

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

And

British Columbia Hydro and Power Authority -
Application for Reliability Coordinator Registration
with the Mandatory Reliability Standards Program -
Project No. 1598978

Vancouver, B.C.
December 19th, 2018

WORKSHOP

BEFORE:

A. Fung, Q.C.

Chairperson

W. Everett, Q.C.

Commissioner

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VANCOUVER, B.C.

December 19th, 2018

(PROCEEDINGS COMMENCED AT 1:00 P.M.)

THE CHAIRPERSON: Good afternoon, everyone. My name is Anna Fung and I'm the panel chair for the BC Hydro Mandatory Reliability Standards Reliability Coordinator Registration filing. With me today is Commissioner Bill Everett.

Also present are BCUC staff who have been assigned to work on this proceeding, and they are to my right, Kristine Bienert, Ian Homer, Arun Siva and Christine Schwab. And with us today as well is our legal counsel, Lino Bussoli to my right. And also assisting us with the transcription today are Hal and Keith Bemister from Allwest Reporting.

On November 30th, 2018, by order G-227-18, the BCUC issued a regulatory --

[Interruption by telephone participants joining the hearing]

THE CHAIRPERSON: The BCUC issued a regulatory timetable which included this workshop this afternoon. This Workshop is an opportunity for BC Hydro to present the contents of its application on October 29, 2018 to register for the reliability coordinator or RC function in British Columbia, following its submission of an application filed with the Western Electricity

1 Coordinating Council on September 4, 2018.

2 The objective of this workshop today is to
3 improve participant's understanding of BC Hydro's
4 application. This workshop will form part of the
5 evidentiary record for the proceeding, and it will be
6 transcribed. The materials will be posted as evidence
7 and entered as exhibits in the proceeding.

8 **Proceeding Time 1:02 p.m. T2**

9 After I've completed my opening remarks I
10 will be turning the workshop over to BC Hydro to take
11 us through its presentation. I expect BC Hydro will
12 allow parties to ask questions for clarification
13 during the presentation and at the end of the
14 presentation there will also be an opportunity for
15 follow-up questions.

16 Following completion of BC Hydro's
17 presentation and the question and answer part of the
18 workshop, any party who wishes to do so may provide a
19 brief high-level opening -- or closing comment
20 outlining its initial views on the application.
21 Please note that the panel members and BCUC staff or
22 legal counsel may ask questions of BC Hydro or other
23 parties during this workshop.

24 We expect the workshop to end on or before
25 4:30, and if needed we will have a short break at a
26 convenient time. I will ask BC Hydro's

1 representatives to decide on the appropriate time for
2 a break based on the flow of the presentation and the
3 questions and answers.

4 During the workshop, to facilitate the
5 transcript process, we ask that you state your name
6 and spell your last name prior to speaking, and
7 indicate whom you're representing. And to assist with
8 an accurate transcription, please turn off your cell
9 phone, and try to speak loudly and clearly into the
10 microphone either at your table or at the podium.

11 And we will now begin with personal
12 introductions by each participant in this workshop and
13 then turn it over to BC Hydro for its presentation.
14 So we'll call Mr. Bussoli to begin with BC Hydro.

15 MR. BUSSOLI: I'll just introduce myself quickly. Lino
16 Bussoli, counsel to the BC Utilities Commission. And
17 then I'll pass it {over to BC Hydro.

18 MR. CHOUDHURY: Thank you. My name is Paul Choudhury,
19 C-H-O-U-D-H-U-R-Y, and I'm representing BC Hydro.

20 MR. HIGGINS: Geoff Higgins, H-I-G-G-I-N-S, representing
21 BC Hydro.

22 MR. STEED: Asher Steed, S-T-E-E-D, representing BC
23 Hydro.

24 MS. RIDDELL: Kristen Riddell, R-I-D-D-E-L-L,
25 representing BC Hydro.

26 MR. TONE: And Scott Tone, T-O-N-E, representing BC

1 Hydro.

2 MR. ANDREOIU: Adrian Andreoiu, A-N-D-R-E-O-I-U,
3 representing BC Hydro.

4 MR. JAMES: Fred James, J-A-M-E-S, representing BC Hydro.

5 MR. BUSSOLI: I'll just ask for the other participant in
6 the room to come up to the microphone to introduce
7 yourself.

8 MS. WORTH: Good afternoon, Madam Chair, members of the
9 panel. My name is Leigha Worth, W-O-R-T-H, here with
10 my co-council Irena Mis, and it's M-I-S. We're here
11 on behalf of the group of low and fixed income
12 ratepayers known as BCOAPO --

13 *[Inaudible comment - not on microphone]*

14 MR. ARREDONDO: Ruben Arredondo with WECC.

15 MS. MARTIN: Thank you. And Joyce Martin, M-A-R-T-I-N,
16 with FortisBC. Also from FortisBC with me are Curtis
17 Klashinsky, K-L-A-S-H-I-N-S-K-Y; Jarret Leason, L-E-A-
18 S-O-N; Lavern Humphrey, H-U-M-P-H-R-E-Y.

19 MR. HALLBORG: Good afternoon. Two others from BC Hydro.
20 My name is Brett Hallborg, H-A-L-L-B-O-R-G, and I'm a
21 senior system control manager at BC Hydro. And with
22 me as well is Erica Simpson, S-I-M-P-S-O-N, also with
23 BC Hydro a system control manager.

24 MR. BUSSOLI: Madam Chair, I believe that's all of the
25 participants.

26 THE CHAIRPERSON: Thank you. May I ask people on the

1 phone who wish to identify themselves to speak up.

2 MR. REYNOLDS: This is Tim Reynolds, R-E-Y-N-O-L-D-S,
3 with WECC.

4 THE CHAIRPERSON: Thank you.

5 MR. ALBRECHT: And Chris Albrecht, A-L-B-R-E-C-H-T, with
6 WECC.

7 MR. SWITLISHOFF: Elroy Switlischoff, S-W-I-T-L-I-S-H-O-F-
8 F.

9 MS. NORRIS: You've got Nancy Norris from Ministry of
10 Energy, Mines and Petroleum Resources.

11 MR. MARTISKAINEN: Jouni Martiskainen with Catalyst
12 Paper, M-A-R-T-I-S-K-A-I-N-E-N.

13 THE CHAIRPERSON: Okay, thank you very much. And I would
14 ask the participants who are appearing by phone if
15 when you wish to speak simply just speak up and let us
16 know who you are and what you would like to say, so
17 that we can properly transcribe your participation in
18 this proceeding. Thank you.

19 Now, I will turn it over to BC Hydro.

20 **Proceeding Time 1:07 p.m. T03**

21 MR. HIGGINS: Thank you. Well, good afternoon. My name
22 is Geoff Higgins. My role is as manager of regulatory
23 affairs with responsibility for the mandatory
24 reliability standards program. So we are here today
25 to provide a workshop on our proposal to become the
26 reliability coordinator for the balancing authority

1 area of B.C. within the larger Western
2 Interconnection. For reasons that we'll touch on in
3 our presentation, PEAK, which is the current
4 reliability coordinator for the western
5 interconnection, announced in mid-July that it will be
6 winding down its operations as reliability coordinator
7 by the end of 2019.

8 So as a result of that circumstance, BC
9 Hydro undertook a review of its options, and on
10 September 4th we ended up submitting an application for
11 registration as the reliability coordinator in B.C.
12 through the Western Electricity Coordinating Council's
13 website in accordance with the mandatory reliability
14 standards rules of procedure which includes the
15 registration manual.

16 In support of our application for
17 registration as the reliability coordinator on October
18 29th, as has been previously mentioned, BC Hydro
19 submitted our supplementary filing that provides
20 detailed information to support our application for
21 registration for participants to understand the
22 current state of reliability coordination in B.C.,
23 history of how we got there, the options assessed that
24 BC Hydro undertook, and the selection of preferred
25 alternatives that we -- and stakeholder engagements
26 that were conducted with registered entities.

1 the regulatory and legal context of our filing, the
2 reliability coordination and update of reliability
3 coordination in the Western Interconnection. We'll
4 summarize BC Hydro's reliability coordination strategy
5 and how we got to our decision to apply for
6 reliability coordinator in B.C. We'll also review
7 the work that's currently underway and needs to be
8 done to get us to the point where we can be the
9 coordinator, the reliability coordinator. We'll touch
10 on next steps and hopefully we'll have answered
11 everyone's questions at that point, but if there's
12 time and if you have more questions we'll have a
13 session at the end of this.

14 As mentioned by Commissioner Fung, we're
15 happy to take questions as we're going through the
16 presentation and we can also answer questions at the
17 end.

18 So in terms of a regulatory and legal
19 context, the electricity grid in B.C. is part of a
20 larger interconnected grid in Western Canada, the
21 United States and Northern Mexico known as the Western
22 Interconnection. The planning and operation of
23 interconnected grids is facilitated through compliance
24 with mandatory reliability standards which have
25 evolved from best practices from North American
26 utilities and are developed by the North American

1 Electric Reliability Corporation, also known as NERC.

2 The legal context from which we are making
3 our filing is that we believe the BCUC has the
4 authority generally for the MRS program in B.C.
5 through Section 125.2 of the *Utilities Commission Act*
6 which allows the BCUC to adopt standards for
7 application in British Columbia. And that the BCUC
8 can make orders, or issue orders on the administration
9 of the MRS program through Section 125.2(10) of the
10 *Utilities Commission Act*.

11 The mandatory reliability standards program
12 came into effect in around 2008, 2009 and order G-123-
13 09 adopted what are called the rules of procedure,
14 which include the registration manual and the
15 compliance monitoring program, and set out the
16 administrative framework for functional registration
17 of entities and the monitoring of compliance with
18 reliability standards.

19 Commission Order R-40-17 adopted the latest
20 version of the rules and procedure, the registration
21 manual, the compliance monitoring program and penalty
22 guidelines in B.C. And Order G-123-09 established
23 WECC as the -- or the Western Electric Coordinating
24 Council as the administrator for the BCUC and that
25 continues today.

26 The rules of procedure establish 11

1 functional types that can be registered for by
2 entities within our program.

3 **Proceeding Time 1:15 p.m. T05**

4 And on September 4th BC Hydro submitted its
5 application to register as the RC through the WECC
6 website. On October 29th we filed our supplementary
7 submission with the Commission providing copies to
8 registered entities and WECC.

9 In our view, the BCUC can issue orders
10 under section 125(10) of the *Act* and in accordance
11 with the registration manual may accept BC Hydro's
12 registration for the RC function within the B.C. MRS
13 program.

14 We also note that the registration manual
15 sets out the requirements for registration, but does
16 not have a formal administrative process to support
17 registration, meaning that we believe the BCUC can
18 establish its own administrative process.

19 THE CHAIRPERSON: Mr. Higgins, are you going to be
20 talking about, at any point in time, the issue that I
21 believe we alerted you to that we were interested in
22 hearing about, and that is what tests apply with
23 respect to whether or not we can determine whether BC
24 Hydro ought to be registered as the reliability
25 coordinator?

26 MR. HIGGINS: I think the test is that we're permitted to

1 apply through the registration manual for the
2 reliability coordinator function, and that the BCUC
3 has the ability to -- and actually the requirement I
4 think to issue an order under section 125.2(10) of the
5 *Act* in order to establish us as the administrator.
6 And I think the administration of the whole mandatory
7 reliability standards program would require an order
8 saying that.

9 So Kristine, I don't know if you want to --

10 THE CHAIRPERSON: So what is the criteria by which we
11 assess whether or not you ought to be registered as
12 such? Is the only requirement that you apply?

13 MR. HIGGINS: Well I think that we apply and that we have
14 demonstrated that we have the capability to undertake
15 the function, which is really outlined in much more
16 detail in our submission, and we will be touching on
17 that in the workshop as well. We'll be getting to
18 that.

19 THE CHAIRPERSON: Okay, thank you.

20 MS. BIENERT: Hi, Geoff, this is Kristine, just a follow
21 up question on that. Does BC Hydro believe that a
22 public interest test would be applicable in
23 considering this application?

24 MR. HIGGINS: A public interest test is I think
25 considered within section 125.2 of the *Utilities*
26 *Commission Act*, subsection (2) where it states that --

1 excuse me one second. I believe that establishes the
2 public interest test for the adoption of reliability
3 standards. In other words, it's the Commission's role
4 to adopt the standards in British Columbia, and make
5 an order adopting them, and in that way it serves the
6 public interest within British Columbia.

7 So yes, there could be a public interest
8 test well aspect to this, but we believe the order
9 should come under section 125.2(10).

10 MS. BIENERT: Thank you.

11 MR. HIGGINS: So now I'd like to turn the mike over to
12 Paul Choudhury who is going to take us through the
13 sort of the history of the reliability coordinators in
14 North America up to the sort of present time, and then
15 we'll turn it over to Asher to talk about what the
16 work we're doing now.

17 So, Paul?

18 MR. CHOUDHURY: Thanks, Mr. Higgins. My name is Paul
19 Choudhury, and I am the director of the transmission
20 and distribution system operations group within BC
21 Hydro, so I look after the control centres that manage
22 the production and transmission of power across the
23 province.

24 What I'd like to do in the next few slides
25 is take you through a description of what the
26 reliability coordinator function is and a little bit

1 of the history as to how we came to be in this
2 position with our present reliability coordinator.

3 **Proceeding Time 1:20 p.m. T06**

4 And some of the more recent history as to what's been
5 happening with the present reliability coordinator,
6 and how we've looked at alternatives to fill the gap
7 that will be appearing in December of next year when
8 they wind down their operations.

9 So on this slide you will see a colourful
10 map of reliability coordinators across the North
11 American continent. A couple of interesting things to
12 see. The date on the slide is May 31st, 2015 and it
13 hasn't changed since then. Reliability coordination
14 footprints and providers have been pretty stable
15 across North America.

16 Another thing to note is that, with the
17 exception of the provinces of British Columbia and
18 Manitoba, every other province within Canada has their
19 own reliability coordination service.

20 On the west coast, the area marked in the
21 salmon colour is the area covered by PEAK. That's the
22 present reliability coordinator. It stretches from
23 Northern Mexico all the way up to British Columbia.
24 The province of Alberta, which is also a member of
25 WECC, the Western Electricity Coordinating Council,
26 has its own reliability coordination service.

1 Also on the slide is the definition of what
2 a reliability coordinator does, and this is a verbatim
3 copy from the NERC glossary. And the key things to
4 note in this definition of the reliability coordinator
5 are that they have the highest level of authority
6 across the interconnected power system, and that they
7 have the wide-area view of the power system. So they
8 are the ones that can see what's happening, not just
9 in their jurisdiction, in their footprint, but into
10 neighbouring footprints as well. And that they are
11 responsible for preventing what we all fear, which is
12 an interconnection-wide black out.

13 A little bit about the mandatory
14 reliability standards that are applicable to
15 reliability coordinators. At my last count there were
16 about 130 standards in effect in British Columbia. Of
17 those, nine of them are specifically focussed on the
18 reliability coordinator function. Those are the
19 interconnection reliability operations and
20 coordination standards, the IRO standards. And of
21 these standards, within them they identify the
22 responsibilities of the reliability coordinator. So
23 they define what the authority of the coordinator is
24 and the roles of other registered functions such as
25 transmission operators, generation operators and how
26 they relate to the reliability coordinator. They set

1 down the requirements for the reliability coordinator
2 to undertake monitoring of the power system and doing
3 analysis of the power system. Analysis means doing
4 studies of things that could happen on the power
5 system that might lead to disturbances or blackouts or
6 overloads. They are also responsible for managing
7 system limits, and in the case that there are
8 transmission line overloads, they are responsible for
9 transmission loading relief procedures and making sure
10 that those are coordinated amongst transmission
11 providers.

12 They are also responsible for coordination
13 between and amongst RCs, as well as coordination of
14 planned outages that might affect different
15 jurisdictions.

16 So those nine IRO standards are quite
17 detailed and spell out the role of the reliability
18 coordinator. But mention of the reliability
19 coordinator and requirements specific to the
20 reliability coordinator also show up in many of the
21 other standards, including the critical infrastructure
22 protection standards, the communication standards, the
23 emergency operation standards, modelling standards,
24 personnel training standards, protection and control
25 standards and transmission operation standards.

26

Proceeding Time 1:24 p.m. T07

1 A little bit history of how we got to where
2 we are. The role of the reliability coordinator has
3 been around for quite a while, established first in
4 the 1990s in the western region. In those days they
5 were a combination of reliability coordinators and
6 other -- also called security coordinators. In the
7 late '90s there were three reliability coordination
8 functions, or groups within the Western
9 Interconnection, and BC Hydro was a member of what was
10 called the Pacific Northwest Security Coordinator,
11 which was run by a very limited number of people, I
12 think about six people operating out of control centre
13 in Vancouver, Washington. And that continued through
14 the '90s and in the mid-2000s, 2010, 2011 I believe,
15 WECC, the Western Electricity Coordinating Council
16 began efforts to consolidate those reliability
17 coordinators and built two control centres to
18 establish a more coordinated reliability coordination.

19 There was a blackout in the southern U.S.
20 in 2011 that led WECC to what we refer to as a
21 bifurcation or a splitting in two of the WECC
22 organization, into a regional entity, which would
23 retain the name of WECC and would continue to be
24 responsible for compliance and standards, and inter-
25 utility coordinated planning. And into a second
26 entity responsible for reliability coordination known

1 as PEAK.

2 BC Hydro joined PEAK in 2014 and we signed
3 a five-year contract with them. At that time the
4 Alberta Electric System Operator decided to establish
5 their own reliability coordination services, and have
6 been operating successfully since then.

7 So things worked quite well for many years.
8 Our only concern with PEAK were rising costs, and we
9 worked with them to contain costs as much as we could.
10 However, in December of 2017, PEAK announced to their
11 members that they were exploring a partnership with a
12 reliability coordinator, PJM, which you can see on the
13 east coast of the U.S. on that map that I showed a few
14 slides ago. PJM is a reliability coordinator as well
15 as a market operator, with a very successful and long
16 record of providing good service to their members.
17 And the intent was to look at opportunities between
18 PEAK and PJM to establish a market in the west.

19 This was not something the members of PEAK
20 had asked for, and in January of this year, the
21 California ISO announced that they were terminating
22 their membership with PEAK and would be setting up
23 their own RC service for the State of California and
24 providing RC services to others.

25 California is at this time still the
26 largest member of PEAK and the largest contributor to

1 the funding of PEAK. So the withdrawal of California
2 sent ripple effects through the rest of the PEAK
3 members. And other members of PEAK subsequently
4 provided notice as well, and signed letters of intent
5 with the California ISO.

6 The Southwest Power Pool, which is our
7 neighbouring reliability coordination entity to the
8 east, and headquartered in Little Rock, Arkansas, also
9 announced that they would be offering RC services in
10 the Western Interconnection, and they had been having
11 discussions with some utilities in the Rocky Mountain
12 area for the last few years about the possibility of
13 establishing a market and offering RC services. And
14 so they became a player in the west as well.

15 **Proceeding Time 1:28 p.m. T08**

16 So continuing through 2018, PEAK put a
17 request out that members indicate whether they would
18 continue membership with PEAK or in fact support a
19 wind down, and as a result of that request, the board
20 of PEAK then announced in July that they would wind
21 down their operations and that they had ended their
22 relationship with PJM.

23 Their last date of operations is December
24 31st of 2019, after they have transitioned their
25 customers to other RCs.

26 The Western Electricity Coordinating

1 Council has also asked members to provide their
2 intentions to WECC and to NERC, and they have been
3 very helpful in helping us understand how to set up
4 new RC services and ensuring that the collaboration is
5 taking place amongst the various potential RC
6 providers, including PEAK, as we go through this
7 transition.

8 So with all of this going on in the Western
9 Interconnection, BC Hydro started to look at the
10 options for reliability coordination services for the
11 province, and when we did, we initially considered
12 four alternatives. The first was BC Hydro taking on
13 the role of reliability coordinator for British
14 Columbia. The second was to have California ISO take
15 on the role of reliability coordinator for British
16 Columbia. The third was to have the Southwest Power
17 Pool perform that function. And the fourth was to
18 have the Alberta Electric System Operator perform that
19 function.

20 It wasn't long before alternative four was
21 dismissed. We had conversations with Alberta and they
22 were not interested in offering RC services to us.
23 They are undertaking a significant market and
24 infrastructure change in the next couple of years and
25 were focussing on that. They also operate under a
26 different regulatory regime and have modified their

1 standards a little bit so that their standards aren't
2 consistent with the B.C. standards.

3 For SPP, the Southwest Power Pool, there is
4 a significant geographic separation between their
5 footprint and ours that we felt would lead to
6 significant potential for seams issues between the
7 territory that they control through the RC function
8 and the province of British Columbia. And we didn't
9 see any advantage in having that party become the RC
10 for us. And I think when you see a map later on in
11 the presentation you'll understand why.

12 And so we were left with two alternatives:
13 BC Hydro performing the reliability coordination
14 service and California ISO doing it for us. And we
15 looked at these two alternatives from a reliability
16 benefit basis, a governance basis, the risk of
17 implementing either alternative, and certainly a cost
18 basis. And we spell that out in Section 3 of our
19 filing, Chapter 3 of our filing.

20 So following that alternatives analysis, we
21 came to the conclusion that it would be best for BC
22 Hydro to take on the role of reliability coordinator
23 for the province. Our conclusions were that the
24 reliability of the grid would be strengthened by
25 having staff familiar with the operations of the grid
26 in British Columbia, that we could provide a strong

1 governance framework, and that we would have more
2 control over the ongoing sustainment costs for RC
3 services.

4 We've estimated that the annual costs to
5 provide these services will be in the range of \$2.5 to
6 \$2.8 million, which is a savings of up to \$1.9 million
7 compared to what we are paying right now for the same
8 service from PEAK.

9 COMMISSIONER FUNG: Is that Canadian dollars?

10 MR. CHOUDHURY: These are Canadian dollars.

11 COMMISSIONER FUNG: Okay, thank you.

12 MR. CHOUDHURY: So, based on the information that
13 entities in the western region have provided to WECC,
14 as of November 2018 this map shows the footprint of
15 the various reliability coordinators and where they
16 will be operating.

17 So the Alberta Electric System operator
18 will continue to be the reliability coordinator for
19 Alberta. In the northwest corner of the map you'll
20 see, in blue, British Columbia, with BC Hydro becoming
21 the RC subject to the approval of the commission.

22 **Proceeding Time 1:33 p.m. T9**

23 And then in the U.S. the light orange footprint will
24 be controlled by the California ISO. And the pink
25 areas will be the footprint controlled by the
26 Southwest Power Pool.

1 MR. HIGGINS: Okay, we'll turn it over now to Asher Steed
2 who will take us through some slides on kind of where
3 we're at today and how we get to be the RC or how we
4 -- the work that we need to do to get to be the RC.
5 So, Asher?

6 MR. STEED: Thank you, Geoff. Asher Steed, representing
7 BC Hydro as the manager of provincial reliability
8 coordination operations. And I'm happy to speak about
9 updates since -- really since September of this year.

10 So BC Hydro has been working closely with
11 the existing reliability coordinator, PEAK; as well as
12 AESO, the Alberta Electric System Operator, providing
13 the reliability coordination service for Alberta; as
14 well as WECC; and the prospective RCs in the Western
15 Interconnection really to ensure we have a reliable
16 interconnection during the RC transitions expected in
17 2019.

18 As you heard PEAK will be winding down
19 operations by the end of 2019. And so based on
20 discussions to date we expect four transition dates to
21 be planned next year. And I've laid them out here in
22 the slide.

23 So the first will be in July. California
24 ISO intends to assume the RC responsibilities for the
25 state of California footprint. In September BC Hydro
26 is proposing to assume the responsibilities for the

1 province of B.C. footprint. In November, as we saw in
2 the map just previous -- so California has a large
3 expanded footprint beyond the state of California and
4 they would assume the RC responsibilities for that
5 expanded footprint at that time. And then lastly the
6 Southwest Power Pool would assume the responsibility
7 for their expanded footprint in the Western
8 Interconnection. As those four transitions occur,
9 PEAK Reliability coordination then winds down their
10 operations.

11 So in terms of ensuring that reliability
12 through this period there has been, I would say, a
13 significant effort to ensure necessary coordination
14 takes place between those interested parties,
15 including current and prospective reliability
16 coordinators. We have been meeting one to two times
17 per month, including attending a conference call just
18 earlier today. Those participants include NERC, WECC,
19 Peak Reliability, the Alberta Electric System
20 Operator, the California ISO, Southwest Power Pool,
21 and BC Hydro, as well as representatives from the U.S.
22 balancing authorities within the Western
23 Interconnection.

24 The key purpose from a high level has been
25 to ensure leadership coordination. So that involves
26 decision making, it involves review of what is

1 MR. STEED: So Kristine, the first part, yes, there are
2 standards that have not -- well, I should take a step
3 back. So there are standards that have been adopted
4 in B.C. with effective dates that have not yet
5 occurred, which will mean that we will be out of sync
6 on particular standards. For example, IRO 17 with
7 regards to outage coordination. What we foresee and
8 what we have -- and I'll speak about later is that
9 generally those will not be issues. We will ensure --
10 and I think we can ensure that we're able to meet the
11 effective standard within B.C. also while meeting the
12 existing standards that's applicable to the U.S.
13 entities. So our analysis to date shows that the
14 differences are not that significant.

15 MS. BIENERT: Okay, can I ask one follow-up question
16 then to that? Does BC Hydro see any value or consider
17 the option of accelerating adoption of any of those
18 standards at this point in time?

19 MR. STEED: At this time I can't provide a fulsome
20 answer. I would say it's definitely been something
21 we've been considering, and as we develop the
22 processes, I would say yes, we should look at that
23 potential.

24 MS. BIENERT: Thank you.

25 MR. STEED: All right, so in our filing we did include a
26 schedule and milestone, so this graphic was provided

1 in an earlier form within the filing. This reflects
2 an update from the Chapter 4 filing -- or Chapter 4 of
3 our filing. Specifically, the purple shading
4 indicates the progress of time since the start there,
5 including labelling where we are today. I'm happy to
6 report that there really has been minimal change in
7 the schedule and milestones. The one in particular I
8 would highlight, as we look at refining dates is the
9 shadow operations time period currently flagged here
10 as July 8th of 2019 has been moved one week. It used
11 to be July 1st, and that's based on the discussions
12 we've been having with PEAK Reliability.

13 Beyond that, just to preface the next
14 slides here, I'm going to go into some more detail now
15 on the work streams that have been involved in
16 developing the capabilities to perform the RC function
17 for B.C.

18 All right. So in our filing we provided a
19 high-level review of the activities required to
20 develop the RC capabilities, including what we've
21 heard from Paul in terms of the history of the RC
22 function within the west.

23 **Proceeding Time 1:42 p.m. T11**

24 And really the work can be further identified into the
25 four areas that we've identified here. So these are,
26 from our perspective, logical groups of tasks that

1 have fit into the workstreams that we have identified
2 as scope.

3 It is important to recognize that BC Hydro
4 currently is the balancing authority for the Province
5 of B.C. And so really, with respect to the
6 reliability coordination, we're looking to perform the
7 function for the same footprint. And as the balancing
8 authority, and as a transmission operator and several
9 other function types, BC Hydro currently has many of
10 the capabilities that are required to perform the RC
11 function. Really what our work involved in terms of
12 defining the scope was to look at a full review of the
13 applicable standards for the RC function, and compare
14 it to our existing tools and processes. And those
15 standards that were assessed are included as Appendix
16 B of the filing from October 29th.

17 And so, just to hit this on a high level
18 here, so I would say there has been significant work
19 in each one of them. Honestly right now, a big part
20 of the foundational piece is around the regulatory,
21 legal, and coordination. But we've done significant
22 work in the other areas as well, and I am happy to
23 report on those in the next slides.

24 All right, so the way this is framed up, is
25 an activity update. So this represents the
26 regulatory, the legal, and RC coordination work. And

1 I've also split out the registered entity engagement
2 that has occurred within the last few months.

3 With respect to regulatory, so we did first
4 meet with the BCUC Staff to provide an RC information
5 update in July of this year, July 24th, 2018. Also
6 around that time we began to engage with WECC staff to
7 understand what would be possible to conduct an
8 assurance review or operational assessment,
9 essentially an evaluation of RC capabilities, as we
10 saw that as being necessary to ensure BC Hydro would
11 demonstrate to the BCUC and the registered entities of
12 the province that we could perform this function
13 sufficiently and be in compliance with the standards.

14 And we also built our filing to support the
15 registration and demonstrate the work that we had
16 completed, and also that we had foreseen as necessary
17 to develop this function.

18 With respect to the registered entity
19 engagement, so we first sent a communication
20 indicating the preferred option with BC Hydro
21 providing the reliability coordination for the
22 province on October 14th, 2018. August, sorry, August
23 14th, 2018. We asked for responses from entities, and
24 we received five responses representing seven of the
25 registered entities of B.C. Three of those five
26 expressed some level of support, and two did express a

1 desire for more information. We have provided
2 responses for those registered entities that did raise
3 questions, and we have been actively meeting with
4 FortisBC on some of the questions that they had
5 raised, and recognizing that as the other significant
6 transmission operator within the province, they would
7 likely be most impacted by our development of RC
8 procedures for the province.

9 With respect to the legal and RC
10 coordination. So I mentioned earlier the attendance
11 meetings and conference calls with a number of
12 entities. Those are ongoing and will continue, as
13 well as our participation in the task teams to support
14 that coordination.

15 Additionally, what will be required are
16 data sharing and RC coordination agreements, and that
17 work I am happy to report it is underway with PEAK
18 Reliability. So we will have at least a two month
19 period where we will need a coordination agreement
20 with PEAK as they will be the reliability coordinator
21 on the southern border representing the U.S. balancing
22 authorities and transmission operators. We have a
23 draft also with California ISO and Alberta Electric
24 System Operator.

25 **Proceeding Time 1:46 p.m. T12**

26 We're also planning to meet with the

1 Alberta Electric System Operator and the Western
2 Interconnection regional advisory body – so this is
3 part of some other governmental meetings that are
4 planned for Calgary in February – to provide a brief
5 update on the RC services and the plans on the
6 transitions within the Western Interconnection.

7 Of course the RC function is going to need
8 resources, people resources, and so this has been a
9 crucial part, especially looking at the timeline that
10 we have in front of us from a staffing context. So we
11 have been able to confirm myself in this -- the
12 manager's position about one month ago, and then began
13 recruitment for the technical roles required to
14 develop and sustain reliably coordination for the
15 province.

16 Just last week we have confirmed our
17 specialist engineer who will be the key technical
18 resource to ensure that we have appropriate study
19 processes to comply with the standards and ensure
20 reliability for the province. We are also progressing
21 on recruitment for ten other technical roles and those
22 are on track to complete early January, 2019.

23 With respect to training and space
24 planning, so these are also crucial pieces. To ensure
25 we have training development; we have a job task
26 analysis. We're working with a vendor that we're well

1 experienced with in developing this for our existing
2 functions, the balancing authority and transmission
3 operator, and that will support the foundation of our
4 training expected to be completed in, as I say below,
5 in March.

6 The RC staff are excepted to be located at
7 our existing control centres, so that is -- in terms
8 of space we do have the existing space and this will
9 be an efficiency for us in utilizing those control
10 centres for this staff as well.

11 Additionally planned, so I mentioned above
12 the staff confirmations, the job task analysis. There
13 will be a need to ensure that all the technical roles
14 are certified to a system operator certification
15 within NERC. So that will be required and expected to
16 be done in the spring, at least by the spring of 2019,
17 with our training slated to start in the April, 2019
18 time period. As well as space planning activities to
19 be substantially complete by April, 2019.

20 All right, the next area is policies and
21 procedures, which I spoke briefly about before. So
22 currently the B.C. registered entities, including BC
23 Hydro, are subject to PEAK's procedures. So really
24 our primary effort has been to confirm the
25 requirements and draft procedures that will apply to
26 both the B.C. registered entities and the reliability

1 coordination staff.

2 We do recognize that a number of the
3 documents will impact B.C. registered entities and we
4 have begun to solicit feedback on those. The majority
5 of our procedures have been drafted and we have
6 reviews underway, including we've just started some
7 external reviews with FortisBC. Those will be
8 reviewed by the RC staff as we hire them, internally
9 within BC Hydro, the impacted parties, the balancing
10 authority and transmission operator staff, as well as
11 our compliance department within BC Hydro, and as well
12 other registered entities. We have established a
13 dedicated extranet, which is a secure website to
14 support document sharing and we expect that to sustain
15 as we develop the RC function.

16 **Proceeding Time 1:50 p.m. T13**

17 In terms of planned activities here, so we
18 will provide extranet access to the B.C. registered
19 entities, and we expect to continue both internal and
20 external reviews through February 15th of 2019.
21 Depending on the reviews that have taken place, we may
22 need to assign additional time as required for
23 specific documents, but generally our plan is to
24 finalize those documents in March so that we can
25 support the training that we expect needs to take
26 place starting in April 2019.

1 Additionally to that, we do need to ensure
2 the necessary entity coordination takes place, so that
3 will be to meet the mandatory reliability standards
4 requirements ahead of our go-live date of September 2,
5 2019.

6 To give you just a flavour, some of the
7 documents we are developing include the outage
8 coordination process, event reporting procedures for
9 significant events on power systems, as well as the
10 restoration plan to ensure a timely and efficient
11 restoration of the system should we suffer a severe
12 outage or blackout.

13 Technology is going to be a crucial piece
14 to our success in developing RC capabilities to
15 support function. BC Hydro is fortunate that we have
16 many of the technologies already that were required to
17 support the function. Really what we are looking at
18 here is to enhance our existing tool set to move B.C.
19 from a balancing authority, transmission operator,
20 very focussed on the BC Hydro and B.C. systems to
21 what's called the wide-area view. To support that --
22 and really what that -- just to say, so that entails
23 looking at not just the B.C. system but our
24 neighbouring systems. So that's looking into Alberta,
25 it's looking into the U.S. systems in more detail than
26 we do today to ensure that we can have a clear sense

1 of the reliability concerns and ensure they are dealt
2 with on the system.

3 Some of the first steps have been dealt
4 with here. So our power system model, which is a
5 representation within our tools of that system has
6 been extended and has been in production on our energy
7 management system, our primary tool today. That's
8 been in service for almost three weeks now.

9 We have a contingency analysis tool. So
10 this really is a tool to -- we call -- on the power
11 system an outage to equipment is referred to as a
12 contingency. So we need to study outage conditions
13 and ensure after those outage conditions occur that
14 the system is reliable. So this is enhancing what we
15 already have today. So that work has been
16 substantially completed and testing has actually begun
17 on this now to ensure that we're getting good results
18 there.

19 And actually the last -- yeah, okay, I say
20 below. So then the last piece we have done, we have
21 purchased a wide-area monitoring tool. This is
22 actually an extension of our existing energy
23 management system. So it takes the information that
24 we have today, including the enhanced contingency
25 analysis tool, and provides it in a meaningful way on
26 a geographic view to provide that wide-area monitoring

1 of B.C., Alberta and the U.S. systems. And we have
2 held a workshop with the vendor who is well-versed in
3 this. This is the same tool that's in use so we've
4 actually visited Alberta Electric System Operator to
5 look at their implementation of this tool.

6 In terms of planned activity, so we will
7 continue to further calibrate and validate these
8 tools, and that will be actually through some of our
9 internal work as well as working closely with the
10 other RC providers. As well, the development of the
11 wide-area monitoring tool which is underway will
12 continue on through the next couple of months.

13 So really this includes a review of our
14 activities. I do want to move into something else
15 that's quite crucial to support effective reliability
16 coordination, which is independence.

17 **Proceeding Time 1:55 p.m. T14**

18 So independence really is a cornerstone for
19 reliability coordinator operations throughout North
20 America. As we have become educated on the RC
21 function within North America we've come to realize
22 there are many different service delivery models, but
23 they all have this in common. And so BC Hydro intends
24 to achieve this while incorporating the function into
25 the existing organization.

26 And so firstly, just to speak about my

1 role. So as the manager provincial reliability
2 coordination operations, I will be directly
3 responsible for the oversight and direction of the
4 day-to-day operations of the RC function for the
5 province of B.C. I will be reporting to -- I am
6 reporting to Paul Choudhury as the director of
7 transmission and distribution system operations. I
8 will be located -- or our staff will be located in the
9 same facilities, with separate physical space from our
10 existing balancing authority and transmission
11 operation staff.

12 The benefit there, minimal effort to
13 configure our new space while achieving the security
14 requirements, and as well, it allows us to leverage
15 some of the key resources, the service providers that
16 support our shared technology. We'll be using the
17 same technology as the balancing authority and
18 transmission operator staff.

19 The RC staff will be subject to the
20 existing BC Hydro standards of conduct, which ensures
21 protection of non-public transmission information from
22 market function entities, and potentially the
23 additional RCs standards of conduct, we did provide a
24 sample, the NERC RC standards of conduct, as I believe
25 Appendix C in our filing. Yes.

26 We have actually -- yes, we've come to be

1 aware that there are other models for standards of
2 conduct. Other Canadian jurisdictions have
3 implemented alternatives to what we see within our
4 standards of conduct.

5 And lastly, so BC Hydro has been drafting a
6 governance model to support really opportunities for
7 the MRS registered entities to stay engaged on the RC
8 function, and also for us to be able to demonstrate
9 our independence in that engagement.

10 MS. BIENERT: Before we move on, can I ask one question,
11 please? In your slides you mention that you're
12 looking at a structure that would allow the registered
13 entities to stay engaged on RC activities. Has BC
14 Hydro contemplated having the registered entities
15 including, and maybe more importantly Fortis, playing
16 a decision-making role in RC activities? And can you
17 describe that a little bit.

18 MR. STEED: I would say we're in early discussions. I
19 know we've had several discussions with FortisBC about
20 their interests in BC Hydro providing the reliability
21 coordination function. And so I think at this stage
22 it would be early for us to say what that involvement
23 might be. But at this stage it's really -- we want to
24 have review of our procedures which are going to be I
25 would expect the most impactful parts of our function
26 on the entities and have that feedback. So that is

1 something that we may need to consider.

2 MS. WORTH: I just had a quick question.

3 COMMISSIONER FUNG: Ms. Worth.

4 MS. WORTH: Leigha Worth here on behalf of BCOAPO. I
5 just wanted to ask a clarification question in regards
6 to one of the points on slide 22. It's the third
7 point which is:

8 "RC staff would be subject to the BC Hydro
9 Standards of Conduct and potentially to an
10 additional RC Standards of Conduct."

11 Now, does that mean that it's possible that
12 no additional standards of conduct would actually be
13 put in place, or is it just that the standards of
14 conduct that you will eventually land on have not yet
15 been set? You know, if you're going to follow the
16 NERC model or something from another jurisdiction.

17 MR. STEED: So I would say there is a potential that we
18 may not have an additional standards of conduct and we
19 could build the requirements for independence into our
20 other governing documentation.

21 MS. WORTH: Okay. All right, thank you.

22 **Proceeding Time 2:00 p.m. T15**

23 MR. STEED: I guess, yeah, maybe something to add. So
24 we did indicate in the filing that there is
25 possibility for BCUC to consider actually their
26 position on the standards of conduct and actually

1 owning that potential document.

2 MS. BIENERT: Can I ask a question on that? Would you
3 consider WECC playing a role in that? Or would you
4 see that limited to the BCUC staff?

5 MR. STEED: I don't see WECC playing a role, honestly. I
6 think this is something that -- and you know, just to
7 maybe bring back the point around Canadian
8 jurisdiction. So I think there are different models.
9 For example, Hydro Quebec is something that FortisBC
10 has shared with us that may be something that we could
11 learn from in terms of what's appropriate for B.C.

12 MS. BIENERT: Thank you.

13 MR. STEED: All right, so the next two slides I talk
14 about two groups that we are proposing to be
15 established really under the umbrella of what we call
16 the reliability coordinator governance. But I would
17 say just taking a step back, the bigger piece here is
18 effective engagement of the B.C. Registered Entities.

19 So I see engagement being crucial. I see
20 the oversight and the input on the RC function being
21 part of that. And a coordinated approach to reviewing
22 the operations of the RC. So that is of the factors
23 that really have gone in to developing these two
24 groups.

25 The first one, using the term, the RC
26 registered entities oversight group, which would

1 include participants from the reliability coordination
2 staff. So myself and other support staff as required.
3 As well as all of the registered entities of the
4 province, including BC Hydro being invited to
5 participate in this group. And we feel that this
6 would be an important group for the BCUC to
7 participate in as well.

8 The scope, we would like the opportunity to
9 report on the performance of the RC function, provide
10 updates on proposed changes, so whether those be
11 changes that we can see coming with changes to
12 standards, or changes that are necessary to
13 procedures, and ensure that we have an opportunity to
14 respond to questions and receive feedback from the
15 entities.

16 Yeah, and actually, one thing that I would
17 note there is, we do plan to have a regular meeting
18 schedule, so I think that would be important as to
19 ensure that we have those built into calendars to
20 ensure that we can have effective engagement from the
21 entities.

22 The second group is really a working group.
23 So, the idea here is to have an operational focus, and
24 so that would include the RC staff as well as the BC
25 Hydro balancing authority transmission operator staff,
26 and representatives from the other registered

1 balancing authorities and transmission operators
2 within B.C. Really what we see here is these are the
3 entities we are going to be interacting with most on a
4 day-to-day basis, for both what's called the next day.
5 So when we're looking ahead, the next-day timeframe as
6 well as the current day timeframe. And so this would
7 give us an opportunity to review those short term
8 operational issues and plan and coordinate joint
9 initiatives, which may include things such as
10 training, restoration plans or anything else that is
11 really specific to the operations of reliability
12 entities, balancing authorities and transmission
13 operators.

14 THE CHAIRPERSON: Sir, just one question about the two
15 groups. How will you coordinate communication between
16 the two groups? Because you've got one dealing with
17 governance communications, as I see it, and the other
18 dealing with operations. Is there going to be any
19 overlap at all?

20 MR. STEED: I expect there will be overlap, and I expect
21 that the working group really would be more detailed.
22 So, for example, at the registered entities level, if
23 we had a change to a process that may impact the
24 broader group of registered entities, there may be a
25 need for a more detailed discussion at the operations
26 working group because there is just a deeper level

1 impact on the transmission operators and the balancing
2 authorities, which are only a small subset of the
3 registered entities.

4 **Proceeding Time 2:05 p.m. T16**

5 And so to your question really, it may be
6 appropriate to ensure that we have an update from that
7 operations working group back to the registered
8 entities group, the broader group.

9 COMMISSIONER FUNG: Okay, thank you.

10 MR. STEED: Okay, we're now going to move into a slide
11 here that builds on, most recently, the Exhibit A-3
12 and our response to that in regards to evaluation of
13 BC Hydro's capabilities as a reliability coordinator,
14 and the work really we need to do with BCUC and WECC
15 to determine what the appropriate process will be.

16 So in our filing, information was provided
17 on Section 4.2.3 in regards to certification and
18 potential options that BC Hydro had considered and for
19 BCUC to consider. So really on this slide we present
20 two of those options, based on discussions with WECC
21 and review of BCUC and NERC rules of procedure. The
22 first is what is termed here and was termed in the
23 filing as a full certification, and the second an
24 assurance review or the term that also is being used
25 by WECC is an operational assessment.

26 I would like to highlight what Geoff said

1 earlier. So WECC has confirmed no resource
2 constraints provided that the necessary review takes
3 place within the timeline established in our filing,
4 which we had proposed for May of 2019.

5 And now just to describe the processes. So
6 the full process is really a NERC process and it is
7 well defined within NERC's rules of procedure as
8 indicated on the slide here, and would apply
9 consistently to all entities that are applying for a
10 new function. In the B.C. context, this really would
11 be a review of all applicable MRS for the function the
12 entity is registering for.

13 The assurance review or operational
14 assessment really would be the BCUC's determined
15 process developed with WECC and ensuring that it's
16 meeting the needs under the B.C. MRS rules of
17 procedure. This is more flexible, so it can be
18 tailored to meet the BCUC's evaluation requirements
19 within B.C.

20 The starting point for both of these
21 activities is Appendix B of our filing. So these are
22 all MRS requirements applicable to the RC function and
23 effective in B.C. as of September 2, 2019. What we
24 stated here in the slide, as I said earlier, so this
25 can be tailored to meet the evaluation requirements.
26 We say it may focus on only those MRS that require

1 additional work or changes to existing tools and
2 processes, and exclude MRS applicable to other
3 functions that BC Hydro is registered for, for example
4 the balancing authority and transmission operator,
5 that are already subject to annual, self-
6 certification, on-site audits.

7 BC Hydro does recommend consideration of
8 exempting certain standards that are already
9 applicable to B.C. in its existing functions. These
10 are currently subject to annual self-certification and
11 on-site audits and by our assessment, do not require
12 additional work to us to perform the RC function.

13 In BC Hydro's view, this would ensure the
14 review effort is focussed on the new work and what has
15 changed with respect to tools and procedures to
16 develop the RC function.

17 We hope we have provided sufficient
18 information. We're happy to take any questions. I
19 know this is one that we want to make sure that we get
20 right.

21 **Proceeding Time 2:06 p.m. T17**

22 MS. BIENERT: Kristine from BCUC staff. So we have a few
23 questions on this. The first question we'd like to
24 hear from BC Hydro on is if you could articulate for
25 us any disadvantages you see of going through a full
26 NERC certification process if WECC has resources

1 available to do so and if the marginal difference in
2 time is quite minimal?

3 MR. STEED: I'll provide my answer and then I'll open it
4 up to my colleagues.

5 I don't know if I would term it a
6 disadvantage. I suppose what maybe is the effort
7 applied to do a full certification may not provide the
8 same value for the effort as opposed to just focusing
9 on what had changed given that there's a number of
10 standards that are already subject to audit and self-
11 certification.

12 MS. BIENERT: And just as a follow-up to that, if it
13 requires a significant amount of regulatory process to
14 come to that kind of tailored certification process
15 versus a full blown NERC audit which would follow, as
16 you put it, a pretty standardized approach, is there a
17 trade-off there in terms of we save some operational
18 review time but we expend some regulatory
19 consideration time?

20 MR. STEED: Yeah, I don't really -- yeah, I don't have a
21 comment on what would be required, honestly, from a
22 regulatory review standpoint. In my view I think both
23 are an effective means to evaluate the RC capabilities
24 and I think it was prudent for BC Hydro to provide our
25 view in terms of what we think is an effective use of
26 WECC's resources.

1 MS. BIENERT: Thank you.

2 THE CHAIRPERSON: I do have some questions, but I'm going
3 to allow others to have the opportunity first.

4 So anybody that would like to come up and
5 as any questions? Any questions from people on the
6 phone? If there are any -- oh? Please. Can you tell
7 us --

8 MS. MARTIN: Joyce Martin for FortisBC. BC Hydro has
9 mentioned that their MRS group together with
10 FortisBC's MRS group have been engaged in discussions
11 on the RC role for some time. And this morning -- or
12 earlier in the workshop a number of issues were
13 mentioned that we still have some residual discomfort
14 with and there was a discussion of the things that are
15 being worked on to nail those down, and they include
16 things like the governance documents, the degree of
17 independence of the reliability coordinator from other
18 BC Hydro MRS functions and so forth.

19 And so my question is, can you give any
20 indication of what timeline you are envisioning to
21 have that documentation complete and how you see that
22 fitting into the regulatory proceeding timeline that
23 you've proposed?

24 MR. STEED: Thank you for the question, Joyce. At this
25 stage I would say I would like to see that we can
26 complete the documents -- especially with respect to

1 governance and independence – along a similar timeline
2 to what we have for other procedures. So looking at
3 February into March of 2019. And, yeah, based on --
4 that's how I would answer the question today. If we
5 had new information come to light we may need to
6 adjust that, but I don't see any concern in committing
7 to that.

8 MS. MARTIN: Thank you.

9 THE CHAIRPERSON: Anybody else?

10 All right, I think the first one is for
11 you, Mr. Choudhury. You had mentioned to us at the
12 beginning of your presentation and reminded us that
13 British Columbia is actually part of the
14 interconnected grid in the entire Western
15 Interconnection. If this proposal goes through and BC
16 Hydro becomes the reliability coordinator for British
17 Columbia we're going to have three different RCs for
18 the entire region. Did you take that into account in
19 your assessment of the alternatives and what kind of
20 risks does that pose for the Interconnection when
21 you've got three players rather than two or one?

22 **Proceeding Time 2:14 p.m. T18**

23 MR. CHOUDHURY: Yes, we're used to having one reliability
24 coordinator for most of the Western Interconnection
25 and when Alberta formed their own reliability
26 coordination services it went to two. And that's a

1 question that's been asked by our own executive and by
2 WECC itself, and I attend the NERC board meetings, and
3 it's a question that the rest of the industry has been
4 asking. What is this impact going to be on the
5 Western Interconnection? Because we've had pretty
6 good reliability over the years. And where there have
7 been disturbances or blackouts, we've improved our
8 performance and mitigated the causes of those
9 blackouts, and worked well with one reliability
10 coordinator.

11 When you look at the map of the rest of
12 North America, especially on the east coast, there are
13 multiple reliability coordinators that are operating
14 very well together over much smaller footprints. What
15 we found with PEAK was given the vast territory that
16 they had to cover, their ability to become intimately
17 familiar with how BC Hydro's system is operated, or
18 perhaps any other entity's system is operated, is
19 limited.

20 And so what we feel is that this isn't
21 going to degrade reliability in any way. There is a
22 significant amount of coordination that happens
23 between reliability coordinators enforced by the
24 standards and just good practice, so that we're
25 sharing outage information, we're studying each
26 others' systems. We're working with each other to

1 anticipate problems that could develop. And I think
2 reliability is actually going to be enhanced. We will
3 have California looking after most of the U.S. part of
4 WECC, and they have a good track record with very
5 sophisticated tools. And they've been running a
6 market that also covers that footprint for some time
7 now. And are able to leverage some of those tools as
8 well.

9 And a small portion of our existing system
10 will move into SPP's footprint. SPP has a very long
11 history going back 20 years as being a reliability
12 coordinator, and one of the best out there. So I am
13 confident that the jurisdictions they are picking up
14 will be well served.

15 And given the fact that we have been the
16 balancing authority for British Columbia forever,
17 since that role has been established, given the
18 knowledge that our staff have and the sophisticated
19 tools that we have in our control centre, I think our
20 ability to protect British Columbia's reliability
21 interests is going to be excellent. And the
22 coordination with California that we're already seeing
23 as part of this transition process is going to lend to
24 excellent interconnection reliability.

25 So I'm not worried about a degradation. It
26 is a question that is a natural question to ask when

1 you take something that has been working and you break
2 it up, will it still work? I believe it will.

3 THE CHAIRPERSON: Thank you. Now, because you mentioned
4 California, I am going to pick up on that.

5 MR. CHOUDHURY: Sure.

6 THE CHAIRPERSON: Because that was one of the
7 alternatives that you looked at in making your
8 decision. And you mentioned also previously that by
9 taking on the RC function you are going to be saving
10 about \$1.9 million relative to what you've been paying
11 PEAK recently.

12 MR. CHOUDHURY: Correct.

13 THE CHAIRPERSON: And I accept that. But did you
14 consider in terms of economies of scale, if you had
15 opted to, for instance, let CAISO take over that role,
16 that they may in fact be even more savings if CAISO
17 were to do that, rather than BC Hydro?

18 MR. CHOUDHURY: Yes we did, we did consider that. And so
19 over time when California first announced that they
20 were going to be offering RC services to others, they
21 published a rate that people could start thinking
22 about in terms of making a decision as to where they
23 would go. And it seemed very cheap. And over time
24 that rate changed a little bit, it went up, and the
25 range of the rate broadened. And so in our analysis
26 we looked at that, and the costs, just on a

1 subscription basis, were similar to what it would cost
2 us to do it ourselves. So they were in the ballpark.

3 The challenges with California were more
4 around governance. The rules under which the
5 California RC will be operating will be derived from
6 rules that are established in the State of California,
7 for the State of California, and we would have limited
8 ability to be able to be able to influence or
9 participate in the development of those rules. That's
10 just the way things are there.

11 **Proceeding Time 2:19 p.m. T19**

12 And so we did consider costs. We
13 considered the reliability benefit which we felt was
14 stronger for having B.C. trained operators familiar
15 with our system operating the system. And then what
16 we saw with PEAK, which was a rather reasonable rate
17 when we started, and then a significant escalation in
18 a very short period of time, with very little ability
19 to influence how those costs went up.

20 THE CHAIRPERSON: Thank you. Now, my last question,
21 you'll be please to know, is about people. How many
22 in total will be hired in order to work on the RC
23 function alone at BC Hydro?

24 MR. STEED: Yeah, so for reference I'm just looking at
25 page 4-2 of our filing. So what we have there is
26 really the same structure that we are proposing and

1 are now starting to populate with people. So we have
2 myself, we have seven what we are calling the RC shift
3 roles, so that's a 24 by 7 operation. We have three
4 RC engineers. So the specialist is one of that team
5 of three. And then we have a dedicated compliance
6 engineer. And then we have an administrative support
7 function. So that, all tolled, will be 13 people.

8 THE CHAIRPERSON: And will the majority of those people
9 be from current employees of BC Hydro who are already
10 NERC certified, or do you anticipate you're going to
11 be needing new people who may not be NERC certified
12 when they come to you?

13 MR. STEED: Yeah, so in terms of our costing, we
14 prepared for kind of the worst case is bringing in
15 people that are not NERC certified. I am most of the
16 way through the selection of the team of seven, and so
17 all of the people that have been shortlisted in that
18 function have existing NERC certification and most of
19 them are at the RC level. So there may be a small
20 number that require re-testing to get to the RC level.
21 But yeah, I'd say overall I anticipate the shift will
22 be minimal, and then the others, the people that will
23 populate the engineer roles, will become certified.
24 So those are typically not certified people.

25 THE CHAIRPERSON: Okay, thank you very much.

26 Kristine.

1 MS. BIENERT: BCUC staff have one question, and this
2 question is actually for WECC. So if WECC would like
3 to answer it, we would appreciate it, but they are
4 under no obligation to do so. We would like to hear
5 from WECC in terms of their assessment of the
6 additional marginal work required to go from a full
7 certification to -- or from an assurance review as
8 proposed in the slide that BC Hydro has in front of us
9 versus a full certification process to understand how
10 much additional days or time might be associated
11 between the two reviews and any other feedback that
12 they might have with regards to the difference in the
13 two processes.

14 THE CHAIRPERSON: Is anybody from WECC?

15 MR. REYNOLDS: This is Tim Reynolds here at WECC. Just
16 to make sure I understood the question correctly. It
17 wasn't all that clear. The question is going to the
18 amount of work on (inaudible) based upon this slide
19 right here, a full certification versus an assurance
20 review/operational assessment on our end. Is that
21 correct?

22 MS. BIENERT: That's correct.

23 MR. REYNOLDS: So the level of work that really comes
24 down to us is -- well, it's on both sides, from BC
25 Hydro and from WECC is level of documentation because
26 the process was that the tools and processes and

1 procedures that are in place to be able to make sure
2 at the end we are able to fulfill the required
3 standards. So the more standards you have on your
4 scope that you're going to look at just requires more
5 documentation to go over and view.

6 So. But one thing that's part of the
7 process, regardless of which one you do, you know, we
8 will do an on-site visit to be able to look over
9 certain information that would most likely be
10 identical in both rounds there.

11 MS. BIENERT: And just a follow-up to that, could we ask
12 you in terms of days or additional time that would be
13 required to do a full certification versus the
14 assurance review? How many days or additional hours
15 would you estimate would be involved?

16 MR. REYNOLDS: Again, it depends upon the changes in
17 the scope. And so if you're looking at an assurance
18 review that -- you know, the scope is about half of
19 what the full certification would be, you're
20 potentially looking at maybe half the time. It's
21 really we need to look down at what would that scope
22 actually look at for an assurance review before we can
23 fully answer that question.

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

25 MS. BIENERT: Just, and one quick follow-up there. In
26 terms of a full certification, if you were to estimate

1 how much time that would take what would be your
2 estimation?

3 MR. REYNOLDS: So it depends upon the entity and how
4 prepared they are for us to be able to come up to the
5 on-site visit. Typically with the certification we
6 usually try to send what's called a certification
7 packet 90 days before the on-site visit. That packet
8 lists the scope, who's part of the team, and
9 additional information and questionnaires for the
10 entity. And we usually try to allow about two months
11 or so for the entity to be able to provide that
12 documentation that we're asking. And then hopefully
13 about a month for the certification team to be able to
14 look at that documentation, get familiar with it, ask
15 follow-up questions, to get them ready for the follow-
16 up visit.

17 And then while we're at the follow-up visit
18 it could be a matter of one up to maybe three days
19 depending upon exactly what they're looking at. And
20 then after the visit it's just a matter of any
21 outstanding items the team may find or potentially a
22 second visit might be needed depending upon what they
23 see.

24 So those are some of the things that will
25 need to be worked out with the British Columbia
26 Commission.

1 MS. BIENERT: Thank you.

2 THE CHAIRPERSON: Mr. Reynolds, it's Commissioner Anna
3 Fung speaking. I was curious to know WECC has ever
4 done an assurance review or operational assessment
5 before in the terms as proposed here by BC Hydro?

6 MR. REYNOLDS: So when you look at the certification
7 process itself as it written in NERC procedures,
8 there's the certification by itself, but it has two
9 approaches to it. One is a full certification as
10 you're listing here. The second one is if there isn't
11 any direct authority to have that registration, say
12 with an RC or something like that, they're allowed to
13 do what's called a certification review, which is a
14 more limited scope that's focusing just on what is
15 changing.

16 And so, what we do is we work with the
17 entity to try to understand what is changing, what is
18 not, so we can be able to customize the scope out of
19 that review to exactly what the change is happening.

20 THE CHAIRPERSON: But I don't think you've answered
21 exactly my question, and that is based on what you've
22 just said it seems to me that that process you've
23 described is only available to registrants who already
24 registered as RCs and -- but have for whatever reason
25 made some changes that warranted a further review. Is
26 that correct?

1 MR. REYNOLDS: Well so, yeah, that's where the U.S.
2 entity is correct. And so, we have done the
3 international type certification on other
4 international entities, and so that is usually worked
5 out as far as what the scope is, because it's not
6 fully defined -- it's not falling -- sorry, let me
7 back up a second. It doesn't have to follow exactly
8 the NERC or the procedures because it's not subject to
9 it.

10 THE CHAIRPERSON: Correct.

11 MR. REYNOLDS: And so, we work with the party that we're
12 doing the certification activity for, and the
13 assurance for, the operational assessment, to be able
14 to understand what is happening and make sure we have
15 the appropriate scope applied to it.

16 MR. ALBRECHT: So Tim, if I may, I think the question may
17 be is the more narrow certification review, is that
18 available to entities who are adding a function or is
19 that available to only entities who are expanding
20 their footprint?

21 MR. REYNOLDS: Under the U.S. that more limited scope is
22 only available if they are already registered for that
23 function.

24 THE CHAIRPERSON: Thank you.

25 Ms. Worth, and then Commissioner Everett.

26 MS. WORTH: Leigha Worth on behalf of BCOAPO. I have a

1 follow-up question to Madam Chair's question regarding
2 governance and the California concerns.

3 **Proceeding Time 2:28 p.m. T21**

4 Mr. Choudhury, you indicated that one of
5 the concerns in sort of looking at the California
6 group was governance in particular, because of BC
7 Hydro's inability to actually influence how it had to
8 operate. And I'm just wondering if you could explain
9 whether that was also an issue in BC Hydro's dealings
10 with PEAK? Or if BC Hydro was indeed able to
11 influence to the degree that you seem to indicate is
12 necessary to consider California the structures and
13 regulations that they had to operate under?

14 MR. CHOUDHURY: So PEAK operated as an independent
15 company outside of the jurisdiction of any particular
16 state regulation. Had their own board of directors,
17 had their own members advisory committee, had various
18 other committees that we could participate in, and you
19 know, weren't influenced by any particular states'
20 regulations changing, or political considerations.
21 So.

22 MS. WORTH: Thank you.

23 COMMISSIONER EVERETT: I was just -- oh I'm sorry, was
24 there someone else going in?

25 I was just interested in the RC
26 independence. And how is it that you maintain your

1 independence from yourself as BC Hydro in performing
2 that function? On slide 22 you say there will be a
3 *Code of Conduct*. I wasn't clear whether that *Code of*
4 *Conduct* has been drafted up or whether it's in the
5 process. And what it might look like.

6 Also, you're not so independent that you're
7 separate, you're still located in the same facilities.
8 I'm just trying to get a sense of how this
9 independence is achieved by -- when you're there in
10 the same facility, physically, and what it is that
11 this *Code of Conduct* might say that would assure other
12 entities who would be subject to this function that
13 you are acting independently?

14 MR. STEED: Commissioner Everett, thank you for the
15 question. And yeah, so what I would highlight is on
16 this slide 22, there is a statement at the beginning.
17 So "RCs must act in the best interests of their RC
18 area and the interconnection before the individual
19 interests of any single entity." And so in Appendix C
20 of our filing, is the NERC reliability coordinators
21 standards of conduct which I understand applies really
22 universally to the RCs that are registered within the
23 U.S. jurisdictions.

24 The introductory statements on that
25 standards of conduct does say, "An entity performing
26 the functions of reliability coordinator must treat

1 all users of the interconnected transmission systems
2 in a fair and non-discriminatory manner."

3 What I do know, and I haven't had extensive
4 exposure to reliability coordinators in the U.S., I do
5 know there are RCs that operate in the same control
6 rooms, in the same physical footprint as transmission
7 operators, and so there will be a desk dedicated to
8 transmission operator function and then just over here
9 there's a desk dedicated to the reliability
10 coordinator.

11 **Proceeding Time 2:32 p.m. T22**

12 In those situations, 1) I'd say the
13 standards of conduct is a piece that helps with that
14 independence and acknowledgment by the RC staff of
15 that standards of conduct. Additionally, it's the
16 independence of the procedures. So the procedures
17 that we are developing for the British Columbia
18 reliability coordinator would be approved by me and it
19 really is on me, as the manager, to ensure that they
20 are independent from the procedures of BC Hydro or
21 really that of any other registered entity for the
22 province.

23 And so I would bring it to process,
24 adherence to process and really ensuring oversight in
25 -- and so what I'd see there is the governance groups
26 being an opportunity to report out on that in terms of

1 how we're performing in our decision-making as it
2 applies to procedures and then as real-time issues
3 actually take place. So we need to be able to
4 demonstrate that in the actions that we take.

5 So I think it's definitely -- it's
6 achievable, it's happening today within the
7 Interconnection and that's what we will strive to put
8 in place for BC.

9 COMMISSIONER EVERETT: And when you mention the
10 governance group, who would be in that group? Is that
11 your group or is it something that oversees your group
12 that's --

13 MR. STEED: Right, yeah, so I would be referring to the --
14 primarily the group indicated on slide 23, the RC
15 registered entities oversight group. And so the
16 participants there would entail myself as the manager
17 of the reliability coordination functions responsible
18 for that function, the registered entities, including
19 BC Hydro, and this where I do feel it would be
20 appropriate to have BCUC attend as an observer and
21 participant to -- in an appropriate manner, and so
22 this would allow for engagement with those entities,
23 to talk about the function, what our plans are, so if
24 we're changing procedures and to ensure we've had that
25 open, transparent process around engaging on what our
26 performance is and what the proposed changes are and

1 hearing from that -- so really seeing BC Hydro as the
2 balancing authority transmission operator function at
3 a level playing field with the rest of the registered
4 entities within the province.

5 COMMISSIONER EVERETT: Thank you.

6 THE CHAIRPERSON: Are there any further questions?

7 MS. BIENERT: Can I just ask one follow-up one, Anna?

8 THE CHAIRPERSON: Yes, Kristine.

9 MS. BIENERT: It's Kristine from the BCUC staff, and once
10 again if Fortis does not want to answer that's their
11 option, but I would be curious to hear from Fortis in
12 regards to this described group that we've just heard
13 about and if there is any preliminary thoughts from
14 Fortis about the effectiveness of this oversight group
15 or an alternative model that they might see that would
16 be more effective to provide some sort of independent
17 oversight?

18 MS. MARTIN: Thank you, Joyce Martin again. Just in
19 general FortisBC certainly is interested in
20 participating in having such an oversight committee
21 that includes registered entities, and as BC Hydro
22 said earlier today, FortisBC is the most -- probably
23 the most heavily affected entity by the change in the
24 RC role.

25 **Proceeding Time 2:36 p.m. T23**

26 Our respective MRS departments have talked

1 in detail about some specific models that might be
2 used and are -- I was looking forward to seeing what
3 proposals might come forth out of that. But certainly
4 it is something that we consider to be important.

5 THE CHAIRPERSON: Any other questions?

6 Okay, if not, I'm going to invite BC Hydro
7 to make any closing remarks that you would like to
8 make, and then similarly any participants who would
9 like to say something at the very end, I'm happy to
10 also allow you to do that.

11 Yes, Ms. Worth?

12 MS. WORTH: I just realized I have maybe a couple more
13 questions, if that's all right.

14 THE CHAIRPERSON: Absolutely.

15 MS. WORTH: I'd just like -- this is Leigha Worth from
16 BCOAPO. I'd just like to start with a general comment
17 in regards to sort of the independence issue. Our
18 clients, of course -- our customers are not only on BC
19 Hydro but also of Fortis and it's very important for
20 our clients to be served by utilities that are free
21 from any appearance of a conflict of interest. And of
22 course this independence issue is something that does
23 engage that particular concern.

24 So it's very important for us to go on
25 record to say that we are encouraged to hear that
26 Fortis is, you know, wanting to look to work with BC

1 Hydro on this issue, but it is something that we want
2 to make sure that BC Hydro is alive to. That there's
3 not only sort of the necessity to avoid any actual
4 conflict of interest, but also the appearance of it,
5 because that can really create a lot of issues where
6 there need not be any.

7 So I'm hoping that BC Hydro is alive to
8 that as well going forward in its negotiations with
9 parties and sort of been working it through, coming up
10 with a model that will not only have that
11 independence, but clearly signal to people looking
12 from the outside that there is that independence as
13 well.

14 So I'm just wondering whether BC Hydro can
15 provide a clear explanation -- because I just realized
16 that I don't quite understand the roles of WECC and
17 BCUC in respect to the selection and certification of
18 the reliability coordinator here. I'm just not sure
19 who is doing what, and what you're expecting to sort
20 of have -- because we're having this regulatory
21 process, what is the role of the BCUC in this?

22 THE CHAIRPERSON: Mr. Higgins, I think you've got to
23 take a stab at this.

24 MS. WORTH: It may be that I just sort of missed some of
25 the nuance in your previous answer, Mr. Higgins, but
26 yeah, I just wanted to seek a little extra clarity on

1 MS. WORTH: Now, I just want to kind of make sure that
2 that particular answer reconciles with the answer that
3 you gave to Madam Chair's question earlier which was,
4 in that particular answer, Mr. Higgins, you said that
5 the test for the BCUC would be that you have
6 demonstrated that you have the capability to act as an
7 RC, and that a public interest test could play part of
8 that analysis. Is that correct? So you still believe
9 that the BCUC would undertake that analysis in issuing
10 that order under the legislation that you've cited,
11 the 125.2(10)? Is that --

12 MR. HIGGINS: Well, I can't say for exactly how the
13 Commission will go about doing their analysis, but I
14 think section 125.2(10) -- subsection (10) provides
15 them with the vehicle to make that assessment.

16 MS. WORTH: Okay, thank you. Have you -- and this may be
17 just because I'm not familiar with sort of a situation
18 like this. Is it possible that California or another
19 group could apply to act as RC for B.C.? And if so,
20 what would the subsequent selection process look like?
21 Who would it be conducted by? What particular -- what
22 would the process be for that? I mean, is that even
23 an option?

24 MR. CHOUDHURY: I think theoretically there is nothing
25 that would prevent them from putting an application in
26 on the WECC website seeking to register as the RC for

1 B.C.

2 MS. WORTH: Okay.

3 MR. CHOUDHURY: They would be sitting on a panel here
4 beside us and we would be duking it out.

5 MS. WORTH: All right. Okay, those are my questions,
6 thank you for indulging me.

7 THE CHAIRPERSON: Thank you, Ms. Worth. No problem.

8 BC Hydro, would you like to say anything in
9 closing?

10 MR. HIGGINS: Yes, just that we're sort of at the last
11 slide of our presentation which are the next steps.
12 Right now we have a procedural order that just goes to
13 December 21st, which is the issuance of information
14 requests by the BCUC.

15 **Proceeding Time 2:44 p.m. T25**

16 So, I guess my comment would be that I, you
17 know, hopefully we'll need a further procedural order
18 establishing a due date for the IR responses and then
19 we were hoping that that would also -- the order or
20 another order or at least some acknowledgement would
21 happen that the process that we're going down the road
22 of is acceptable to the Commission and that we would
23 establish some milestone dates around when WECC needs
24 to appoint their assessment team and issue their
25 questions to us, when the on-site review might happen,
26 and we are proposing that that would need to happen in

1 May, and that WECC would be able to complete their
2 report and issue that in the June timeframe. So those
3 are the sort of next steps that we think we need in
4 some sort of a procedural order going forward.

5 Other than that, thank you very -- oh,
6 sorry.

7 MS. BIENERT: Geoff, can I just ask a quick question
8 about the timelines that you've proposed here. So in
9 your slide it says that you're looking for a
10 confirmation of some sort around the nature of the
11 review, if I can call it that, by WECC in the end of
12 January and then it's March that the WECC would
13 actually appoint the assessment team and kick off the
14 process as we understand.

15 Is the January date an estimation date, or
16 how firm is that date in your mind?

17 MR. HIGGINS: I think it's an estimation date, but I
18 don't think we can let it slide too far. I mean, we
19 would like to be able to have confirmation that the
20 operational review might be the appropriate way to go,
21 or conversely that a full-blown certification is going
22 to be required just so that we know how to plan our
23 resources.

24 MR. STEED: Asher Steed, BC Hydro. So just to add on
25 that, what I heard Tim Reynolds from WECC indicate was
26 that typically they would provide the packet 90 days

1 prior to the --

2 MS. BIENERT: Yes, that's right.

3 MR. STEED: So I think that's really what we had in mind
4 is February 15th. That gives them some time to prep
5 that packet before they would provide it to us.

6 THE CHAIRPERSON: Right. But that's only in the event
7 of a full certification as I understood it. Because
8 he said typically it's about half the time to do it.

9 MR. STEED: Well, what I understand from talking to Tim
10 and if he's still on the phone he could confirm, but
11 regardless of the process that chosen to evaluate,
12 there would be a packet that would be provided. So we
13 would need that regardless of the method chosen to
14 evaluate.

15 MR. REYNOLDS: And this is Tim Reynolds. Asher is
16 correct, that regardless of which way it goes,
17 typically we try to get the certification packet out
18 90 days in advance of the on-site visit, just to give
19 time for the entity and the certification team to
20 review it, so.

21 MS. BIENERT: And while we have you, maybe can you
22 clarify for us, based on your scheduling of when you
23 planned to begin the work, what is the actual hard
24 deadline for you to get that package out? Like would
25 be the Commission's drop dead date here for an order
26 that would give you direction? Is WECC able to

1 respond in terms of their planned date for the on-site
2 visit?

3 MR. REYNOLDS: It appears that someone is asking me
4 whether or not we have an idea of the on-site visit,
5 of when we would try to do that?

6 MS. BIENERT: I guess what we're asking here is if there
7 is a firm deadline that WECC needs confirmation from
8 the BCUC to know which direction the assurance or the
9 full-scope review would be conducted. What would be
10 the latest date that you would need direction from the
11 BCUC in that?

12 MR. REYNOLDS: That is something we can definitely go
13 back and crunch a little bit more and be able to get
14 back to you. It's just the longer we go, the timeline
15 that BC Hydro has in regards to when they want to go
16 live just makes things a little bit more tight the
17 longer we wait on it. So it is something definitely
18 that we'll get back to BCUC in regards to any
19 information regarding that.

20 MS. BIENERT: Can we ask that WECC would file a letter to
21 provide that information?

22 MR. REYNOLDS: Okay, yeah, we will.

23 THE CHAIRPERSON: Thank you, Mr. Reynolds.

24 Anybody else have anything that they wish
25 to say in closing?

26 MR. CHOUDHURY: Paul Choudhury here. I have a question

1 for Tim Reynolds.

2 Tim, if you could remind me, perhaps, what
3 certification process AESO went through and how long
4 that took?

5 MR. REYNOLDS: So we were just looking at that a little
6 bit regarding your scope and everything else. When
7 Alberta went through it -- I have to pull back exactly
8 how long did it happen, but I want to say about two or
9 three years ago. They have a little bit more of a
10 defined scope as part of their certification activity,
11 meaning I didn't see any (inaudible) standards that
12 were in the actual scope itself.

13 **Proceeding Time 2:49 p.m. T26**

14 MR. CHOUDHURY: So they went through a certification-
15 type process after they set themselves up as RC, is
16 that what you're saying?

17 MR. REYNOLDS: So the certification did go through before
18 they did the RC function.

19 MR. CHOUDHURY: Okay.

20 THE CHAIRPERSON: Yes, Ms. Martin?

21 MS. MARTIN: Thank you. We've talked about some of the
22 issues that are of major concern to FortisBC, being
23 the transparency and independence issues. In addition
24 there is another significant issue to FortisBC, as
25 seen through a cost implication of the change in the
26 RC role.

1 And one of the first of those is just the
2 cost of providing the RC service itself, and up till
3 now the transition operators have actually not paid
4 directly to the RC. BC Hydro's application says that
5 they don't anticipate any -- out of charges at the
6 current time, but does hold open the possibility that
7 could happen in the future.

8 There isn't any indication about what might
9 trigger a move to cost sharing in the future, and so
10 that's something that is of concern to us. In
11 particular because FortisBC is already a ratepayer of
12 BC Hydro. So, we're interested to know what BC
13 Hydro's thoughts are on whether that might come to
14 pass at some time in the future.

15 And secondly, there are certain to be cost
16 implications strictly from the operational change that
17 we're also interested in pursuing. For example, there
18 may be changes in modeling tools, data reporting
19 requirements, perhaps training procedures that would
20 afford costs on FortisBC, and we have an interest in
21 knowing more about that at this time.

22 Just on the subject of the certification
23 process, it's FortisBC's recommendation that a full
24 certification should take place. We think that that's
25 the most prudent way to proceed, and we also think
26 that it would eliminate any potential issues for --

1 contentious issues around what should and shouldn't be
2 in the scope of that certification.

3 And my last comment is on the process and
4 complete the review of the application. We believe
5 strongly that the regulatory regime needs to include
6 an (inaudible) for registered intervenors, to ask
7 information requests, and we propose that that step
8 would follow the BCUC IRs to BC Hydro.

9 **Proceeding Time 2:52 p.m. T27**

10 With regard to the timing of that, the
11 governance and oversight documents we think ought to
12 be on the record before that round of IRs is
13 undertaken so that interveners and FortisBC in
14 particular has an opportunity to truly understand what
15 the function of those roles will be.

16 And those are my comments, thank you.

17 THE CHAIRPERSON: Thank you, Ms. Martin. Anybody
18 else?

19 Okay, hearing none, I just want to say that
20 I think we will forgo a break and in fact, we will
21 simply adjourn this proceeding for the moment. And I
22 want to thank everyone for attending the workshop this
23 afternoon.

24 Special thanks to the BC Hydro team for
25 your presentations and for your candour and for your
26 willingness to answer all questions.

1 And I remind everyone of the current next
2 steps in the regulatory timetable, which is twofold.
3 One, the BC Utilities Commission will issue its
4 information requests by this Friday to BC Hydro.
5 Intervenors are also asked to provide the Commission
6 of notice of the intent to file any evidence if
7 applicable on or before December 21st, and we will, as
8 Mr. Higgins suggests, issue a further regulatory
9 timetable shortly. And in the meantime, on behalf of
10 all the BCUC Staff and Commissioners, I wish everyone
11 a very happy holiday season.

12 And this officially concludes our workshop
13 this afternoon. Thank you for everyone's
14 participation.

15 (BC HYDRO POWERPOINT PRESENTATION MARKED AS EXHIBIT B-3)

16 **(PROCEEDINGS ADJOURNED AT 2:54 P.M.)**

17
18 I HEREBY CERTIFY THAT THE FORGOING
19 is a true and accurate transcript
20 of the proceedings herein, to the
21 best of my skill and ability.

22
23 
24 A.B. Lanigan, Court Reporter

25
26 December 19th, 2018