer.
15 MR. ANDREWS: Q: It's a bar chart on most of the page
16 with the table at the bottom.
17 MR. DOYLE: A: So I'll take a stab at it. I've seen
18 the picture and I think I can explain. So that was
19 for --
20 MR. ANDREWS: Q: Yeah, it's not the number itself that
21 I'm looking for here, it's an explanation of how it
22 would have been derived.
23 MR. DOYLE: A: And that was in fiscal 2017 or 2018?
24 MR. ANDREWS: Q: Fiscal 2017 the number is 11.23 cents.
25 And for the record fiscal '18 is 11.45, fiscal '19 is
26 11.68.

Proceeding Time 3:22 p.m. T60

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MR. DOYLE: A: So, as I understand that, that represents the upper end of the long run marginal cost. So again we had the \$85, so when we gross that up that was the 9.46 Mr. Andrews was speaking to earlier and the 11.23 was based on the upper end of \$100 grossed up for the distribution losses as well as the inflation.

MR. ANDREWS: Q: Thank you. And then the figure this morning, first of all can you repeat what the correct figure that you gave this morning is?

MR. DOYLE: A: That was 1102.

MR. ANDREWS: Q: Yes I was right. 1102.

MR. DOYLE: A: 1102 for fiscal 2017 dollars.

MR. ANDREWS: Q: And that is based on?

MR. DOYLE: A: And subject to check my understanding was the difference between that and the 1123 I just mentioned is I think some like inflation assumptions in there, but I can take that away and check that.

Information Request

MR. ANDREWS: Q: Can you also provide an equivalent figure if the LRMC was grossed up to account for capacity benefits?

MR. DOYLE: A: So for the generation capacity?

MR. ANDREWS: Q: Yes. So the 1102 that you were referring to.

1 MR. DOYLE: A: So for the -- so let's say for the
2 residential we would gross that up by \$11 a megawatt
3 or 1.1 cents, so we'd be 12.12

4 MR. ANDREWS: Q: And what I'd like is you -- well let
5 me just then, before I ask for the undertaking itself,
6 is would that number, with or without the gross up,
7 which might be the subject or discussion or argument,
8 but whichever versions of those numbers, is that the
9 appropriate number for the Commission to compare
10 against a residential Tier 2 rate?

11 MR. DOYLE: A: Yeah, so as I spoke to earlier, the RIB
12 rate is an energy conservation rate. It's intended to
13 send a signal for energy conservation. So the long
14 run marginal cost that's typically been used has been
15 the energy long-run marginal cost. However, when a
16 customer does react to that signal there's clearly
17 some other savings such as savings related to
18 distribution infrastructure, savings related to
19 generation capacity or transmission capacity. So all
20 of those savings do occur.

21 In the past it's been used as an energy
22 LRMC as the signal, so not to distort it. But that
23 being said we clearly do get some capacity benefits.
24 We think that the energy LRMC is the appropriate
25 signal, but fully acknowledge that there's other
26 savings that occur when customers react to that

1 saving.

2 MR. ANDREWS: Q: Thank you. Next topic, is BC Hydro
3 asking the Commission in this proceeding to approve an
4 LRMC in terms of a number of in terms of a methodology
5 of arriving at it?

6 MR. DOYLE: A: No, we haven't sought any approval of an
7 LRMC, per se.

8 MR. ANDREWS: Q: You haven't sought it?

9 MR. DOYLE: A: We have not sought any approvals of the
10 long run marginal cost or it's determination.

11 MR. ANDREWS: Q: Thank you. Those are my questions,
12 thank you.

13 THE CHAIRPERSON: Thank you, Mr. Weafer [*sic*]. Thank
14 you.

15 I have one follow up question, please.
16 Looking for example at table 3-10 in Exhibit B-37 on
17 the last page -- well. second last page, page 10 of
18 11. These are the LRMC numbers. The 85 and the \$100.
19 Have these been approved as part of your most recently
20 approved -- or were these numbers included in your
21 most recently approved IRP? Which I think is a test
22 for the LRMC to be an approved value. Is that
23 correct?

24 MR. REIMANN: A: Yeah that's a good question. And
25 again maybe this gets into legal interpretation, but
26 we did have -- the government did approve the 2013

1 IRP.

2 THE CHAIRPERSON: Right.

3 MR. REIMANN: A: Which did have the 85 to 100 in there.
4 But I think kind of the way we've been looking at it
5 is that it's the actions that follow from the load
6 resource balance and the need that's there is what the
7 government would typically approve in integrated
8 resource plan. Look at like load forecast, load
9 resource balances and long run marginal cost is
10 actually being a factual determination. It's not
11 something you approve, but it's something you estimate
12 to the best of you ability.

13 THE CHAIRPERSON: Okay.

14 MR. REIMANN: A: So have the new one been approved by
15 the government? No, it has modified from what the IRP
16 was, but we don't generally think of the government as
17 needing to approve an updated LRB or LRMC.

18 **Proceeding Time 3:27 p.m. T61**

19 THE CHAIRPERSON: Okay, thank you.

20 Thank you, Mr. Weafer. Sorry, Mr. Andrews.
21 My apologies.

22 Ms. Dong.

23 **CROSS-EXAMINATION BY MS. DONG:**

24 MS. DONG: Q: Good afternoon, panel. Referring to
25 Exhibit C-36.3, Zone II IR 1-5, attachment 1. From
26 PDF page 15 of 24.

1 MR. DOYLE: A: Could you repeat that again?

2 MS. DONG: Q: Exhibit C-36.3.

3 MR. DOYLE: A: Yes.

4 MS. DONG: Q: Zone II, IR 1-5. It's the attachment 1.
5 And I have it as the PDF page 15 of 24, for those
6 following along.

7 MR. DOYLE: A: Is it one of these slides?

8 MS. DONG: Q: Yes. The one headed "BC Hydro and
9 Kwadacha".

10 MR. DOYLE: A: Oh, yes. With the timeline?

11 MS. DONG: Q: Yes. Got it? Okay.

12 Would you agree that Kwadacha Nation's
13 history with BC Hydro includes the following:
14 flooding of Kwadacha Nation's territory, now relocated
15 to Fort Ware, when BC Hydro's W.A.C. Bennett Dam was
16 built in the 1960s. 2008 settlement agreement between
17 BC Hydro and Kwadacha Nation as a result of this
18 flooding. And the people of Kwadacha Nation located
19 to Fort Ware, becoming BC Hydro customers under the
20 Remote Community Electrification Program in 2013.

21 MR. DOYLE: A: So I think the -- I don't have specific
22 knowledge of the chronological events. I think the --
23 other than what's on the timeline and the IR, or the
24 exhibit you're referring to.

25 MS. DONG: Yes. We have an exhibit here. Okay.

26 Okay, we're handing out our exhibits as one

1 document, but we will -- they should be -- what
2 exhibit number is next?

3 Okay. So, we will -- yes. We will submit
4 that those and package of documents as Exhibit C36-17.
5 And I'll be --

6 THE HEARING OFFICER: Marked C36-17.

7 **(PACKAGE OF DOCUMENTS, FIRST PAGE WEBPAGE WITH HEADING**
8 **"KWADACHA GLACIER, BRITISH COLUMBIA (CANADA)" MARKED**
9 **EXHIBIT C36-17)**

10 MS. DONG: Right. And I'll be referring to each of those
11 exhibits separately.

12 So on the page 1 of that, Exhibit C36-17 --

13 MR. CHRISTIAN: If I could just make a comment.

14 MS. DONG: Oh, okay.

15 MR. CHRISTIAN: BC Hydro is not objecting to this bundle
16 of documents being given an exhibit number, but in the
17 normal course the witness would be asked to identify
18 the documents, and it becomes a document for the
19 purposes of the record when it's been identified and
20 clearly established as something that is recognizable
21 by the witness.

22 So, I guess we don't have an objection to
23 the documents -- the bundle of documents going in with
24 an exhibit number, but I would just ask that the
25 witnesses have an opportunity to -- an opportunity to
26 kind of recognize and confirm that the documents are

1 MS. DONG: Q: Would you agree that Kwadacha Nation,
2 located in Fort Ware, has some significant and perhaps
3 even relatively unique circumstances? Those include
4 remote and northern First Nation community, lack of
5 commercial establishments including home supplies,
6 banks, grocery stores? Low-income levels, poor
7 communications infrastructure, cold weather? Poor
8 home construction, high electricity bills, and it is
9 not connected to the BC Hydro Integrated Electricity
10 Grid?

11 MR. DOYLE: A: Sorry.

12 MR. ANDERSON: A: So, I have a bit of knowledge about
13 the Kwadacha First Nation from my time in First
14 Nations consultation group within BC Hydro, but I
15 can't say I have specific knowledge about the range of
16 circumstances you lifted there. I appreciate now
17 looking at the table there is months where it is quite
18 cold. I also appreciate that it's fairly I guess
19 rural or remote as you've indicated, and that there
20 are certain hardships that that First Nations
21 community has. But I don't have specific knowledge of
22 the other elements.

23 MS. DONG: Q: Sure, thank you for your comments on
24 that. Would you agree that DSM is an important
25 measure to reduce electricity bills and improve
26 electricity affordability for Kwadacha Nation and Fort

1 of those health or safety issues, obviously, would be
2 the vermiculite.

3 MS. DONG: Q: Yes, thank you.

4 MR. DOYLE: A: That is part of the eligibility
5 criteria.

6 MS. DONG: Q: Thank you. So if you refer to the
7 Exhibit C36-17 that was handed out, and starting on
8 page 2, entitled "Savings based on income," followed
9 by free energy-saving kits and free product install,
10 and non-profit and aboriginal housing upgrades. Those
11 are websites -- copies of websites taken from BC
12 Hydro's website.

13 MR. ANDERSON: A: Yes, that appears to be correct.

14 MS. DONG: Q: Okay. So, referring to the savings based
15 on income, which is page 1 of that -- of Exhibit 36-
16 17, what is the basis for the income qualification
17 table in order to meet the income requirements for
18 free energy savings products and professional advice
19 to improve home energy efficiency and save on
20 electricity bills?

21 MR. DOYLE: A: So the table on the website is --
22 represents the low-income cut-off times 1.3, or low-
23 income cut-off grossed up 30 percent, which is
24 consistent with the DSM regulation for applicability
25 to low-income programs. Those numbers are obviously
26 rounded.

1 MS. DONG: Q: Can you explain what you mean by "low-
2 income cut-off"?

3 MR. DOYLE: A: So, my understanding is, there's -- I
4 guess Statistics Canada developed a low-income cut-off
5 point and that's based on household size. I believe
6 there is other properties, geographic region, what-
7 have-you, that is considered. And different low-
8 income cut-offs based on those factors. So as you see
9 obviously for the low-income cut-off for a one-person
10 household is 32,000, and as that increases the low-
11 income cut-off increases.

12 MS. DONG: Q: Thank you. When you talk to it as a low-
13 income cut-off, I think that's also referred to
14 sometimes as LICO, from what I understand.

15 MR. DOYLE: A: That's the acronym.

16 MS. DONG: Q: So, is that appropriate measure given
17 that food costs are more expensive in remote
18 communities, such as Fort Ware, and where the closest
19 town is, like, 400 kilometers away, and eight to ten
20 hours' drive? By logging road?

21 MR. DOYLE: A: I mean, it would be -- it's used for the
22 low-income DSM programs as prescribed by -- by my
23 understanding, the legislation. So as such it would
24 be appropriate from that regard, I think -- and I'm
25 not aware of the actual costs.

26 **Proceeding Time 3:42 p.m. T64**

1 MS. DONG: Q: So, referring to the next exhibit
2 entitled "Free energy savings kit" in the handout?
3 Which is entitled -- oh, sorry, and the subsequent
4 one, "Free product install advice" and the following
5 one, "Non-profit and aboriginal housing upgrades."
6 They are all in that exhibit that was handed out. Do
7 these programs comprise all of BC Hydro's low-income
8 program offerings?

9 MR. DOYLE: A: So, my understanding is that's correct.

10 MS. DONG: Q: Thank you. Do you know if there are any
11 other programs under consideration in the low-income
12 groups?

13 MR. DOYLE: A: I do not.

14 MS. DONG: Q: So, if I am referring to the non-profit
15 and aboriginal housing upgrades page, how do those
16 program offerings differ from ECAP, or are they the
17 same?

18 MR. DOYLE: A: So, yeah, this question is probably
19 better taken to Panel 2, and we could answer some of
20 those questions there.

21 MS. DONG: Q: Panel 2? Okay. Okay, so I will present
22 that to Panel 2 then, thank you.

23 So, BC Hydro's response to Exhibit B-23,
24 Zone II IR 2.26.5, and that is PDF page 951 of 951.
25 It states that,

26 "No ECAP applications were received by First

1 Nations households in either Zone 1B or Zone
2 2, in Fiscal 2015,"

3 And BC Hydro's response to Exhibit 5, Zone II IR
4 1.5.3, states that,

5 "BC Hydro provides capacity funding to
6 aboriginal units to assist them in hiring
7 someone locally to help promote the ESK and
8 ECAP programs."

9 What does BC Hydro mean as an "aboriginal unit"? Can
10 you explain what that means?

11 MR. ANDERSON: A: Where are you referring to?

12 MS. DONG: Q: I am referring to BC Hydro's response in
13 Exhibit B-5, Zone II IR 1.5.3.

14 **Proceeding Time 3:47 p.m. T65**

15 MR. DOYLE: A: So I'm not sure exactly what we meant by
16 units, but what I would gather from that would be
17 we're talking about aboriginal communities.

18 MS. DONG: Q: Okay. Can you please confirm that as an
19 undertaking? Thank you.

20 **Information Request**

21 MS. DONG: Q: So referring back to my earlier part of
22 that question, is BC Hydro aware of any reasons why
23 there are no ECAP applications by First Nations
24 households in either Zone 1B or Zone 2 in fiscal 2015?

25 MR. DOYLE: A: Sorry, with respect to -- so 111 First
26 Nation households participated in the ECAP basic

1 offering in 2015, and no First Nations participated in
2 ECAP advanced offering. So we did have participation
3 in the basic offering.

4 MS. DONG: Q: The basic, but yes.

5 MR. DOYLE: A: I'm not aware of why there was no
6 participation in the ECAP for advanced offering.

7 MS. DONG: Q: Okay. So what can be done and what is BC
8 Hydro doing to improve the ECAP application rate in
9 Zone IB and Zone II?

10 MR. ANDERSON: A: We don't know specifically, but we
11 can find out if there are any plans in place to expand
12 and increase what ECAP potential would be for First
13 Nations.

14 **Information Request**

15 MS. DONG: Q: Okay, so it's an undertaking then. Thank
16 you.

17 Okay, on to the next question. What is BC
18 Hydro doing to facilitate program implementation and
19 installation of these programs?

20 MR. DOYLE: A: Sorry, can you repeat the question?

21 MS. DONG: Q: What is BC Hydro doing to facilitate
22 program implementation and installation?

23 MR. DOYLE: A: So with respect to First Nations in
24 particular?

25 MS. DONG: Q: Yes.

26 MR. DOYLE: A: So I'll refer back to the IR you brought

1 us to earlier, BC Hydro's response to Zone II
2 Ratepayer's Group Information Request 1.5.3. BC Hydro
3 -- sorry. Exhibit B-5.

4 So there we say BC Hydro provides capacity
5 funding to aboriginal units to assist them to hire
6 someone locally to help promote the SK and ECAP
7 programs, collects forms from tenants and/or members
8 of the community in behalf of the two programs. So I
9 think that's where we're helping with the
10 implementation. I'm not sure with respect to the
11 installation there.

12 MS. DONG: Q: Okay. Does BC Hydro also provide
13 training for these energy champions in the community?
14 And support?

15 MR. DOYLE: A: Subject to check, yes, for the community
16 support we do.

17 MS. DONG: Q: Do you have the information on the budget
18 for ECAP in each of the last two years? And to
19 clarify, just for basic and advanced ECAP.

20 **Proceeding Time 3:51 p.m. T66**

21 MR. DOYLE: A: Just going to check if it's -- if we did
22 answer a question around that. So I don't have that
23 offhand but I can --

24 MS. DONG: Q: Okay, do you want to do that as an
25 undertaking for us then?

26 MR. DOYLE: A: Yeah, I believe it's on the record

1 MS. DONG: Q: Okay. Okay, onto another one. BC Hydro
2 response to Exhibit B-14, BCAOPO IR 1.109.1 and that's
3 PDF page 214 of 229. That indicates that Carillion is
4 the only energy contractor for the ECAP program.

5 So just to clarify does Carillion Canada
6 provide ECAP across all zones? 1, 1B and 2?

7 MR. DOYLE: A: I'm not sure whether it's specifically
8 outlined in their contract or not.

9 MS. DONG: Q: Okay could you please follow that one up
10 too.

11 MR. DOYLE: A: We can.

12 **Information Request**

13 MS. DONG: Q: The next question I had is can you
14 describe how the ECAP process works from application
15 to installation? And if this is the same for Zone 1,
16 1B and 2?

17 MR. DOYLE: A: I can't provide that level of detail,
18 I'm sorry.

19 MS. DONG: Q: Okay can you follow up on that one too?

20 MR. DOYLE: A: I can.

21 **Information Request**

22 MS. DONG: Q: Thank you. Okay, and following on that
23 another one we were trying to get some clarification
24 on, does Carillion do any economic assessment of the
25 cost of installing ECAP versus the savings realized?
26 And if so can you describe that assessment?

1 MR. DOYLE: A: Sorry you're asking whether Carillion
2 does an assessment?

3 MS. DONG: Q: An economic assessment of the cost of
4 installing ECAP versus the energy savings realized

5 **Proceeding Time 3:56 p.m. T67**

6 MR. DOYLE: A: So, I can look at what is done with
7 respect to valuation. I believe that typically BC
8 Hydro does the evaluation rather than the third party.

9 MS. DONG: Q: Okay. And it's -- if you check into
10 that, maybe it would help if we could get some kind of
11 example of how that looks like.

12 MR. CHRISTIAN: I guess I'd just like to invite the
13 witnesses to comment on the degree of effort they
14 think might be involved in the last undertaking
15 request, at least. We haven't really had much in the
16 way of concerns expressed, but just from my
17 understanding of what might be involved in the last
18 question, there may be a bit more work involved than
19 the previous undertakings that Hydro has agreed to do.

20 THE CHAIRPERSON: Perhaps you -- and just for my
21 clarification, I wonder if you could explain exactly
22 what the question is. Is this -- are you asking about
23 the evaluation of individual homes? Or are you asking
24 about the evaluation of the entire program?

25 MS. DONG: No, just evaluation of how they do a DSM
26 program in one specific home. Like, how does that

1 application -- how do they evaluate that? Not in
2 terms of -- just in general terms.

3 MR. DOYLE: A: So, I think we understood it to check if
4 we had readily available information --

5 MS. DONG: Q: Sure.

6 MR. DOYLE: A: -- around the evaluation, we could
7 provide that.

8 MS. DONG: Q: Okay. Just an example would help.

9 THE CHAIRPERSON: Okay, that's fine, thank you.

10 MS. DONG: Q: This is kind of a follow-on onto some of
11 the other questions that we were asking about the
12 assessment. We wanted to know if the cost of travel
13 and time were factored into the feasibility of DSM
14 programs in remote communities such as Fort Ware. So
15 that -- and then I'll just ask these other ones, then.
16 What effect would that have on whether or not to
17 proceed with the DSM program? And do you agree that
18 including travel costs puts the community at a
19 disadvantage in implementing DSM?

20 So those were kind of follow-on questions
21 from that original concept.

22 MR. DOYLE: A: I guess generally -- I think we can take
23 away and see what the evaluation covers --

24 MS. DONG: Q: Sure.

25 MR. DOYLE: A: -- and bring that back.

26

Information Request

1 MS. DONG: Q: Great. So if you -- if the cost of
2 travel and time were factored into the feasibility of
3 the DSM program, is one solution to exclude these
4 costs from the analysis in order to be able to
5 implement the DSM? So that it would -- the assessment
6 would go forward.

7 So, okay. And so by doing so, does this
8 not put these communities at a disadvantage in
9 implementing DSM?

10 MR. DOYLE: A: Maybe I'll make a general comment. I
11 think when we look at our DSM programs, they're done
12 at a portfolio level rather than at the individual
13 customer level. The eligibility criteria that we
14 listed out earlier doesn't include any of those travel
15 times, or anything such as that. So the eligibility
16 criteria included the -- you know, safety, the level
17 of insulation, those types of issues. And that's, I
18 believe, what those programs are when determining the
19 eligibility of a customer are taking into account. I
20 will confirm if there's other eligibility, which I
21 think is what you're getting at.

22 MS. DONG: Q: I think what we were more getting at, is
23 more with respect to the economic assessment of DSM
24 programs.

25 MR. DOYLE: A: Are you getting at an economic
26 assessment of the individual house or the program?

1 and we don't know but we'll find out.

2 MS. DONG: Q: Great, thank you.

3 MR. ANDERSON: A: Yeah.

4 MS. DONG: Q: Okay. So let's move on to something
5 else. In BC Hydro's response to Exhibit B-23, Zone II
6 IR 2.26.3, which is PDF page 949 of 591.

7 MR. ANDERSON: A: Sorry, the response, again, we're
8 working on it.

9 MS. DONG: Q: Exhibit B-23, Zone II IR 2.26.3. I think
10 it's at the back. Or at the very back being a Z. So
11 of the 26 housing types in First Nations household,
12 potentially eligible for ECAP advanced offerings in
13 fiscal 2016, one received the upgrade, but 26 homes
14 did not receive additional upgrades as they did not
15 meet the program criteria for their measures.

16 Can you explain what you mean by "housing
17 types"?

18 MR. ANDERSON: A: So I think it's in the first
19 paragraph is what we're referring to housing types.
20 Wherein housing types that would have been potentially
21 eligible for ECAP advanced offering from BC Hydro,
22 i.e. electrically heated in a single-family town home
23 or duplex.

24 MS. DONG: Q: Thank you. Given the high percentage of
25 First Nations homes that did not meet the eligibility
26 criteria and were denied advance ECAP offerings, what

1 not eligible? It sounds like it was sort of a
2 checklist of what it might have been.

3 THE CHAIRPERSON: Also these were for advanced. These
4 are the advanced criteria, but the question is explain
5 reasons why no First Nations participated in advanced
6 offerings. But the middle paragraph says, of the 26
7 one did receive upgrades. So presumably the other 25
8 participated but didn't received them.

9 So is that for the advanced also or is that
10 for the basic?

11 MR. DOYLE: A: So of the one that received it would
12 have been for the advanced, and that was F2016 rather
13 than the 2015 in the preamble.

14 THE CHAIRPERSON: It says, "No First Nations participated
15 in the advanced offerings", that's what the question
16 says. So if they didn't participate then, why did one
17 receive it?

18 MR. DOYLE: A: So I think that, if I could, when we
19 look at this, if we look up to the preamble we were
20 doing in F2015, no First Nations participated. I
21 believe what we're saying in the middle paragraph
22 there is of the 26 one did receive upgrades in 2016.
23 So while their application may have come in in 2015 it
24 actually did -- eventually did receive -- it did
25 received the upgrades during fiscal 2016.

26 THE CHAIRPERSON: But it also says that 111 households

1 participated in the basic offering, and then the
2 response says, of the 111 participated, presumably in
3 the basic offering, only 26 would have been
4 potentially eligible. Then it goes on to say of the
5 26 one did receive upgrades.

6 So it seems to me that entire line of
7 answer is about the basic offering and nobody actually
8 participated in the advanced offering.

9 MR. DOYLE: A: So I can take that away to check and get
10 some clarification. My understanding is one did but I
11 see the confusion there.

12 **Information Request**

13 THE CHAIRPERSON: Sure, okay. Sorry to interrupt.

14 MS. DONG: No.

15 COMMISSIONER COTE: The question originally was, what
16 are the reasons, and specific reasons for those 25
17 homes if indeed that was the case.

18 MR. DOYLE: A: Right, and this is criteria as opposed
19 to necessarily the specific reason in this case.

20 THE CHAIRPERSON: The question is why none participated
21 in the advanced offering, but it seems that much of
22 the answer dealt with the basic offering.

23 MS. DONG: Q: Would you agree that there are quite a
24 few restrictions placed on First Nation communities to
25 implement DSM, and what can we do to increase that
26 participation level to -- with respect to those

1 elements of what our service offerings are to
2 customers. In this case if it's DSM and we can
3 improve uptake in some way through greater dialog with
4 other groups and that benefits our customers and I
5 think that's something that's great.

6 MS. DONG: Q: Thank you. Just turning to another
7 exhibit, B-5. BC Hydro's response to BCOAPO IR
8 1.135.6. For those following along on the computer,
9 it's PDF page 1041 of 2139. So that's Exhibit B-5
10 BCOAPO IR 1.135.6.

11 Okay. It's in that Exhibit B-5 it's BCOAPO
12 IR 1.135.6. Do you have that? Okay. In that
13 response BC Hydro stated that discussions are underway
14 with INAC and other organizations to look for ways to
15 coordinate funding. Can BC Hydro describe this
16 working group in terms of the membership of the
17 committee, its initiatives, objectives and any
18 resulting or planned actions?

19 MR. DOYLE: A: I don't have any knowledge of what the
20 working group is comprised of. Just that we're
21 looking at ways to coordinate funding.

22 MS. DONG: Q: Okay, so is BC Hydro aware of the level
23 of funding from other organizations to remedy home
24 deficiencies in First Nations communities?

25 MR. ANDERSON: A: No, I'm not specifically aware of
26 that.

1 MS. DONG: Q: Is BC Hydro aware that INAC is providing
2 \$159,100 out of the required \$304,555 towards
3 upgrading 10 homes in the Fort Ware Community?

4 MR. DOYLE: A: I'm not aware of it, no.

5 MS. DONG: Q: Are you aware of the level of investment
6 by BC Hydro in First Nations communities in order to
7 deal with home deficiencies in order to allow DSM to
8 be implemented?

9 **Proceeding Time 4:15 p.m. T71**

10 MR. ANDERSON: A: My turn. No, I am not specifically
11 aware of that either.

12 MS. DONG: Q: And do you know if BC Hydro provides any
13 grants towards remediation costs to facilitate home
14 improvements?

15 MR. ANDERSON: A: Again, same answer. No, I am not
16 unfortunately aware of that.

17 MS. DONG: Q: Because would this not result in improved
18 energy efficiencies in these homes?

19 MR. DOYLE: A: Sorry, you're referring to if we could
20 overcome some of those barriers around the
21 vermiculite?

22 MS. DONG: Q: Correct.

23 MR. DOYLE: A: So, I am not aware of any. My
24 understanding is that, as you referenced, there is
25 some funding available from another source that is
26 looking at doing those upgrades, and that actually

1 could increase the eligibility of those homes for the
2 ECAP program, because it would remove some of the
3 barriers that they face right now.

4 MS. DONG: Q: Correct. So, when we were talking about
5 coordinating of funding, can you explain what BC Hydro
6 means that they are looking for ways to coordinate
7 funding?

8 MR. DOYLE: A: So, I guess beyond the example that I
9 just provided, I think where there is a -- if you go
10 to a community and there is, you know, sort of
11 systemic challenges with respect to meeting the
12 eligibility criteria because the homes were all built
13 in a certain fashion and don't meet the criteria,
14 potentially I think one of the things we're looking at
15 is coordinating around the timing of that other
16 funding that Ms. Dong referenced, being done -- or
17 those upgrades being done to the home, which then
18 would allow for BC Hydro to come and do some of those
19 ECAP upgrades because some of those barriers would be
20 removed and would now meet the eligibility criteria.

21 MS. DONG: Q: Sounds good. Okay, so in your
22 application, Exhibit B-1, on page 5-75, I guess that
23 is Chapter 5, page 75. Okay, on that page, BC Hydro
24 states that

25 "Energy Saving Kits, or ESKs can help
26 residents save up to \$100 per year on

1 utility bills, while a low-income customer
2 receiving basic measures and a fridge could
3 save up to \$150 a year, and a low-income
4 customer receiving insulation upgrades up to
5 \$300 a year, which is approximately 25
6 percent of the annual bill for a typical
7 electrically heated single family home for a
8 low-income customer in BC Hydro's service
9 area."

10 So, my question is, how do these individual savings
11 compare to BC Hydro's diesel generation savings in
12 remote communities?

13 MR. DOYLE: A: So, I don't have the specifics of what
14 they are, but I guess at a high level, given the
15 higher cost of diesel generation, any energy savings
16 would have greater value obviously in the non-
17 integrated area where there is diesel generation than
18 it would in the integrated area with the integrated
19 resources.

20 MS. DONG: Q: Thank you. So, if we go back to the
21 exhibit that we had, Exhibit C-36.3, the Zone II IR 1-
22 5, and it was our attachment 1. And it was in that
23 attachment, it was the one titled "Project timeline,
24 2010 to 2013"?

25 MR. ANDERSON: A: Okay.

26

Proceeding Time 4:20 p.m. T72

1 MS. DONG: Q: Okay. That attachment described the
2 Kwadacha Energy Efficiency Upgrade Pilot Project that
3 occurred between 2010 and 2013, which included two
4 phases. Phase 1 was an energy assessment of all homes
5 in Kwadacha Nation, along with the installation of
6 basic energy efficiency measures. And then Phase 2 of
7 that project where 11 pilot homes were selected and
8 deep energy retrofits were installed in these homes.
9 Did BC Hydro provide funding for this project?
10 MR. DOYLE: A: I'm not sure.
11 MS. DONG: Q: So further down in that attachment, it
12 was the second to last page of that attachment and it
13 says "Preliminary Phase 2 Results." Okay. So given
14 that Preliminary Phase 2 Results forecast total
15 savings from DSM intervention at just over 137,000
16 kilowatt hours per year, or 32.1 percent, why did BC
17 Hydro not continue with DSM intervention with the
18 remaining homes identified in Phase 1?
19 MR. DOYLE: A: I don't have any specific knowledge of
20 the program.
21 MS. DONG: Q: And are you aware of any measures BC
22 Hydro is undertaking to continue this successful
23 program?
24 MR. DOYLE: A: No.
25 MS. DONG: Q: Or in other remote communities?
26 MR. DOYLE: A: No, I'm not.

1 MS. DONG: Q: Okay. Turning to Exhibit B-5, BCOAPO IR
2 1.135.5.1.

3 THE CHAIRPERSON: Could you please repeat the number of
4 the IR?

5 MR. DOYLE: A: 1.135.5.1.

6 THE CHAIRPERSON: Thank you. 1.135.

7 MS. DONG: Okay. Mr. Chair, we were wondering, given
8 that we only have five minutes left, whether this is a
9 good time for us to break and then continue tomorrow.

10 THE CHAIRPERSON: If it's a good time for you, it's a
11 good time for the Panel.

12 MS. DONG: Yes. I think because it's a new subject here.

13 THE CHAIRPERSON: Fair enough.

14 MS. DONG: Okay, thank you.

15 THE CHAIRPERSON: Okay. Thank you. And before we do
16 break, just a question for Mr. Christian and possibly
17 the panel. I've got a list of 13 undertakings, but I
18 may have missed one or two, I don't know. But I just
19 wondered if you could give us some indication of when
20 we could expect those, please.

21 MR. CHRISTIAN: I certainly can't speak to that now, Mr.
22 Chairman, but I will endeavour to speak to it first
23 thing in the morning.

24 THE CHAIRPERSON: Great.

25 MR. CHRISTIAN: In terms of the number, what we have
26 outstanding and what we expect the timeline to be.

1 THE CHAIRPERSON: Okay. I appreciate that, thank you.

2 Okay, so Mr. Andrews, do you have a
3 question?

4 MR. ANDREWS: I have a corrected reference to the
5 document that I was referring to in my cross-
6 examination of Panel 1. For the record it is Exhibit
7 B-1, Appendix C-3B, PDF page 1840.

8 THE CHAIRPERSON: Thank you, Mr. Andrews. Did you get
9 that? Okay. It'll be on the transcript anyway.

10 So we'll be back here in the morning at 9
11 o'clock and thank you very much everyone.

12 **(PROCEEDINGS ADJOURNED AT 4:24 P.M.)**

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