

**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.**  
**January 25<sup>th</sup>, 2016**

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**STREAMLINED REVIEW PROCESS**

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**BEFORE:**

<b>D. Morton,</b>	<b>Panel Chair / Commissioner</b>
<b>K. Keilty,</b>	<b>Commissioner</b>
<b>D. Cote,</b>	<b>Commissioner</b>

**VOLUME 2**

## APPEARANCES

I. WEBB	Counsel for British Columbia Hydro and Power Authority (BCH)
T. LOSKI K. ANDERSON G. DOYLE J. MIEDEMA R. REIMAN	Staff - British Columbia Hydro and Power Authority (BCH)
C. DELMONTE	Catalyst Paper and Association of Major Power Customers of British Columbia
M. KEEN	Counsel for Association of Major Power Customers (AMPC)
V. PAIVINEN C. MULLER T. MILLER	AMPC
J. BUCHANAN	British Columbia Ministry of Energy and Mines (MEM)
D. PERTTULA	FortisBC Energy Inc.
F. WEISBERG	Counsel for Non-Integrated Areas Ratepayers Group (NIARG)
C. WEAVER	Counsel for Commercial Energy Consumers' Association of British Columbia (CEC)
D. CRAIG	CEC
B. EDWARDS	Dewdney Area Improvement District (DAID)
D. AUSTIN	Counsel for Clean Energy Association of BC(CEABC)
P. KARIYA	(CEBC)
W.J. ANDREWS	Counsel for B.C. Sustainable Energy Association and Sierra Club of British Columbia (BCSEA-SCBC)
T. HACKNEY	BCSEA-SCBC
L. WORTH	Counsel for Movement Of United Professionals (MoveUP)
P. MILLER L. BUSSOLI	Commission Counsel
C. GARAND	Commission Staff
S. KHAN	Counsel for British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, B.C. Poverty Reduction Coalition, Council of Senior Citizens' Organizations of BC, Disability Alliance BC, Together Against Poverty Society and The Tenant Resource and Advisory Centre (BCOAPO)



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**CAARS**

**VANCOUVER, B.C.**

**January 25<sup>th</sup>, 2016**

**(PROCEEDINGS RESUMED AT 1:02 P.M.)**

THE HEARING OFFICER: Order.

**RANDY REIMAN, Affirmed:**

**GORDON DOYLE, Affirmed:**

**JUSTIN MIEDEMA, Affirmed:**

**K. ANDERSON, Affirmed:**

THE CHAIRPERSON: Good afternoon, and welcome, all, to the streamlined review of that portion of BC Hydro's rate design application concerning the proposed freshet pilot program. My name is Dave Morton and I am the Panel Chair. My co-Panel members are Karen Keilty, on my right, and Dennis Cote, on my left.

In a few moments I'll go around the table and ask you all to introduce yourselves.

The streamlined review process is intended to review, in a relatively informal manner, applications that appear to lend themselves to an expedited review, while still providing procedural fairness, public participation and transparency. While the process isn't as formal as an oral hearing, it will be transcribed.

As you are all aware, BC Hydro has responded to a single round of IRs on, among other

1 issues in the proceeding, its proposed freshet pilot  
2 program. And today is the opportunity for  
3 interveners, Commission Staff, and Commissioners to  
4 ask any further questions that have arisen from these  
5 responses.

6 Commission letter dated January the 20<sup>th</sup>,  
7 Exhibit A-13, laid out an agenda that contemplated BC  
8 Hydro providing a short presentation on the project,  
9 followed by a question-and-answer session. During the  
10 question-and-answer session, when asking or answering  
11 a question, please start by stating and spelling your  
12 name, so that the transcribers can accurately  
13 attribute your comments.

14 Following the question period, we'll take a  
15 break -- and we may even take a break before that,  
16 depending on how long the presentation is. And in any  
17 event, we'll take a break following the last Q&A  
18 period to allow the parties time to prepare their  
19 final submissions.

20 We're going to start now, but we'll start  
21 by -- at the end of the table. We'll go around the  
22 table and ask you to please introduce yourself, state  
23 who you are and who you're representing.

24 And when we've finished introductions, I'd  
25 like to go around the table again and invite each  
26 intervener to give a brief statement outlining their

1 interest in the proceeding, and highlighting any  
2 particular issue they would like to see BC Hydro  
3 address in their presentation.

4 So please, Mr. Loski, if you could start.

5 **Proceeding Time 1:04 p.m. T02**

6 MR. LOSKI: Good afternoon. Tom Loski, with BC Hydro.

7 MR. WEBB: I'm Ian Webb, counsel to BC Hydro.

8 MR. ANDERSON: Keith Anderson. I'm the vice-president of  
9 customer service and distribution design for BC Hydro.

10 MR. DOYLE: Gordon Doyle. I'm the manager of tariffs at  
11 BC Hydro.

12 MR. MIEDEMA: Justin Miedema, regulatory specialist.

13 MR. REIMAN: Randy Reiman, director of resource energy  
14 planning.

15 MR. DELMONTE: Carl Delmonte, Catalyst Paper, and I'm  
16 also the chairman of the Association of Major Power  
17 Customers of British Columbia.

18 MR. KEEN: Matthew Keen, counsel to AMPC. With us as  
19 well is Veikko Paivinen, who's the financial manager,  
20 energy and carbon, of West Fraser Mills Limited; Cindy  
21 Muller, the corporate energy director of paper  
22 excellence; and Tom Miller, plant manager, North  
23 Vancouver, Erco Worldwide.

24 MR. BUCHANAN: I'm Jack Buchanan, with the Ministry of  
25 Energy and Mines.

26 MR. PERTTULA: David Perttula, FortisBC Energy Inc.

1 MR. WEISBERG: I'm Fred Weisberg, counsel to the Non-  
2 integrated areas ratepayers' group.

3 MR. WEAFFER: Chris Weaffer, counsel to the Commercial  
4 Energy Consumers' Association.

5 MR. CRAIG: I'm David Craig, executive director of  
6 Commercial Energy Consumers' Association of B.C.

7 MR. EDWARDS: Bruce Edwards, Dewdney Area Improvement  
8 District Flood Pumping Authority.

9 MR. KARIYA: Paul Kariya, Clean Energy Association of  
10 B.C., and I'll be joined by counsel for CEABC, David  
11 Austin, shortly.

12 MR. ANDREWS: Bill Andrews. I'm counsel for the B.C.  
13 Sustainable Energy Association, and Sierra Club B.C.

14 MR. HACKNEY: Thomas Hackney. I'm the case manager for  
15 the B.C. Sustainable Energy Association and the Sierra  
16 Club of B.C.

17 MS. WORTH: Leigha Worth. I'm here as counsel for MOVE-  
18 UP, formerly COPE 378, in this matter. The union that  
19 represents BC Hydro's inside workers.

20 MR. BUSSOLI: Lino Bussoli, Boughton Law Corporation,  
21 counsel to the Commission.

22 MR. MILLER: Paul Miller, Boughton Law Corporation,  
23 Commission counsel.

24 MR. GARAND: Chris Garand, Commission staff.

25 THE CHAIRPERSON: And you've been introduced to the three  
26 of us already.



1 opportunities for industrial customers. We think that  
2 the risks that we're identifying in the rate design  
3 have been identified and carefully managed by BC Hydro  
4 and we don't have any specific issues that we'd like  
5 to see them addressed now, but we look forward to  
6 participating as the conversation goes on today.

7 THE CHAIRPERSON: Thank you, Mr. Keen.

8 **OPENING STATEMENT BY MR. BUCHANAN:**

9 Thank you, Mr. Chair. The government is  
10 here because we, in the conclusion of the Industrial  
11 Policy Review there were recommendations respecting  
12 electricity rates for industrial customers,  
13 specifically around their flexibility of use, and  
14 we're here to speak to our support for rates that  
15 accomplish the same. And that's all for us, thank  
16 you.

17 THE CHAIRPERSON: Thank you.

18 **OPENING STATEMENT BY MR. PERTTULA:**

19 So the FortisBC Energy Utilities obviously  
20 have an interest in rate matters before the Commission  
21 as a general comment, but FortisBC Energy Inc. has a  
22 more specific interest in that the company is a  
23 customer of BC Hydro under Rate Schedule 1823, at one  
24 of our facilities presently, and is therefore a  
25 possible participant in the program in the Freshet  
26 Pilot. And we may have other 1823 accounts in the

1 future, not likely to be able to participate in the  
2 Freshet Pilot. But if the program was to continue on  
3 in the future, that might be a possible interest of  
4 FortisBC's.

5 THE CHAIRPERSON: Thank you. Mr. Weisberg?

6 **OPENING STATEMENT BY MR. WEISBERG:**

7 Mr. Chair, the Non-Integrated Areas  
8 Ratepayers' Group, as I explained in the procedural  
9 conference, consists of two parties. That's the  
10 Heiltsuk Tribal Council, which represents the  
11 community of Bella Bella, and the adjacent community  
12 of Shearwater. They rely almost entirely on Hydro  
13 generation, which makes them a different case than is  
14 so for the Zone II customers.

15 In addition, the creation of Zone IB, the  
16 primary effect of that was to provide those customers  
17 in Bella Bella and Shearwater with effectively Zone I  
18 rates. So they're, I guess, tied at -- or joined at  
19 the hip with Zone I for that purpose, so we want to  
20 just look at what rate impacts on other ratepayers may  
21 arise out of this pilot if it's implemented.

22 And secondly, because of that unique hydro  
23 generation situation there, it's generated at Ocean  
24 Falls and there is a single purpose transmission line  
25 connecting Ocean Falls to the distribution in Bella  
26 Bella and Shearwater. So we want to look today to

1 understand what principles are behind the pilot, and  
2 if there's any possible application that we would  
3 raise in Module 2 when we're looking at the rate  
4 design for Zones IB and less likely for Zone II.  
5 Thank you.

6 THE CHAIRPERSON: Thank you, Mr. Weisberg. Mr. Weafer?

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

8 Mr. Chairman, the 2013 Integrated Resource  
9 Plan approved by the Government and by this  
10 Commission, that is Recommendation No. 5, Direction to  
11 Hydro to investigate incentive-based pricing  
12 mechanisms over the short term that encouraged  
13 potential new customers and existing industrial and  
14 commercial customers looking to establish new  
15 operations or expand existing operations in B.C. Hydro  
16 service territory.

17 So this is one of the justifications for  
18 the freshet proposal, and an issue that we've raised  
19 through the workshops is trying to broaden the scope  
20 of the proposal to at least gather evidence to look at  
21 where other ratepayers who've created the benefit of  
22 the freshet situation may be able to participate. So  
23 our interest here today is to promote Hydro taking a  
24 broader look at the opportunity of the freshet through  
25 the pilot term. We're not asking it necessarily  
26 directly that it be made available to the commercial

1 group, although we may make some comments on that at  
2 the end of the day.

3 But we do think if we're going to invest  
4 this regulatory time and effort in a pilot project, we  
5 should get the broadest benefit from the results in  
6 terms of information that we can get. We think that's  
7 in the Commission's interest and is certainly in  
8 ratepayers' interests. So we'll have some comments in  
9 terms of -- or questions on the structure of the pilot  
10 program. We've got a concern with the two-year period  
11 being short in order to properly gather data to see if  
12 it's working or not. We have some concern that that  
13 also precludes certain and even transmission customers  
14 having access, because if you -- basically with the  
15 two year term, it's pretty tough to justify an  
16 investment to take a advantage of the freshet period  
17 if there're a risk it's going to be a short-term  
18 opportunity. So we're not sure that the present  
19 structure is as broad as it should be.

20 **Proceeding Time 1:13 p.m. T04**

21 And lastly, consistent with the regulatory  
22 efficiency point, at a minimum we're looking for some  
23 direction from the Commission in these processes  
24 consistent with Mr. Weisberg's comment that we can do  
25 a whole lot of work and a whole lot of Hydro resource  
26 can go into a Module 1 issue, which may be relevant to

1 a Module 2 topic, and we're wrestling with how we can  
2 ensure that we don't have to recreate the wheel in  
3 Module 2 if indeed that's when they really want to  
4 look at commercial customer issues.

5 And just in closing on the opening  
6 comments, and these will be very similar to my closing  
7 comments, so at least we know where we're coming from.  
8 The IRP, the evidence that went into the IRP was in  
9 around 2011/2012, for a 2013 decision. And as I said,  
10 the commercial ratepayers were identified as a target  
11 for opportunities in the IRP. We're talking about a  
12 pilot that's now going to take another couple of years  
13 and results will come out in 2018.

14 So we're talking six years down the road  
15 that we may be in a position to start assessing an  
16 opportunity for commercial sector ratepayers. So  
17 that's problematic. I mean, that's a long time to  
18 respond to that direction in the IRP. So again, we'll  
19 be encouraging the Commission to encourage Hydro to  
20 take a broader look at this pilot project and create  
21 some more flexibility for access.

22 THE CHAIRPERSON: Thank you, Mr. Weafer.

23 MR. WEAFER: Thank you.

24 THE CHAIRPERSON: Mr. Edwards, did you have a --

25 OPENING STATEMENT BY MR. EDWARDS:

26 Yeah. Bruce Edwards, Flood Control Pumping

1 Authority. We, of course, approve the freshet pilot  
2 because there are prohibitive flood control pumping  
3 costs, to the point where our pumping authority may be  
4 required to allow properties and infrastructure to  
5 flood. I think the two-year period is too short for  
6 customers to take advantage of the cost cutting and  
7 the pilot, so I suggest a longer period. And also  
8 because of the time and resources taken for the  
9 process, to broaden this as soon as possible to  
10 include general service.

11 And finally, including residential  
12 customers in this would be a superb public relations  
13 move for BC Hydro to see the rates drop for once.

14 COMMISSIONER COTE: Question.

15 MR. EDWARDS: Yes?

16 COMMISSIONER COTE: Do you mean in terms of the pilot  
17 including a broader range of people for ratepayers--

18 MR. EDWARDS: Because of the time that the process is  
19 going to take, I think it would be worthwhile  
20 broadening it to include some residential customers if  
21 possible.

22 COMMISSIONER COTE: But during the pilot stage?

23 MR. EDWARDS: During the pilot stage, yes.

24 COMMISSIONER COTE: Okay, I understand you. Sorry.

25 THE CHAIRPERSON: Okay, thank you Mr. Edwards. I'm  
26 sorry I can't make out who is down at the end here?

1 **OPENING STATEMENT BY MR. KARIYA:**

2 MR. KARIYA: Paul Kariya, from Clean Energy BC. I'm sure  
3 our counsel when he arrives will have some maybe  
4 further comments later on, but as the industry  
5 association representing IPPs in this province, we  
6 have multiple fuel types and hydro is a key fuel, and  
7 it gets undervalued in our option sometimes, where the  
8 freshet period is undervalued and contract folks are  
9 penalized.

10 So, our objective is to better understand  
11 how freshet -- the freshet period can be better  
12 utilized. So we're interested in the pilot project.  
13 I think as pilots go, the whole notion of when you do  
14 an experiment, there should be proper controls, or you  
15 have an experiment with out a control, it's of little  
16 value, and so we want to better understand the notion  
17 of baseline and how this will be put together.

18 I think as time goes on and with climate  
19 change and that, while this is a two-year pilot, I  
20 think there are lessons to be learned as to what the  
21 change in hydrograph could mean for Hydro resources in  
22 the province, and we're curious about that and how the  
23 look forward would be.

24 Furthermore, I think as a responsible  
25 organization in terms of representing power producers,  
26 we think that our power is responsible, reliable, and

1           affordable, and we want to make sure that in this  
2           pilot that we get to explore how those attributes are  
3           better valued.

4                        So for example -- and simplistically one  
5           can say the problem of freshet can easily be dealt  
6           with if we have load, and so, it's more of a broader  
7           policy question that we would be asking government,  
8           indeed, we will be pursuing with government, is what  
9           are we doing about attracting load to a province like  
10          British Columbia, and hence we may not have the  
11          freshet problem that's been spoken of in the past.

12                        Maybe I'll leave my remarks at that, Mr.  
13          Chairman.

14   THE CHAIRPERSON:    Thank you very much.  Mr. Andrews, do  
15          you have --

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

17                        Yes.  BCSEA and Sierra Club support in  
18          principle the freshet rate concept, and we expressed  
19          that in our comments during the BC Hydro workshop.  
20          The two general areas of concern that we're doing due  
21          diligence on is the potential for impact on other rate  
22          classes.  And specifically the potential for load  
23          shifting by participants in the freshet rate.

24                                        **Proceeding Time 1:18 p.m. T05**

25                        And secondly, what the effect -- Hydro has  
26          said that because this is a two-year pilot program,

1 the long-term planning issues are not engaged. We'd  
2 be looking for more information about how Hydro  
3 proposes to deal with examining the long-term planning  
4 aspects if and when it decides to apply for approval  
5 of a permanent rate of this type. What regulatory  
6 mechanism would be used for that, and when would it  
7 occur, and so on. Thank you.

8 THE CHAIRPERSON: Thank you, Mr. Andrews. Ms. Khan?

9 Sorry. Oh, sorry. Yes.

10 MS. WORTH: I'll keep my comments very brief to allow Ms.  
11 Khan a reasonable amount of time to make her comments.

12 Obviously as the union representing BC  
13 Hydro's inside workers, we are very interested in  
14 supporting BC Hydro in its innovations. But we are  
15 here to get information and assurances from BC Hydro  
16 regarding the possible negative impacts of this  
17 program on ratepayers, other than the industrial rate  
18 group. And also we're particularly sensitive to  
19 labour issues, obviously. We are here in an effort to  
20 ensure that BC Hydro pursues any evidence of the load-  
21 shifting that my friend has just identified. We've  
22 characterized that often in the pre-filing process as  
23 gaming that may negatively affect the freshet  
24 participants' workforce. And that appropriate metrics  
25 examining these kinds of issues are addressed in the  
26 eventual evaluation of the program's success or

1 failure.

2 Also, we agree with Mr. Weafer that the  
3 two-year duration of this particular program may not  
4 be sufficient to allow BC Hydro enough data to examine  
5 these types of issues. There are a lot of logistical  
6 problems that have been identified, and I'm sure that  
7 will come -- be further developed today. And I think  
8 that our client is concerned that two years is not  
9 going to be sufficient to actually engage in a  
10 meaningful examination of whether this program is in  
11 the public's best interests going forward.

12 And those are my comments.

13 THE CHAIRPERSON: Thank you.

14 MS. KHAN: My name is Sarah Khan, and I'm a lawyer  
15 representing a number of organizations in the rate  
16 design application. I apologize for being late this  
17 morning. The organizations that we are representing  
18 are Active Support Against Poverty, B.C. Old Age  
19 Pensioners' Organization, the B.C. Poverty Reduction  
20 Coalition, Council of Senior Citizens' Organizations  
21 of B.C., Disability Alliance B.C., Together Against  
22 Poverty Society, and the Tenant Resource and Advisory  
23 Centre. These groups are collectively known in  
24 Utilities Commission regulatory proceedings as BCOAPO  
25 *et al.* And we're active interveners in the rate  
26 design application.

1                   The primary purpose of our intervention is  
2                   to represent the interests of BC Hydro's low- and  
3                   fixed-income residential ratepayers.

4                   BCOAPO is generally supportive of BC  
5                   Hydro's proposed freshet rate pilot project, and while  
6                   we have a few proposed modifications which we'll  
7                   address your questions in final submissions, we are  
8                   confident that BC Hydro will be able to address our  
9                   concerns. And we do credit BC Hydro for undertaking a  
10                  pretty comprehensive pre-rate design application  
11                  workshop and feedback process for allowing interested  
12                  parties such as us to be able to have input into the  
13                  proposed rate at the development stage.

14 THE CHAIRPERSON:    Thank you, Ms. Khan.

15                   Is BC Hydro ready with their -- I'm not  
16                   sure which one of you gentlemen is going to lead it,  
17                   but -- yes.

18 MR. WEBB:    Mr. Chair and Commissioners, I will have a  
19                  brief introduction. The presentation itself on the  
20                  substance of the proposal will be presented by --

21 THE CHAIRPERSON:    Okay. Please go ahead.

22 MR. WEBB:    Thank you. So, pursuant to Section 61 of the  
23                  *Utilities Commission Act*, BC Hydro seeks approval of a  
24                  two-year freshet rate pilot, commencing on March 1,  
25                  2016, and ending on December 31, 2017.

26                   The freshet rate pilot is rate schedule

1 1892, a copy of which is found at Exhibit B-1,  
2 Appendix A-1B.

3 MR. WEAFFER: I'm sorry, Mr. Chairman, if he could be  
4 closer to the mike or turn the volume up a touch,  
5 please? Sorry to interrupt.

6 MR. WEBB: No problem.

7 A summary of the requested order is found  
8 at Exhibit B-1, pages 1-12 to 1-13. And a copy of the  
9 requested order is found at Appendix A-1B.

10 If approved, BC Hydro will offer this  
11 service for the forthcoming freshet period beginning  
12 May 1<sup>st</sup>. And that, in effect -- and we respectfully  
13 request that the Commission make its decision on this  
14 application by February 8<sup>th</sup>, 2016, to enable that  
15 implementation. And Mr. Anderson will be speaking a  
16 bit further on the reasons for that timing.

17 THE CHAIRPERSON: Mr. Webb, is there any wiggle room at  
18 all on that?

19 MR. WEBB: I'm sure there is some. The rate requires  
20 that participating customers to give notice to BC  
21 Hydro by March 1.

22 THE CHAIRPERSON: Okay.

23 MR. WEBB: And -- well, that squeezes -- that squeezes.

24 THE CHAIRPERSON: Okay, thank you.

25 MR. WEBB: BC Hydro's witness panel, there are four  
26 witnesses. They've already been affirmed by the



1 we'll deal with Mr. Anderson's opening statement, but  
2 we'll hand out these slides now, if that's okay.

3 THE CHAIRPERSON: Thank you, Mr. Webb.

4 MR. WEBB: Mr. Weafer, I'm not sure that we have the  
5 logistical capabilities to make that happen here  
6 today, I'm afraid.

7 (DISCUSSION OFF THE RECORD)

8 THE CHAIRPERSON: Okay, Mr. Anderson, please, go ahead.

9 **OPENING STATEMENT BY MR. ANDERSON:**

10 MR. ANDERSON: Great, thank you. So, BC Hydro's two-year  
11 freshet rate pilot was developed based on the  
12 following considerations: alignment with government  
13 policy, stakeholder feedback obtained throughout the  
14 2015 RDA engagement process, a long-term over-supply  
15 issue during the freshet period, and potential impacts  
16 on customers who aren't participants in the freshet  
17 rate. I'm going to spend a few minutes talking to  
18 each of these.

19 So, alignment with government policy. The  
20 freshet rate pilot is consistent with and responds to  
21 government's response to the 2013 industrial  
22 electricity policy review recommendation that BC Hydro  
23 develop additional rate options for industrial  
24 customers to help reduce costs. It's also consistent  
25 with the 2013 integrated resource plan recommendation  
26 action 5 that speaks to incentive mechanisms for

1 commercial and industrial customers, to expand  
2 existing operations.

3 Stakeholder feedback. As part of the 2015  
4 RDA engagement process, BC Hydro explored five  
5 transmission service rate options: real-time pricing,  
6 retail access, modifications to our existing time-of-  
7 use rate, modifications to the existing interruptible  
8 rate, and a freshet rate.

9 **Proceeding Time 1:29 p.m. T07**

10 Consideration memos for workshops 5 and 10  
11 in those BC Hydro described numerous problems or  
12 challenges with moving forward with those rates that  
13 we're not pursuing today. In particular, retail  
14 access and real time pricing options are likely to  
15 negatively impact our non-participating customers  
16 unless sufficient safeguards are enacted, and those  
17 safeguards would potentially complicate those rates.

18 With respect to time of use, they're likely  
19 to continue to be inefficient, in particular because  
20 the variation between high load hour pricing and low  
21 load hour pricing is not sufficient to encourage  
22 customers to move to off-peak. And that's really  
23 represented by the fact that we don't have  
24 transmission voltage customers today who've taken up  
25 time of use.

26 Ultimately, BC Hydro identified the freshet

1 rate as the best option to move forward with amongst  
2 the five that we reviewed. It's certainly something  
3 that can be beneficial to our transmission service  
4 rate customers who can participate in it, and it's  
5 something that we believe has no impacts or very  
6 little impact on any non-participating customers.

7 Stakeholders, including AMPC, who represent  
8 the transmission voltage customers, generally agreed  
9 with the conclusion that this was the best rate to  
10 move forward with. There's been significant  
11 stakeholder engagement over the past 18 months as  
12 we've gone through the RDA process. BC Hydro met  
13 individually with many of our transmission service  
14 rate customers and had several interactions with AMPC.  
15 Through the design and the mechanics of the rate  
16 itself we address those through questions and  
17 response; and in two particular workshops, in workshop  
18 5 and workshop 10.

19 One final point on stakeholder engagement  
20 in response to Commercial Energy Consumers, BC Hydro  
21 is committing to explore whether the freshet rate  
22 could be applicable to general service customers. We  
23 would look to complete that analysis and come back  
24 with recommendations in our final evaluation report,  
25 which is scheduled for Spring of 2018.

26 Long-term freshet oversupply issue. So, BC

1 Hydro has a long-term oversupply issue during the  
2 freshet rate period, where our inflows are at their  
3 highest and our customer loads are typically at their  
4 lowest. This at time -- this leads at times when we  
5 too -- when we will hit minimum generation constraints  
6 and also have low load. Which leads us to a choice,  
7 neither of which is good, of an option to spill or to  
8 generate, and typically -- or often with low to  
9 negative pricing. The freshet rate pilot has been  
10 designed to encourage incremental load during that  
11 freshet rate -- freshet period. This will provide  
12 system benefits, and obviously benefits to those  
13 customers who can undertake that freshet rate.

14 With respect to potential affects on non-  
15 participants, so again, we believe this is a rate,  
16 certainly, that our transmission service rate  
17 customers -- that some can take advantage of and that  
18 will have minimal, if any, impacts on non-  
19 participating customers. BC Hydro has taken a number  
20 of steps through the design of the rate and the pilot  
21 itself to mitigate any potential affects. And Mr.  
22 Miedema will outline more of those in his  
23 presentation.

24 In conclusion, we really feel this is a  
25 win-win situation. It's something that our  
26 transmission service rate customers can avail

1 themselves to, and again, is something that will have  
2 minimal to no impact on other customers. BC Hydro is  
3 requesting BCUC approval of the rate by February 8<sup>th</sup>,  
4 as indicated. Really, the early approval date, again,  
5 is because pursuant to the rate itself, we're asking  
6 customers to get back to us and tell us that they will  
7 move forward with the rate by March 1<sup>st</sup>.

8 If approved, we will work with those  
9 customers who do elect to participate in the rate  
10 between March 1<sup>st</sup> and May 1<sup>st</sup>, to ensure that the  
11 baselines are in place and that we're ready to  
12 administer the rate.

13 Thank you.

14 **Proceeding Time 1:24 p.m. T08**

15 THE CHAIRPERSON: Thanks, Mr. Anderson.

16 MR. REIMER: So, I'm going to walk us through three  
17 graphs that we pulled together to help answer the  
18 question about the long-term nature of the freshet  
19 issues that we face. And then I'll hand it over to  
20 Justin to carry on.

21 By way of context for these slides, just  
22 wanted to re-emphasize that what we're talking about  
23 here is how the freshet inflows come in, and how long  
24 we might expect that to come about. And I'm going to  
25 try to give us a way to think about it, a framework to  
26 think of how this is -- or might change in the future.

1                   But I also want to point out that half of  
2                   the story is what's available in our system. The  
3                   other half of the story is what's available in the  
4                   mid-C market. And so with this rate, what we're  
5                   looking at is either delivering it from our system or  
6                   having it available to import into the province for  
7                   those customers that hopefully can take advantage of  
8                   it.

9                   And there is a lot of depth in the mid-C  
10                  market, and both with the freshet generation that  
11                  exists in the Pacific Northwest combined with the wind  
12                  projects that have been built in the gorge in the area  
13                  between Washington and Oregon. Those wind projects  
14                  tend to have a very high inflow during the freshet  
15                  period. And that -- a lot of that all coming together  
16                  has resulted in these negative prices that we see,  
17                  particularly in the low load hours.

18                  So, not just about the system. It's about  
19                  what's available in the market, and the economic  
20                  opportunity for customers.

21                  So in this slide, what we've done -- it  
22                  says there "Exhibit B-5, BCUC IR 1.104.1". In that  
23                  IR, we took the graph that we'd had in the original  
24                  application that was more focused just on inflows and  
25                  these series of graphs look at the net generation  
26                  after you store what you can. And it's called this

1 minimum generation. And so a lot of this comes not --  
2 most frequently not from our two large reservoirs, the  
3 Peace and the Columbia, but rather from other types of  
4 generation that don't have a lot of storage. And when  
5 the inflow comes, it has to generate.

6 And so what we've done in this graph is,  
7 we've taken out the Heritage Hydro system water  
8 variability and we left ourselves with the median, or  
9 average line. And what you see there is, it crosses  
10 over with the load in the May to June, July, period.

11 Observations about the graph. We  
12 simplified this for the next one to help explain, but  
13 observations about this is that this is monthly  
14 averages, and so what you'll frequently see is periods  
15 within months where the freshet becomes more heavy,  
16 and you'll see much greater flow in certain weeks.

17 The other is, is that this is monthly  
18 average of both high load hour and low load hour. So  
19 high load hour from six in the morning till ten at  
20 night, low load hour ten at night to six in the  
21 morning.

22 And what we find is -- logically, I guess,  
23 is our concerns with being over-supplied is worse in  
24 the low-load hours, because that's when our customers'  
25 load drops to its lowest value. And so you'll see  
26 that same problem in the Pacific Northwest and in the

1 mid-C markets. The time you most frequently see  
2 negative prices, where people pay to take their power,  
3 happens in the light load hours.

4 So with that as context, what we did here  
5 is we tried to imagine a future world and to think  
6 about how is the world going to change, and what is  
7 going to mean in terms of the supply that we have in  
8 the freshet. And when you think about this world, you  
9 need to think about both what happens to the load and  
10 what happens to the supply that you build to meet the  
11 load. And so what we contemplated here is, if you  
12 have a load that added load equally throughout the  
13 year, I should point out here, if I've got -- no,  
14 maybe not.

15 The black line is the load line. I should  
16 point that out. The solid line is what we would see  
17 in a -- we're forecasting for 2017. Fiscal '17 year.  
18 And what you see is our load goes from a high in the  
19 wintertime to a low in the freshet, and then it starts  
20 to pick up again towards the wintertime. The red  
21 line, solid red line, is the average generation from  
22 our system. So, that's cumulative of all the  
23 resources that we've got at this point. And what it  
24 shows is our minimum ability to turn down generation  
25 within the province in any particular month. And you  
26 can see in the freshet, because of the heavy in-flows



1 would be beneficial.

2 Just by way of note, too, is that if you  
3 think about the shape of the load shape, if what was  
4 to be added to the system is typical or normal load,  
5 it's higher in the winter, lower in the spring, and  
6 higher again in the winter. Normal load growth  
7 balanced all three sectors again would have an impact  
8 if you added flat generation to exacerbate the  
9 problem.

10 So in our view, this is a problem that's  
11 going to last for a while, until things change in the  
12 system or our load modifies, and to our minds we're  
13 talking ten years and beyond before we see any sort of  
14 substantial change to what's going on.

15 This, of course, then, would be the graph  
16 of what we're proposing for the freshet rate, and the  
17 idea here is, is that if there are customers who are  
18 able to take advantage of this freshet rate, and it's  
19 a rate that we supply if it's available. So  
20 importantly, that means we're not adding supply to the  
21 system to meet it, and if it comes on in that freshet  
22 period and not in the rest of the year, that's  
23 beneficial to the system. It takes advantage of those  
24 low price rates in the mid-C market. And hopefully if  
25 this is successful, that should be beneficial for  
26 everybody.





1       there is a number of reasons for this. First of all,  
2       it's a two-year pilot program. We've proposed a  
3       comprehensive evaluation of the pilot program,  
4       consisting of three separate reports. We've listened  
5       the stakeholder comments as part of the workshops and  
6       we recognize that shifting has been a concern of  
7       stakeholders. And that's one of the reasons why we've  
8       added an additional evaluation report, which will look  
9       at how much take-up of the freshet rate occurs in the  
10      first year of the freshet. And so after the 2016  
11      freshet period, in the fall of 2016, we proposed an  
12      additional report to evaluate that.

13               The baseline component of the rate, as I  
14      mentioned earlier, was the net to gross ratio. It's  
15      measured over a full three-month period, so we can  
16      ensure that there is a true gain in incremental  
17      consumption before customers benefit from the rate.

18               I also mentioned earlier that any baselines  
19      that deviate from 2015 consumption would be approved  
20      by the BCUC under the special conditions that we've  
21      included in the rate schedule. And the \$3 wheeling  
22      fee.

23               There is a couple of other factors that  
24      help ensure non-participants are not harmed by the  
25      rate, one of which is the zero-dollar price floor.  
26      The rate schedule in the pricing includes a price

1 floor. S during those negative price times,  
2 especially in low load hours, as Randy mentioned,  
3 we're at least charging customers zero dollars.

4 The other -- another example is with  
5 generation baselines. There is another special  
6 condition in the rate schedule that prevents customers  
7 from changing their generator baseline, if they're --  
8 if they have a contracted generation with BC Hydro.  
9 So these are just additional examples of how we've  
10 taken steps -- we've listened to stakeholder comments,  
11 and we've taken a number of steps to mitigate impacts  
12 on non-participating customers.

13 And that's the conclusion of the  
14 presentation.

15 THE CHAIRPERSON: Thank you. Before we go on, I wonder  
16 if you could provide us with at least a glimpse into  
17 what you see post-pilot; what -- how would you intend  
18 to roll this out further, and to how many more  
19 customers, and what sort of time period? Assuming the  
20 pilot was successful.

21 MR. MIEDEMA: Sure. Yeah. So, the evaluation reports --  
22 as I said, there's three evaluation reports. The  
23 final one would come out in the spring of 2018, and so  
24 after that, you know, we would make an assessment of  
25 how successful do we think the pilot program has been.  
26 I think there would be some additional consultation on

1 the evaluation reports as well, to see -- you know,  
2 any stakeholders have comments on whether or not we've  
3 met the objectives of the rate.

4 And then from then we'd decide, do we  
5 broaden it out? What's the next step with the pilot?

6 COMMISSIONER COTE: But before you started this, and you  
7 must have had a view of what success looks like and  
8 that's, I think, the essence of my -- of what Mr.  
9 Morton was asking is. What does success look like?

10 MR. ANDERSON: Well, yeah. I mean, I think at a high  
11 level success looks like as many as possible of our  
12 transmission service rate customers can take up this  
13 rate. And that we can -- as both Justin and Randy  
14 indicated, we could start to deal with some of that  
15 freshet rate problem that we have.

16 **Proceeding Time 1:49 p.m. T11**

17 We don't have a great guess in terms of --  
18 I mean, we have some sense of how many can take this  
19 initially, the types of customers that we think should  
20 be able to modify their production, their operations,  
21 to take this rate, but that's really what the pilot is  
22 about. But yes, ultimately, that's really what the  
23 pilot is about. But, yes, ultimately success looks  
24 like, you know, as many as possible an take this.

25 COMMISSIONER COTE: Taking this to industrial, like,  
26 there's been talk of including the other rate classes.

1 MR. ANDERSON: Right, so I think as we mentioned,  
2 certainly we've heard the Commercial Energy Consumers'  
3 points about can this be expanded beyond industrials?  
4 That's definitely something that we would like to look  
5 at, and I don't think we have a great sense today what  
6 the challenges might be with that and what the uptake  
7 might be, but certainly it's something that we would  
8 -- well, that we will look at. To the extent we can  
9 do anything creative that helps a customer group that  
10 -- without impacting negatively the rest of the  
11 customers, then that's great for us.

12 THE CHAIRPERSON: Would you expect -- and I realize that  
13 I'm asking you do some crystal ball gazing here, but  
14 would you expect that you could draw conclusions about  
15 other rate classes and the take up from this pilot, or  
16 would you say you're having to go forward with other  
17 pilots and other rate classes in the future?

18 MR. ANDERSON: Yeah, that's a great question and we  
19 talked briefly about that. I don't know, obviously --

20 THE CHAIRPERSON: Yeah.

21 MR. ANDERSON: -- concretely, but I, you know, typically  
22 -- well, I guess I would think that a pilot is a good  
23 way to try things where you're unsure, but we'll have  
24 to see what we get through this --

25 THE CHAIRPERSON: Right.

26 MR. ANDERSON: -- and whether there is greater logical

1 conclusions you can apply to other rate classes.

2 THE CHAIRPERSON: Okay. Thank you. Okay, so what I'd  
3 like to do now is, we'll go around the table and each  
4 participant can ask any further questions. We'll  
5 start over with AMPC, again. Mr. Keen, if you're --  
6 Mr. Keen, or whomever from your group would like to  
7 ask?

8 MR. KEEN: No questions from AMPC at this time.

9 THE CHAIRPERSON: Okay.

10 MR. BUCHANAN: No questions from Ministry of Energy and  
11 Mines.

12 MR. PERTTULA: I had one question, I guess, about the  
13 benefits that might come from the rate, and so I'm,  
14 just trying to understand it in simple terms I guess.  
15 I should have said, it's Dave Perttula, from FortisBC,  
16 speaking.

17 So is -- this freshet rate, when it's --  
18 when energy is taken by customers under this rate, is  
19 it for the most part displacing exports that would be  
20 sold in the mid-C market? Is that the most common way  
21 of characterizing it?

22 MR. MIEDEMA: There is actually a graph -- sorry, a  
23 table. It's in the Exhibit B-1 Appendix 5B, one shot  
24 presentation, slide 23.

25 MR. REIMAN: Yeah, so I guess what goes on in terms of  
26 importing and exporting has a lot to do with what the

1 state of the Heritage Hydro system is in particular,  
2 and to some extent IPPs as well. And in years where  
3 -- if we've got a really high water levels, we're  
4 going to be in an exporting world. If we're in a  
5 world where we've got low inflows, then to the extent  
6 we can, we'll be buying.

7 I mean as a rule given the low prices in  
8 the freshet, any opportunity we have to buy in there  
9 and bring something into the system, we'll do that as  
10 well, as long as there's storage available. So, I  
11 don't think there's any one fixed rule, it really  
12 varies by year and by water year.

13 MR. PERTTULA: But is it safe to say that a fair amount  
14 of the exported -- or a fair amount of the freshet  
15 energy is exported and sold in the mid-C market?

16 MR. REIMAN: Again, depending on the water year. More so  
17 in the higher -- average to high, that's --

18 MR. PERTTULA: Okay. And so what I'm trying to get at  
19 is, when those exports happen, does -- I guess it  
20 would be Powerex that's actually selling them, but do  
21 they incur wheeling costs to get it -- to sell it in  
22 the mid-C market?

23 MR. MIEDEMA: Often there's already firm point-to-point  
24 transmission that's been acquired by Powerex on BPA's  
25 system, for example, to get it to the mid-C market.  
26 So in a given year there -- you know, they might have



1 saw. Anyway that's it, thank you.

2 THE CHAIRPERSON: Okay, Mr. Weisberg.

3 MR. WEISBERG: Thank you, Mr. Chair.

4 Just one clarification question around the  
5 system context on page 3 of that presentation. It  
6 starts out saying: "To see how changes in load and  
7 generation affect BC Hydro systems, consider three  
8 scenarios." And then that and the following page lay  
9 out two scenarios, but they are numbered 1 and 3. Is  
10 the second scenario, the missing one, is that in the  
11 IRs or is -- what's the story on Scenario 2?

12 MR. REIMAN: Yeah. No, these are just an error in the  
13 slides. There's only two scenarios.

14 MR. WEISBERG: That's fine. It was confusing and I  
15 wanted to see if there was something missing in  
16 action.

17 MR. REIMAN: No. No, that's the extent of it. I spoke  
18 to the in-between one.

19 MR. WEISBERG: Thank you.

20 THE CHAIRPERSON: Go ahead, Mr. Weafer.

21 MR. WEAFER: Thanks, Mr. Chairman.

22 I have a couple of questions and Mr. Craig  
23 is going to have a few questions as well. And just  
24 first of all, I've got to say thank you to BC Hydro.  
25 The opening comments were the first we heard of the  
26 proposal to work with the Commercial Customers in

1 terms of what we've been pursuing for some time, and  
2 so thank you for listening. And the challenge we  
3 obviously face is we know nothing about what you have  
4 in mind, and you're looking for an approval pretty  
5 quickly from this Commission.

6 So maybe we can -- and I appreciate the  
7 Panel's questions because I think they're along the  
8 same line. We're looking for compliance with  
9 Direction 5 of the IRP, that we look at opportunities  
10 for the commercial sector as well. So can we just get  
11 a better understanding of what you have in mind?  
12 Because CEC does want to work with Hydro on it. We've  
13 raised Greenhouse Growers and our other groups that  
14 are looking for opportunities.

15 And I understood the response to the  
16 Chair's question to be it's the 2018 timeline to the  
17 end of the pilot. I guess we're looking for, if  
18 possible, a bit more of an opportunity and a pilot to  
19 see if there may be a point in the two years to look  
20 at flexibility and opportunity such that the concept  
21 which may arise is not detrimental on the ratepayers,  
22 but potentially deals -- another class of ratepayers  
23 acts to the benefit of non-firm service.

24 So can you help us out with what your  
25 commitment is in terms of what we just heard for the  
26 first time in the opening statement?

1 THE CHAIRPERSON: Thanks, Mr. Weafer.

2 MR. DOYLE: So I think, and one of the things we want to  
3 deal with through the evaluation period is we want to  
4 look at how this rate is working. One of the  
5 challenges with implementing it for the commercial  
6 sector right now is that one of the most substantial  
7 proposals in BC Hydro's rate design application is a  
8 fundamental change to the large general service,  
9 immediate general service rates, which is the default  
10 rate. And that would add a complexity. As it is, as  
11 it stands right now, we have that, our proposed  
12 flattening of that rate coming into effect in fiscal  
13 2018, so April 2017, which would be right in the  
14 middle of that two-year pilot.

15 **Proceeding Time 1:59 p.m. T13**

16 So that would cause a lot of challenge  
17 because of the uncertainty around the rate. I mean,  
18 BC Hydro has proposed a flat rate. That being said,  
19 until the Commission rules on its decision, you know,  
20 there is no certainty that that's what will be. So  
21 how you design a freshet rate to work with that  
22 default rate, much like the way the freshet rate for  
23 the transmission service customers is designed to work  
24 with a default rate schedule 1823 rate. That poses a  
25 significant challenge.

26 When, you know, looking at it, at -- after

1 the 2018 evaluation period, that will provide that.  
2 We'll have the certainty of what that rate looks like.

3 That being said, I don't think there's  
4 anything stopping us from working with the Commercial  
5 Energy group as well as the customers on trying to  
6 understand what kind of things those customers can  
7 provide, and the flexibility that they have, that  
8 could go into helping BC Hydro evaluate the  
9 applicability of the freshet rate for the general  
10 service customers.

11 MR. WEAVER: So, and thank you. We understand that  
12 complexity, and that's part of the process of rate  
13 design. And Hydro is not averse to a direction from  
14 the Commission to open that dialogue and look at those  
15 opportunities over the course of the two-year period.  
16 Because the challenge sometimes that we have is there  
17 is a general goodwill gesture to do something, and  
18 then there's kind of -- the devil's in the detail, and  
19 you've got to assess the detail.

20 I take it Hydro is open to those types of  
21 discussions, and open to having the Commission to say  
22 that's something you should do?

23 MR. DOYLE: Yes. I mean, BC Hydro is open to it. And I  
24 think we've demonstrated through the engagement  
25 process, we're very open to hearing our customers'  
26 concerns and their ideas and incorporating those, much

1 the same as we worked with the transmission service  
2 customers to make the transmission service rate work  
3 for them. So we're definitely open to that.

4 MR. ANDERSON: Yes. I can further that. It's something  
5 that we have no problem sitting down and starting to  
6 look at what that could look like, as soon as  
7 possible. There is complexity in timing and how you  
8 might implement it, but the discussion around what it  
9 could look like can start right away.

10 MR. WEAVER: Thank you. Appreciate it. Mr. Craig has  
11 some questions as well.

12 THE CHAIRPERSON: Mr. Craig.

13 MR. CRAIG: If I -- it's David Craig, Commercial Energy  
14 Consumers. If I can start with Appendix F1-B, which  
15 is the rate schedule. I just have a few comments in  
16 terms of some wording that I'm hoping might be  
17 helpful. And it will be quick.

18 On page 2 of 5 on that document, it refers  
19 to the energy charge being the greater of the ICE mid-  
20 Columbia. I'm assuming "ICE" is the international  
21 continental exchange?

22 MR. DOYLE: Yeah, it's the intercontinental exchange.

23 MR. CRAIG: Intercontinental exchange?

24 MR. DOYLE: Yeah.

25 MR. CRAIG: Yeah. It might be helpful to people reading  
26 it if you spelled that out.

1                   On the preceding page, the definition of  
2                   high load hour gross freshet energy, which is on the  
3                   fifth definition down. It ends with "excluding all  
4                   hours where the difference is negative". And I'm  
5                   assuming that the definition of "negative" there is  
6                   that the energy used is below the baseline. It might  
7                   be more helpful to express it that way, in the sense  
8                   that people can interpret "negative" in different  
9                   ways. So, it just might help.

10                   And on the third page, where we're defining  
11                   rate schedule 1892 energy determination, the first  
12                   paragraph dealing with HLH net freshet energy. And  
13                   the last line refers to, "and the product will be the  
14                   amount of energy supplied during that hour under this  
15                   rate schedule".

16                   And I was just wondering if that's the  
17                   amount of HLH energy in that hour?

18                   MR. MIEDEMA: Yes, that's correct.

19                   MR. CRAIG: So just to be consistent in the process, it  
20                   might be worth just specifying that. And the same  
21                   with the low load one, just to make it consistent.

22                   So, that's all I have on those.

23                   THE CHAIRPERSON: Excuse me. Is BC Hydro in agreement  
24                   with those suggested changes?

25                   MR. DOYLE: So, I'll speak to the first one,  
26                   intercontinental exchange definitions. I think we

1           could add that. The one thing I do need to look at  
2           is, it may be defined in the electric tariff, because  
3           I know we do use the ICE (inaudible). So I'd have to  
4           check that. But spelling it out isn't problematic.

5                         With respect to Mr. Craig's other changes,  
6           you know, I'm not sure whether they add more clarity  
7           or not, and I think the way it is, you know, that we  
8           have it expressed here provides the clarity of that  
9           being said. There's nothing we'd oppose. It would  
10          simply be drafted, small little change to drafting.

11                                 **Proceeding Time 2:05 p.m. T14**

12   THE CHAIRPERSON:    Okay.

13   MR. DOYLE:    I guess I might put it this way. I think the  
14                  regulatory folks will need a bit more time to consider  
15                  it, but they're certainly open, if it makes sense, to  
16                  implementing it.

17   THE CHAIRPERSON:    Okay, thank you. Sorry, Mr. Craig, go  
18                  ahead.

19   MR. CRAIG:    That's fine. That just helped with my  
20                  clarity of understanding in reading it, and I may not  
21                  be the best test at the end of the day, but it's my  
22                  contribution.

23                                 Commercial Energy Consumers Association  
24           IRs, 1.76.1. It's just a generic question as to  
25           whether or not we can make good economic use of it.  
26           And this goes to our main point about being consulted

1           and how the use is made.

2                       So the key point here that I want to raise  
3           is that if we have customers who may require an  
4           investment that may require a longer period to be  
5           justified, the design of the pilot won't have those  
6           customers in the pilot. They'll be outside. And so  
7           if we end up evaluating the pilot for what it is, just  
8           the two-year period, people coming in to be eligible,  
9           we may end up short of information.

10                      So you need, I think -- or our proposal  
11           would be that you broaden that in terms of gathering  
12           information so that you pick up information about  
13           people who may want to make an investment. In fact we  
14           heard today that there may be a party here at the  
15           table that would look at longer term. Certainly from  
16           the point of view of commercial customers, and I think  
17           it would apply to pumping customers, I know a variety  
18           of customers that would look at longer-term  
19           investments if they can get a payoff.

20                      So I think it's worthwhile during the  
21           process for you to have it open and receive that kind  
22           of information, and possibly be in a position to bring  
23           that back to the Commission and add that to the pilot,  
24           in the sense that it's efficient from the regulatory  
25           point of view for this not to be constrained but to be  
26           open where you can make use of it without over-

1           complicating what you're doing.

2 MR. DOYLE:    The one thing I can say to that is extending  
3           the length of a pilot can be a little bit of a double  
4           edged sword.  You know, if we make the pilot too long  
5           -- so there's some customers that if they're looking  
6           at large long-term investments, if we extend the pilot  
7           to five years it still may not be long enough for them  
8           to make those investments and there's still the  
9           uncertainty during that five-year period about whether  
10          that rate will be a permanent rate.

11                        So our feeling was the two-year rate  
12          provides us an opportunity to evaluate the rate and  
13          then provide some ongoing certainty to those customers  
14          to make some of those long-term investments that,  
15          through our engagement, we did here that some of the  
16          investments can be quite substantial, and once the  
17          rate is more permanent I think there is a greater  
18          level of comfort in making those.  That would be my  
19          one concern with extending the pilot.

20 MR. CRAIG:    Yeah, and I understand that concern.  And the  
21          other concern is if you don't have some people  
22          actually trying to make an investment and going  
23          through the process, you'll be less informed about how  
24          to deal with it.  And so I think it's worthwhile  
25          collecting the information, having that available  
26          between Hydro and the Commission, interveners to

1 assess. If there's four or five that come forward and  
2 it's viewed as apropos to allow a long term, just so  
3 you get the experience with it, we've done that before  
4 in a number of cases, I think it's worth keeping the  
5 door open, so. But I don't want to belabour the  
6 discussion. I accept what you're saying.

7 **Proceeding Time 2:09 p.m. T15**

8 The second one deals with a similar sort of  
9 thing in 176.2 and 77.1, we were explained --  
10 exploring some of what might be available to general  
11 service class customers.

12 Very appreciative of being able to engage  
13 in conversation. The biggest concern to put on the  
14 table now in response to that is, if we have to wait  
15 till the end of two years, wait for the evaluation  
16 report, wait then for the Commission to hear it, we  
17 could be two or three years away from getting any kind  
18 of response or reaction.

19 And to your point of concern about the LGS  
20 and MGS being a base, we have a situation with LGS and  
21 MGS where you're flattening them. And for certain  
22 types of customers, with a variable load, particularly  
23 over a month, and that can be a lot of manufacturing  
24 groups. Certainly greenhouse growers, pumping example  
25 -- certainly some of the forestry companies I've dealt  
26 with have this. The demand charges are quite a factor

1 in their decision-making. And they apply over a  
2 month. And if you've got just a period of impact, and  
3 we're increasing or doubling the demand charge,  
4 they're feeling pressure right now. Coming from the  
5 base. They're going to want to put evidence in  
6 dealing with LGS/MGS, to pull some of the things that  
7 might have been in Module 2 forward. Because that  
8 demand component is a big issue. This is a partial  
9 mitigation towards that, and to wait three years is  
10 essentially even longer than Module 2 before we get to  
11 it.

12 So, that's a concern that I want to put on  
13 the table, that we would really like to get the  
14 engagement, but we'd like it to be much quicker and we  
15 think it may be different than the TSR discussions,  
16 because there are different customer needs in the mix.

17 MR. MIEDEMA: I was just going to say, add to what Gord  
18 had said earlier. Commercial customers represent --  
19 there is many commercial customers, I think, which is  
20 another one of our concerns, in that if we did broaden  
21 out the pilot program, there is something like 6,000  
22 LGS customers, about 18,000 MGS customers. So there  
23 would have to be a discussion around exactly who would  
24 be eligible for that commercial component.

25 MR. ANDERSON: I guess again as, you know, a response,  
26 we're committing to -- you know, we're happy to start

1 the discussions right away. I don't think there's  
2 anything wrong with that. We certainly do see some  
3 challenges that we've talked about. But the benefit  
4 of starting the discussions is to see if there is  
5 opportunity that might come about, and potentially  
6 even sooner, right? So I think it's -- there is  
7 nothing wrong with seeing where those opportunities  
8 are as quickly as we could, and going from there.

9 MR. CRAIG: Well, that's very encouraging, and we'll look  
10 forward to doing that. And to the extent that we may  
11 have a concern about a number of thousands of  
12 customers potentially eligible, we believe the final  
13 response will be a relatively small number of  
14 customers, and will be manageable. And at least if we  
15 put the request out to have that come in as  
16 information as part of this, then we'll find out.  
17 Then you will know, and it won't be speculation. And  
18 then the Commission will know. And then we can design  
19 how to respond.

20 So, I accept a whole range of the problems  
21 that you raised. I'd just like to get on to problem-  
22 solving as part of it, not just problem  
23 identification.

24 MR. MIEDEMA: Fair enough.

25 MR. CRAIG: And very much appreciate, again, that you're  
26 open to that, and we look forward to pursuing it.

1 MR. MIEDEMA: Okay.

2 MR. CRAIG: A couple of more possible questions, let me  
3 just pursue -- BCUC question 1.100.1.

4 MR. DOYLE: Sorry, Mr. Craig, was it 101.1? Or 100.1?

5 MR. CRAIG: 1.100.1.

6 MR. DOYLE: Thank you.

7 MR. CRAIG: Here, you're identifying a potential risk  
8 Track 16

9 **Proceeding Time 2:15 p.m. T16**

10 MR. CRAIG: Here, you're identifying a potential risk  
11 between the \$35 a megawatt hour and the \$85 a megawatt  
12 hour. I'm just wondering if you can speak to how this  
13 risk would be controlled? Or is this not a problem in  
14 the freshet rate, just a problem related to the RTP  
15 rate?

16 MR. MIEDEMA: Well, certainly with the freshet rate given  
17 that the freshet rate in non-firm, the risk is  
18 controlled because we're not including the non-firm  
19 load in BC Hydro's load forecast. And any of the  
20 incremental load growth from freshet rate customers is  
21 not included, is not included in the load forecast and  
22 has not caused any of the costs to be incurred.

23 The issue being described in this IR with  
24 real time pricing is that customers that have been in  
25 BC Hydro's load forecast for a number of years, if  
26 they suddenly go on a real time pricing rate, that

1 firm load when it converts to non-firm has already  
2 been in the load forecast and costs have already been  
3 incurred to meet that expected load growth. So the  
4 freshet rate's different.

5 MR. CRAIG: And it's controlled because we're looking at  
6 determining incremental load?

7 MR. MIEDEMA: Right.

8 MR. CRAIG: Essentially.

9 MR. MIEDEMA: We're looking at determining incremental  
10 load.

11 MR. CRAIG: Yeah.

12 MR. MIEDEMA: No costs have been incurred for that  
13 incremental load because we expect that the customers  
14 most likely to take the freshet rate don't have  
15 significant load growth year over year, if any.

16 MR. CRAIG: Yeah. Yeah. Okay, if I can go to 1.101.3.  
17 And here we're dealing with the cost of administering  
18 the freshet rate. I wonder if you can just tell me at  
19 this point how many customers for the TRS Freshet  
20 pilot you're expecting to be dealing with?

21 MR. MIEDEMA: Well, we've -- in the workshop materials  
22 we've had two workshops on the freshet rate pilot.  
23 We've had a number of face-to-face meeting with  
24 customers. We've also engaged industry associations  
25 like CAPP, the mining association, and AMPC. And  
26 through all of that -- we've talked about this in the

1 workshop 10 materials from last May. We identified a  
2 take up range of five average megawatts to -- five  
3 average megawatts to 30 average megawatts of take-up.  
4 Our expectations are three to five customers are, you  
5 know, the most likely scenario.

6 MR. CRAIG: That's great. Thanks, that's helpful.

7 BCUC 1.102.3.3. This is just talking a bit  
8 about load shifting from one period to another. And I  
9 wonder if you could just elaborate a bit on whether or  
10 not when there's load shifting the customers, would  
11 they be saving at the marginal rate, at the tier 2  
12 rate and replacing it with the freshet rate?

13 MR. MIEDEMA: Sure, yeah. So it depends on which  
14 customers are doing the load shifting. Load shifting  
15 is something that we've talked about, again, at the  
16 workshops and numerous meeting with customers. If the  
17 customers have Tier 2 energy on their 1823, the  
18 concern with load shifting was if they reduce their  
19 Tier 2 load there's a revenue loss at Tier 2. And  
20 during that time of the reduction any export gained  
21 from that power that Hydro would make would be at a  
22 lower amount.

23 **Proceeding Time 2:20 p.m. T17**

24 So, you know, when you look at the 1823  
25 customers, there are some customers that have Tier 2,  
26 there is the potential for load shifting. We've

1           talked in the application that there's benefits from  
2           load shifting as well.

3                       I'd also add that that concern about  
4           revenue loss and export gain occur with other rate  
5           classes right now too, and any rate class with an  
6           inverted rate, like the RIB rate for example, or the  
7           existing TSR rate, if customers reduce their Tier 2 or  
8           reduce any of that second tier amount, there's no  
9           guarantee that there's going to be a reduction in BC  
10          Hydro's long run cost. If there's just a behavioral  
11          change happening and the customer does it for a single  
12          year or two years, but the hope would be that, you  
13          know, there is the potential for longer-term  
14          behavioral changes that align any of the revenue  
15          reduction with a gain in cost.

16   MR. CRAIG:    So this is a potential risk area. At this  
17                   point you feel you've got some mitigation in place,  
18                   and it's something you'd be monitoring and reporting  
19                   back about?

20   MR. MEIDEMA:   Yes. The shifting is certainly one of the  
21                   evaluation criteria, and as I said earlier, we've  
22                   added a third evaluation report. We initially  
23                   proposed two. We've added a third one which will,  
24                   again, look at shifting and do we think shifting has  
25                   happened.

26                   I'd also add that we've acknowledged in the

1 application that shifting can be a little difficult --  
2 it can be difficult to measure depending on the type  
3 of shifting that's occurring, but we will make a  
4 concerted effort to try and measure it and see --  
5 monitor it.

6 MR. CRAIG: That's great, okay. And last question is  
7 BCUC 1.108.2. And here we're discussion the wheeling  
8 fee. I'm not so much interested in the wheeling fee  
9 as I am that the issue in part crops about and the  
10 answer is explicit about it, that the differential is  
11 a concern and it's the differential to Tier 1 that is  
12 instructive in terms of determining how much you've  
13 got, and the wheeling fee proportional to it is quite  
14 significant, and you've pointed that out that all in  
15 the evidence.

16 And I just wanted to clarify whether or not  
17 if we're dealing with commercial rates, the LGS, MGS,  
18 this'll be different than for TSR, because those rates  
19 are different than the tier one.

20 MR. DOYLE: I think that's one of the things we'll have  
21 to look at, you know, through the engagement with your  
22 group and the commercial customers, and just getting a  
23 better understanding of what the base commercial rate  
24 looks like and how it impacted. It would be hard to  
25 comment on it.

26 MR. CRAIG: That's fair enough. I'm just looking to

1 clarify that it's a good question area for us to go  
2 into. Not necessarily to resolve it today, but it's a  
3 potential significant difference between TSR and a  
4 commercial application.

5 That's all my questions, Mr. Chairman,  
6 thank you.

7 THE CHAIRPERSON: Thank you Mr. Craig.

8 It'd like to take a ten-minute break at  
9 this point. It's twenty after two, so if we come back  
10 twenty-five to three. Thank you.

11 **(PROCEEDINGS ADJOURNED AT 2:23 P.M.)**

12 **(PROCEEDING RESUMED AT 2:35 P.M.)**

**T18/19**

13 THE CHAIRPERSON: Mr. Edwards, do you have some  
14 questions?

15 MR. EDWARDS: Yes, Mr. Chair. A couple of comments.

16 THE CHAIRPERSON: Okay.

17 MR. EDWARDS: I think the sample size of three to five  
18 would barely give you a standard deviation. So, I  
19 think you would have a very difficult time getting  
20 statistically significant differences between that and  
21 the control group. So I think it would be worthwhile  
22 increasing the sample size, if possible.

23 And also the way to choose customers, is it  
24 random?

25 MR. MIEDEMA: Oh, well, it's not actually a sample of  
26 customers that we're picking for the rate. All 1823

1 customers are eligible for the rate.

2 MR. EDWARDS: Yes?

3 MR. MIEDEMA: And there is over a hundred of those  
4 customers. So, potentially, I mean, on the high end  
5 you could have a hundred customers show up for the  
6 rate.

7 Our expectation, though, through the  
8 consultation that we've done, the face to face  
9 meetings that we've done with customers, are, like I  
10 said earlier, a five average megawatts to thirty  
11 average megawatts, and perhaps two to five customers  
12 coming. So we may get more, we may potentially get  
13 less, depending on market prices, the opportunity for  
14 customers.

15 There is engagement happening in February  
16 as well, which I mentioned in the presentation, to  
17 just remind customers about the rates, encourage them  
18 to sign up for the rate as well.

19 MR. EDWARDS: And is it fair to assume that we couldn't  
20 get an LGS pilot until the 2017 freshet at the very  
21 earliest?

22 MR. MIEDEMA: So, I think -- so, for the reasons I stated  
23 earlier around the flux around the LGS rate, it would  
24 be very difficult to implement a pilot prior to having  
25 that certainty around that rate. So, any actual  
26 implementation of the rate would be after the

1 Commission's determination around the LGS rate.

2 That being said, you know, working with the  
3 commercial customers to understand what service they  
4 could provide and what their needs are, and the  
5 flexibility that they have in their operation to take  
6 advantage of it, that process can start right away.

7 MR. EDWARDS: Good. The 13XX irrigation may provide you  
8 some opportunities because a lot of those customers  
9 are likely to have the infrastructure in place and are  
10 just not using it to full capacity because of the  
11 current rates. So you may wish to explore that.

12 And I have no further questions or  
13 comments, Mr. Chair.

14 THE CHAIRPERSON: Thank you. Mr. Austin, would you like  
15 to --

16 MR. AUSTIN: Yes, I do, Mr. Chair. I'm not sure who on  
17 the panel is going to answer these questions, so you  
18 can decide that yourself.

19 First question I have, is it fair to say  
20 that the frequency and duration of BC Hydro's spills  
21 from its generating system are an excellent proxy for  
22 indicating how well it's managed that system?

23 MR. REIMAN: I think the frequency of spills would be far  
24 more driven by the water inflows that you get into the  
25 Heritage system.

26 MR. AUSTIN: And it wouldn't be from purchasing

1 electricity in the export market, and bringing it into  
2 the BC Hydro system, and later finding out that you  
3 didn't need that electricity?

4 MR. REIMAN: Yeah, that would not be good management, I  
5 think.

6 MR. AUSTIN: In the last ten years what's the frequency  
7 -- how many spills has BC Hydro had from its system?

8 MR. REIMAN: I don't have that level of detail available,  
9 but there is certain facilities in our system that  
10 don't have storage, that pretty much spill every year  
11 in the freshet. I don't know if it's less frequent in  
12 the Heritage system, and that would depend on the  
13 degree of the inflow. But I don't have those numbers  
14 available.

15 MR. AUSTIN: Generally, would you agree that it's a rare  
16 event?

17 MR. REIMAN: No. Again, there is certain facilities in  
18 our system that don't have storage, that are expected  
19 to spill pretty much every year.

20 MR. AUSTIN: Well, let's restrict it to the storage  
21 facility on the Peace and Columbia, how often has  
22 there been spills from those facilities in the last  
23 ten years?

24 **Proceeding Time 2:40 p.m. T20**

25 MR. REIMAN: So the spill you would get from the Heritage  
26 facility, I mean there could be circumstances where

1 Hydro hadn't properly forecasted what was going to  
2 happen. But we tend not to operate reservoirs to  
3 within that range and so we do snowpack assessments,  
4 we have an idea of when the freshets coming.  
5 Sometimes it comes in quicker, but it's rare for us in  
6 the Heritage system to spill when it's not associated  
7 with extremely high levels of inflow.

8 But really that's a different thing than  
9 what we're talking about here today. Isn't so much  
10 about the storage, it's the ability of our system to  
11 turn down it's generation. This we will call MIN/GEN  
12 problem. And so on our Heritage system we usually  
13 have storage, we can shut those down to minimum flows.  
14 Then we've got the Heritage facilities that don't have  
15 storage that run and either need the generator spill,  
16 and then we have IPPs that come in that are non-  
17 dispatchable and they add as a freshet.

18 And when a combination of those exceeds our  
19 ability to serve load in the province, we've got more  
20 supply than load, then we got one of two choices. We  
21 either spill or we export. We get into these negative  
22 price periods and low load hours when the prices are  
23 low, it's just -- you don't want to be paying people  
24 to take your power, so you spill. And so part of it's  
25 Hydro's system, the other part is, in terms of the  
26 freshet rate, it's available on the market, if it's a

1           good deal for customers and they can use it  
2           beneficially, then that should be good for everybody.

3 MR. AUSTIN:    Thank you for that very long answer to the  
4           question.  Maybe we could just break that down a bit  
5           and let's talk about the non-Heritage system.  If  
6           you're spilling on the non-Heritage system, is that  
7           because your generating capacity can't handle the  
8           volume of water or is it a question of not using that  
9           generating capacity and just otherwise spilling the  
10          water?

11 MR. REIMAN:    I'm sorry, I'm not clear on your question,  
12           Mr. Austin.  What are you -- you're asking about the  
13           non-Heritage hydro?

14 MR. AUSTIN:    You said that there's certain facilities  
15           within the BC Hydro system that there was going to be  
16           spills and that they're different than the storage  
17           generating projects.  Now, why am I spilling at those  
18           non-Heritage generating plants?  Is it because there  
19           isn't sufficient generating capacity to handle all the  
20           water?  Or there is no demand for the electricity  
21           should I generate electricity from those projects?

22 MR. REIMAN:    So, if I misspoke saying it was non-  
23           Heritage, I didn't mean that.  So within Hydro's  
24           system there's one large storage generation and  
25           there's ones that have low storage.  And so it can be  
26           a combination, you can spill because there's too much

1 water coming, and you can spill because there's not  
2 enough load to absorb it all.

3 MR. MIEDEMA: Just for a reference also, there's a couple  
4 places in the application and in the IRs that deal  
5 with spill. In Exhibit B-1, Appendix C-5B, page 31  
6 has a figure showing spill history at 7 Mile, which is  
7 one of our generating clients that does typical have  
8 -- that can have quite a bit of spill. The same plant  
9 is also shown in Exhibit B-5, in the IR responses, and  
10 the response to BCUC IR 113.1.1, there's a graph there  
11 comparing spill at 7 Mile and Waneta against the  
12 expected load that we had -- that we were expecting  
13 into the freshet rate.

14 MR. AUSTIN: Thank you very much for that clarification,  
15 but that's specific to say, for example, the Waneta  
16 project. Is the Waneta project not subject to  
17 releases on the U.S. side of the border in terms of  
18 its generating profile?

19 MR. REIMAN: I'm not sure.

20 MR. AUSTIN: You're not aware of all the storage projects  
21 upstream from the Waneta on the U.S. side of the  
22 border?

23 MR. REIMAN: I don't know if that's part of the system in  
24 detail, no.

25 **Proceeding Time 2:45 a.m. T21**

26 MR. AUSTIN: Okay, just wanted to go back to my general

1 question. No one on the panel has any sense of the  
2 spilling from storage projects that BC Hydro owns, it  
3 has no sense of what that history has been for the  
4 last ten years.

5 MR. REIMAN: I don't have the record of spills in the  
6 last ten years, no.

7 MR. AUSTIN: Would anybody on the panel know what the  
8 forecast level of spills is for the next 15 years?

9 MR. REIMAN: The level of spill moving forward will  
10 depend on the in-flows to those storage systems.

11 MR. AUSTIN: And assuming that it was under average water  
12 conditions which BC Hydro seems to use as its base  
13 level for the purpose of doing a forecast, no one has  
14 any idea what that might be?

15 MR. REIMAN: I would expect under average water we  
16 wouldn't spill from the large storage Hydro projects.

17 MR. AUSTIN: Maybe to put a little more clarity on this  
18 we can refer to your presentation, and it's the graph  
19 at Slide 2. Do you have that available to you?

20 MR. REIMAN: I do.

21 MR. AUSTIN: I believe it was in response to a question  
22 from Mr. David Craig you said -- or someone on the  
23 panel said -- sorry, I said "you" said. The panel  
24 said that maybe three to five customers would take up  
25 the spring freshet pilot rate offer, is that correct?

26 MR. REIMAN: Correct.

1 MR. AUSTIN: And I believe there was a question from the  
2 Panel itself earlier on in the afternoon about the  
3 magnitude of the oversupply during the spring freshet  
4 problem, and I wonder if you could put that magnitude  
5 of the problem in gigawatt hour figures as opposed to  
6 average megawatts. Now, just -- we'll use the average  
7 water conditions, and if I'm looking at this graph I  
8 really don't see that much difference between the  
9 supply and the demand.

10 Could you tell me how many gigawatt hours  
11 of surplus electricity there is for these three to  
12 five customers to take out?

13 MR. REIMAN: So in terms of the amount of electricity  
14 that would be available to take up, that would vary by  
15 water year. And what we did in this graph was remove  
16 the water variability. We also pointed out that these  
17 are monthly averages. There is times when it is  
18 higher and we have more freshet in-flows that can be  
19 more problematic.

20 The other thing that I pointed out was that  
21 in terms of supplying the freshet rate, it was also  
22 the availability of that energy in the mid-C market.  
23 So there'd be a tremendous amount of energy that could  
24 be available to be used for this freshet.

25 MR. AUSTIN: I appreciate that, Mr. Reiman, but I was  
26 looking more for, on the BC Hydro system, operating it

1 the way BC Hydro does, what is the forecast surplus in  
2 gigawatt hours for the purposes of the freshet?

3 MR. REIMAN: So I would -- probably the best way to  
4 answer your question is to go to the IRs, Exhibit B-5,  
5 BCUC IR 1.104.1. And what this IR shows is forecasts  
6 for a 2017 MIN-GEN profile but using 2012 historical  
7 in-flows. What would it look like? And again, the  
8 difference between these graphs and when we actually  
9 spill in the system is these are month averages and  
10 the spill concern or frequency is more frequent than  
11 low load hours, but you can see for a number of water  
12 years from 2012, '13, '14 and '15, the amount of times  
13 that, at least on a monthly average basis, supply  
14 would be above what the load is. And so any of times  
15 it would be ones where you would either export or  
16 spill.

17 **Proceeding Time 2:49 p.m. T22**

18 And of course, our first choice will always  
19 be to export. It would only be in low-load hours,  
20 where the market's become negative, that ultimately we  
21 might choose to spill, or if we ever run into export  
22 transmission constraints. Though again, the water  
23 variability here shows that it could be fairly  
24 frequently. The red and blue lines show that probably  
25 half the time, on a month average basis in that  
26 period, that we would be in a spill mode.

1 MR. AUSTIN: If I look at the graph entitled "Forecast  
2 2017 minimum generation profile with 2013 historic  
3 flows", correct me if I'm wrong, but I don't see a  
4 very large surplus there, do you?

5 MR. REIMAN: So, if you're looking at the red line, it's  
6 in an average water year, that would be pretty close  
7 to balance on a monthly basis. So half the time you'd  
8 expect to be above that, and either exporting or  
9 spilling, or half the time you'd be under it. But  
10 again, if it's in low-load hours, that problem is  
11 exacerbated.

12 MR. AUSTIN: And if I look at the graph entitled  
13 "Forecast 2017 minimum generation profile, 2014  
14 historic flows", there is very little if any surplus.  
15 Is that correct?

16 MR. REIMAN: Well, same comment as for the last graph.

17 MR. AUSTIN: And how did you conclude that half the time  
18 you'd be in surplus and half the time you wouldn't be  
19 in surplus? Is -- are the inflows in terms of the  
20 high inflows in the BC Hydro system and the low  
21 inflows symmetrical?

22 MR. REIMAN: Yeah, that's a median, or an average line.  
23 So probabilistically you'd expect it to be above that  
24 half the time, and half the time under it.

25 MR. AUSTIN: Is that in fact what happens with the BC  
26 Hydro system?

1 MR. REIMAN: I'm sorry, I don't understand your question.

2 MR. AUSTIN: In terms of the BC Hydro system, you said  
3 that's a probabilistic forecast. Is that exactly --  
4 is that how it actually works on the BC Hydro system?  
5 Do the highs balance out the lows in terms of the  
6 duration and frequency of dry periods versus wet  
7 periods?

8 MR. REIMAN: Yeah. My understanding would be is that  
9 when you calculate the average, that's exactly what  
10 you're calculating.

11 MR. AUSTIN: But you haven't gone and looked at whether  
12 that average really means what you've -- an average  
13 is, or whether because of the way the weather works in  
14 this part of the world, that your duration of your  
15 drought periods can be sometimes a lot longer than the  
16 frequency of your high inflow periods?

17 MR. REIMAN: My understanding is, when we do these  
18 calculations, it's based on looking at historical  
19 inflows, and then calculating what that median line  
20 would be. So, this is based on reality and the  
21 history of inflows we've seen.

22 MR. AUSTIN: Right. Do you do the calculations?

23 MR. REIMAN: I don't.

24 MR. AUSTIN: Is there anybody on the panel that does do  
25 these types of calculations?

26 MR. REIMAN: They do not.

1 MR. AUSTIN: In terms of the take-up by three to five  
2 customers, roughly how many gigawatt hours of  
3 electricity might that equate to?

4 MR. MIEDEMA: The take-up range of five average megawatts  
5 to thirty average megawatts, which we talked about in  
6 the workshop 10 consideration memo, and the  
7 presentation, we also provided a gigawatt hour range.  
8 And that's approximately 11 gigawatt hours over the  
9 freshet, the 66 gigawatt hours over the freshet  
10 period.

11 MR. AUSTIN: And could you tell me roughly what the  
12 electricity use is by BC Hydro's large industrial  
13 customers as a group in gigawatt hours?

14 MR. MIEDEMA: Approximately 15,000 gigawatt hours.

15 MR. AUSTIN: Now, correct me if I'm wrong. I think in  
16 response to a question that was asked, if there is no  
17 surplus during the BC Hydro -- during the freshet  
18 period, BC Hydro would be importing electricity to  
19 supply to the customers who have signed on to this  
20 freshet rate. Is that correct?

21 MR. MIEDEMA: Well, the system operating behaviour is  
22 going to change, hour by hour, week by week, day by  
23 day, depending on market conditions, inflows, et  
24 cetera. So, if there -- your question was, if there  
25 is no surplus -- within the freshet period there may  
26 very well be times of surplus, and during those times

1 of surplus we'd be likely trying to export that  
2 surplus if the market price was appropriate. During  
3 other times we might be importing. It depends on the  
4 period and when.

5 **Proceeding Time 2:55 p.m. T23**

6 MR. AUSTIN: Right. So let's suppose that there is no  
7 surplus, whether it's hourly, daily, or weekly during  
8 the spring freshet. You have customers who have  
9 signed on for the pilot rate. Where is the  
10 electricity going to come from to serve those  
11 customers?

12 MR. MIEDEMA: So if the market price is really  
13 advantageous relative to the value of BC Hydro  
14 storage, it's more likely in that scenario that we  
15 would be importing the power to serve the incremental  
16 load if the prices are lower than what the storage  
17 value is.

18 MR. AUSTIN: Is any consideration being given to whether  
19 that those imports would not be consistent with the  
20 *Clean Energy Act's* requirement self-sufficiency?

21 MR. REIMAN: Self-sufficiency requirement requires us to  
22 hold under contract sufficient electricity that can be  
23 produced within the province of B.C. to meet our  
24 average load requirements And so, depending on what  
25 our inflows are, there's years where we would rely on  
26 the market, there's years where we'd export surplus to

1 the market. So, we plan the system to be self-  
2 sufficient in the operational timeframe. Hydro will  
3 do whatever is in the best interests of the ratepayers  
4 in terms of optimizing purchases or sales.

5 MR. AUSTIN: So the answer to that question is no?

6 MR. REIMAN: Sorry, can you repeat the question?

7 MR. AUSTIN: The question is, has any consideration been  
8 given to the period when you might be importing  
9 electricity to supply the spring freshet rate and  
10 whether that's consistent with the definition of self-  
11 sufficiently in the *Clean Energy Act*? Just ask  
12 whether any consideration has been given to that?

13 MR. REIMAN: Yes.

14 MR. AUSTIN: And the answer is?

15 MR. REIMAN: Yes.

16 MR. AUSTIN: The answer is yes, but importing electricity  
17 to serve a BC Hydro posted rate is not inconsistent  
18 with the self-sufficiency definition in the *Clean*  
19 *Energy Act*?

20 MR. REIMAN: We need to hold under contract sufficient to  
21 meet our average load forecast requirements, and in  
22 this circumstance we would not add these loads to our  
23 planned load to supply, so we would not acquire for  
24 that basis. So that would be consistent with self-  
25 sufficiency.

26 MR. MIEDEMA: These loads are all non-firm loads.

1 MR. AUSTIN: So average to you means non-firm, is that  
2 correct?

3 MR. REIMAN: Well, it's our average load forecast  
4 requirements. And so we would not forecast to meet  
5 these loads. We would not add them to our load  
6 forecast, we would not acquire resources to supply  
7 them.

8 MR. AUSTIN: Even though you've signed them up under a  
9 rate, and you'd have an obligation to serve them  
10 whether you had a surplus or not?

11 MR. MIEDEMA: Yeah, there's no obligation to serve the  
12 non-firm load. The rate schedule has a special  
13 condition that gives BC Hydro the ability to not serve  
14 these customers under this freshet rate schedule if we  
15 don't have energy capacity to do so.

16 MR. DOYLE: And I believe that's consistent with the,  
17 like, rate schedule 1253 and 1853, with the non-firm  
18 IPP supply loads. So there's -- those are non-firm  
19 rates as well, that are not included in our load  
20 forecast, so it's --

21 MR. MIEDEMA: And rate schedule 18.

22 MR. DOYLE: So we have a number of non-firm rates.

23 MR. AUSTIN: I'd like to draw your attention to Exhibit  
24 B-5, and this is BC Hydro's response to Clean Energy  
25 Association's Information Request 1.1.1. Have you got  
26 that?

1 MR. DOYLE: Yes.

2 MR. AUSTIN: In terms of deciding whether to have a pilot  
3 spring freshet rate to presumably alleviate the  
4 problem of surplus during the spring freshet period,  
5 what consideration did BC Hydro give to reducing the  
6 amount of supply, say, for example, from generators  
7 who are pulp and paper companies who may be generating  
8 during that period?

9 MR. MIEDEMA: I mean certainly within the engagement  
10 process we looked at customers with contracted  
11 generation and uncontracted generation, and considered  
12 whether or not customers with contracted generation  
13 would be able to use the rate. But to your question  
14 we didn't -- you know, I'm not aware of Hydro's  
15 decision making in terms of when we curtail contracted  
16 generation during the freshet period. I don't have  
17 the EPA detailed knowledge to address that.

18 **Proceeding Time 9:05 a.m. T24**

19 MR. AUSTIN: So would you agree with me, if I got a  
20 surplus, my surplus can be as a result of not enough  
21 demand and/or too much supply?

22 MR. REIMAN: It all adds to the same net results, and  
23 reducing supply or increasing load would be equally  
24 successful. And I think we have some turned-out  
25 provisions in the EPAs but I'm not clear what they are  
26 or when they apply or what the conditions would be.

1 MR. AUSTIN: And in addition to the existing provisions,  
2 it would have been possible to incent say, for  
3 example, a generator who's -- a thermal generator who  
4 needs to adjust their maintenance schedule so they do  
5 maintenance during the spring freshet, so that that  
6 supply would be not something that created a surplus  
7 -- helped to create a surplus during the spring  
8 freshet period?

9 MR. REIMAN: So Hydro is giving thought to the ability to  
10 manage the freshet issue in a variety of manners. And  
11 certainly if we don't have the ability in EPAs we're  
12 looking at it, if there's ways to get turned down,  
13 whatever. You know, others that may be equally as  
14 attractive as the freshet rate and I think we'll move  
15 forward on all of those. But there is -- none of  
16 that, in my mind, would come anywhere close to dealing  
17 or negating the freshet opportunity that we have,  
18 especially if you consider again that it's not just  
19 our system but it's the market. I know I'm being a  
20 broken record on that point, but -- so, you know, we  
21 keep looking at these things and anywhere we can do  
22 that beneficially, we will pursue those.

23 MR. AUSTIN: So let me understand this properly. If I've  
24 got a potential take-up of between 11 gigawatt hours  
25 to 66 gigawatt hours, you're telling me that BC Hydro  
26 didn't look at how it could reduce generation by the

1           equivalent amount by, say for example, incenting a  
2           thermal generator to move its maintenance period into  
3           the freshet period?

4   MR. REIMAN:    I don't believe I said that at all.  I said  
5           I think we're moving forward on all those fronts.  
6           That's not the specifics of this process.  I don't  
7           have those details or that knowledge at this time, but  
8           I know we're looking at that.  Whatever we can do to  
9           reducing the freshet, to reduce costs or provide some  
10          economic benefits to the province, we're looking at  
11          that.

12   MR. AUSTIN:    But did you look at it concurrently with the  
13          proposal to bring forward this spring freshet rate?

14   MR. REIMAN:    There is nothing going on in Hydro that I'm  
15          aware of that could manage this problem in such a way  
16          that either (a) would reduce the amount that's  
17          available in the freshet, or (b) would turn around the  
18          mid-C market so there wouldn't be something available  
19          in those markets.  And so it was a non-consideration.  
20          It's not even close.

21   MR. AUSTIN:    Mr. Reiman, that's not the question I asked.  
22          The question that I asked is, you are indicating there  
23          would be a take-up of somewhere between 11 gigawatt  
24          hours to 66 gigawatt hours, and the question that I  
25          asked is in terms of BC Hydro's analysis of its spring  
26          freshet problem, did it concurrently look at the



1           consideration with thermal generators.

2 MR. AUSTIN:    Now, I appreciate you haven't sworn yourself  
3           in as a witness, and I'm not asking that you swear  
4           yourself in as a witness, but are you familiar with  
5           all the thermal electricity purchase agreements that  
6           BC Hydro has entered into or just your own?

7 MR. DELMONTE:   I am only aware of my own and I am aware  
8           of the specimen agreement that was in place. Those  
9           are the only ones I am aware of, Mr. Austin.

10 MR. AUSTIN:    So you don't know what flexibility or  
11           restriction are there in other EPAs?

12 MR. DELMONTE:   No, I do not.

13 MR. AUSTIN:    Thank you. That's good news because of the  
14           confidentiality provisions.

15                    I'd like to refer back to Exhibit B-5, and  
16           Clean Energy Association Information Request 1.1.1.  
17           And in 1.1 Clean Energy Association asked for actual  
18           results in the years 2012 through 2015, and BC Hydro  
19           said the proposed spring freshet rate is only from  
20           2016 to 2017, and didn't provide the information  
21           requested, do you see that? This is Information  
22           Request 1.1.1.

23 MR. REIMAN:    So you're referring to the first bullet in  
24           that?

25 MR. AUSTIN:    Yes, I'm referring to the response in IR  
26           1.1, Clean Energy Association asks for the actual

1 results in the years 2012 through 2015. So that's  
2 lines 4 through 5, in that Information Request.

3 MR. REIMAN: Okay.

4 MR. AUSTIN: And in response it says, "The freshet rate  
5 pilot spanning March 2000 to '16 [sic] to December 21,  
6 2017, timeframe was the reason why B.C. Hydro didn't  
7 provide the information requested from 2012 to 2015."  
8 Do you see that?

9 MR. REIMAN: I do.

10 MR. AUSTIN: How can this Commission inform itself as to  
11 what possibilities they are to alleviate the spring  
12 freshet problem that B.C. Hydro says it has if it  
13 doesn't know where the spring freshet problem emanates  
14 from?

15 MR. REIMAN: I would hope that their response to BCUC IR  
16 1.4 -- 1.104.1 would give the Commission sufficient  
17 sense of what the availability of resources are in  
18 this period and done over a variety of years. And  
19 when you combine that with the opportunity to buy it  
20 in a mid-C market, that the Commission would be  
21 comforted that there is a supply there that's  
22 available for this freshet rate.

23 MR. AUSTIN: Mr. Reiman, that wasn't the question I  
24 answered -- the question I asked. The question -- I  
25 don't answer my own questions usually.

26 The question that I have is how can the

1 Commission inform itself as to how it can help BC  
2 Hydro solve this spring freshet problem that BC Hydro  
3 says it has without knowing where the spring freshet  
4 problem comes from?

5 MR. REIMAN: In our view where it comes from is  
6 immaterial. We've made decisions over the years to  
7 build out the system and buy contracts based on the  
8 best available resources that we acquire at the time  
9 within whatever policy guidance we have. We've built  
10 out the system, it's there today. This is what the  
11 characteristics like and there is a surplus that's  
12 available to be had for this freshet rate.

13 It's Hydro view that how that comes about,  
14 which resources contributes to it is really  
15 immaterial.

16 MR. AUSTIN: Mr. Reiman, we just went through at least  
17 one way that you could tweak the existing supply,  
18 whether it's from generating facilities or under  
19 contract, is that not correct?

20 MR. REIMAN: Yes, Mr. Austin, I think that's right. That  
21 when you say "tweak" I think that's the right way to  
22 describe it. That there's a number of ways that you  
23 can play around the edges on this thing, but -- and  
24 again I am going to be a broken record on this, is  
25 that none of those things is going to come anywhere  
26 close to eliminating the freshet available on the

1 system and what you could get in the mid-C market to  
2 make this rate happen and give opportunities to our  
3 customers.

4 **Proceeding Time 3:11 p.m. T26**

5 MR. AUSTIN: Would you agree with me, Mr. Reiman, that if  
6 I'm looking for somewhere between 11 to 68 -- to 66  
7 gigawatt hours out of a total demand of about 15,000,  
8 that some of the tweaking on the supply side might  
9 achieve the same result as the spring freshet rate?

10 MR. REIMAN: I would agree with you that there may be  
11 other things that I believe Hydro is already looking  
12 at and doing in the system, that would be of similar  
13 magnitude. But I wouldn't agree that that in any way  
14 is a reason not to do the freshet rate, and to give  
15 our customers the advantage of this freshet  
16 opportunity.

17 MR. AUSTIN: With respect to Clean Energy Association  
18 Information Request 1.1.1, the Clean Energy  
19 Association provided an historical table that BC Hydro  
20 was more than willing to provide the information for  
21 in the past. Why is BC Hydro's position now changed  
22 for the purposes of this proceeding?

23 MR. REIMAN: I think our response to this was, is that we  
24 didn't think that this would be meaningful to the  
25 Commission to determine a two-year rate that's -- I  
26 can't think of what the return is now. The what?

1 MR. MIEDEMA: The pilot rate.

2 MR. REIMAN: The pilot rate. Thank you. That that would  
3 be in any way meaningful to establish what's needed to  
4 be done for this rate. So --

5 MR. AUSTIN: Could you undertake to provide that  
6 information that the Clean Energy Association of B.C.  
7 asked for?

8 MR. WEBB: I do have a concern about undertakings of that  
9 nature in this proceeding. The evidentiary phase of  
10 it is supposed to be done today. And to provide an  
11 undertaking to provide information after the close of  
12 evidence is essentially what I understand Mr. Austin  
13 to be asking for. I think it's problematic.

14 THE CHAIRPERSON: Mr. Webb, if you agree to provide the  
15 undertaking, then final arguments -- we would hold off  
16 on the final argument until you've provided the  
17 undertaking.

18 MR. WEBB: We talked about the schedule of the  
19 implementation earlier today, and (inaudible).  
20 Commission decision by -- in the neighbourhood of  
21 February 8<sup>th</sup>. So I'm not sure how much time would be  
22 involved in preparing this information, and how much  
23 of a delay would be involved to the schedule.

24 THE CHAIRPERSON: Can you just hold for a moment, please?  
25 We'll take a five-minute break, I think.

26 MR. WEBB: I do have two more comments, if that's okay.

1 If it's okay at this time.

2 So one is, preliminary indications are that  
3 it would be quite a bit of work to prepare this  
4 information. And then the other is, when these  
5 responses were submitted, and the information wasn't  
6 provided, a process was set out for -- in anticipation  
7 of this going to a streamlined review process, if  
8 anybody has any problems with the IR responses, to  
9 deal with that in a timely manner, in accordance with  
10 proposed process. And Clean Energy BC did not avail  
11 themselves of that process, and has just raised this  
12 issue now here today at the streamlined review  
13 process.

14 MR. AUSTIN: If I could respond to that. This issue was  
15 raised at the pre-hearing conference, and so it was  
16 clear that it was an area that we were going to be  
17 looking at. And there is an additional area with  
18 respect to Clean Energy Association of B.C.  
19 Information Request 1.1.4 which is along similar  
20 lines, which we were told that we could cross-examine  
21 BC Hydro on. So these issues were both flagged.  
22 There is no surprise here to anybody.

23 MR. WEBB: There is a big difference between showing up  
24 here to ask questions, and asking for an undertaking  
25 to provide a bunch of information. That request could  
26 have been made in a formal way before this streamlined

1 review process. If you had known, Mr. Austin, that  
2 you would need this information in order to present  
3 your case here today, you could have made sure that  
4 you had it in advance of today.

5 MR. AUSTIN: I have no further submissions, Mr. Chair.  
6 This issue was clearly flagged at the pre-hearing  
7 conference.

8 THE CHAIRPERSON: Mr. Austin, I wonder if you could just  
9 please summarize where you intend to go with this  
10 information. Like, summarize again for us the value  
11 of this information?

12 MR. AUSTIN: The information would be very helpful to the  
13 Commission to determine whether it should approve the  
14 spring freshet rate because there may be alternatives  
15 to the spring freshet rate such as tweaking the  
16 delivery requirements under, say, for example, an  
17 electricity purchase agreement with a pulp and paper  
18 company, BC Hydro, if it truly has a spring freshet  
19 problem, which I would argue it hasn't even proven  
20 that yet, let alone in terms of trying to alleviate  
21 that problem.

22 So what it could do is, with this  
23 information the Commission could then determine it's  
24 too early for the spring freshet rate. There is not  
25 enough information available to make this decision  
26 because this pilot, for the most part, if fully

1 expected to turn into something long term, so it's a  
2 question of addressing it's efficacy now not later  
3 when BC Hydro comes and says "You've already approved  
4 it now we want to expand it", and then if somebody  
5 such as the Clean Energy Association says "Wait a  
6 minute, we don't think you have a spring freshet  
7 problem", to be told, you had your chance before.

8 So that is something that has happened in  
9 the past. So I think it's imperative upon this  
10 Commission, before it approves the rate, to look at  
11 all the alternative to it and really see if there is a  
12 spring freshet problem that has to be dealt with. And  
13 if it's to be dealt with, what ways are there to be  
14 dealt with, and they all have to be looked at  
15 concurrently before it's approved. Thank you.

16 THE CHAIRPERSON: The Panel I going to take a five minute  
17 break and discuss this, but before we go is there  
18 anything further that you have add to Mr. Austin's  
19 comments?

20 MR. WEBB: The only thing I would add is, based on the  
21 information that the witnesses have provided in  
22 response to Mr. Austin's question already, and in view  
23 that Mr. Delmonte provided as well, the information  
24 he's requesting in this IR, I'm not sure that it would  
25 be adequate to be a basis for the discussion he wants  
26 to have anyway. He had just asked for, in this 1.1.1

1 IR, line items of tabular data on supply from various  
2 resources, which has nothing to do with the  
3 opportunities to change that supply. Whether it's  
4 through amendments through the contract, whether it's  
5 to language within the contracts, opportunities to use  
6 the energy or use the facility in a different way,  
7 it's just a table of data.

8 THE CHAIRPERSON: So it's your position, then, that these  
9 contracts can't be changed anyway, so therefore it's  
10 of no value to look any further into them, is that  
11 what I understood you to have just said?

12 MR. WEBB: I don't know the answer to that question,  
13 whether the contracts can be changed. I'm saying that  
14 the information he's requesting here doesn't get at  
15 that point in any event. So it's not going to support  
16 that discussion around can the contracts be changed,  
17 to what extent can they be changed. And as Mr. Reiman  
18 said, they would do it all if they could. So it  
19 doesn't prevent -- EFO and those other things can be  
20 done and are done. It doesn't change the opportunity  
21 of this proposed rate schedule.

22 THE CHAIRPERSON: Okay.

23 MR. REIMAN: Maybe one other comment, if I could. BCUC  
24 IR 1.104.1, if you go to the forecast 2017, MIN/GEN  
25 profile with approximately 2015 historic inflows.

26 THE CHAIRPERSON: Which one is that?

1 MR. REIMAN: Sorry, BCUC IR 1.104.1 and it's the last  
2 graph, the 2015 historic inflows. I don't think it  
3 matters really which one you look at. But if you look  
4 at the variability of water inflows, and this is the  
5 variability of Heritage hydro, we didn't include in  
6 this variability and IPP ones. But when you look at  
7 the range there between the average and the high  
8 water, you're changing load and generation. Like the  
9 scale there is 6,000 average megawatts to 9,000  
10 average megawatts. We're talking 3,000 megawatts of  
11 potential MIN/GEN over supply in certain conditions.

12 And so if we're talking about what is it  
13 that we can do with pulp and paper contracts, and I  
14 don't know how many we've got, maybe a dozen 20  
15 megawatt contracts, you could do everything you wanted  
16 to with all of those. And you're talking 240  
17 megawatts. We're talking thousand of megawatts here.

18 And that speaks to the freshet and when  
19 water is in surplus, and again these are monthly  
20 averages. The low load water, the low load hour, the  
21 load is lower so those numbers get bigger. And so  
22 that kind of just speaks to the freshet and the over  
23 supply. But again, I think the key point of this  
24 whole thing is that this is an opportunity for the  
25 customers, and it's not just Hydro's system, it's what  
26 you can get from the mid-C to back this all up. And



1           oversupply, as far as the Commission should consider  
2           is, what is the logic for this? It will have as much  
3           impact on this spring freshet over-supply as tweaking  
4           the contracts.

5                        So, why isn't BC Hydro looking at tweaking  
6           the contracts, as one potential solution to the spring  
7           freshet problem?

8                        BC Hydro has also been able to manage this  
9           spring freshet problem for the last -- as long as  
10          anybody can remember, without too much difficulty.

11 THE CHAIRPERSON:    Okay. Mr. Austin, you have a request  
12          on the table for Hydro to answer these questions, is  
13          that correct?

14 MR. AUSTIN:         Right.

15 MR. WEAVER:         Mr. Chairman?

16 THE CHAIRPERSON:    Go ahead.

17 MR. WEAVER:         Could Mr. Craig ask the question? Just in  
18          the process?

19 THE CHAIRPERSON:    Go ahead.

20 MR. WEAVER:         Thank you.

21 MR. CRAIG:         I just wanted to confirm with BC Hydro what  
22          I'm hearing. I'm hearing that the premise of all  
23          these questions is that other things that Hydro might  
24          do would be an alternative to the rate. And I'm not  
25          sure that that's at all the premise under which the  
26          rate is being put forward. I'm hearing that the rate

1 is being put forward as one more thing that can be  
2 done, and Hydro is not rejecting doing other things,  
3 including having a discussion with us about the  
4 commercial aspects, which again would not be an  
5 alternative to be displaced by something else, but  
6 would all be additive.

7 So I just want to confirm that I'm hearing  
8 that right. And I think it's important for the  
9 Commission to understand that something that's  
10 additive is very different than something that's  
11 alternative.

12 MR. ANDERSON: I think that's a great characterization,  
13 and that's exactly right. I mean, for us the benefit  
14 of this, again, is that it's an option that we look at  
15 for a certain class of customers, and we'd like as  
16 many as possible who can take that up from our TSR  
17 customers at this point, to avail themselves of it.  
18 And it doesn't detriment other customers. So that's  
19 great. And it helps to deal with the freshet  
20 challenge that we have.

21 To the extent there is other management, to  
22 the extent there is other customer incentives around  
23 generation, that could also help contribute to the  
24 oversupply during the freshet, then we will continue  
25 to look at that. And of course we've already  
26 committed to look at that with the freshet rate

1 expansion into other general service classes.

2 THE CHAIRPERSON: Mr. Austin? Is that satisfactory?

3 MR. AUSTIN: I don't agree with that. Because I think  
4 what should be happening at this point in time, the  
5 problems should be identified and all the solutions be  
6 presented. And on that basis, the Commission could  
7 then go forward and approve the pilot rate.

8 While we're on this topic, we might as well  
9 just move to the next issue that was raised, it's  
10 exactly the same thing. But if we look at BC Hydro  
11 response to Clean Energy Association Information  
12 Request 1.1.1, it talks about the long-term recurring  
13 issue. And that's in the first paragraph of page 3 --  
14 the first part paragraph, where it says, "Over-supply  
15 is expected to be a long-term recurring issue."

16 And then when the Clean Energy Association  
17 of B.C. asked Information Request 1.1.4, what it was  
18 looking for was the long-term nature of this problem.  
19 So in colloquial terms, it said to BC Hydro, "Would  
20 you please include in a table, similar to the type  
21 that we asked for the purposes of Information Request  
22 1.1.1, the impact of Site C on the spring freshet  
23 problem." And the response to that was, "No, we can't  
24 do that."

25 So for the purposes of -- from the  
26 Commission's perspective, the Clean Energy Association

1 of B.C. would have thought that the Commission is  
2 interested in the long-term nature of this problem and  
3 the long-term solutions to this problem.

4 **Proceeding Time 3:25 p.m. T29**

5 All we seem to have gotten so far from BC  
6 Hydro is, it's a very short term look at any of the  
7 data. So, in addition to filling out the table with  
8 respect to Clean Energy Association 1.1.1, we would  
9 ask BC Hydro to fill out the table in relation to  
10 Clean Energy Association Information Request 1.1.4, so  
11 that it's consistent in its approach with the long-  
12 term nature of this problem.

13 THE CHAIRPERSON: Okay. Mr. Webb, do you have any  
14 estimate of the amount of time it would take to  
15 respond to those two IRs?

16 MR. WEBB: Can I take a second?

17 THE CHAIRPERSON: Yes.

18 MR. WEBB: Well, the best estimate is in the  
19 neighbourhood of two weeks.

20 THE CHAIRPERSON: Okay. So, we're going to take a few  
21 minutes and talk about this. We'll come back at 25 to  
22 4:00.

23 **(PROCEEDINGS ADJOURNED AT 3:26 P.M.)**

24 **(PROCEEDINGS RESUMED AT 3:38 P.M.)** **T30/31**

25 THE CHAIRPERSON: Thank you.

26 The Panel does not require BC Hydro to

1 answer the questions at this time.

2 Mr. Austin, you were provided time at the  
3 end of IR 1 that this matter could have been brought  
4 forward, and it's unfortunate that you did so at this  
5 late a time. But in any event, the Panel is of the  
6 view that we have an application for a particular  
7 pilot project before us. And Mr. Austin, if you are  
8 of the view that this pilot is not necessary because  
9 there is not sufficient on the -- sufficient evidence  
10 on the record that there is a freshet problem, then  
11 you're free to argue that position.

12 MR. AUSTIN: We just have a few technical questions to --

13 THE CHAIRPERSON: Okay.

14 MR. AUSTIN: -- have BC Hydro's panel respond to.

15 MR. WEIMER: Just to clarify the charts that are up there  
16 right now, you have taken those from BCUC IR 104.1.  
17 Have you selected one particular year? Are these  
18 based on one particular year? Or is this a long-time  
19 average? Or what is -- what's the red line  
20 representing on that chart? Red and black line, I  
21 guess.

22 MR. MIEDEMA: So the red line in the chart corresponds to  
23 the graphs in BCUC 104.1, and it's the implied minimum  
24 generation average.

25 MR. WEIMER: That was over a long period of time.

26 MR. MIEDEMA: Over a period of time, yes.

1 MR. WEIMER: Or is it just the --

2 MR. MIEDEMA: I'm not sure -- I'm not sure how many  
3 years, but Randy may --

4 MR. REIMAN: I don't recall. Yeah.

5 MR. WEIMER: Because 104.1 was all about --

6 MR. MIEDEMA: And the black line, just to -- the black  
7 line corresponds to --

8 MR. WEIMER: -- 2012 to 2015. Are they just over that  
9 period of time or is that a longer period?

10 MR. MIEDEMA: No, it will be a longer period.

11 MR. WEIMER: That's over a very long --

12 MR. MIEDEMA: Yes.

13 MR. REIMAN: And just to be clear, the red line and the  
14 black line do not change between those graphs.

15 MR. WEIMER: No. And I got what you said earlier about  
16 the variability of the load. But if I look at the  
17 104.1 graphs, you can see the mean line, which is a  
18 dotted line that goes way above -- you don't see it up  
19 there, but you'll have to refer to it in -- for 2012,  
20 there is a really distinct large amount to sell,  
21 basically. On average, never mind the pluses and  
22 minus of high and low load powers. I'm looking at the  
23 actual IR 104.1. And the dotted line in June, July,  
24 and August, they're quite a lot -- it was a very wet  
25 year. There's quite a lot to sell.

26 But when you look at the next year, 2013,

1       there is almost nothing, on average, to sell of  
2       surplus power. It's in BC Hydro's system. Sure,  
3       there's lots -- that could be purchased at mid-C, I'm  
4       sure. But in BC Hydro's system you don't have a huge  
5       amount of surplus on average. But you may have some  
6       surplus during light load hours. When you're  
7       capturing down.

8               I'm assuming that your answer to your --  
9       the question earlier was, your must-run generation  
10      tends to stay steady, but your load goes up and your  
11      load goes down. And day to night time loads.

12             But it looks like on average there's not  
13      going to be a lot -- if you have another year like  
14      2013, there's not going to be a lot to sell, on  
15      average. 2014 had one month, July, that was above  
16      where the average must-run generation got above the  
17      load.

18             And then you said 2015, you used a proxy of  
19      1992. Why was that? The 2015 graph shows a little  
20      bit of surplus in June and July, and it says you  
21      didn't have enough data from 2015. But you produced  
22      this in November, 2015. Surely you had enough data  
23      for the freshet period. Why did you use 1992 as a  
24      proxy for it?

25   MR. REIMAN:   Yeah. They just -- we did that just because  
26      the year wasn't complete. And it was a similar year.

1 MR. WEIMER: It was a similar year, 1992.

2 MR. REIMAN: Yeah.

3 MR. WEIMER: But what bothers me a bit is that the load's  
4 going to be going up and down, the surpluses are there  
5 during the night and gone during the day. So you're  
6 going to be asking the industrial customers somehow to  
7 take this extra load, or turn up their loads at night  
8 and back off again in the day. I mean, the prices are  
9 going to reflect this, somehow.

10 How are the industrial customers going to  
11 be able to respond to this kind of variability,  
12 especially if you don't know the difference between  
13 whether you're going to get a 2012 year or a 2013  
14 year? There's quite a difference. It's a huge amount  
15 of volatility in what -- whether you've got surplus to  
16 sell or not, and what the prices are going to be. How  
17 far in advance are the industrial customers going to  
18 know what the price is going to be tomorrow night? I  
19 mean, so that they can actually do something.

20 Are you expecting them to invest money in  
21 some means of doing this? Or are you really doing  
22 this as a means of incenting them to take that 240  
23 megawatts that they've got of internal generation and  
24 just turn it off? You're only wanting 5 to 30  
25 megawatts. So, I mean, pilot said they already have  
26 an incentive in the price structure to up and down



1           mostly Hydro that's doing it.

2 MR. REIMER:     Sorry, Mr. Weimer, you've lost me a little  
3           bit here with that discussion. So, what is your  
4           question?

5 MR. WEIMER:     I guess that was a lot of introduction to  
6           just what are -- where are you going to get this from  
7           the industrial customers?

8 MR. REIMAN:     Where are we going to get what?

9 MR. WEIMER:     Where are we going to get the 5 to 30  
10           megawatts? Is it just from that 240 megawatts of  
11           installed internal --

12 MR. REIMAN:     So the mechanics of the way the rate works  
13           is probably --

14 MR. WEIMER:     Or are they going to have to invest the  
15           money in changing things.

16 MR. MIEDEMA:    So I think I can answer it from a customer  
17           perspective, what I -- what I believe, you know, the  
18           customers that we believe will take it up. So there  
19           are certain customers whose processing of their  
20           processes will allow them to ramp up, right? There  
21           are certain customers who are only running at let's  
22           say that 90 percent of their customer baseline. And  
23           they do that purposefully. And when we get into this  
24           freshet period, now that they have a pricing  
25           incentive, they would look to ramp up that additional  
26           capacity that they already have within their business

1           and take advantage of that additional 10 percent  
2           capacity they have.

3                       Those are the type of customers that we  
4           think will most easily avail themselves to this type  
5           of --

6 MR. WEIMER:    But you're going to have to ramp up this  
7           production and not turn it off again in some other  
8           period, is that right?  Otherwise they will lose the  
9           benefit.

10 MR. MEIDEMA:   Well, sorry --

11 MR. WEIMER:    So basically they're going to have to  
12           increase their annual productions.

13 MR. MEIDEMA:   Yeah, there's some customers who don't run  
14           to their full capacity capability as it exists today.  
15           To your point around future investment and to the  
16           extent this becomes, you know, an approved rate, no  
17           longer a pilot, down the road, there might be  
18           customers who choose to take advantage of it by, you  
19           know, future investment in their capacity of their  
20           particular process to allow them to do that.

21                       But certainly in the short term, in the  
22           pilot, we're expecting it's the customers that already  
23           have that existing capacity to choose --

24 MR. WEIMER:    So you're not expecting them to invest in  
25           added capacity?

26 MR. MEIDEMA:   Not necessarily for the pilot process, no.

1 MR. WEIMER: And how far in advance are they going to  
2 have this information to suddenly ramp up their  
3 production? They're going to have a price signal well  
4 in advance. They can't just schedule tomorrow night's  
5 production to go up 50 percent.

6 MR. MIEDEMA: I can address the price (inaudible) and I  
7 first of all just wanted to point you to some of the  
8 ways in which customers may use the freshet rate.  
9 We've listed five different ways in which they may  
10 generate that incremental -- or have the incremental  
11 consumption. And that's shown on page 7-41 of Exhibit  
12 B-1. So there's an increase production component, it  
13 could come from that. Customers may change grades,  
14 you may have one paper facility that decides to  
15 produce a certain type and another does a different  
16 type. That makes for an incremental gain in  
17 consumption.

18 There could be shifting from the non-  
19 freshet months into the freshet months. Maintenance  
20 is another area, too. You may have customers that  
21 have done maintenance traditionally during the freshet  
22 period. And now they do that maintenance during  
23 another time of the year and so their freshet  
24 consumption is higher. And we've also listed the turn  
25 down generation output contracted to BC Hydro as  
26 another potential source.



1           them had to do with shifting from the freshet -- or  
2           into the freshet period from some other period. Isn't  
3           that a risk to BC Hydro? Because the freshet rate is  
4           based on variable marginal costs, and what they're  
5           paying in the other periods presumably covers some of  
6           BC Hydro's fixed costs, so isn't that a risk to -- a  
7           cost to other ratepayers? If they just shift  
8           production from some other time period into the  
9           freshet period?

10       MR. MIEDEMA: We have acknowledged in the IRs and in the  
11       application that shifting is a risk. And the risk  
12       from shifting, as I said earlier, would come if  
13       customers have Tier 2 energy and if there's a  
14       reduction in that Tier 2 energy, the revenue loss is  
15       \$85 per megawatt hour, but the gain at the export  
16       market during the time of that reduction would perhaps  
17       be, you know, 30, 35 dollars a megawatt hour if it's  
18       in the winter. The take up from the rate is 5 average  
19       megawatts to 30 average megawatts. So you know, we  
20       don't see the risk of shifting as being that  
21       significant.

22                       I also said earlier that the shifting risk  
23       exists with other rate classes as well, in that if we  
24       have customers that say that they're Tier 2 of the RIB  
25       rate, if there's no corresponding certainty that the  
26       savings is going to lead to a reduction in long-run

1 cost, then the revenue loss at a Tier 2 of the RIB  
2 rate may not equate to a gain on the export market  
3 unless you have that long-run certainty that the load  
4 is always going to be reduced.

5 So shifting is a risk. In the application  
6 we've listed a couple benefits from shifting as well,  
7 which just for the reference, are shown of page 7-42  
8 of Exhibit B-1. And that's that shifting can help us  
9 reduce -- potentially reduce wintertime loads, and  
10 shifting in the freshet pilot may also lead to long-  
11 term changes in customer behaviour that would allow us  
12 to reduce our long-term costs. Does that help?

13 MR. WEIMER: Can you just clarify one other thing?  
14 You've brought up that workshop chart which you refer  
15 to on slide 23, I think it's workshop 10, where you  
16 have the percentage of freshet hours with net export.  
17 And you're showing, like, for 2012 is a high  
18 percentage, 78 percent in light load hours and 97  
19 percent heavy load hours, that chart. In 2014 there  
20 was a lot less available, there was only 18 percent  
21 exports in the light load hours.

22 But I'm wondering why all of a sudden in  
23 the heavy load hour it goes from (inaudible) up to 56  
24 percent. Now that indicates to me -- you're not all  
25 off a sudden having a bigger surplus, in the heavy  
26 load hours you've got more load. So it much be a

1 price attraction, is that right?

2 MR. REIMAN: Yeah, if you have -- so one of the things  
3 we're kind of talking around here is these graphs that  
4 we've been looking at is about minimum the generation  
5 crossing over with load, when we have to force an  
6 export or spill. Another issue is how full the  
7 storage is, and whether or not we got surplus water  
8 for the year, and so the reason you see higher flows  
9 generally in the high load hours, to the extent that  
10 we have surplus, we're going to out it into the  
11 markets, better opportunities. So that's an economic  
12 export as opposed to a must-run export

13 MR. WEIMER: So the chart that you're indicating with all  
14 the exports in it, a lot of those exports are  
15 economically motivated, not because you have a  
16 surplus?

17 MR. MIEDEMA: Yes.

18 MR. WEIMER: Where are you selling into light load hours  
19 you may be forced to do it, but in the heavy load  
20 hours it's much higher, say, 2014 as an example. You  
21 must have felt that the price you could get for it at  
22 mid-C was higher than the value to the water in your  
23 system. So under those circumstances would the price  
24 be attractive to the industrial customers? If it's  
25 attractive to BC Hydro to export, why would it be  
26 attractive to the industrial customers to buy it?



1           that volume. And there would be a penalty mechanism  
2           if the volume didn't materialize.

3                     The second product option was more flexible  
4           for customers. And it allows customers, on an hourly  
5           basis, really, to decide how much incremental load do  
6           they want to have. The day-ahead price is applied to  
7           the second product option. And through the workshop,  
8           through -- in the second workshop, we talked about  
9           these slides. We gathered comments from customers,  
10          from AMPC, face-to-face meetings with customers. And  
11          there was consensus, not only among the customers, but  
12          I think among many participants who were at the  
13          workshops as well, that the flexible price, flexible  
14          volume option was probably a more appropriate way to  
15          proceed with the rate.

16                    Our position at the time was that we wanted  
17          to develop only one of these options. We didn't want  
18          to develop both if we could avoid it. If we could  
19          have consensus landing on one of the options that was  
20          better. And that's what we've done. Our application  
21          reflects going with something that's flexible for  
22          customers. They can look at those day-ahead prices  
23          that we'll provide. They can decide if they're going  
24          to have incremental consumption.

25                    The key thing is that the rate schedule has  
26          the net-to-gross ratio that I spoke about earlier,

1           that ensures that if customers ramp up consumption in  
2           May, for example, and then decrease their consumption  
3           in June, the net-to-gross ratio ensures that there is  
4           no benefit from the rate unless there is an actual  
5           gain in consumption across the entire freshet period,  
6           both in high load hours and low load hours.

7   MR. WEIMER:    But it doesn't go as far as if they ramp up  
8           in May and go down in September.

9   MR. MIEDEMA:   No.   That would be shifting, basically.  
10           That's an example of shifting.

11   MR. WEIMER:    Shifting.

12   MR. MIEDEMA:    You've ramped up in the freshet, and you've  
13           gone down in the non-freshet months.

14   MR. WEIMER:    So the freshet period will be April, May,  
15           and June?

16   MR. MIEDEMA:    The freshet period is May to July.

17   MR. WEIMER:    May, June, July.

18   MR. MIEDEMA:    May, June, and July.

19   MR. WEIMER:    So if they lowered it in April and raised it  
20           in May, then that's shifting.

21   MR. MIEDEMA:    Sorry, can you repeat that?

22   MR. WEIMER:    That would be shifting.

23   MR. MIEDEMA:    If --

24   MR. WEIMER:    They lowered their production in April and  
25           raised it in May.

26   MR. MIEDEMA:    Correct.   Yeah.

1 MR. WEIMER: Sounds like a difficult problem for Carlo to  
2 make.

3 MR. DELMONTE: Oh, in the realms of problems, this is an  
4 easy one.

5 MR. WEIMER: Carlo loves problems.

6 That's about all I have, thank you.

7 THE CHAIRPERSON: Thank you. Mr. Andrews, do you have  
8 some questions?

9 MR. ANDREWS: Yes, I do. My questions will focus on the  
10 period in the transition between the pilot rate and  
11 any further extensions or making this permanent.

12 First of all, just in terms of the timing,  
13 this rate would end December 31<sup>st</sup>, 2017 and the  
14 evaluation report would come out in the spring of  
15 2018. Am I right on those dates?

16 MR. MIEDEMA: Well, that's the -- I think on the rate  
17 schedule you're correct on that. On the evaluation  
18 reports, we've said that there will be three separate  
19 evaluation reports.

20 MR. ANDREWS: Yes, the late --

21 MR. MIEDEMA: The last one, spring, 2018.

22 MR. ANDREWS: The third of the three in order would be--

23 MR. MIEDEMA: Correct.

24 MR. ANDREWS: So, does that mean that there will be no  
25 freshet rate in the freshet period of 2018?

26 **Proceeding Time 400 p.m. T35**

1 MR. MIEDEMA: Well, it's a two-year pilot. So --

2 MR. ANDREWS: I asked this question during the workshop  
3 and I understood the answer at the time to be that if  
4 the rate appeared to be going well, that consideration  
5 would be given to asking for an extension to the pilot  
6 while consideration was given to a longer period of  
7 time.

8 MR. DOYLE: You're correct, Mr. Andrews. That is one of  
9 the things that we are going to use the preliminary  
10 reports for, is to inform whether in fact, you know,  
11 does it make sense to, if everything's going well, to  
12 ask for a one-year extension so you don't lose the  
13 momentum while the Commission reviews it, reviews the  
14 materials from the evaluation report.

15 That being said, if things weren't going  
16 well, we may say let's pause it, do the evaluation,  
17 and come back at a later date. So I think right now  
18 it's not certain, but I think if things were going  
19 well in the preliminary reports, it would be a  
20 strongly likelihood we'd be asking for an extension so  
21 we don't lose that momentum.

22 MR. ANDREWS: So is it Hydro's intention to evaluate  
23 whether, you know, in a long-term permanent review  
24 this -- the rate would be firm as opposed to non-firm?  
25 Or are you pretty set on that if it did continue it  
26 would still be on the long-term basis?

1 MR. DOYLE: I think to date all we've considered as being  
2 on a non-firm basis, looking at incremental  
3 consumption on a non-firm basis. That way we don't  
4 run afoul of that issue of it starts to become a part  
5 of your load forecast in filing for that and making  
6 expenditures. So everything has been contemplated on  
7 a non-firm basis.

8 MR. ANDREWS: So, and that kind of gets to my other  
9 point. There's basically, if I'm -- tell me if I'm  
10 right on this. There's two reasons why this doesn't  
11 engage long-term -- this pilot program doesn't engage  
12 long-term planning. One is that it's only two years  
13 since it's been the operating period, not the long-  
14 term planning period. And the second is that it's  
15 non-firm. Is that --

16 MR. MIEDEMA: That's correct.

17 MR. ANDREWS: So maybe the answer is there is no  
18 connection, but when the next IRP is produced, will it  
19 take into account the possibility of a long-term  
20 continuation of this freshet rate? And would that be  
21 tied into an application of the Commission to make  
22 permanent a freshet rate?

23 MR. REIMAN: So we haven't completed setting out what the  
24 next IRP will all cover. Specifically if it's a non-  
25 firm rate, then we wouldn't put it in our stack and we  
26 wouldn't plan to supply it. But to the extent there

1           was any discussion with customers and things evolved  
2           that changed the nature of it, then we would.

3 MR. ANDREWS:    Just for reference can you update us on  
4           what the time frame for the next IRP --

5 MR. REIMAN:     So we have two things.  Yeah, two things  
6           going on with respect to the IRP.  Our last approved  
7           IRP was approved in November 2013, and part of that  
8           approval was a commitment to review whether or not  
9           acquisition process needed to be modified in light of  
10          uncertain loads.  And so that's a rather short check  
11          in that we're expecting this fall.  The next full IRP  
12          by the *Clean Energy Act*, it's required every five  
13          years, and so it'll be due to the government by  
14          November 2018.

15 MR. ANDREWS:    Thank you.  That concludes my questions.

16 THE CHAIRPERSON:  Thank you.  Ms. Worth?

17 MS. WORTH:      Thank you, I have a few questions.

18                    One, I'd like start off just by clarifying  
19           my understanding of something, and then I have a few  
20           questions on other issues.  So you talked about how  
21           this incenting industrials to use incremental energy  
22           addresses the apparent government desire to reduce  
23           costs for this class of customers.  But wouldn't a  
24           cost savings require that the participants actually  
25           reduce their Tier 2 consumption, given that this  
26           incremental use?

1 MR. MIEDEMA: Well, there's cost savings even if  
2 customers just have Tier 1 consumption, because the  
3 market prices are often less than the Tier 1 rate.  
4 The Tier 1 rate right now is about \$38 per megawatt  
5 hour. The market prices have been kind of in the 10  
6 to 15 dollar range in low load hours over the last  
7 five years, and probably in the mid-20s in high load  
8 hours.

9 **Proceeding Time 4:05 p.m. T36**

10 And in fact going forward to this coming  
11 freshet period, we're seeing similar prices based on  
12 actual trades in the market, kind of around \$10 per  
13 megawatt hour in low load hours, around \$25 per  
14 megawatt hours in high load hours, Canadian, in  
15 Canadian dollars roughly.

16 MS. WORTH: So the difference between the Tier 1 and Tier  
17 2 goes more to the actual quantum of benefit to the  
18 customer than to the ability to actually access it, is  
19 that right? It's not that there is zero benefit if  
20 you are only in Tier 1, let's say if you're running at  
21 90 percent of your CBL. If you're in Tier 2 and you  
22 reduce, then you've got a greater benefit than you  
23 would if you were in Tier 1 exclusively, but you still  
24 see a benefit of Tier 1, is that right?

25 MR. DOYLE: Sorry, you said "reduce". I'm not sure what  
26 you meant by reduce there.

1 MS. WORTH: Sorry, I mean load shift. So if you  
2 successfully load shift.

3 MR. DOYLE: Right, yeah.

4 MS. WORTH: Right, you reduce your non-freshet load and  
5 increase your freshet load, so basically you load  
6 shift. Then you can still benefit even though you are  
7 in Tier 1. It's just sort of how much benefit you  
8 receive and the potential impacts to other ratepayers  
9 are sort of --

10 MR. DOYLE: Yes.

11 MS. WORTH: Yeah. All right, that's great, thank you.

12 MR. MIEDEMA: It's a fair comment from Carlo that there  
13 is a mechanism within the 1823 rate, within the  
14 stepped rate, based on the TS74 Guidelines, that says  
15 that if your consumption in a given year drops below  
16 the 90 percent threshold of the CBL, and if you don't  
17 have the necessary adjustments, you can get your CBL  
18 reset lower. So if a customer tried to do significant  
19 load shifting and say dropped 30 percent of their load  
20 in the non-freshet, their 1823 purchases would fall by  
21 30 percent and they'd be at risk. They would get a  
22 lower CBL the following year, which would ultimately  
23 mean that they'd be more likely to have Tier 2  
24 purchases the following year.

25 So there is kind of a natural mechanism in  
26 the rates that limits the amount of shifting that can

1 occur.

2 MS. WORTH: Okay. So earlier in this process we sort of  
3 engaged in a bit of crystal ball gazing, and let's say  
4 that we proceed with this two-year pilot. BC Hydro  
5 decides that it wants to actually proceed with a  
6 permanent or an extended test. Is it your position  
7 that that would be still based on the 2015 baseline or  
8 would that be a rolling baseline that they're on?

9 MR. MIEDEMA: Well, the rate schedule in Appendix F-1B of  
10 Exhibit B-1 discusses a single baseline based on 2015,  
11 and we would see that baseline applying for both years  
12 of the pilot program.

13 MR. WORTH: No, I understand that, but I'm saying let's  
14 -- yeah, let's assume going forward that it's a  
15 permanent program. I'm assuming that there wouldn't a  
16 static baseline going forward indefinitely, is that  
17 correct?

18 MR. ANDERSON: I don't think we've considered that fully,  
19 but I think there's certainly a point you might  
20 consider certain adjustments like you do for the  
21 annual CBL process. But that's certainly something  
22 we'll have to work out.

23 MS. WORTH: Just a quick comment. Given the likelihood  
24 that there would be some period of adjustment, maybe,  
25 you know, a yearly adjustment based on the kind of  
26 schedule that's used for CBL, why would you actually

1 structure a two-year pilot with a static 2015 baseline  
2 instead of having it roll to actually gauge how  
3 customers might behave in a permanent situation? You  
4 know what I mean? If you've got one baseline, it may  
5 actually stifle some activity or some dynamics that  
6 would inform your reports going forward as to whether  
7 there's any risks, whether there's any benefits, you  
8 know, things like that that would not be there in the  
9 absence of a rolling baseline.

10 MR. MIEDEMA: So I think if you had the rolling -- if you  
11 had a baseline that changed in the second year of the  
12 pilot, the economic ability of customers to benefit  
13 from the rate may be nullified. So as an example, if  
14 a customer had a 10 average megawatt baseline in the  
15 first year of the pilot, and the customer ramps up  
16 their load to 12 average megawatts, the customer has  
17 got two average megawatts on this rate at a market  
18 price, so there's a benefit to the customer.

19 If in the second year now we set the  
20 baseline at 12 average megawatts and the customer's  
21 load stays at 12, they're not going to have any energy  
22 under this rate schedule. All of their 12 average  
23 megawatts would be billed on 1823 and there'd be no  
24 economic benefit in the second year.

25 **Proceeding Time 4:11 p.m. T37**

26 MS. WORTH: But that would be a challenge that the

1 customer and BC Hydro would face if it were made into  
2 a permanent project. You know, a permanent rate  
3 schedule, I mean. You know, if you have a situation  
4 where this is made permanent and you keep a static  
5 baseline, then you potentially have a very different  
6 dynamic than if you have one that's adjusted over a  
7 period of time.

8 So I'm just wondering, you said that you  
9 don't -- you haven't really turned your minds to that,  
10 and I'm just wondering why not.

11 MR. DOYLE: One thing I would say is that adjustments are  
12 different than like having it rolling based on the  
13 previous year's consumption. So adjustments we may  
14 look at whether there was a change in the plant  
15 capacity or things like that, as opposed to just  
16 rolling what the capacity -- what the use was from a  
17 previous year. So I think adjustments versus rolling  
18 are two very different things. And I could see one of  
19 the things we may want to look at on a permanent basis  
20 is how you make those adjustments to the baseline.  
21 But I think as Justin said, if you get into a rolling  
22 situation you just take away the benefit.

23 MS. WORTH: Okay. That raises some concerns for my  
24 client because in that type of situation, you know,  
25 there's a certain amount of risk in participating in  
26 any kind of test project, whether it'll be of benefit

1 or whether you'll be able to shape your use or, you  
2 know, engage in the types of activities that you need  
3 to on the time frame particularly that B.C. Hydro is  
4 going to be operating under. But when you have a  
5 situation where you're facing a pilot with a very  
6 strong potential of a -- or at least a reasonable  
7 possibility of a permanent project going forward, if I  
8 were in business I would wait until it actually became  
9 a permanent rate schedule. I would shape myself  
10 before actually going to maximize my benefits. Unless  
11 it's permanent, I would actually go in and I would be  
12 able to benefit far above what I should have been able  
13 to if I actually got into the program when it was  
14 actually a test project and when it was all brand new.

15 If you have something that doesn't sort of  
16 change based on the person or the entity's usage, not  
17 necessarily tied directly to it so that it sort of  
18 tracks exactly, but something that's tied to it and  
19 changes in a dynamic manner, then you've got the sort  
20 of situation where people are going to shape and then  
21 join, and potentially further influencing the negative  
22 impacts to other rate groups. And that's not  
23 something you'd be able to see in this test because  
24 you wouldn't have anybody who would be doing that  
25 during the two years. And if you open up that door,  
26 it opens up a whole other can of worms that you can't

1 test for in this pilot project.

2 MR. ANDERSON: Okay, so I'll -- sorry, I'll -- well, and  
3 Justin can jump in, but I think our CBL process and  
4 the adjustments there really, really capture the  
5 changes that we're looking at on a customer by  
6 customer basis. They're not going to reshape their  
7 profile such that they would be subject to tie our  
8 Tier 2 rates at a different period in the year.

9 And so what we're considering, or what we  
10 would have to consider going forward, as we are  
11 talking about with the baseline for a freshet, is  
12 really the distinction between we want customers to be  
13 able to avail themselves to that cheap electricity in  
14 that freshet period when we have that challenge, and  
15 as much as they can, that's great. And you really  
16 would only want to then consider making adjustments to  
17 the extent their facilities or something changed  
18 within it, not -- I don't see making a adjustment in  
19 the subsequent year to reflect that they took freshet  
20 energy, because that's what we're trying to do.  
21 You're really just looking to make a change like you  
22 do with your CBL, to the extent there's something  
23 significant that's gone on within their facilities.

24 I think there's a natural alignment there  
25 that protects us a bit against shifting, and that  
26 ensures customers are going to be able to take this

1 the way that we want them to.

2 MS. WORTH: Okay, so your evidence is that the CBL  
3 adjustment would be a sufficient stick to avoid kind  
4 of that --

5 MR. ANDERSON: That reshaping.

6 MS. WORTH: That kind of gaining of the system.

7 MR. ANDERSON: Yeah.

8 MS. WORTH: Okay. Thank you.

9 You'll have to forgive if I've missed this  
10 in your evidence, but has BC Hydro indicated in the  
11 record, in the evaluation of the program's success or  
12 failure, what level of load shifting, or negative  
13 impacts that BC Hydro will find acceptable before  
14 determining that it either can't proceed or that it  
15 needs modification?

16 **Proceeding Time 4:16 p.m. T38**

17 MR. MIEDEMA: As I said earlier, there's a number of  
18 benefits from load shifting. There are also some  
19 risks, and there's a number of factors that contain  
20 those risks. We haven't actually done -- and I don't  
21 believe it is possible to do this, either, but we  
22 haven't quantified every single risk and every single  
23 benefit from load shifting, because it's sensitive to  
24 the type of shifting that occurs.

25 We have also said that measuring shifting  
26 can be difficult as well. If, for example, you had a

1 customer that moved their maintenance from the freshet  
2 period, they'd previously done a 10-megawatt  
3 maintenance shutdown over a one-week period, and they  
4 move that into another time period of the year, that  
5 might be measurable. But you may have customers shift  
6 with grade changes. Somebody changes the product mix  
7 in their plant and it's, you know, one megawatt spread  
8 over a three-month period. Much more difficult to see  
9 and to measure.

10 MS. WORTH: My client certainly isn't worried about the  
11 incremental benefit to those who are able to take care  
12 -- you know, take advantage of this. They're, you  
13 know, they're happy to have that. It's more about  
14 controlling it and quantifying the negative --  
15 potential negative impact. If there are any. I mean,  
16 if it nets out to zero or better, in favour of the  
17 ratepayers, then, you know, my clients are fully  
18 supportive of kind of at least examining whether this  
19 should go forward.

20 But it's more -- my client wants to have an  
21 understanding of at what point BC Hydro feels there  
22 will be a tipping point where, you know, you as the  
23 utility will say, "I don't think we should proceed,"  
24 or "We need to examine this and maybe re-tool it in  
25 order to be able to proceed."

26 MR. DOYLE: Yes. I mean, today, we have not put together

1       like a set threshold of -- this amount is okay, this  
2       is not. I think we'd have to look at, you know, the  
3       impact of shifting against some of the benefits that  
4       were accrued through the wheeling, and how those may  
5       opt the wheeling charge, and how those may offset.

6 MS. WORTH:     Mm-hmm.

7 MR. DOYLE:     And I think it's a more comprehensive  
8       evaluation that way.

9 MR. MIEDEMA:   Just to add to that, it's also a -- part of  
10       that evaluation, I think, would have to consider to  
11       what extent the shifting occurred in other rate  
12       classes, on the RIB rate and on the existing LGS rate  
13       that has a Tier 2. If there are cases where customers  
14       have saved Tier 2 energy, and there is a Tier 2  
15       revenue reduction, has there also always been a Tier  
16       -- a long-run reduction in BC Hydro's costs? We'd  
17       have to think about that as well.

18 MS. WORTH:     Okay. Thank you, those are my questions.

19 THE CHAIRPERSON:   Thank you. Ms. Khan?

20 MS. KHAN:     BC Hydro is proposing that all of the  
21       incremental freshet electricity above predetermined  
22       energy and demand baselines be considered non-firm,  
23       and Hydro also knows that the likelihood of  
24       curtailment during the freshet period is low. But  
25       there are possible scenarios under which it might  
26       occur.

1                   In response to BCUC 1.109.1, and I don't  
2                   think you need to turn to it, but BC Hydro has  
3                   indicated that if BC Hydro needed to import to supply  
4                   freshet customers, and if the U.S. intertie was out of  
5                   service and BC Hydro was unable to import energy to  
6                   serve incremental freshet loads, that BC Hydro would  
7                   assess the cost of serving the incremental load. And  
8                   if the cost was deemed to be excessive relative to  
9                   market prices, BC Hydro would likely curtail the  
10                  customer.

11                  We note that in the proposed special  
12                  conditions 1 and 2, in rate schedule 1892, the freshet  
13                  rate, which addressed the availability of freshet  
14                  energy, only permits BC Hydro to refuse service in  
15                  circumstances where Hydro doesn't have sufficient  
16                  energy or capacity. We submit that the wording of  
17                  Special Condition No. 2 needs to be revised in order  
18                  to allow BC Hydro to refuse service if the actual cost  
19                  of supply exceeds the market price. Do you agree that  
20                  this -- with this proposed amendment?

21                  The point would just be to have this  
22                  special conditions reflect the response to the IR.

23 MR. MIEDEMA:    Which Special Condition is it?

24 MS. KHAN:        It's Special Condition 2.

25 MR. DOYLE:       I'm sorry, Ms. Khan, do you mind repeating  
26                  the IR number?

1 MS. KHAN: Sure. The IR was BCUC 1.109.1.

2 MR. DOYLE: Thank you.

3 UNKNOWN: I think we have to hear the background here.

4 **Proceeding Time 4:22 p.m. T39**

5 MR. REIMAN: Yeah, I'm -- the observation would be that  
6 the rate would be offering up at -- electricity at the  
7 market price, and if the transmission was unavailable  
8 then to the extent we could, we would offer up that at  
9 that market rate from our system. There is some  
10 possibility that Hydro's sort of internal value of  
11 water in the dam could be higher than the market rate,  
12 but I wouldn't expect that to be a significant  
13 concern. And it should be very rare that that ever  
14 happens.

15 MS. KHAN: Okay.

16 MR. MIEDEMA: Yeah, the number of hours in which the  
17 intertie is out of service every year are fairly  
18 small.

19 MS. KHAN: Right. Okay. Next, if you could turn to  
20 BCOAPO 1.169.3. And here, the question was posed as  
21 to whether there would be demand charges applicable to  
22 load in excess of the reference demand baseline, if  
23 the net-to-gross ratio was less than 100 percent. BC  
24 Hydro's response was that the net-to-gross ratio is a  
25 component of the energy billing formula used to  
26 determine the proportion of hourly incremental freshet

1 energy that will be billed under rate schedules 823 or  
2 1892. It is unrelated to the customer's demand or the  
3 need for demand charges.

4 From our reading of the proposed 1892  
5 tariff, if the net-to-gross ratio is zero, then the  
6 customer will be deemed to have not taken any freshet  
7 energy during the period, in which case the demand  
8 charge would apply as per RS 1823.

9 BCOAPO agrees that this should be the case,  
10 and can you confirm that our proposed -- that our  
11 interpretation of the proposed tariff is correct?  
12 Being that if the net-to-gross ratio is zero, then the  
13 customer will be deemed to have not taken any freshet  
14 energy during the period. In which case the demand  
15 charge that would apply is as per 1823.

16 MR. MIEDEMA: Yeah, confirmed.

17 MS. KHAN: Yes? And finally, regarding the evaluation  
18 that you plan to do of the pilot project, with regards  
19 to the evaluation criteria, we would propose adding  
20 one, and just wanted to get your thoughts on it. The  
21 proposal that we have is to add, to what extent did a  
22 natural increase -- and just back up a little bit.  
23 You have in your application, you have a list of the  
24 criteria that you'll consider, so this would just be  
25 to add on to that.

26 To what extent does natural increase in --

1 did a natural increase in consumption contribute to  
2 higher freshet energy? And you know, concerns  
3 regarding this aspect were one of the main reasons  
4 that rate schedule 1827 customers were excluded from  
5 this rate, from having access to this rate, and it's  
6 important that an assessment be made as to whether or  
7 not it is a material risk in terms of rate schedule  
8 1823 customers. I just wanted your thoughts on that.

9 MR. DOYLE: I'm comfortable adding that to the evaluation  
10 criteria.

11 MS. KHAN: Thank you. I don't have any further  
12 questions.

13 THE CHAIRPERSON: Thank you, Ms. Khan.

14 Does the Commission have anything?

15 MR. GARAND: We do, sure. I figure we have about 45  
16 minutes of questions and answers.

17 THE CHAIRPERSON: Forty-five minutes? Do you want to  
18 take a break before you start?

19 MR. GARAND: I guess -- canvass everybody else. Do they  
20 want a break?

21 THE CHAIRPERSON: All right. It's almost 4:30, so we'll  
22 come back at twenty to five.

23 **(PROCEEDINGS ADJOURNED AT 4:27 P.M.)**

24 **(PROCEEDINGS RESUMED AT 4:38 P.M.)**

**T40/41**

25 THE CHAIRPERSON: Please be seated.

26 Before we begin, just a couple of

1 housekeeping matters. I neglected to point out that  
2 the slide deck, that's Exhibit B-12, please.  
3 **(BC HYDRO SLIDE PRESENTATION "OVERVIEW OF THE FRESHET**  
4 **RATE" MARKED EXHIBIT B-12)**  
5 THE CHAIRPERSON: And secondly, I'd just like to canvass  
6 people just to see if we can organize our time a bit  
7 here. So we've possibly got 45 minutes of questions.  
8 I think the Panel has a few questions after that. And  
9 will you -- will Hydro need to embellish or add to  
10 their previous reply -- previous final argument, or --  
11 MR. WEBB: I have just so far, just a few comments. It  
12 will just be a couple of minutes.  
13 THE CHAIRPERSON: Okay, great. And then will the  
14 interveners need a break after that before preparing  
15 their final arguments? Would anyone -- does anyone  
16 need a break?  
17 MR. ANDREWS: Speaking for myself, I do not.  
18 THE CHAIRPERSON: Okay.  
19 MR. AUSTIN: I don't need a break.  
20 THE CHAIRPERSON: Okay.  
21 MS. WORTH: Neither do I.  
22 MS. KHAN: Or me.  
23 THE CHAIRPERSON: All right. Okay.  
24 MR. WEAVER: We would like 15 minutes.  
25 THE CHAIRPERSON: You'd like 15 minutes. Okay. So we  
26 need a 15-minute break before that. And then will you

1           have a reply argument? I'm guessing you will. Or  
2           not? Okay.

3 MR. WEBB:     It depends on what we hear.

4 THE CHAIRPERSON:   All right.

5 MR. WEBB:     But I would anticipate that I would have some  
6           comments in reply.

7 THE CHAIRPERSON:   And will you need a break for that?

8 MR. WEBB:     I don't think so.

9 THE CHAIRPERSON:   Okay.

10 MR. WEBB:     I don't expect so. If so, it would just be,  
11           you know, five minutes just to confer with the  
12           witnesses.

13 THE CHAIRPERSON:   All right. Okay. Now, I understand  
14           some of your witness panel will need to be excused.

15 MR. WEBB:     Yeah. The individual in question made a call  
16           and is able to stay.

17 THE CHAIRPERSON:   Oh, good. We're glad to hear that.

18                   All right, please go ahead.

19 MR. GARAND:     Thank you, Mr. Chairman. So, Commission  
20           Staff have just a few remaining areas to discuss.

21                   First, staff would like to confirm that our  
22           understanding of the main idea of why a freshet rate  
23           pilot is being proposed, in addition to meeting  
24           recommendation 13, is the main idea -- there are  
25           occasions, say, hours, days, maybe weeks, during the  
26           freshet period where BC Hydro is forced to export

1 power into generally depressed energy markets because  
2 of minimum generation constraints and required power  
3 purchase agreements. And rather than exporting this  
4 power at depressed prices, BC Hydro would rather have  
5 its customers consume this power because of the  
6 potential economic benefits for B.C.?

7 MR. DOYLE: That's largely consistent with the objectives  
8 that we lay out in page 7-27 of Exhibit B-1. Where  
9 it's assisting in the management of the oversupply  
10 during the freshet period, which I think is the first  
11 point we touched on. And then objective number 3 is,  
12 recover what BC Hydro would otherwise get in the  
13 export market, but instead benefiting B.C. economic  
14 development.

15 MR. GARAND: Okay. I guess I was trying to clarify. Is  
16 it the main point, what I was asking.

17 MR. ANDERSON: Is that -- is that --

18 MR. REIMAN: Sorry. I would add to that that I think  
19 from BC Hydro's perspective, if we could -- if all of  
20 the energy that we sourced were to come from the  
21 market, and we could provide that to customers for an  
22 economic benefit, that we'd be fine with that as well.  
23 So it's -- this opportunity to win on a number of  
24 fronts, and you know, depending on how large rate  
25 grows. Greater impact then eventually there could be  
26 noticeable system benefits. But I think it's one of

1 many things that we'd like to do in this period. But  
2 even if it was from the market, I think that would be  
3 still something that we would like to propose.

4 MR. GARAND: Is, maybe, a -- still a point of proposing  
5 the rate, but maybe a lesser so point, BC Hydro's  
6 ability to increase its imports of cheap electricity  
7 during low-load hours, to maximize trade benefits?  
8 Sort of it's a lesser degree of the benefit?

9 MR. REIMAN: Yeah, I think that's one of the  
10 circumstances that can happen, and would again be  
11 beneficial if --

12 MR. GARAND: It's --

13 MR. REIMAN: You know, particularly if you can find those  
14 negative price hours, where people are dying to find  
15 load, and they don't want to shut off their wind so  
16 they get their production tax credits. If you can get  
17 someone to take some of that power, then that's great,  
18 right? So there are circumstances of import, export.

19 **Proceeding Time 4:43 p.m. T42**

20 MR. GARAND: I'm going to be referring to BCUC IRs  
21 throughout, but generally speaking you won't have to  
22 turn to them. I'll just reference them for the  
23 record.

24 So next I'd like to take you to the  
25 response to BCUC IR 1.103.1. It's regarding the  
26 objectives of the freshet rate pilot. In this

1 question, the Commission asked if there should be a  
2 fourth objective, to share the benefits from the  
3 freshet rate with all ratepayers.

4 BC Hydro provides two reasons why it feels  
5 it is sufficient to hold non-participating customers  
6 harmless, but not specifically to share the benefits  
7 with them.

8 So my question to BC Hydro is, is there  
9 some history in B.C. of benefit sharing with non-  
10 participating customers when one group are to be  
11 provided a low-cost rate that is not available to  
12 other customers?

13 Maybe I could elaborate. Are you guys  
14 familiar with natural gas bypass rates?

15 UNKNOWN: Somewhat. Somewhat.

16 MR. GARAND: I'll move on. Okay, considering the non-  
17 response there, would BC Hydro consider appropriate,  
18 as part of its review process, to investigate whether  
19 or not sharing of the benefits with non-participating  
20 customers would be possible, could be possible, and/or  
21 is appropriate?

22 MR. MIEDEMA: Well, we -- yeah. We have identified some  
23 benefits to non-participants in the application. So,  
24 for example, the zero-dollar price floor is a benefit  
25 to non-participating customers. If the market price  
26 is negative \$3, and we're able to sell to customers at

1 zero dollars, that's a benefit.

2 MR. GARAND: I guess the question goes to holding  
3 harmless versus ensuring benefit.

4 MR. MIEDEMA: Right. So --

5 MR. DOYLE: The holding harmless is the test that I think  
6 BC Hydro believes is what needs to be looked at, is  
7 would it have negative -- you know, managing impact to  
8 those customers. I don't think that when you get into  
9 is the rate discriminatory there has to be some  
10 sharing of benefit. So, the appropriate test, and I  
11 think this is probably more likely to be made in  
12 argument, is the holding harmless of the non-  
13 participants, rather than the sharing of benefits.

14 MR. GARAND: Okay. In response to BCUC IR 1.103.1, BC  
15 Hydro states the benefits listed under objective 2 on  
16 pages 7-27 and 7-28 of Exhibit B-1 accrue to all BC  
17 Hydro ratepayers. The dollar value of these benefits  
18 is difficult to quantify, but BC Hydro believes it is  
19 positive.

20 Question: By your estimates, wouldn't the  
21 dollar value of these potential benefits associated  
22 with the take-up we're talking about be very small?  
23 So, what is BC Hydro's total estimate of the potential  
24 benefits for the two-year program?

25 MR. MIEDEMA: We haven't qualified the benefits. But  
26 there are a number of factors that would affect the



1 objectives, haven't been quantified. And they're not  
2 reflected in the graph. The graph reflects benefits  
3 to participants and non-participants.

4 The benefits to participants are the  
5 difference between the Tier 1 rate and the market  
6 price. So there's a savings to customers. And  
7 benefits to non-participants in the graph come from  
8 two sources. There is the price floor, which I  
9 mentioned, the zero-dollar price floor. That's always  
10 to the benefit of non-participants during times of  
11 negative market prices. And there's also benefits to  
12 non-participants from the wheeling fee during times  
13 where Hydro would be in an export position.

14 When we're -- if we're importing, the  
15 wheeling fee in this graph is assumed to be a cost  
16 recovery mechanism. It's helping to recover those  
17 fixed costs of imports. But during times of exports,  
18 the \$3 wheeling fee that we've added is -- accrues to  
19 the benefit of non-participants. At least, that's the  
20 assumption made for the purpose of this figure.

21 MR. GARAND: So maybe I could reiterate or just ask for  
22 clarification. You agree that 50,000 to 1.2 million  
23 per year theoretically could accrue to participants  
24 and non-participants. Somewhere in that range.

25 MR. MIEDEMA: When you say \$50,000 to 1.2 million, you're  
26 taking the megawatt -- yeah. So, so 2012, if we look

1 at 2012, just looking at the graph, yeah. So the  
2 benefits to non-participants in the graph through 2012  
3 are around \$5,000, roughly. That's for one megawatt.  
4 So if the -- with the take-up range of 5 megawatts to  
5 30 average megawatts, \$5,000 times 5 is \$25,000 range.  
6 \$5,000 times 30 would be \$150,000.

7 MR. REIMAN: I think we need to be careful here, too, to  
8 think about that these are differences in the price  
9 you would pay for electricity, but what you're hoping  
10 people would do is use more electricity at this price  
11 that they wouldn't at the other price. And you don't  
12 necessarily know what their costs of production within  
13 their plants are. So, you're not really sure what the  
14 net benefit to those participants really is. You've  
15 got to be careful it's not just that rate  
16 differential.

17 MR. GARAND: Okay, if you could refer to the response to  
18 BCUC IR 1.111.1, where BC Hydro explains they expect  
19 11 gigawatt hours to 66 gigawatt hours per year of  
20 incremental energy consumption. Again, you don't have  
21 to necessarily go to it.

22 And the response to 1.108.2, where BC Hydro  
23 explains it considers that customers will likely  
24 require a differential of \$10 a megawatt hour to  
25 justify changes in behaviour that would lead to  
26 incremental purchases during the freshet.



1 Please refer to the response to BCUC IR 1.101.3. Here  
2 BC Hydro explains the program will be funded through  
3 BC Hydro's existing operating budgets and staff  
4 resources.

5 My first question is, how much money of the  
6 existing operating budgets does BC Hydro expect to  
7 allocate to administer this pilot?

8 MR. ANDERSON: We're not allocating any specific amount,  
9 or set period of, you know, somebody's time. And  
10 we've got a group that looks at our rates, and then  
11 obviously we've got enhanced billing people that would  
12 look at the bills for our largest customers. But  
13 given the -- you know, the small number, certainly  
14 that we expect during the pilot, we don't -- we don't  
15 anticipate any incremental costs to that.

16 MR. GARAND: How many employees do you expect to work on  
17 this? For instance, on the sign-up process, baseline  
18 determinations.

19 MR. ANDERSON: Right. Right.

20 MR. GARAND: Billing calculations.

21 MR. ANDERSON: Right. This would be, you know, just off  
22 the top there is certainly at least, you know, two or  
23 three that will spend some time looking at different  
24 customers, encouraging them on the sign-up part. I  
25 don't know if we've got --

26 MR. DOYLE: Yeah, I mean, that would be part of the

1 account responsibility.

2 MR. ANDERSON: Yeah. So it's part of our key account  
3 group. So there -- we have key account managers who  
4 look after our biggest customers, and so again based  
5 on the feedback we have today of who's interested,  
6 we'll have our key account managers as part of their  
7 regular job, out there encouraging these customers to  
8 participate.

9 And then with respect to, you know,  
10 billing, it will be, you know, again, maybe a handful  
11 of people at most that would touch their individual  
12 bills.

13 MR. MIEDEMA: And just to add to that, with the billing  
14 folks, we have worked through examples on how we would  
15 bill the rate. And we don't expect any IT costs, or  
16 very few IT costs, to be incurred with the rate.  
17 We've designed an Excel model to be able to run  
18 scenarios and to basically generate the bill,  
19 essentially. So, the incremental costs from billing,  
20 we expect, are quite small.

21 MR. GARAND: Just to elaborate on the spreadsheet. Did  
22 BC Hydro require any IT changes to support this pilot?

23 MR. MIEDEMA: You know, there might be a few IT changes.  
24 My understanding is that they're relatively minor.  
25 They're not significant dollars. The existing  
26 software can be modified if necessary, but it's not



1 MR. GARAND: Okay. In response to BCUC IR 1.101.3, BC  
2 Hydro provides \$50,000 as an estimate for reporting.  
3 And on page 7-44 of the application, BC Hydro shows it  
4 expects to file three reports.

5 MR. MIEDEMA: Mm-hmm.

6 MR. GARAND: Is the \$50,000 for the three reports? Or  
7 \$50,000 for each report? So, \$150,000 total?

8 MR. MIEDEMA: I think the \$50,000 is more related to the  
9 initial baseline setting of the rate. The engagement  
10 with customers, to sign customers up for the pilot,  
11 any of the billing changes required to get the pilot  
12 program going. I would expect that in the second year  
13 of the pilot program, the cost would be significantly  
14 less than this.

15 MR. DOYLE: So, the 50,000 actually is really related to  
16 the reporting costs related to the Commission and the  
17 process, and is will be when we file the reports and  
18 things like that. So, things like the PACA costs that  
19 may come out of it, that's where the \$50,000 is. I  
20 think like Mr. Anderson said, there is really no  
21 incremental costs related to staff, because we're  
22 using our existing staff within our existing budgets.  
23 Those -- that \$50,000 has to do with the reporting  
24 costs related to Commission processes.

25 MR. GARAND: Okay. So the same two or three individuals  
26 that are working on billing calculations and baseline

1           determinations, they'll be also participating in the  
2           report writing?

3   MR. ANDERSON:    Certain of them will, yeah.  There's kind  
4           of three groups of people within my group that will be  
5           working on it.  We've got key account managers, we've  
6           got people looking at our rates, and then we've got  
7           billing specialists.  I think it's really that middle  
8           group that would still be involved in the evaluation  
9           reports along with colleagues here.

10  MR. GARAND:      So what sort of time and effort do you think  
11           it will take out of your existing budget to prepare  
12           these reports?

13  MR. DOYLE:        I would see them as just, you know, they  
14           would be consistent with our other filings that we  
15           make to the Commission.  It's -- you know, they're not  
16           large like a rate design application.  They're --  
17           there will be a little bit of work that goes in that,  
18           but we're not using any external consultants.  It's  
19           all going to be done within house at BC Hydro.  So,  
20           it's hard to predict.

21  MR. GARAND:      So, two or three people, maybe take a month  
22           or two to develop these reports?

23  MR. DOYLE:        I mean, it's not two or three people have a  
24           month at a time, like a month straight of their work.  
25           It's difficult.  It just sort of slots in, you know,  
26           part of their day for a couple of weeks, and then



1 potential freshet period energy supply -- oversupply,  
2 is on average expected to be the very small area  
3 between the implied minimum generation average line,  
4 the red line, and the average load line, the black  
5 line. Generally it's that area on average.

6 MR. REIMAN: Sorry, can you repeat the question?

7 MR. GARAND: Could you please confirm that on average the  
8 potential freshet period energy oversupply is, on  
9 average, expected to be the very small area between  
10 the implied minimum generation average line, the red  
11 line, and the average load line, the black line? This  
12 is in your graph.

13 MR. REIMAN: So, yeah, when you say energy --

14 MR. GARAND: It's the area.

15 MR. REIMAN: Sorry. When you say "energy oversupply",  
16 what the graph was intended to show was for a monthly  
17 average what the average load would be as against the  
18 average minimum generation. So, it would be for that  
19 -- yeah, the difference between those two, that small  
20 area, would be on an average basis if you did it for  
21 the month when you'd be in in a force generation  
22 period. What the graph isn't showing is how that  
23 would change within the month or how it would differ  
24 between the high load hour period and the low load  
25 hour period.

26 MR. GARAND: Right, I understand there's variation within

1       the hour, within the day, within the week, et cetera,  
2       but if you summed up all those variations, on average  
3       the amount you're talking about is below the red line,  
4       above the black line, that area, correct?

5       MR. REIMAN:    Yeah.  It's indicative of the amount of time  
6       that you'd be to -- you'd be forced to generate.

7       MR. GARAND:    How much is that?  How much energy is that?

8       MR. REIMAN:    Well, that's a good question.  I would think  
9       it's relatively small, but, you know, I don't have the  
10      tables behind the figure.

11      MR. GARAND:    You know, like, I don't know how big it is  
12      to you, but it looks like maybe 50 to 100 megawatts --

13      MR. REIMAN:    Average megawatts for the month of June?

14      MR. GARAND:    Yeah, for the month of June basically.

15      MR. REIMAN:    Yeah.  In that order, yes.

16      MR. GARAND:    And how does that amount of energy compare  
17      to the amount of expected uptake of 11 to 66 gigawatt  
18      hours per year?  Is the 11 to 66 one percent of it,  
19      ten percent of it?  In order of magnitude.

20      MR. REIMAN:    You're just wondering what the ratio of the  
21      numbers is?

22      MR. GARAND:    Yeah.

23      MR. REIMAN:    There's no relationship between the two.

24      MR. GARAND:    No, no, of course, just the ratio.

25      MR. REIMAN:    You want to know the ratio?

26      MR. GARAND:    The magnitude of the problems of the amount

1           that the uptake is taking away.  
2 MR. MIEDEMA:   Well, I think first of all the problem is  
3           broader than what the area between the red line and  
4           the black line on the graph. The portion of the graph  
5           where the red exceeds black, which is the forced  
6           export problem that you're speaking to. There's also  
7           the fact that the red line is getting closer to the  
8           black line, which is limiting BC Hydro -- like in May,  
9           for example, you can see that the red line is rising  
10          in May, it's getting closer to the load. So BC Hydro  
11          is having to generate a certain amount, load is a  
12          little bit higher, but that differential is narrowing  
13          throughout the month, and so our ability to take  
14          advantage of import opportunities on the market and  
15          take advantage of really low prices, is narrowing  
16          throughout the month of May.

17                   I guess in terms of magnitude with the  
18          exports, you know, it appears to me that the red line  
19          in June is somewhere around 6,050 average megawatts,  
20          where the black line is maybe around 6,000 average  
21          megawatts. So that's maybe a 50 average megawatt  
22          differential, which is a little bit higher than the 5  
23          to 30 average megawatt estimate that we've had on take  
24          up of the freshet rate.

25                   But, again, that differential of 50 is only  
26          on the export side of the equation, it doesn't -- it's

1 not reflective of the fact that there's an import --  
2 discretionary import loss here. BC Hydro has got  
3 less discretion to do imports thought out the month of  
4 May, for example.

5 **Proceeding Time 5:09 p.m. T47**

6 MR. GARAND: I'd just like to clarify that this average  
7 load line, there's some uncertainty involved in it as  
8 well, correct?

9 MR. REIMAN: Yes.

10 MR. GARAND: So that black line could, in any given year,  
11 period of time, could be higher or it could be lower,  
12 right?

13 MR. REIMAN: Yeah, there is variability in load. I think  
14 more so in the wintertime than in the spring, but  
15 there is, for sure, yeah.

16 MR. GARAND: And that variation could change the area to  
17 make it larger or smaller, depending on which year it  
18 is, correct?

19 MR. REIMAN: Well, in -- as the BCUC IR 1.104.1 shows,  
20 the far greater variability is the inflows into the  
21 Heritage system.

22 MR. GARAND: Could I please ask for an explanation of  
23 what minimum generation constraints are? And could  
24 you provide a specific example?

25 MR. REIMAN: I think the BCUC IR -- Exhibit B-5, BCUC IR  
26 1.105.1, I think gives the best sort of description of

1           what the minimum generation is, and how it all fits  
2           together. And your question is -- so, a specific  
3           example. And I'm not sure I'm going to be able to  
4           quote a number for any individual generating facility,  
5           but in terms of MIN-GEN, the two most obvious ones are  
6           what happens with our Kinbasket reservoir, and the  
7           Mica Dam. And then downstream, Revelstoke or what  
8           happens in the Williston Reservoir with the Bennett  
9           Dam, and the GMS generating station.

10                         And so we generally have enough storage in  
11           those facilities that we can manage when the flows  
12           come in, and we can absorb most of the water in there.  
13           And so the MIN generation for those types of  
14           facilities is actually the water release that we have  
15           to keep on the downstream river. And so it's all part  
16           of the water use permit, and it's a legislated  
17           requirement.

18                         So those are two key ones.

19 MR. GARAND:       So the minimum generation constraints is to  
20           make sure there is minimum flow downstream of the dam  
21           for -- to keep fish happy or recreational --

22 MR. REIMAN:       Right. All the water uses on the river,  
23           yeah.

24 MR. MIEDEMA:       Just to add to that, my understanding is  
25           also that there is transmission reliability  
26           considerations, in that there is certain areas where

1           you need to have a certain amount of generation to  
2           maintain sufficient transmission reliability.

3 MR. GARAND:     If one of these minimum generation  
4           constraints were changed, how would that affect the  
5           red line in the graph, and the amount of potential  
6           freshet energy oversupply?

7 MR. REIMAN:     Well --

8 MR. GARAND:     For instance, discussing with a regional  
9           municipality to change the minimum flow release from  
10          the dam.

11 MR. REIMAN:     Yeah. Water use plans and release of water  
12          into streams, rivers, that is a fussy area that we  
13          don't tread lightly on. And by -- I mean, if you were  
14          to wipe the slate clean and go and have the discussion  
15          all over again, would it move up or would it move  
16          down? That's a good question. It's always a bit of a  
17          trade-off. It's not something that Hydro would  
18          consider lightly.

19 MR. GARAND:     In response to BCUC IR 1.102.2, BC Hydro  
20          explains a sudden heat wave that melts snow pack in  
21          the Revelstoke basin may result in a minimum  
22          generation supply exceeding load for a number of days,  
23          during which this period -- the surplus must be  
24          managed by export for spills

25                   How would a spill event such as this  
26          compare to the expected uptake of 11 to 66 gigawatt



1 and on the gate stopper at the dam, when you're  
2 spilling the water it has hesitation and it will  
3 actually eat away at the concrete and the dams over  
4 time, the gates have wear and tear on them. And so we  
5 are seeing some of those concerns now. So the more  
6 often you spill, sort of the worse the impact is.

7 But again it's not something that a dam  
8 should be designed to not do, but it advances  
9 maintenance.

10 MR. GARAND: Now I would like to turn to a different  
11 subject area, the wheeling fee. I guess first of all  
12 I would like some clarification of which rates  
13 schedule we should be referring to. Is it the one  
14 filed in Exhibit B-1-1? Or is it the one filed in  
15 Exhibit B-1, Appendix F-1(b)?

16 MR. MIEDEMA: Are they different?

17 MR. GARAND: They are different. Yes. My question to  
18 you is obviously, how different? But on top of that  
19 one of them refers to the \$3 per megawatt hour, but  
20 the one in Exhibit B-1-1, which is the more recent one  
21 refers to the BPA wheeling fee.

22 So, the question is what is BC Hydro  
23 proposing in asking to --

24 MR. REIMAN: We're proposing the fixed \$3 per megawatt  
25 hour fee. One of the original proposals was the BPA  
26 wheeling fee. That was subsequently replaced with the

1 fixed \$3 per megawatt hour.

2 MR. GARAND: Okay, and the rate schedule you're  
3 requesting approval for is in Exhibit B-1-1?

4 MR. DOYLE: So I need to -- we may have a version control  
5 issue because what was filed as B-1-1 was with the  
6 electric tariff flow and we're doing the modernization  
7 of the entire electric tariff.

8 MR. GARAND: Yes.

9 MR. DOYLE: And it appears to me, and I need to check  
10 that, is that there maybe a version control issue.  
11 But what is applied for in F-1(b) would be the  
12 correct rate schedule.

13 MR. GARAND: So what made BC Hydro change from the \$6 of  
14 megawatt hour to the \$3 megawatt hour wheeling fee?  
15 What made that change? Why did you make that change?

16 **Proceeding Time 5:19 p.m. T49**

17 MR. MIEDEMA: Sure, that's discussed in BCUC IR 108.1,  
18 Exhibit B-5.

19 So the IR asks why did BC Hydro decrease  
20 the proposed wheeling fee from the original suggestion  
21 of \$6 per megawatt hour. And we started off in the IR  
22 response by summarizing some of the engagement we had  
23 with customers, with AMPC, who made an observation  
24 that the wheeling fee should be symmetric, in that our  
25 original intention with the wheeling fee was that it  
26 would recover a portion of -- that it would recover

1 any of our import related costs, be a notional  
2 contribution toward import related costs if we are  
3 importing additional power to serve the freshet load.

4 AMPC during -- and customers pointed out  
5 during some of those discussions that are noted here,  
6 that there are times where BC Hydro might be reducing  
7 its exports to serve the customer load in the freshet  
8 rate. And so, if we are reducing our exports, there  
9 is a savings to BC Hydro, there is a notional savings  
10 in export related wheeling fees. And so that should  
11 be credited to customers. And we've acknowledged here  
12 that that is a valid point, and we adjusted our  
13 proposal.

14 In the response to BCOAPO IR 170.1, also  
15 Exhibit B-5, we noted that -- we elaborated on some of  
16 the risks related to the pilot program. And our  
17 rationale for the wheeling fee in the application was  
18 two-fold. There was the cost rationale, recover the  
19 cost of imports, and there was also a risk rationale.  
20 There are a few risks with the pilot program. Here is  
21 an example of three risks. In this IR response, we  
22 elaborated on those risks, and explained why we think  
23 those risks are quite small.

24 And so when you put the fact that the risks  
25 are fairly small together with the fact that the  
26 wheeling fee is really symmetric, should be charged in

1           some hours when there's imports, should be credited in  
2           other hours. When you put them both together, in our  
3           judgment, a \$3 per megawatt hour fee was appropriate.

4 MR. GARAND:    The Commission's Fortis stage 1 stepped and  
5           stand-by decision, Order 6-77-14, pages 31 to 35,  
6           approved an energy rate for standby service of mid-C  
7           plus \$4 a megawatt hour for wheeling to the B.C.  
8           border, system losses, and a 10 percent energy price  
9           premium. I guess my question is, why doesn't BC  
10          Hydro's proposal mimic FortisBC's rate?

11 MR. DOYLE:    So, we're not familiar with what -- with that  
12          FortisBC stepped rate and what that rate was trying to  
13          accomplish. So, I'm not sure we're comparing apples  
14          to apples.

15 MR. GARAND:    This can help. In that decision, an  
16          assumption was made that electricity supplied under  
17          this rate would be imported from mid-C. Does this --  
18          is this sort of a same assumption that is equally to  
19          apply to the freshet rate?

20 MR. MIEDEMA:   No, as we've said, there's some hours where  
21          we can see incremental imports occurring to serve the  
22          incremental freshet load. But there is many other  
23          hours where it's more likely there'll be reduced -- a  
24          reduction in BC Hydro's exports. So, there might be a  
25          different circumstance there.

26 MR. GARAND:    Next I'm going to move and explore take-up.



1 with the number. I recall that we talked at some  
2 point about 2015 being about an 80-cent dollar, on  
3 average. And now with the currency moving to 70 cents  
4 right now, certainly it does affect the differential.

5 So, and the differential here is -- in the  
6 graph is \$10 to \$15 a megawatt-hour in some hours.

7 MR. GARAND: Directionally speaking, is it more or less  
8 expected uptake?

9 MR. ANDERSON: I think it's complicated. It also depends  
10 -- I mean, you've got the pricing of the energy  
11 differential, right? But you also have their  
12 production, right? And we have -- it really depends  
13 on you, the particular customer, what they're  
14 producing, what their market is. And that decision,  
15 right? So it really -- I think it's too difficult  
16 today to know whether that reduction in the Canadian  
17 dollar is going to impact our take-up or not.

18 MR. MIEDEMA: I think we can say, though, that a  
19 reduction in the currency will raise the Canadian  
20 dollar price.

21 MR. ANDERSON: Sure.

22 MR. MIEDEMA: At mid-C.

23 MR. ANDERSON: Yeah.

24 MR. MIEDEMA: So we would expect less take-up of the  
25 rate.

26 MR. DOYLE: I'm not sure that's totally correct. Because

1 I think --

2 MR. ANDERSON: Yeah.

3 MR. DOYLE: -- if our customers are selling their goods  
4 into the States, they may be getting more money.  
5 Meaning, the differential may offset that increase in  
6 price, because they're getting more --

7 MR. ANDERSON: Their production.

8 MR. DOYLE: -- for the products that they're selling. So  
9 I think like Mr. Anderson said, it's difficult to  
10 quantify that without understanding the particulars of  
11 each customer's business.

12 MR. GARAND: Great. Bear with me, I have to search for  
13 another question here. I can't seem to find it, but  
14 it's -- so then I'll do this off the cuff a little.

15 The slide in the Canadian dollar might  
16 change the differential and it might have more uptake,  
17 it might not. I understand that. Would the Canadian  
18 dollar also be expected to increase production  
19 naturally by pulp and paper companies? Or can the --

20 [multiple overlapping speakers]

21 MR. DOYLE: Well, I think that's what I was getting -- I  
22 think that's what I was trying to get at, though, is  
23 that that increase in the U.S. dollar, devaluation of  
24 the Canadian dollar, could impact those operations.  
25 And I can't speak to the particulars, like the  
26 customers, but I think that is what we were trying to



1 electric chemical friends can probably wax  
2 philosophically about electric chemicals.

3 MR. GARAND: Thank you.

4 MR. DELMONTE: You're welcome.

5 MR. GARAND: Would BC Hydro agree that natural gas prices  
6 are really low right now and they'd be expected to be  
7 low over the next two years pilot period?

8 MR. DOYLE: Relative to what -- I can't speak to what  
9 they're forecast to be, but my understanding is they  
10 are low right now.

11 MR. GARAND: Okay. Would the currently very low gas  
12 prices reduce opportunities to benefit from the  
13 freshet pilot, being there's discussion and the  
14 response to IRs about the spread between high-load  
15 hours and low-load hours potentially shrinking?

16 MR. MIEDEMA: During any of the engagements, I'm not  
17 aware of any customers that suggested that they would  
18 use natural gas substitution or natural gas at all as  
19 a means to use the freshet rate.

20 MR. GARAND: Maybe I can elaborate, I meant on the mid-C  
21 market price, the spread change based on low natural  
22 gas prices. Do you comment on that?

23 MR. REIMAN: My impression is that gas is on the margin  
24 way more frequently outside of the freshet period and  
25 most of the swing in the freshet period is load as  
26 against must-run generation.

1 MR. GARAND: Thank you. I'd like to now turn to just a  
2 couple questions regarding the general service  
3 customers. In response to CEC 1.77.1, BC Hydro lays  
4 out its reasons for not including general service  
5 customers in the pilot. If the participation were  
6 limited to only large general customers, would BC  
7 Hydro's administration costs be manageable on a dollar  
8 per kilowatt hour basis?

9 MR. DOYLE: I guess I'll go back to the large -- I mean,  
10 large general service, there's still 6,000 customers,  
11 where you compare that to the transmission service  
12 rate of 140 customers. And then also looking at the  
13 -- what I spoke to earlier with respect to the large  
14 general service rate, we have a proposal to flatten  
15 that, and the uncertainty around whether that proposal  
16 is ultimately what the Commission approves make it  
17 very difficult for -- you know, to implement the pilot  
18 before that -- there's certainty on the rates.

19 That being said, in most likelihood the  
20 large general service customers would probably expect  
21 to be the more likely to be able to take advantage of  
22 the rate, but we'll get to that with commercial energy  
23 consumers through our engagement with them.

24 MR. GARAND: Just moving forward, if an extra large  
25 general service class of customers is approved in the  
26 next module, module 2 of this rate design, would it be



1 to it. I think it is a critical element.

2 MR. GARAND: Would BC Hydro consider it appropriate for  
3 the Panel to direct fine-tuning of the reporting  
4 criteria, the evaluation methods, et cetera, with  
5 stakeholders and staff? Similar to the John Hart  
6 reporting process.

7 MR. ANDERSON: Yes. Not familiar with the John Hart, but  
8 it sounds good.

9 MR. GARAND: Are there any other jurisdictions that offer  
10 similar rates, that offers customers discounts during  
11 the freshet season only? For example, Manitoba,  
12 Washington, Oregon, Quebec?

13 MR. ANDERSON: We've got that.

14 MR. MIEDEMA: Well, we're familiar with Manitoba Hydro's  
15 surplus energy program. And we (inaudible) in the --  
16 at least one or two of the consideration memos. I  
17 believe it's the one in C-5A of Exhibit B-1. And  
18 under the surplus energy program, Manitoba Hydro  
19 offers customers -- and I think it's about a hundred  
20 customers or so have access to it, they have the  
21 ability to access market-priced energy. And it's  
22 energy that Manitoba Hydro would otherwise be selling  
23 to the export market. So the intention of the rate as  
24 well, instead of exporting it, why don't you sell to  
25 customers for the same amount. And it's also a non-  
26 firm rate, just like the freshet proposal we've made.

1 MR. GARAND: And what are their experiences? Have you  
2 asked them? Has it been successful, or having  
3 struggles having people take up this rate?

4 MR. MIEDEMA: Yeah, we have engaged with them. We've  
5 talked to them about it. They've done evaluation  
6 reports in the past on their surplus energy program.  
7 I believe they've had it in place for more than five  
8 years.

9 Also just to add to what I said earlier, I  
10 believe it's broader than just the freshet period.  
11 It's more of a year-round rate that gives customers  
12 the opportunity to access market priced energy that  
13 would otherwise be exported.

14 MR. GARAND: I have just one remaining question. I  
15 looked at my notes here. I believe the freshet period  
16 starts May 1<sup>st</sup> of this year, and if there is a  
17 deviation from baseline by greater than 10 percent,  
18 you're proposing it has to come to the Commission for  
19 approval? And I'm just wondering what kind of  
20 turnaround you expect from the Commission for  
21 reviewing and approving those baselines. Is that --

22 MR. MIEDEMA: Quick.

23 MR. GARAND: Well, the -- it sounds like there is no time  
24 allowed for that.

25 MR. MIEDEMA: Well, the 10 percent guideline was in the  
26 application. The actual rate schedule doesn't

1 reference 10 percent. The rate schedule found in  
2 Exhibit B-1, F-1(b), has a Special Condition -- I'll  
3 just give you the reference.

4 Special Condition 4, page 4 of 5 of F-1(b),  
5 states that BC Hydro -- yeah, if -- so maybe I'll read  
6 it. "If BC Hydro and the customer agree that the low  
7 load hour and high load hour baselines are reference  
8 demand calculated in accordance with the rate  
9 schedule, are not representative of the customers  
10 expected 1823 electricity usage and the parties agree  
11 to alternative baselines, the agreed to baselines will  
12 be filed with the Utility Commission."

13 **Proceeding Time 5:39 p.m. T53**

14 So it we're deviating, essentially it means  
15 if we're deviating from 2015 consumption in setting  
16 the high load hour and low load hour baselines, we  
17 would go to the Utility Commission. We mentioned that  
18 customers would notify us by March 1<sup>st</sup>, if they want to  
19 go on the rate. So we would foresee a period of four  
20 to no more than six weeks to settle on what the  
21 baselines are. And hopefully give the Commission at  
22 least a couple of weeks to review any baselines that  
23 were submitted for approval.

24 MR. DOYLE: Given the short time frame I think one of the  
25 things we'd need to identify with the customers right  
26 now is whether there was any sort of substantial

1 change that would make 2015 not representative, so we  
2 could work on those ones, sort of right out of the hop  
3 to get them to the Commission as quickly as possible.

4 MR. MIEDEMA: And I mentioned earlier that in February  
5 we're going out to customers and talking with two  
6 customers about this rate. It's my understanding that  
7 we're doing that at the same time that we're reviewing  
8 1823 CBLs with customers. So there will be some  
9 engagement, some discussion with customers happening  
10 in February around baselines, around 1823 baselines  
11 and potentially freshet baselines as well. So that  
12 will hopefully aid in the process of being able to  
13 arrive as baselines as early as possible.

14 MR. GARAND: Could you please clarify whether you are  
15 filing them with the Commission or filing them with  
16 the Commission for approval?

17 MR. WEBB: Everybody's looking at me, so I'll answer that  
18 as best as I can. And it's my understanding that if  
19 the baseline is determined in accordance with what is  
20 set out in the schedule then, then that would be that.  
21 If there is an agreement amongst BC Hydro and the  
22 customer that the, sort of formulaic approach set out  
23 in the schedule is not appropriate and therefore the  
24 baseline should deviate from what's in the schedule,  
25 then that would have to be submitted to the  
26 Commission.

1                   There's a range of possibilities. If the  
2 parties are far apart then there's a big problem. If  
3 the parties can agree on this is the appropriate  
4 baseline, it's different than what's in the rate  
5 schedule filed with the Commission, we'll both support  
6 it. It ought to be a fairly simple exercise. And if  
7 the evidence in support of the different baseline is  
8 set out there, the Commission can review it all and  
9 make a fairly quick determination.

10                   If the parties are quite far apart, that  
11 may be an indication that this customer is not  
12 suitable for this freshet rate or that maybe they  
13 should be looking at the second year and not the first  
14 year.

15 MR. GARAND: I guess I am still looking for confirmation  
16 that filing with the Commission for approval.

17 MR. DOYLE: All right, so if we did file it with the  
18 Commission we'd be seeking approval of the baseline.

19 MR. GARAND: Thank you.

20                   Mr. Chairman, that concludes all my  
21 questions.

22 COMMISSIONER COTE: You'll be please to note that given  
23 the time of day that Mr. Garand was kind enough to ask  
24 most of the things I was going to ask. But I do have  
25 one remaining question and it relates to load  
26 shifting. We spoke quite a bit about that today, and



1 broader program as is suggested? I guess that is what  
2 I am saying.

3 MR. ANDERSON: Yeah, I think the base answer is certainly  
4 to the extent that there is shifting that occurs with,  
5 you know, TSR customers, and you were to broaden it,  
6 you can expect that that risk of shifting is also  
7 increasing, right? That's the -- the degree to how  
8 much effect that will have, that is what we will find  
9 out through the pilot and be able to report back  
10 through the evaluations.

11 COMMISSIONER COTE: Thank you.

12 THE CHAIRPERSON: Any questions?

13 COMMISSIONER COTE: No, that was it.

14 THE CHAIRPERSON: Okay. Mr. Webb, did you want to add  
15 something to your final argument?

16 MR. WEBB: Yes, thank you.

17 **ARGUMENT BY MR. WEBB:**

18 So, as I mentioned earlier on, sort of main  
19 body of the final argument is largely reflected in Mr.  
20 Anderson's opening statement in terms of summarizing  
21 what this application is about, what the original  
22 genesis of it, what the considerations were and some  
23 of the record of the consultation that went into it.  
24 So, I don't intend to go over that, or the specific  
25 details of the minimum generation and average load  
26 figures.

1                   However, I do want to highlight a few  
2 points. One is that BC Hydro has consulted with  
3 stakeholders extensively regarding this proposal.  
4 Options and issues, including the freshet system and  
5 load issues, have been presented in detail, and BC  
6 Hydro has refined its thinking in response to the  
7 stakeholder feedback, culminating in the applied for  
8 rates schedule. The application provides a detailed  
9 review of the freshet, and the drivers for BC Hydro's  
10 freshet issue, the rates structure, potential risks,  
11 and how these have been mitigated.

12                   BC Hydro has responded to a round of  
13 information requests, and presented here today a panel  
14 of four witnesses to summarize the proposed rate, the  
15 issues, the concerns, the risks, and respond to the  
16 questions of interveners and Commission Staff.

17                   As has been explained by the witnesses here  
18 today, there is an opportunity. It does not preclude  
19 other strategies or other opportunities, and indeed,  
20 BC Hydro has confirmed it is considering other  
21 strategies as well, including a commitment to consult  
22 with the commercial energy customers group, and the  
23 general service customers on opportunities to  
24 implement a similar rate for them. That does not  
25 change the opportunity to move forward with this pilot  
26 program.



1        participate, and it believes that participants can  
2        benefit and that risks to non-participating customers  
3        are small.

4                    The post-pilot evaluation will look at  
5        several issues, including some new ones proposed  
6        today, and that the Commission may direct in its  
7        decision as well, assuming it approves the rate, that  
8        is.

9                    The only other thing I would address on the  
10       question of expanding it now to a much larger group,  
11       this rate schedule as applied for is very specific to  
12       the rate schedule 1823 rate. It is an add-on to that  
13       rate, and it can't just be added on to other rates.  
14       It has all sorts of provisions around demand charges,  
15       which many of the rate schedules do not have; around  
16       energy baselines, and billing for all these things.

17                    So if there was a desire to expand it, it  
18       wouldn't be to take this and just apply it to others.  
19       It would have to be a whole new rate schedule  
20       developed for those other classes.

21                    And subject to any questions you have,  
22       that's all I had in my little final argument.

23       MR. WEAVER:    Mr. Chairman, we don't need the break.  
24       We're ready to proceed.

25       THE CHAIRPERSON:    Okay, please do.

26       MR. WEAVER:    Do you want to start?

1 MR. KEEN: I also don't need a break.

2 THE CHAIRPERSON: It's getting late. Yes.

3 MR. KEEN: So I think it's --

4 THE CHAIRPERSON: I thought you wanted to go first.

5 MR. KEEN: Alphabetically.

6 **ARGUMENT BY MR. KEEN:**

7 So I think it's clear, AMPC supports the  
8 freshet proposal. That's been, I think, quite clear  
9 this afternoon.

10 I think the way that the Commission, Mr.  
11 Chairman, should start thinking about the freshet rate  
12 is to go back to its beginnings. You might remember  
13 last week, during the Procedural Conference, I alluded  
14 to the origins of the proposal in the industrial  
15 electricity review report, the IEPR report. And I  
16 want to go back to that point, because I think it's  
17 important to frame what you've heard today.

18 Recommendation 13 says BC Hydro should work  
19 with its industrial customers and the Commission to  
20 develop options that take advantage of industrial  
21 power consumption flexibility, such as time of use  
22 rates and interruptible rates. And you can find that  
23 quote on page 7-27 of Exhibit B-1, footnote 270.

24 There are three things about that  
25 recommendation I want to touch on. The first is  
26 flexibility. That's what the freshet rate is all

1 about. It sends a price signal to get industrial  
2 customers to increase their activity during the  
3 freshet period. And it also, given the mid-C price  
4 profile that we've seen on the record, it sends a  
5 price signal to get industrial customers to change  
6 their behaviour within the freshet period from high  
7 load hours to low load hours. And both changes in  
8 behaviour help the BC Hydro system by spilling less  
9 and taking advantage of cheap import prices. Those  
10 benefits come from working smarter and working harder.

11 And the second thing from recommendation 13  
12 I want to highlight is the phrase "work with  
13 industrial customers and the Commission". And that's  
14 what BC Hydro has done. The rate schedule 1892  
15 proposal in front of you was the subject of a lot of  
16 consultation and design efforts. You can see that  
17 anthropology in Appendices 5C-A and 5C-B of Exhibit B-  
18 1. That's consideration memos 5 and 10, and the  
19 record of AMPC's comments and other stakeholders  
20 comments. They're thoughtful, and there's an  
21 evolution in approaches that's demonstrated there.

22 So, as a result, AMPC submits that you  
23 should have confidence that the proposal in front of  
24 you is careful and thoughtful and smart.

25 And the last, third thing I want to mention  
26 about recommendation 13, again on page 7-27 of Exhibit

1 B-1, is the quote from the B.C. government that BC  
2 Hydro mentions. Launching a rate design review  
3 process to provide industrial customers with more  
4 options to reduce their electricity costs. That was  
5 the BC Government's response to the IEPR Report.

6 **Proceeding Time 5:53 p.m. T56**

7 And so AMPC submits that the cost reduction  
8 aspect of the freshet rate for industrial customers is  
9 important because the provincial government has  
10 publicly identified it as a policy goal. And you  
11 should weigh that fact in your deliberations.

12 Now, I want to be careful that you don't  
13 think that the freshet rate is a cost cutting measure.  
14 To be clear, AMPC members bills will go up if they  
15 participate in the freshet program because they will  
16 purchase more. But their unit cost of production will  
17 go down and they will become more competitive as a  
18 result. And as I mentioned in my initial remarks this  
19 afternoon, B.C. industry is trade exposed and energy  
20 intensive and needs creative rate structures like this  
21 one.

22 BC Hydro sets out potential benefits from  
23 the freshet rate for industrial customers at page 7-41  
24 of Exhibit B-1, and I commend that list to you. But  
25 what I want to do quickly is recast it through the  
26 eyes of AMPC's customers. There's an opportunity for

1 incremental industrial sales achieved by freeing up  
2 financially constrained production capacity if mid-C  
3 permits. There's the chance to explore and test non-  
4 traditional or potentially uncompetitive markets with  
5 the view to better economics. Or as BC Hydro posits  
6 on that page, more energy intensive products. And  
7 there's a chance to shift production to B.C. from  
8 other jurisdictions depending on the customer, during  
9 a period of lower prices in the freshet.

10 Now, in response to those benefits today, I  
11 think the main area of concern that we heard, and  
12 Commissioner Cote referred to this, was load shifting.  
13 And you think -- you heard, I think, a full answer  
14 from Mr. Anderson, Mr. Miedema and Mr. Doyle. The  
15 risk of a CBL reset for an RS 1823 customer is a  
16 substantial one. And next year exposure to more Tier  
17 2 rates is something that no one wants. The economics  
18 just aren't there. And you will see a discussion of  
19 that pages 88 and 89 of 212 in Exhibit C5-B.

20 Now, any residual risk beyond that  
21 significant disincentive, any residual risk that  
22 remains, again as Commissioner Cote suggested, has to  
23 be weighed against the benefits that the program  
24 brings. And these are set out on pages 7-27 and 7-42  
25 of the Exhibit B-1. Reduces spillage, more cheap  
26 imports and hopefully better trade income making B.C.

1 industry more competitive. Increased winter capacity  
2 on the BC Hydro system and the potential reduction in  
3 BC Hydro's long run marginal cost.

4 So I quickly want to turn to a couple  
5 things that we heard during the course of the -- this  
6 afternoon. When it comes to term, as my friend Mr.  
7 Webb suggested, there seems to be a theme and some  
8 relatively wide spread agreement that a freshet pilot  
9 ought to go ahead. But there is some friction points  
10 about the term. Should there be entry mid-pilot? Or  
11 should the pilot be longer to better justify capital  
12 investment to participate?

13 AMPC has no opposition now to investigating  
14 additional access. But we submit that a longer pilot  
15 will delay the ability to consider capital  
16 investments, not accelerate it. And we say further,  
17 that it would be illogical to delay the implementation  
18 of a program that has broad support for the reason  
19 that people want more of it in some form or another.

20 So in other words, the perfect should not  
21 be the enemy of the good. We urge approving the  
22 application as filed and taking future steps following  
23 future consultations.

24 We also heard some speculation that --  
25 concerning customer take up. That customers are not  
26 well positioned or prepared to respond to a day-ahead

1 mid-C price signal or that a mid-C price signal that  
2 is present only in low load hours. And again, as my  
3 friend Mr. Webb mentioned, customers were consulted on  
4 this. That record of consultation is in the  
5 application. At the end of the day there was a  
6 consensus position and something the customers  
7 support.

8 We also heard some concern about shared  
9 benefits and perhaps the customer classes ought to  
10 benefit more than what is currently envisioned by the  
11 current structure. And again, AMPC agrees with Mr.  
12 Miedema's response, non-industrial customer classes  
13 benefit directly from the current rate structure,  
14 namely the zero dollar price floor and the wheeling  
15 fee.

16 **Proceeding Time 5:58 p.m. T57**

17 Now, we would add a further point that if  
18 you look at page 5 of Exhibit F1-B, rate schedule 1892  
19 is subject to the rate rider as well. So, again,  
20 other customer classes do benefit.

21 And we caution that trying to erode  
22 benefits to industrials now is fraught with risk,  
23 because it risks blunting the price signal that the  
24 freshet program was, and you can see, I think, an  
25 illustration of that concern in BC Hydro's response to  
26 BCUC IR 108.2 in Exhibit B-5. So, in short we would

1 suggest not taking the risk of throwing the baby out  
2 with the bathwater.

3 So to wrap up, Mr. Chairman, AMPC submits  
4 that this proposal is beyond win-win, it's a slam-  
5 dunk. It flows from government policy direction, it  
6 addresses a pressing industry need, it was subject to  
7 extensive consultation, it has been carefully  
8 designed, it delivers clear benefits, it holds other  
9 classes harmless, any residual risk has been  
10 mitigated, and the two year term is right for a pilot.  
11 AMPC submits accordingly that rate schedule 1892 ought  
12 to be approved as filed, and subject to any questions,  
13 those are my submissions.

14 THE CHAIRPERSON: Thank you, Mr. Keen. Mr. Buchanan, do  
15 you have a statement?

16 **ARGUMENT BY MR. BUCHANAN:**

17 MR. BUCHANAN: Yes. Mr. Chairman and Commissioners, as  
18 at the Procedural Conference, I intend to keep my  
19 remarks at high level. You may appreciate that at  
20 this hour.

21 The Ministry of Energy and Mines is of the  
22 view that BC Hydro's proposal is broadly consistent  
23 with the industrial electricity policy review task  
24 force's recommendation that BC Hydro should work with  
25 its industrial customers and the Commission to develop  
26 options that take advantage of industrial power

1 consumption flexibility. This recommendation was  
2 adopted by the province, and the Ministry supports  
3 options like this that can help industrial customers  
4 manage their electricity costs without increasing  
5 costs for other ratepayers.

6 The Ministry further agrees with BC Hydro  
7 about the importance of having the pilot in place in  
8 time for customers to use it in this freshet period.

9 Subject to any questions to the Commission,  
10 this is all we have to say on this subject. Thank  
11 you.

12 THE CHAIRPERSON: Thank you, Mr. Buchanan. Mr.  
13 Perttula, do you have a statement?

14 **ARGUMENT BY MR. PERTTULA:**

15 MR. PERTTULA: Only to say that FortisBC supports the  
16 Commission approving the pilot as filed by BC Hydro.

17 THE CHAIRPERSON: Thank you. Mr. Weisberg?

18 **ARGUMENT BY MR. WEISBERG:**

19 MR. WEISBERG: Thank you, Mr. Chair. For the NIARG, the  
20 most important conclusion to come out of the process  
21 today is BC Hydro's express expectation that the  
22 freshet rate pilot will have minimal or no impacts on  
23 non-participating customers, and of course recognizing  
24 benefits to participating customers.

25 In support of BC Hydro's assertion in that  
26 regard, we noted in particular six important

1           considerations. Number 1 was the zero dollar price  
2           floor. Number two was the \$3 per megawatt hour  
3           wheeling fee. Three was the structured baseline  
4           component that insures customers don't benefit from  
5           that pilot rate unless they have an incremental gain  
6           in consumption. Four was the idea of baselines. If  
7           they do deviate from 2015 consumption, that they would  
8           be subject to BCUC approval. Number 5 would be the  
9           non-firm nature of the rate not engaging the long-term  
10          planning. And number 6, that the CBL reset mechanism  
11          would adjust for load shifting.

12                        A pilot of any kind is by its nature an  
13          experiment. When conducting experiments, it's  
14          generally a good idea to take steps to lessen the  
15          chances of blowing up the lab. It seems to me that BC  
16          Hydro has taking some appropriate steps to safeguard  
17          "the lab" in this case. One such measure would be  
18          their express confirmation today that potential load  
19          shifting, which was identified by several customers as  
20          a concern, is definitely going to be one of the  
21          evaluation criteria. We think that's most  
22          appropriate.

23                                        **Proceeding Time 6:02 p.m. T58**

24                        Having three fixed-date evaluation reports,  
25          two preliminary and a final, should provide adequate  
26          opportunities to determine whether the experiment is a

1           success.

2                               Certainly heard from Clean Energy B.C.  
3           today regarding concerns that they have. We expect  
4           that those could be raised and probably will be  
5           raised, and addressed in the course of the evaluation  
6           process. But we would also observe that Commission  
7           approval of a pilot now, if that is the outcome in  
8           these circumstances, should create no presumption that  
9           the freshet rate will inevitably become permanent.  
10          The NIARG submits that whether the pilot rate becomes  
11          permanent must be a key determination that results  
12          from the evaluation process and not an expectation  
13          going into it.

14                            Another desirable outcome of the evaluation  
15          process would be identification of increased benefits  
16          to other customer classes. And that's something that  
17          Hydro, I think, today expressed a willingness to  
18          explore.

19                            So accordingly, NIARG supports BC Hydro's  
20          request for a final order for a freshet rate pilot.  
21          The NIARG also looks forward to the consultation and  
22          engagement process with NIA customers following Module  
23          1 to determine specifics of freshet energy available  
24          in Zone IB and Zone II, and to subsequently explore in  
25          Module 2 potential freshet rates or related positive  
26          benefits in Zone IB and perhaps in Zone II as well.

1                   Subject to questions, those are my  
2                   submissions. Thank you.

3 THE CHAIRPERSON: Thank you, Mr. Weisberg. Now, Mr.  
4                   Weafer.

5 MR. WEAFER: Thank you, Mr. Chairman. I'm ready now.

6 THE CHAIRPERSON: Okay, good.

7 **ARGUMENT BY MR. WEAFER:**

8 MR. WEAFER: Mr. Chairman, I said one of the comments  
9                   that it would sound like my final submissions, and to  
10                  a large extent, that's true. So I'd refer the Panel  
11                  back to what I said earlier today as you review the  
12                  transcript.

13                         I do want to repeat one thing that I said,  
14                         and it's the basis for the CEC's desire to move  
15                         forward discussion with Hydro on the freshet rate and  
16                         other alternatives. And again, it's recommendation  
17                         number 5 from the IRP of 2013. And that's in Appendix  
18                         C-5A of the application, the redesign application.  
19                         And here it states that BC Hydro is to investigate  
20                         incentive-based pricing mechanisms, and I highlight,  
21                         "over the short term, that could encourage potential  
22                         new customers and existing industrial and commercial  
23                         customers looking to establish new operations or  
24                         expand existing operations, in BC Hydro's service  
25                         area."

26                                 So, that document in 2013, approved by the

1 province, approved by this Commission, says in the  
2 short term they should be looking at opportunities for  
3 commercial customers. So we're obviously very pleased  
4 today to hear for the first time that that's something  
5 that Hydro wishes to move forward and do. But it's  
6 short term. It's not at the end of 2018. And so I  
7 just wish to confirm our understanding of what we're  
8 hearing today, which is, the discussions can start  
9 now.

10 And to that end, and listening to the  
11 evidence today, we have had it confirmed that there is  
12 benefit of shifting from high load hours to low load  
13 hours, as well as the benefit from increased demand  
14 overall.

15 And so the position we have at this time,  
16 now knowing there may be consultations, that there  
17 will be significant commercial load which will be able  
18 to take advantage of a freshet rate. And right now,  
19 the demand charge structure limits some commercial  
20 customers' demand, particularly where there is  
21 variable demand in a month. Also there is suppression  
22 of load because of the demand charge. The commercial  
23 customer group -- commercial customers may in fact  
24 have the same range of opportunity as the TSR  
25 customers do, in terms of utilizing a freshet rate.

26 So, we think the opportunity is real, and



1 ratepayers. And so again we're urging a current and  
2 ongoing discussion to see where there could be  
3 mitigations for incentive type rates as the IRP  
4 contemplates.

5 So we're taking from today a very positive  
6 new comment from Hydro. We're asking for the  
7 Commission to confirm that that's for the short term  
8 and that a direction be given that it's not for the  
9 end of the pilot, it is on going and now. And also  
10 that we can have the opportunity to tie in Module 1  
11 discussion to Module 2 where the commercial rates may  
12 cross over between the two. Or as I said in my  
13 opening comments, there should be regulatory  
14 efficiency through doing that and hopefully a benefit  
15 to all involved.

16 So again we thank Hydro for their offer  
17 today, and absent any questions, those are our  
18 comments. Thank you.

19 THE CHAIRPERSON: Mr. Edwards, do you have any comments?

20 **ARGUMENT BY MR. EDWARDS:**

21 MR. EDWARDS: Yes, I concur with Mr. Weafer's final  
22 submission for CEC. Look forward to cooperating with  
23 them. And we appreciate BC Hydro's kindness in  
24 looking into our situation to remedy it.

25 THE CHAIRPERSON: Thank you Mr. Edwards. Mr. Austin.

26 **ARGUMENT BY MR. AUSTIN:**

1 MR. AUSTIN: I would like that thank the Panel for their  
2 work that they've done in putting this proposal  
3 together and preparing for the questions we have  
4 during this session. It's not always easy being a  
5 witness and it's also not always easy asking the  
6 questions from this side, because we're not entirely  
7 sure what information is available. There's no ill  
8 intent or any motivation behind it other than trying  
9 to get down to the bottom of the facts that have to be  
10 dealt with.

11 Having said that, I would also like to  
12 point out that one of the reasons IPPs are involved in  
13 this type of process is because the electricity  
14 industry in British Columbia and the Utilities  
15 Commission oversight is no longer strictly between BC  
16 Hydro and its customers. Suppliers are just as much a  
17 part of this process as the customers in BC Hydro are,  
18 so that's why we're here.

19 In terms of the freshet pilot program, I  
20 wish to point out that IPPs, meaning IPPs whose sole  
21 business is the generation of electricity and it's not  
22 incidental to the main part of their business, face  
23 very severe restrictions in terms of the amount of  
24 electricity they can deliver to BC Hydro during the  
25 freshet period. And there's also disincentives for  
26 delivering electricity during that period.



1 conference, or as we suggested during the pre-hearing  
2 conference, if BC Hydro has surplus electricity during  
3 the freshet period, then what it should do is enter  
4 into contracts with industrials who are willing to  
5 purchase freshet electricity and then have those  
6 approved by the Utilities Commission. There is no  
7 need for a formal tariff, or even a pilot tariff at  
8 this point in time. The problem isn't big enough.

9 And in terms of potential take-up of  
10 electricity during the freshet period, it -- everybody  
11 in this room should be reminded that when there was  
12 retail access in this province, which was for about a  
13 period of 15 years, industrial customers could have  
14 purchased surplus freshet electricity from Powerex, or  
15 from independent brokers. I don't remember any  
16 stampede in that respect.

17 So in terms of freshet electricity take-up  
18 now, is there going to be much take-up? Is this whole  
19 program worth the formality and the effort that's  
20 being put into it, when you look at the fact that it's  
21 36 gigawatt hours in total, which is this magnitude of  
22 the freshet problem.

23 There was a question from Commission  
24 Counsel, and this is a reference to the Fortis rate  
25 decision. And in terms of how that compared to BC  
26 Hydro's pilot freshet program. We would urge the

1 Commission, if it's going to approve the freshet  
2 problem, to track the charges that are -- have been  
3 approved for the purpose of importation of electricity  
4 into the country under the Fortis rate decision.  
5 That's very, very important, because if you think back  
6 in terms of the retail access that large industrials  
7 used to have, they would have had to pay the mid-C  
8 price, pay losses in the United States, pay  
9 transmission tariffs in the United States, and then on  
10 the Canadian side of the border they'd have to pay the  
11 BC Hydro losses under the open access transmission  
12 tariff and in addition to that the wheeling rate.

13 So that is, in a sense, seems to be what  
14 the Fortis rate is tracking. And that's what any BC  
15 Hydro pilot project should be tracking.

16 And to conclude, we agree with Mr.  
17 Weisgerber's [sic] observations about the finality or  
18 the longevity of this pilot. It should not be  
19 automatically renewed. And there is no suggestion  
20 from -- there should be no suggestion that it will be  
21 automatically renewed. But in this province, often  
22 what happens, things that start off on a temporary  
23 basis become permanent.

24 There is also no suggestion from the  
25 government that retail access is not going to be  
26 allowed forever. So, if retail access then becomes

1 available in this province, then what is the need for  
2 a spring freshet rate? From the industrial customer's  
3 perspective, they would have access to the open market  
4 under retail access.

5 Subject to any questions, those are my  
6 concluding comments.

7 **Proceeding Time 6:44 p.m. T61**

8 THE CHAIRPERSON: Thank you. Mr. Andrews?

9 **ARGUMENT BY MR. ANDREWS:**

10 MR. ANDREWS: Yes, BCSEA and the Sierra Club B.C. support  
11 Commission approval of the application on the terms  
12 proposed, and with the explanations and modifications  
13 that have emerged over the course of the proceeding.  
14 We had the benefit of participating in two workshops,  
15 and reviewing two consideration memos that B.C. Hydro  
16 prepared, as well as the responses to the information  
17 requests in the first round of this RDA proceeding.  
18 So, substantial information has been made available,  
19 and we understand the potential problems and how they  
20 have been addressed.

21 I would endorse Mr. Weisberg's submissions,  
22 with the exception of his specific comments regarding  
23 Zone IB, regarding which I don't have any position.  
24 And BCSEA/SCBC's support is, of course, without  
25 prejudice to what position they may take if Hydro  
26 chooses to apply for a permanent freshet proposal.

1                                   Those are my submissions.

2 THE CHAIRPERSON:    Ms. Worth?

3 **ARGUMENT BY MS. WORTH:**

4 MS. WORTH:    Thank you.  As I said earlier, my client does  
5                   support B.C. Hydro's exploration of innovative rate  
6                   designs, although the demographic the union thinks is  
7                   the richest opportunity for positive change is the  
8                   residential group.  Obviously not for this kind of  
9                   rate, though.  That does not mean that this is all  
10                  smooth sailing from our perspective.

11                         Our client is concerned about a number of  
12                   things.  Although the CBL recalibration does allay  
13                   some of my client's concerns regarding the risks posed  
14                   by major load shifting, and that is an issue that  
15                   we'll be able to evaluate when BC Hydro does generate  
16                   its reports as the program progresses and then as it  
17                   winds up.  But, my client is concerned that BC Hydro  
18                   has decided to proceed with this pilot project,  
19                   provided the B.C. Utilities Commission approves it,  
20                   without turning its mind to how it will track, or if  
21                   it is even possible to track some of the items that  
22                   have been flagged as concerns by the interveners here  
23                   today.

24                         Going into it without actually having done  
25                   that work is a little difficult to have full  
26                   confidence that BC Hydro will be able to actually

1 present the information that we would be looking for  
2 in the reports. But that again is an issue that we  
3 can deal with when those reports do come out.

4 **Proceeding Time 6:18 p.m. T62**

5 Also there is no solid evidence regarding  
6 the evaluation framework that will be applied to this  
7 pilot project, or the standard of performance that BC  
8 Hydro will require from the project to decide whether  
9 it's a failed experiment or a success. Again, though,  
10 this is something that I'm just flagging for future,  
11 and you know, should BC Hydro decide to apply for this  
12 on a permanent basis, I'm sure that my client, as well  
13 as others, will be looking at these issues.

14 Because of the information that BC Hydro  
15 has provided today, and they've provided an awful lot,  
16 and because of the assurances that they have been able  
17 to provide, my client does cautiously support the  
18 pilot project but does, as I've said, intend to  
19 vigorously participate in any evaluation process that  
20 takes place afterwards, and/or any application to  
21 approve it on a permanent basis.

22 Anyway, those are my submissions.

23 THE CHAIRPERSON: Thank you, Ms. Worth.

24 MS. WORTH: Thank you.

25 **SUBMISSIONS BY MS. KHAN:**

26 MS. KHAN: First of all, starting with the objectives of

1 the freshet rate, BC Hydro has indicated that there  
2 are several objectives, including to recover what BC  
3 Hydro would otherwise obtain on the export market, but  
4 with potential economic benefits for B.C.

5 In response to BCUC 1.103.1, which we had  
6 reviewed earlier, BC Hydro indicated that it didn't  
7 agree with the proposition that one of the objectives  
8 should be to share the benefits of the freshet rate  
9 with all BC Hydro ratepayers. The primary reason  
10 offered by Hydro was that the *Utilities Commission*  
11 *Act's* legal test of what is fair, just and not unduly  
12 discriminatory doesn't require such an outcome. BC  
13 Hydro indicates that -- in that same response that it  
14 has designed the freshet rate so as to hold non-  
15 participating customers harmless, although it believes  
16 the benefits to non-participants to be positive.

17 BCOAPO doesn't agree with this view. The  
18 *Utilities Commission Act* not requiring such an outcome  
19 is not in our view a sufficient grounds to reject the  
20 proposition as an objective, provided the resulting  
21 rate is fair, just, and non-discriminatory, as per the  
22 *Utilities Commission Act*. Indeed, adopting BC Hydro's  
23 interpretation would rule out the third objective  
24 proposed by Hydro, namely to recover what BC Hydro  
25 would otherwise obtain on the export market, but with  
26 the potential economic benefits for B.C. as a

1 legitimate objective, such that -- as such an outcome  
2 is not required by the *Utilities Commission Act*.

3 Further, when considering the third  
4 objective proposed by BC Hydro, it is important to  
5 note that economic benefits to B.C. can accrue in two  
6 ways. First, by lowering the cost of electricity for  
7 participating customers, such that there is increased  
8 electricity used and associated increased output in  
9 economic activity by these same customers. But also,  
10 second, by lowering the cost of electricity to non-  
11 participating customers and therefore similarly  
12 improving their economic well-being.

13 **Proceeding Time 6:21 p.m. T63**

14 BC Hydro -- now, on to the rationale for  
15 the pilot project. BC Hydro has acknowledged that  
16 there are uncertainties associated with implementing  
17 the freshet rate and is proposing the two-year pilot  
18 before any decision is made as to whether the freshet  
19 rate should be implemented as a standard rate option,  
20 and we support that view -- or that approach.

21 The uncertainties that Hydro has pointed  
22 out include that the likely number of customers and  
23 volume of incremental energy that may be used; how  
24 will the customers use the rate, for example will they  
25 increase production, turn down self-generation, shift  
26 load from the non-freshet period; and will there be

1 shifting from high load to low load hours during the  
2 freshet period; and finally, if there is a positive or  
3 negative impact on non-participating customers.

4 With respect to this last point, BC Hydro  
5 has also acknowledged that there are risks to non-  
6 participating customers, and they've acknowledged this  
7 both in the application and through IR responses,  
8 they've set out a number of those risks. Also, during  
9 the stakeholdering process leading up to the  
10 application, BC Hydro indicated that there may be  
11 negative impacts on non-participating customers if the  
12 incremental freshet load is the result of shifting  
13 load from non-freshet months, where in terms of  
14 revenue the load shifted is valued at either the Tier  
15 1 or Tier 2 1823 rate depending on the customer's  
16 position relative to their CBL.

17 To address these various risks, some  
18 protections and benefits for non-participants are  
19 built into the proposed rate in the form of the proxy  
20 wheeling fee, the \$3 per megawatt hour, and the zero  
21 dollar price floor, which -- and so, as BC Hydro --  
22 sorry.

23 BCOAPO agrees with the need for undertaking  
24 the pilot prior to any full or long-term  
25 implementation of the rate. In doing so, we emphasize  
26 the need for the pilot and the subsequent evaluation



1 note regarding the benefits attributed to  
2 participating customers. First is that the evaluation  
3 of the benefits assumed that the benefits to  
4 participating customers relate to the price spread  
5 between the 1823 Tier 1 rate and the mid-C prices.

6 While Hydro is of the view that this is the  
7 appropriate comparator, the benefits to participating  
8 customers would be higher still to the extent the Tier  
9 2 rate is the opportunity cost that they're  
10 offsetting. Again, this is an issue that can and  
11 should be assessed as part of the evaluation process  
12 of the freshet rate.

13 The second issue is the fact that there is  
14 no demand charge associated with freshet power. BC  
15 Hydro doesn't see this as a benefit, since the rate is  
16 non-firm. But, for an 1823 customer that is  
17 contemplating increasing its electricity use on a  
18 temporary basis during the freshet months, the fact  
19 that there is no demand charge associated with the  
20 incremental use is a cost savings over what they would  
21 pay on the regular 1823 rates.

22 Regarding availability of the rate, Hydro  
23 is proposing that the rate be open to any 1823  
24 customer, but is proposing to exclude 1827 customers  
25 such as UBC -- or, I think it's inclusive of UBC, SFU,  
26 and New Westminister. The exclusion of 1827 customers

1 is based on the view that many of these customers  
2 naturally increase consumption year over year and  
3 would benefit from the rate without any behavioural  
4 change. Also many of these customers supply  
5 residential customers and Hydro. And BC Hydro has  
6 fairness concerns about offering such customers  
7 market-based energy, when its own residential  
8 customers don't have such access.

9 At this time that -- well, up until today,  
10 we understood that the general service customers  
11 weren't necessarily going to have access to the  
12 freshet rate, because Hydro believes that the cost of  
13 administering the pilot rate to a broad group of  
14 eligible general service customers could be high on a  
15 dollar-per-kilowatt-hour basis. Also it anticipates  
16 that significant customer education could be required  
17 to obtain any meaningful take-up of the rate from  
18 general service customers, and it is the case for 1827  
19 customers that are ineligible for the pilot rate, a  
20 majority of larger general service customers naturally  
21 increase consumption year over year, and might benefit  
22 from the rate without a behavioural change.

23 We agree with the eligibility -- or the  
24 availability limits that Hydro is proposing for this  
25 proposal, but we also do support the fact that Hydro  
26 is going to engage with the general service customers

1 over the potential of extending the rate to them.  
2 However, we are concerned that because there are so  
3 many more general service customers, and I understand  
4 Mr. Weafer's comments that probably this rate -- in  
5 extending it to general service customers, it could be  
6 looking at, you know, a fairly limited number of, and  
7 types of, general service customers. But we would  
8 just say that we would -- our preference would be to  
9 be involved in the development of that rate at a  
10 fairly early stage as well.

11 **Proceeding Time 6:28 p.m. T65**

12 Not in your detailed discussions, but at least on a  
13 high-level basis. Because we found that it was quite  
14 useful to be involved in the development of the  
15 freshet rate through the stakeholdering process.

16 And also if the cost of implementing a  
17 freshet rate for general service customers looks like  
18 it will -- the administrative costs would be very  
19 high, we'd like to know that, you know, before it --  
20 before Hydro and the general service customers get too  
21 deep into developing it.

22 In terms of the freshet period, we agree  
23 with setting the rate based on the fixed period, and  
24 it should be for the months of May to July. In terms  
25 of the -- what was I going to say about that? As we  
26 stated during our -- some of the questions we had for

1 BC Hydro today, we submit that the wording of the  
2 Special Condition Number 2 needs to be revised in  
3 order to allow Hydro to refuse service if the actual  
4 cost of supply exceeds the market price. And BC Hydro  
5 has agreed to that.

6 In terms of billing, customers will be  
7 initially billed for demand and energy under the rate,  
8 up to the established baselines. We agree with the  
9 billing proposals that have been put forward by BC  
10 Hydro. It seems to make the rate simpler to  
11 administer.

12 Since the rate isn't firm, Hydro proposes  
13 that there will be no demand charge for load above the  
14 reference demand baseline if the customer has provided  
15 energy under the rate from the May to July period.

16 We note that the Special Condition 3 in the  
17 freshet rate schedule specifically states that Hydro  
18 will not be required to construct a system  
19 reinforcement under the electric tariff supplement to  
20 provide service under this rate schedule and, given  
21 this condition, we agree that there is no need for a  
22 demand charge.

23 Also in reference to a question we asked  
24 earlier, BCOAPO's reading of the proposed tariff, that  
25 if the net-to-gross ratio is zero, then the customer  
26 will be deemed to have not taken any freshet energy



1                   Further, Hydro notes that due to present  
2                   reservoir conditions it expects to be in an export  
3                   position for a higher number of low load hour periods.  
4                   Hydro further considered the issue of load shifting  
5                   and included that as well as the risk being small  
6                   there are potential benefits to non-participants over  
7                   the long term from such load shifting. We have some  
8                   concerns about Hydro's rationale for reducing their  
9                   proxy fee from that that was originally proposed.  
10                  First, it's questionable as to whether, if offered on  
11                  a long term basis the wheeling fee should reflect near  
12                  term expectations regarding BC Hydro's export position  
13                  during the freshet period. Or whether in the interest  
14                  of rate stability and administrative simplicity it  
15                  should be set based on average historical experience.

16                  Further, the non-participant benefits that  
17                  Hydro is now attributing to load shifting from the  
18                  non-freshet period are all benefits that might occur  
19                  in the longer term. As a result there are risks that  
20                  such benefits may not arise particularly if customer  
21                  use of the freshet rate is only temporary and there  
22                  are also issues of interregional equity.

23                  Finally, there are additional risks to non-  
24                  participants over and above those specifically noted  
25                  in the application that exist and need to be  
26                  mitigated. One of these is the risk that increased

1 load during the freshet period may be the result of  
2 natural increases in consumption, for example due to  
3 changing market conditions.

4 But in light of the fact that this is a  
5 pilot we are willing to support the use of the \$3 fee  
6 provided that these concerns are addressed as part of  
7 the evaluation process. We note that Hydro's response  
8 to BCUC IR 1.108.3 where it indicates that the  
9 wheeling fee is a matter of professional judgment  
10 considering both costs and risks, we agree and submit  
11 that these costs and risks, particularly the risks to  
12 non-participating customers, must be fully assessed as  
13 part of the evaluation process.

14 And it's our view that this is particularly  
15 important because while those transmission service  
16 customers who chose to avail themselves of the rate  
17 will do so as willing participants when and if the  
18 rate becomes a standard offering. The balance of BC  
19 Hydro's customers will have no choice but to be non-  
20 participants.

21 And my final comment is that, again further  
22 to a proposed -- a proposal that we made earlier  
23 during the questioning period, with respect to the  
24 evaluation criteria we propose adding the following.  
25 That to what extent did natural increase in  
26 consumption contribute to the higher freshet energy.



1 providing the energy exceeded the cost. I thought  
2 that BCOAPO indicated that, but I don't think you  
3 agreed to that.

4 MR. WEBB: I was planning to address that one as well.

5 COMMISSIONER KEITLEY: Okay, thank you.

6 THE CHAIRPERSON: All right, we'll leave it to you then,  
7 thank you.

8 MR. WEBB: In light of those questions and a request from  
9 my left here, can we have five minutes?

10 THE CHAIRPERSON: Sure. Okay, so it's twenty-five --  
11 what is it? Well, we'll come back at quarter to.

12 MR. WEBB: Great, thank you.

13 **(PROCEEDINGS ADJOURNED AT 6:37 P.M.)**

14 **(PROCEEDINGS RESUMED AT 6:45 P.M.) T68/69**

15 THE CHAIRPERSON: Mr. Webb, are you ready to go?

16 MR. WEBB: I am, yes, thank you.

17 THE CHAIRPERSON: Thank you.

18 **REPLY BY MR. WEBB:**

19 MR. WEBB: Thank you for the break to collect our  
20 thoughts. I will start with the three questions that  
21 the Panel posed at the end. First with respect to the  
22 requested date for a decision, yes, of course,  
23 February 9<sup>th</sup> would be fine.

24 THE CHAIRPERSON: Okay.

25 MR. WEBB: And I can also say that there is some wiggle  
26 room February 9<sup>th</sup>, or as soon thereafter as possible,

1           would be great.

2   THE CHAIRPERSON:    Okay.

3   MR. WEBB:       And there is also a constructive sort of  
4           option, which is if it would be helpful, the  
5           Commission could issue a decision with reasons to  
6           follow.

7   THE CHAIRPERSON:    Sure.

8   MR. WEBB:       The second question about BC Hydro's sort of  
9           willingness, I guess, to advance on the CEC's request  
10          for freshet pilot for general service customers, you  
11          know, BC Hydro is absolutely happy to engage with the  
12          CEC, and to try and understand. Mr. Weafer talked  
13          about some targeted solutions, what those might be,  
14          what the types of customers that might be able to  
15          avail themselves of a freshet rate, who they would be.

16                    On the other side of that coin, Mr. Doyle  
17           and others on the panel pointed out that the LGS and  
18           MGS rates are in transition. The base rates are in  
19           transition, and to add a incremental rate component to  
20           a rate in transition that incorporates a baseline  
21           based on historic usage on the rate that may no longer  
22           apply, there are various issues around that to be  
23           sure.

24                    So, I guess the sort of bottom line there  
25           is absolutely happy to consult with them and hear  
26           their ideas and explore. No guarantees that it will

1 result in something, in short order.

2 THE CHAIRPERSON: Thank you.

3 MR. WEBB: With respect to the third question, you are  
4 correct, Commissioner Keilty, that BC Hydro did not  
5 agree to make that change. BC Hydro's response to the  
6 question was that it's a very small issue, a very,  
7 very low risk, and furthermore, the language in the  
8 Special Condition is quite similar now to what is in  
9 other BC Hydro tariffs. So, it is not in favour of  
10 making that change to this rate schedule.

11 There were, however, and I should have  
12 probably addressed this in my final argument, CEC and  
13 David Craig in particular, put forward three proposed  
14 amendments, and I don't think we finally offered a  
15 solution to how to move forward with those. What I  
16 said at the time is that we'll need a bit of time to  
17 look at his specific -- the issues that he  
18 specifically identified and consider whether an  
19 amendment is appropriate. None of them were  
20 substantive in nature, they were just for  
21 clarification.

22 So, I think what we would propose to do is  
23 have a look at that, and if any amendments are worth  
24 making, submit those with a letter in the next couple  
25 of days. I think that's okay, they wouldn't be  
26 substantive, they would just be for clarification.

**Proceeding Time 6:50 p.m. T70**

1  
2           And then, it is just a few other reply  
3           comments. There were a lot of comments from the other  
4           parties about evaluation, and BC Hydro is certainly  
5           open to an inclusive evaluation, and we'll certainly  
6           review the transcript and take careful note of what  
7           everybody was looking for. And in addition, folks  
8           can, you know, send a message to BC Hydro regulatory  
9           with their comments on the evaluation. Most likely  
10          there will be some sort of stakeholder consultation in  
11          advance of beginning the evaluation process, to  
12          refresh what people want to see.

13                 So that's kind of a -- Hydro will do  
14                 everything it can on the evaluation noting that there  
15                 are probably some limits on what Hydro can do with  
16                 respect to the evaluation.

17                 And I think lastly, in response to the  
18                 comments of the Clean Energy B.C., the opportunity  
19                 here and the very broad support of customers, both  
20                 participating customers and non-participating  
21                 customers, is very clear. There is no benefit to  
22                 anyone of delaying this pilot project, this pilot  
23                 rate. Investigation of other strategies can and will  
24                 continue in parallel. The potential issues, shifting,  
25                 other risks, will be investigated as best as possible  
26                 through the evaluation process. There is no reason to

1           stall implementation of this pilot.

2                           And those are all of my submissions,  
3           subject to any questions.

4 THE CHAIRPERSON:    Okay, thank you, Mr. Webb.  I don't  
5           think we have any questions, do we?

6                           Okay.  Well, thank you.  Thanks to everyone  
7           for your participation.  We won't be making a ruling  
8           at this time, but we will come back, hopefully by the  
9           9<sup>th</sup>.

10 MR. WEBB:    Thank you.

11 THE CHAIRPERSON:    With an order.  And unless there is  
12           anything else, I'll say that we're adjourned now.  
13           Thank you.

14           **(PROCEEDINGS ADJOURNED AT 6:52 P.M.)**

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