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**
Waneta 2017 Transaction Application
Project No. 158933

VANCOUVER, B.C.
April 19th, 2018

ORAL ARGUMENT

BEFORE:

D. M. Morton,	**Panel Chair**
R. I. Mason,	**Commissioner**
A. Fung QC,	**Commissioner**

VOLUME 4

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APPEARANCES

L. BUSSOLI	Commission Counsel
J. CHRISTIAN	BC Hydro and Power Authority
C.P. WEAFER	Commercial Energy Consumers Association of British Columbia
L. HERBST	FortisBC Inc.
L. WORTH	British Columbia Old Age Pensioners' Organization, Active Support Against Poverty, Council of Senior Citizens' Organizations of BC, Disability Alliance BC Tenants Resource and Advisory Centre, and Together Against Poverty Society ("BCOAPO et al.")
W.A. ANDREWS	B.C. Sustainable Energy Association and Sierra Club of B.C.
D. AUSTIN	Clean Energy Association of British Columbia
D. BOTH	Teck Resources Ltd.
A. BRADLEY	City of Trail
J. QUAIL	Movement of United Professionals

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1 **VANCOUVER, B.C.**
2 **April 19th, 2018**
3 **(PROCEEDINGS RESUMED AT 8:04 A.M.)**
4 THE CHAIRPERSON: Please be seated.
5 Good morning, everyone, on this nice sunny
6 morning. My name is Dave Morton, I'm the Chair of the
7 Panel that's been appointed to hear the application
8 related to BC Hydro's proposed acquisition of the
9 Waneta Dam, otherwise referred to as the Waneta 2017
10 transaction or the application.
11 With me are Commissioners Anna Fung, on my
12 right, and Richard Mason, on my left. Together we
13 form the panel.
14 We are here today to provide participants
15 with an opportunity to present an oral argument. Each
16 of you will have the opportunity to present your
17 argument. Following that, you will have an
18 opportunity to provide a written final argument and,
19 in the case of the applicant, a reply argument, as
20 provided for in the timetable.
21 I'm just going to go over the letter, A-26,
22 and what the panel has requested that you specifically
23 address, in addition to any other items that you may
24 choose to address in your argument today. First was,
25 Will BC Hydro need additional energy in the post-lease
26 period for domestic consumption? In particular,

1 please provide your views on BC Hydro's estimate of
2 load forecasts in this application, given the mismatch
3 between historical load forecasts and actual, and the
4 lack of load growth since 2010.
5 Assuming that additional energy is needed
6 to meet domestic consumption in the post-lease period,
7 is the Waneta energy the most cost-effective and clean
8 source? Are there other sources of generation that
9 may be cheaper or cleaner in the post-lease period?
10 What is that likelihood? If Hydro doesn't acquire the
11 two-thirds interest in Waneta now, would those assets
12 be available for domestic consumption in the post-
13 lease period if needed?
14 If another party were to acquire the two-
15 thirds interest in Waneta, would their energy be --
16 would the energy be available to B.C. customers at a
17 comparable cost, should demand materialize? Assuming
18 that Waneta energy is required in the pos Lease period
19 in order to meet domestic demand, should today's
20 ratepayers assume the risk of the investment and pay
21 the depreciation on the assets for the duration of the
22 lease period? If so, why?
23 Should BCUC approve an expense under the
24 *UCA*, Section 44(2), for an asset which is not used to
25 provide a regulated service? If so, why? In
26 particular, please discuss the appropriateness of

1 ratepayers bearing the risks and receiving the
2 benefits associated with this transaction during the
3 lease period, when the two-thirds interest in Waneta
4 will not be used for regulated activities. Is it in
5 the public interest for Hydro to issue $1.203 billion
6 in additional debt at this time?
7 In the procedural conference on April 3rd,
8 Hydro indicated that it performed approximately 450
9 sensitivity analyses to evaluate the transactions in a
10 go or no-go -- sorry, the transaction value in a
11 go/no-go scenario. Which of those scenarios are most
12 likely and least likely to happen, and why?
13 Each scenario yields a range of new present
14 values. When comparing scenarios, what difference in
15 net present value would the parties consider material
16 in light of the $1.2 billion transaction value?
17 At this point, I'd like to introduce the
18 BCUC team that's with us today. Ashita Anand Sanghera
19 is lead staff for the application, and she is sitting
20 on the front row in the right-hand side. And next to
21 her is Nicola Simon, director of facilities and
22 planning.
23 As well, BCUC counsel is Lino Bussoli, from
24 Lunny Atmore, and Mr. Hal Bemister is our Hearing
25 Officer, and he's here with his team.
26 After appearances, generally speaking the

1 order of submissions, unless we hear otherwise, we
2 were thinking it would be just -- the order of
3 submissions would follow the order of appearances,
4 although I do understand that CEC has asked to go
5 first, and that's fine with us. I understand there is
6 no objection to that.
7 So if there are any other concerns around
8 that ordering, please let me know when you make your
9 appearance. Thank you.
10 **Proceeding Time 8:09 a.m. T2**
11 I'd like to remind you all that we're
12 transcribing this proceeding and I ask that you speak
13 loud and clearly for the benefit of our transcribers,
14 and when you went your appearance please state and
15 spell your name for the record. And indicate the
16 party you represent and any other additional issues
17 that you may want to raise.
18 So on that note -- oh, sorry, one other
19 thing. We're prepared to wait until -- the Panel's
20 prepared to wait until you've finished your submission
21 before asking you questions. However, if you've got
22 your submission segregated into logical sections, as
23 I'm sure you do, and if it's a long submission, if you
24 would like us to ask questions as we go let us know
25 when you're comfortable to pause for questions and
26 we'll be happy to do it then. Otherwise we'll hold

1 any questions we have until the end of your
2 submission.
3 So on that note, Mr. Bussoli, please go
4 ahead. Thank you.
5 MR. BUSSOLI: Thank you, Mr. Chair. The first in the
6 order of appearances is British Columbia Hydro and
7 Power Authority.
8 MR. CHRISTIAN: Good morning, Commission Panel. Jeff
9 Christian, C-H-R-I-S-T-I-A-N, here on behalf of BC
10 Hydro and Power Authority. To my right is Braeden
11 Wiens, W-I-E-N-S, an article student with our firm.
12 Only an article student for a few more weeks I
13 understand. He's been helping us on this case.
14 THE CHAIRPERSON: And Mr. Christian, you're okay with the
15 order of submissions that we talked about?
16 MR. CHRISTIAN: Oh absolutely. No, I think the reason
17 for starting early was to accommodate Mr. Weafer's
18 schedule and we're happy for him to go first.
19 THE CHAIRPERSON: Thank you.
20 MR. BUSSOLI: Next in the order is Commercial Energy
21 Consumer Association of British Columbia.
22 MR. WEAFER: Good morning.
23 THE CHAIRPERSON: Good morning.
24 MR. WEAFER: Chris Weafer, spelt W-E-A-F-E-R, appearing
25 for the Commercial Energy Consumers Association of
26 British Columbia. With me is an articling student

1 from our firm, Patrick Weafer, where I was sitting. I
2 wish to express my appreciation to the panel and all
3 the participants for accommodating the early start
4 this morning. I can't stay a little longer and I will
5 hear BC Hydro's argument, but I understand there's no
6 reply process and once we've argued we're done. So
7 again I think you for the accommodation.
8 THE CHAIRPERSON: No problem.
9 MR. BUSSOLI: Next is FortisBC Inc.
10 MS. HERBST: For FortisBC Inc., my name is Ludmilla
11 Herbst, H-E-R-B-S-T. I have no issues to add and I'm
12 fine with the order of submissions, thank you.
13 THE CHAIRPERSON: Thank you.
14 MR. BUSSOLI: Next is BC Old Age Pensioners Organization
15 *et al*.
16 MS. WORTH: Good morning, Mr. Chair, members of the
17 panel. Leigha Worth, W-O-R-T-H, here as counsel for
18 BCOAPO *et al*. I have nothing to add to the agenda and
19 I'm fine with the order of the appearances this
20 morning.
21 THE CHAIRPERSON: Thank you, Ms. Worth.
22 MR. BUSSOLI: BC Sustainable Energy Association and
23 Sierra Club BC.
24 MR. ANDREWS: William Andrews, A-N-D-R-E-W-S, for the BC
25 Sustainable Energy Association and Sierra Club of B.C.
26 I have no objection to the proposed order of

1 submissions.
2 THE CHAIRPERSON: Thank you.
3 MR. BUSSOLI: Next is the Clean Energy Association of
4 British Columbia.
5 MR. AUSTIN: Good morning Panel. David Austin, A-U-S-T-
6 I-N, representing the Clean Energy Association of B.C.
7 I have no issues to add. Thank you.
8 THE CHAIRPERSON: Thank you.
9 MR. BUSSOLI: Next is Teck Resources Limited.
10 MR. BOTH: Good morning Panel.
11 THE CHAIRPERSON: Good morning.
12 MR. BOTH: David Both, B-O-T-H, for Teck Resources
13 Limited, and we have no issue with the order of
14 appearances.
15 THE CHAIRPERSON: Thank you.
16 MR. BUSSOLI: Next in the order is City of Trail.
17 MS. BRADLEY: Good morning. For the City of Trail, Lisa
18 Bradley, B-R-A-D-L-E-Y, and we have no issues with the
19 order or anything to add.
20 THE CHAIRPERSON: Thank you.
21 MR. BUSSOLI: And finally Movement of United
22 Professionals.
23 MR. QUAIL: Good morning Panel. It is certainly morning.
24 Reminds me of the days when Mark Jaccard was the chair
25 and this was the normal start time. But I was 20
26 years younger then. I am appearing for MoveUP. We

1 have nothing to add to the agenda and we're content
2 with the order.
3 THE CHAIRPERSON: Thank you, sir.
4 Okay, Mr. Weafer.
5 **Proceeding Time 8:14 a.m. T3**
6 **ARGUMENT BY MR. WEAFER:**
7 MR. WEAFER: Good morning, panel. Chris Weafer, with the
8 Commercial Energy Consumers, and I'll start with the
9 last procedural conference in response to the proposal
10 to have oral argument, I indicated that we wished to
11 reserve our right to change our mind in terms of what
12 we say today, and not having heard Hydro's argument,
13 although we can well anticipate it.
14 We're not going to have that issue, because
15 we haven't quite made up our mind yet. We are still
16 assessing the evidence. The CEC -- as I'll go through
17 our submissions, you'll see where we still have some
18 areas of concern, and that we're still trying to come
19 up with a final recommendation to the panel, which we
20 will make in the written argument, and backed up by
21 references to the specific evidence.
22 So the submissions today are in response
23 specifically to the direct questions of the panel with
24 one caveat on the last question, with the scenarios,
25 and I'll deal with that when I get to it.
26 I am completely comfortable dealing with

1 questions from the panel after each -- after
2 discussing each question, if that suits the panel.
3 THE CHAIRPERSON: Thank you.
4 MR. WEAFER: This is a significant application. A $1.2
5 billion acquisition that from a ratepayers'
6 perspective, is a very serious matter. As I indicated
7 at the procedural conference, and as the matter's been
8 dealt with through this process, there is a fair bit
9 of evidence on the record and 450 different scenarios.
10 And at the end of the day, this is -- it's going to be
11 a judgment for this panel. And the test is going to
12 be, are you going to apply a reasonable judgment to
13 considering the decision, and issuing a decision on
14 the matter?
15 There is a -- in terms of the criteria or
16 the structure for assessing the application, the
17 questions put forward by the panel in Exhibit A-26 we
18 found to be very helpful in terms of trying to focus
19 the topics that you're concerned about. And they do
20 capture -- in terms of how the CEC has been
21 considering the application, they do I think well
22 provide a framework for analysis. And so we're
23 basically going to deal with those eight questions
24 today and then we're not -- we don't have any other
25 issues to add to the discussion. I think you've
26 covered the topics that we wished to cover in terms of

1 concerns.
2 Dealing with question 1 from A-26, and I
3 won't read the question into the record, it's there.
4 So, firstly looking at BC Hydro's and the CEC's
5 submissions on the company's load resource balance, we
6 look at the existing IPP surplus and the CEC's
7 position is that it is large, 6,000 gigawatt hours.
8 And it's the CEC's view that it will take longer than
9 BC Hydro is planning for, for it to be absorbed and
10 used in B.C.
11 If we secondly look in the load resource
12 balance, the existing Site C surplus -- again, this is
13 large, 5,100 gigawatt hours. And the CEC's present
14 view is that it will take longer than BC Hydro is
15 planning for, for it to be absorbed and used in B.C.
16 The standing offer program, from the CEC's
17 perspective, this is expensive energy and should not
18 be acquired because it will have to be sold into the
19 markets for less than price, with large losses and
20 costs to the ratepayers.
21 With respect to IPP renewals, the CEC's
22 position that any IPP renewal energy bought above
23 market value of $40 a megawatt hour to $45 a megawatt
24 hour would create unnecessary losses for customers or
25 ratepayers. So again, an expensive source of energy.
26 Looking at those sources, on balance, it

1 was CEC's judgment is that the Commission should be
2 concerned in assessing this application with BC Hydro
3 having too much surplus.
4 With respect to the forecast issue again,
5 deal with question 1. CEC's position has been that BC
6 Hydro overforecasting should be a material
7 consideration of the Commission in its assessment of
8 the application. With respect to circumstances in the
9 B.C. environment, we've seen the decline in pulp and
10 paper in the industry and it would be reasonably
11 anticipated that that may continue. And that's an
12 issue you need to factor into in terms of the load
13 forecast put forward by Hydro.
14 With respect to DSM planning, it's the
15 CEC's position that DSM works, and all DSM should be
16 pursued by BC Hydro.
17 **Proceeding Time 8:19 a.m. T4**
18 LNG electrification has been a topic with
19 respect to load forecast, and while there is prospect
20 for major LNG investment and electrification of LNG
21 production, it is not necessarily a certainty and
22 should be looked at with some trepidation by the panel
23 in terms of load demand.
24 Another area in terms of forecast be built
25 in part with electrification. The CEC's position, it
26 will displace natural gas and it will be significant

1 but it will be a slow accumulation of load offset with
2 the new efficiencies. This is a long-term application
3 with a long-term project. This impact will be long
4 term and not rapid.
5 With respect to another area, social change
6 and change in use of electricity in vehicle
7 electrification, the CEC's position is that it has a
8 significant trade potential but will be slow to impact
9 with possible significant requirements in the 20 to 40
10 year range. So looking out, lining up reasonably well
11 with this project.
12 In terms of natural gas electrification,
13 there's a significant use of natural gas in Alberta
14 coming from BC and industry in BC is responding to
15 electrified pumping and so that area where there may
16 be possible more demand. There's some offsets of the
17 oil sands as to how they're dealing with solvents that
18 achieve the same extraction opportunities. But
19 nonetheless, a possible material opportunity for sale
20 of electricity from B.C. to Alberta.
21 In terms of general economy and what we're
22 seeing in terms of what will be affecting the load
23 forecast, we think it's a reasonable assumption that
24 there will be a recessionary period within the
25 timeframe you're looking at this project. If we look
26 at the U.S. economy being somewhat overheated and the

1 proposal to increase rates in the U.S. -- interest
2 rates in the U.S., there's a risk certainly within the
3 timeframe with this project and there will be an issue
4 in terms of demand in B.C.
5 So in summary on question 1 and looking at
6 the overall position of the CEC at this time, the
7 judgement on balance is that the CEC is concerned
8 about over forecasting and we're consistent in arguing
9 this in the Site C process, the RRA process, as well
10 as to the government in the IRP process. So on
11 balance the CEC's judgment is there is a risk that BC
12 Hydro's forecasts will not be realized. Those are my
13 submissions on question 1 at this point.
14 So going to question 2, -- excuse me. In
15 terms of the baseline evaluation of the project and is
16 Waneta energy the most cost effective and clean source
17 and other sources of generation that may be cheaper or
18 cleaner in the post-lease period. The baseline
19 evaluation, we think, is fairly straightforward and
20 generally positive. It starts with the $1.2 billion
21 payment less the lease payments equals $400 million
22 and over the next 20 years this is the unit energy
23 cost of $48.25. So it's attractive. It's a good
24 number and our assessment, and we'll back it up in our
25 written argument with better reference to the
26 evidence, is that the tail value -- the long-term tail

1 value is approximately $100 million, which has an
2 impact of reducing the unit energy costs to, in our
3 calculation, $38 a megawatt hour. And again for quite
4 attractive pricing and therefore cost effective and
5 most importantly, as we're reading the evidence, these
6 numbers include capacity and energy. In a capacity
7 constrained environment, that's quite attractive. So
8 the baseline evaluation for the CEC's perspectives is
9 positive. It's cost effective.
10 Balanced against the buy early scenario
11 that we're making a commitment. The company's making
12 a commitment that ratepayers will bear the risk of
13 early on and well in advance, and that's the
14 counterbalance to what looks like a good deal. Is the
15 buy early, is the risk worth? And we'll talk a bit
16 about the risks.
17 So on balance the CEC views the economic
18 acquisition of a valuable asset as positive,
19 particularly for its long term capacity values. The
20 flip side is the CEC's position and judgment is that
21 buying energy too early is bad policy and that's been
22 evidenced in the load resource balance. That we have
23 other areas where we bought early and too much, so
24 we're -- again, we're trying to see both sides of the
25 equation and haven't quite landed yet.
26 We've got some ambivalence on these issues

1 and we're going to do further work on the evidence in
2 the application and we're looking forward to BC
3 Hydro's written argument to help us understand this
4 better, as we're not persuaded at this point.
5 **Proceeding Time 8:24 a.m. T5**
6 In terms of the comparatives, and I think
7 it's still within question 2, we do take Hydro's
8 evidence with respect to their ability to exceed
9 market average in their use of Powerex in the market
10 by $5 a megawatt hour to $10 a megawatt hour. They're
11 good in the market and we respect that ability, and so
12 it creates some comfort in terms of how they will do
13 in terms of protecting the ratepayer if this
14 investment is approved.
15 In terms of comparative acquisitions, wind
16 and solar create some challenges in terms of capacity
17 and comparable pricing to what we see as the value in
18 the price of the Waneta energy and capacity, and we're
19 not persuaded they're a better alternative,
20 particularly because of the capacity constrained
21 issue. There's some attraction from the CEC's
22 perspective with respect to geothermal. There's money
23 being spent by the province and the feds on
24 geothermal. There's not an active and successful
25 geothermal plant of significance at this point, but in
26 terms of the lifeline, life term of this project there

1 may be some opportunity, but again, it's somewhat
2 speculative in terms of that geothermal is comparable
3 to this project.
4 So with respect to the comparables on
5 balance, the CEC's judgment is on the comparative
6 leans towards the BC Hydro evidence and the CEC is
7 skeptical about the low end of alternative
8 acquisitions and, again, is reasonably comfortable
9 with Powerex's strength in the market to acquire lower
10 than average prices and find opportunity of better
11 prices.
12 With respect to the parameters used by
13 Hydro in its application, the CEC's position with
14 respect to cost of capital is that cost of capital
15 should be the BC Hydro's borrowing costs because this
16 is what BC Hydro ratepayers will be paying in rates.
17 In terms of the discount rate, the CEC's position is
18 the discount rate for lease payments is significant
19 and the tail values are important to the value of this
20 project, and so we do see good ratepayer opportunity
21 in terms of the CEC's financing of the project.
22 In terms of operating and maintenance costs
23 on the project, they're largely covered by Teck during
24 the term of the lease as we understand the evidence.
25 And we understand the challenge of forecasting O&M
26 costs on an asset of this nature where you -- they

1 obviously have some experience with the asset having
2 partial ownership for a number of years, but it's --
3 there are some risks in terms of O&M costs, but we
4 don't see them as so significant over the course of
5 the project to materially impact the assessment of the
6 value of proceeding with the acquisition.
7 On replacement cost, the CEC's position is
8 that the post 40-year evaluation period or upon
9 failure, replacement costs could be significant,
10 likely half a billion to a billion dollars. And the
11 BC Hydro evidence in our view needs a broader range.
12 That issue and that opportunity has to be traded off
13 against the tail-end value of the project, so there's
14 speculation into quite a distant time. If there is
15 replacement or rebuild, we're obviously adding an
16 extended long-term value to the project of another 50
17 to 70 years. So the replacement cost doesn't scare us
18 as much in the sense that there is a value if there's
19 -- and, again, on the assumption there's need for the
20 energy and capacity.
21 So again, with respect to the comparable,
22 the CEC's summary is leaning towards the BC Hydro
23 position. Again, the cost of capital should be based
24 on BC Hydro's borrowing costs and that a discount rate
25 should follow. The CEC is highly skeptical of the
26 approach for IPP alternative to see high rates for BC

1 Hydro's cost of capital and discount rates.
2 In terms of risks of the project, firstly,
3 the risk of obsolescence. If the future cost
4 responsibility risks do not overwhelm and the tail
5 value is recognized, then the transaction is very
6 competitive with alterative future supply, in CEC's
7 view. With respect to the risk to Teck failure, the
8 CEC's position that there is a risk of failure of Teck
9 it is not -- or, sorry, it is roughly quantifiable and
10 we'll deal with that in the written evidence -- or
11 written argument, sorry. And it does not overwhelm
12 the acquisition in our view.
13 **Proceeding Time 8:29 a.m. T6**
14 The management failure in soft commodity
15 prices obviously can affect Teck, but on the flip side
16 the sale of the assets, the sale of the dam, looks to
17 strengthen the balance sheet. And to some extent
18 strengthens or minimizes -- or, sorry, decreases at
19 least the risk of a Teck failure in the CEC's
20 assessment.
21 In terms of the risk of replacement and
22 maintenance costs excess, the CEC's position -- the
23 risk of replacements could be quite large. The BC
24 Hydro experience with small assets is generally that
25 they add a decent value for ratepayers and have been
26 pretty effective at delivering. On the flip side, on

1 some of the major projects such as Site C, we have
2 seen significant overruns in terms of costs. But this
3 is not the build of a major asset, it's the
4 acquisition of an asset with some costs associated.
5 But it's not a green-field new project. So we're
6 reasonably comfortable with their management, and
7 meeting the target budgets, except for O&M and any
8 material improvements to the asset.
9 In conclusion, the CEC's judgment on risk
10 at this time is that, while unusual for energy
11 acquisition, it's a unique contract. It's a unique
12 acquisition that, from CEC's quantification, they're
13 not outside of the range of what ratepayers are used
14 to and have seen in terms of other investments of
15 Hydro. Those are my submissions on question 2.
16 We've lumped questions 3 and 4 together.
17 And here we're dealing with, at a high level, will
18 Waneta be available anyway? So, if this transaction
19 is -- the common-sense answer with respect to firstly
20 the availability to BC Hydro, if the Commission
21 doesn't approve this transaction, the asset will be
22 over to Teck again to see where they go, and Hydro may
23 take another shot at it in a few years, and the price
24 will behigher or lower depending on what the economics
25 of the day are. So, the asset isn't going anywhere.
26 The dam's still going to be there if this Commission

1 determines at this time this isn't the right thing to
2 do. The market will respond.
3 There's certainly in CEC's view, the
4 limited alternatives as to where that asset can go,
5 and it certainly will be within the geography, but
6 certainly it's available to B.C. Obviously Fortis
7 took a shot at it, and Fortis bought it. We would
8 assume that that power would be available to market
9 and to BC Hydro and its ratepayers through contracts
10 with Fortis. So that's a viable and valid alternative
11 go-forward. It's available to B.C. industry, if an
12 industry player saw the value in the region of setting
13 up an industry in the sector, accessing cheap energy.
14 We don't know. We can't predict that. But obviously
15 it's an option that hasn't arisen at this point, but
16 we can't all predict the future.
17 With respect to availability to non-B.C.
18 markets, clearly the Alberta market adjacent, or the
19 U.S. market, there may be buyers and would they be
20 selling to BC Hydro? In all probability they'd be
21 selling to the best price they could get for the
22 power, and ratepayers would have access just under a
23 different arrangement.
24 Finally, Teck. Teck could choose to keep
25 it. And if it doesn't get the value it wants in the
26 subsequent acqusition, it will remain with Teck. But

1 it signed a 20-year lease. They are certainly not
2 proposing to go anywhere within the next two decades.
3 In conclusion, in terms of the value Waneta
4 held by others, they're going to get the best price
5 they can for the asset they buy, and the BC Hydro
6 ratepayers will be likely one of their customers. So,
7 that doesn't worry us. The probability is that
8 ratepayers will still access the resource if need be.
9 In terms of the buy-or-wait issue, again we
10 think that the asset will continue. The assessment of
11 the asset is, it's working, and will still be there
12 and will be available for ratepayers.
13 As I said at the beginning, in terms of
14 that topic, this is going to come down to a judgment
15 from the Commission. There is numerous scenarios and
16 numerous alternatives. I've just been highlighting
17 some of them, and we have difficulty predicting the
18 future. The Commission will apply its judgment and
19 the CEC is comfortable with what BC Hydro has put
20 forward, but we're not overly fearful of the
21 alternatives.
22 **Proceeding Time: 8:34 a.m. To7**
23 Those are my submissions on questions 3 and
24 4.
25 On question 5, should the ratepayers assume
26 the risk of the investment and pay depreciation on the

1 assets for the duration of the lease period, and if
2 so, why? The CEC's judgment is that BC Hydro has it
3 right and will be receiving lease revenue over the
4 lease period and it is appropriate to put the matching
5 costs, the maintenance costs against those lease
6 revenues, so we don't have a particular issue with the
7 manner in which BC Hydro structured the transaction.
8 That leads to six and the question under
9 Section 44.2, and if an asset is not used to provide
10 regulated service. The CEC's position on that is
11 we're not troubled by the structure put forward by BC
12 Hydro. It’s a -- when -- BC Hydro analogy that's been
13 put to me is when BC Hydro acquires any major asset
14 like Site C, it has the assets on its books and it's
15 accounted for. It sets up a deferral account for the
16 work in progress and it does not impact depreciation
17 until put into service and accumulates interest.
18 This is an atypical transaction occurring
19 with a long-term lease before acquiring control.
20 However, as it's earning the lease income, from an
21 accounting perspective they should account for
22 depreciation and interest costs as matched to the
23 revenues of the lease payments. And that's what we
24 understand they're doing. So we don't take issue with
25 the financial structure that BC Hydro has put forward.
26 The asset will come into service for ratepayers if and

1 when the lease is up with Teck.
2 With respect to the terms of the
3 transaction, the general approach is the Commission
4 either gives a yes or a no to an application like
5 this. The CEC, given the magnitude of the transaction
6 and given the importance of the asset, we'll get into
7 the public interest topics later, the Commission
8 certainly can, if it's not satisfied that the
9 application should be approved, can issue its decision
10 with terms and conditions that I think would be more
11 appropriate for a subsequent negotiation, and we're
12 not recommending that. I'm just saying it's an option
13 in terms of how you -- a straightforward option in
14 terms of how you deal with it if you have concerns.
15 With respect to regulated return on rate
16 base, and different type of assets, the CEC's position
17 is that the return for BC Hydro is not regulated by
18 the BCUC. BC Hydro's assets and rate basis can be in
19 various states before being placed in service, as I
20 mentioned earlier, but it's not an issue that arises
21 in our view.
22 With respect to a non-regulated business --
23 sorry, the non-regulated service, the CEC's position
24 is with Teck in the middle of the sales transactions,
25 it's still receiving service from itself during, in
26 effect, the lease period and until that lease

1 transaction is complete. And so in our view, it's not
2 a regulated service. A customer is essentially self-
3 serving albeit with a lease relationship with BC
4 Hydro.
5 In summary on this question, the risks of
6 ownership during the lease period appear to be have
7 assessed effectively by BC Hydro. The risk is
8 obviously offset by the lease payments and the value,
9 the capacity value which we've commented on a couple
10 of times, to our view, mitigates the risks that BC
11 Hydro is taking on on behalf of ratepayers in terms of
12 what the long-term value is of the asset.
13 So that's question 6.
14 Question 7, and this is what we just define
15 as the public interest issues question, on the CEC's
16 judgment the public interest benefits favour the
17 transaction which assumes that the debt issues have
18 been properly reconciled by BC Hydro. So the topic,
19 firstly of the provincial debt load, the CEC's
20 position is that BC Hydro must have sorted this out
21 with the province before proceeding with the
22 transaction, to the extent that the transaction may
23 have any impact on a potential impact on the
24 province's triple A rating, and we have to assume that
25 type of discussion has occurred and that they are
26 comforted and therefore we are comforted. But it's an

area we can't look at, so we are basically making that assessment that the province and BC Hydro have assessed the risk to, not just the province's credit rating but the impact on ratepayer's on BC Hydro's credit rating.

Proceeding Time 8:39 a.m. T8

In terms of the other public interest issues, the major river basin ownership, the CEC's position is that B.C. and the province will want B.C. ownership of the major river basin assets for security and availability and control reasons, and that this issue is as, if not more, significant than the BCUC's regulatory control of the assets. That there is a significant broader public interest issue potentially at play there.

With respect to environmental and First Nations issues, the CEC's position is that the province is responsible for the First Nations issues and consultations and approval, and we're not aware that any issues are arising in relation to this transaction. So in our view that public interest issue is not on the table. It's always on the table, but it's been dealt with appropriately. I should -- just to rephrase that. But the issues aren't arising.

Those are our comments on the public interest point.

1 The last topic, there was a request to
2 address in our oral arguments the 450 scenarios that
3 BC Hydro and -- we simply don't have the resources to
4 do that in the timeline provided, and our request --
5 and we'll put this to BC Hydro -- that it would be
6 extremely helpful, and Mr. Christian may address it to
7 some extent today in his oral submissions, but if they
8 could in their final written submissions do this job
9 for the participants, the Commission, the
10 stakeholders, in terms of their assessment of what
11 they think are the most pertinent and most relevant
12 and most powerful scenarios of the 450, because we
13 simply, in the timeline, just do not have the ability
14 to do that. And that would be very helpful, I think,
15 to our final written arguments, to see that from BC
16 Hydro.
17 Because, and these are my closing comments,
18 the scenarios are useful. They provide some
19 perspectives, they provide different forms of
20 analysis. But I'm back to where I started. I mean,
21 this is truly a judgment question for the Commission.
22 Scenarios are simply inputs to the judgment. It's a
23 material transaction. BC Hydro's done a very good job
24 in response to the IRs. We are, I think -- while
25 we've gone back and forward in these oral submissions
26 today, we're leaning in a direction. We look forward

1 to hearing BC Hydro's argument, but more importantly
2 the written argument, where they potentially respond.
3 And I should say, I think this has been a
4 helpful process, this oral -- although I'm speaking
5 first, I haven't seen it all yet, but so far so good
6 as far as I'm concerned.
7 Others may not agree, but -- I do think
8 that, you know, given the nature of this transaction,
9 this opportunity to put our thoughts on the table, and
10 not so much a position as these are our concerns, I
11 kind of hit the ball back over the net to Hydro, and I
12 hope they will address some of these comments in their
13 written argument. I don't expect Mr. Christian,
14 although he's probably capable of it, responding to
15 all of it right away. But we will look forward to the
16 written submissions dealing with some of the concerns
17 that we still have.
18 And so, those are my submissions, Mr.
19 Chairman.
20 THE CHAIRPERSON: Thank you.
21 COMMISSIONER FUNG: Thank you, Mr. Weafer. I do have a
22 question. You've said several times in your
23 submissions this morning that it's a matter of
24 judgment whether or not we approve this transaction.
25 And for me, that implies that there are trade-offs
26 between different choices, depending on what we

1 consider to be most important.
2 So I'm going to challenge you a little bit
3 and ask you, if you were on the panel and you're
4 looking at this from the perspective of the
5 ratepayers, what would you consider to be most
6 relevant or critical factors for you to consider in
7 deciding whether or not this is a prudent acquisition?
8 MR. WEAFER: Well, I'm going to take instructions on that
9 and respond in the written arguments, as I do have to
10 be a bit careful here. There is -- I would have to
11 say, obviously we're -- well, I'll be honest with you.
12 I mean, one of the things we look at in terms of the
13 future rates -- I look forward in 30 years when the
14 articling student from the back has to come up and say
15 whether we did a good job or not, because he'll be the
16 only person around paying for this.
17 So, you know, we do, I think, have to have
18 -- and I'll clearly -- a significant issue with Hydro
19 is the deferral accounts and future costs of the
20 utility. So we look at an investment like this, and
21 we look at the potential for oversupply within the
22 environment, and that raises some trepidation.
23 COMMISSIONER FUNG: Mm-hmm.
24 MR. WEAFER: The flip side, we're capacity constrained,
25 as we talked about, and this is -- this would appear
26 to be a cost-effective acquisition for ratepayers,

1 based on where we stand. At the end of the day for
2 the ratepayers, whether you're a low-income ratepayer
3 or the industrial customer or the commercial customer,
4 the bottom line from the ratepayers' perspective is,
5 what's it going to cost us to get electricity from BC
6 Hydro?
7 **Proceeding Time 8:45 a.m. T5**
8 And to a large extent we have to rely on
9 their expertise, and their due diligence, and the
10 accomplished people they have in that company to do
11 due diligence on these projects. And when they bring
12 them to us and they respond to the RRs there has to be
13 a bit of a leap of faith to a certain extent. And
14 certainly the bottom line for the ratepayer is what is
15 it going to cost us now and what is it going to cost
16 us for the next generation. And that is our simple
17 focus, other than the obviously other -- safety,
18 reliability, security of supply, I mean the sort of
19 core issues. But at the end of the day it's what's
20 the impact on our electricity bill.
21 The cost of existing in this province as a
22 business or an individual isn’t getting cheaper and
23 electricity is a significant part of what drives
24 business, what drives your ability to buy food, what
25 drives your location of your business in this
26 province. So rate is -- fundamentally we want to know

1 that we're getting cost effective supply of
2 electricity from the utility.
3 Is that responsive?
4 COMMISSIONER FUNG: Yes, it is. Thank you.
5 MR. WEAFER: Okay.
6 THE CHAIRPERSON: Thank you, Mr. Weafer.
7 MR. WEAFER: Thanks very much. And I should say my
8 client may take a totally different view than what I
9 just said given Mr. Craig, so we will reserve that
10 right to change our minds if you don't mind.
11 THE CHAIRPERSON: He's been sitting at the back and he's
12 still smiling, so.
13 MR. WEAFER: Oh, is he.
14 THE CHAIRPERSON: Mr. Christian.
15 **ARGUMENT BY MR. CHRISTIAN:**
16 MR. CHRISTIAN: Yes, thank you. Like Mr. Weafer, BC
17 Hydro appreciates the opportunity for these oral
18 presentations. I think they've already been quite
19 helpful. Exhibit A-26 identifies a number of issues
20 of interest to the Commission and it's excellent, I
21 think, to be able to get those upfront rather than
22 having to figure them out over the course of the next
23 few weeks, so we're grateful about that.
24 I just want to confirm — I think that we've
25 already addressed this — there's no right of reply
26 here. I'm not going to be responding to Mr. Weafer's

1 suggestions. Obviously in writing I will, but not
2 today.
3 The Commission panel asked about questions
4 from the panel and I'm happy to take questions from
5 the panel at any time, whatever is convenient for you.
6 Like Mr. Weafer, there is a possibility that some
7 questions the commission panel wants to put to me I'm
8 not able to answer yet today, we'll have to take them
9 under advisement and address them in written argument.
10 One thing that hasn't been yet addressed
11 I'd like to just notes is BC Hydro's understanding
12 that the record, the evidentiary record is closed.
13 The last IR responses were filed last week, that was
14 Exhibit B-24 and that was BC Hydro's responses to the
15 Commission Panel IRs. And, again, just the record to
16 confirm our understanding.
17 THE CHAIRPERSON: That correct, confirmed, yes.
18 MR. CHRISTIAN: Great, thank you.
19 One more little caveat I'm going to offer
20 -- oh, sorry. One --
21 THE CHAIRPERSON: That's okay, yeah.
22 MR. CHRISTIAN: One more caveat I want to offer is that,
23 you know, the transaction is quite a complex
24 transaction. It takes place in a geographical region
25 that has a long history and a lot of complex
26 arrangements going back 100 years or so. There's a

1 lot of economics, engineering, finance concepts. My
2 presentation, to make it a little more accessible,
3 I'll be paraphrasing from time to time and I'll be
4 simplifying concepts from time to time to make them
5 more amenable to an oral presentation. I have no
6 doubt that my client is going to telling me upon
7 review of the transcript that there's a few things
8 that I said today that maybe could've been stated with
9 more precision. So one caveat is that in the written
10 argument you may see me referring to words that I
11 offered today in putting a finer point on them, to
12 make them more accurate.
13 And in that context we have a summary
14 really of our case, and then we'll be dealing with the
15 Commission's panel question Exhibit A-26. So I'll be
16 starting with some background, some of the history,
17 some of the geography, some of the commercial
18 arrangements currently in place in the region,
19 including a discussion of some of the issues that came
20 out of the 2010 transaction, under which BC Hydro
21 acquired not only a one-third interest in the Waneta
22 dam, but also it acquired their right of first offer
23 that is the rule for right that allowed it to now
24 acquire the two-third interest.
25 I'll be talking about some of the essential
26 elements of the transaction and pointing to the

1 agreements that affect those elements of the
2 transaction. I'll be speaking about the Waneta 2017
3 business case, the document, the decision-making
4 document effectively that BC Hydro acted upon when it
5 exercised its right to acquire the asset. I'll be
6 touching on First Nations issues. I'll have a few
7 things to say about legal and regulatory issues. And
8 then I'll lead into the discussion on Exhibit A-26.
9 **Proceeding Time: 8:49 a.m. T10**
10 So the proceeding, this proceeding is about
11 the Waneta 2017 transaction. That transaction is
12 primarily about the Waneta Dam and just so that we are
13 geographically oriented, the Waneta Dam is on the Pend
14 d'Oreille River. The Pend d'Oreille River is at the
15 confluence of the Columbia River and the Pend
16 d'Oreille River, and so we are about two kilometres
17 away from the U.S. border. The Waneta Dam is
18 essentially right there, right at the confluence of
19 those two rivers, about fifteen kilometres south of
20 Trail.
21 The economy of the area, of the West
22 Kootenay Region and in this area in particular around
23 Trail has long been dominated by the smelter complex
24 in Trail which was built in the early part of the last
25 century, and that smelter complex drove the
26 development, to a large extent, of the hydroelectric

1 and transmission facilities in the region, including
2 both the Waneta and the transmission assets that are
3 the subject in part of this transaction.
4 And indeed, the Waneta Dam was part, and
5 built, as we understand it, to serve the smelter load.
6 It was built in 1954. It's a large facility with an
7 average annual production of about 2700 gigawatt
8 hours. Its physical characteristics are described in
9 Section 2.1 of the application, and the application is
10 Exhibit B-1.
11 Line 71 is one of the transmission assets
12 that's being acquired under the transaction, if it
13 proceeds, and Line 71 is also part of the development
14 of the hydroelectric and transmission system, again to
15 assist Teck in serving it's smelter load. It was
16 built in 1964. It's a 230 kV line. It's about 25
17 kilometres long and a description of Line 71 is
18 provided at .pdf pages 48 and 51 to 54 of the
19 application.
20 And throughout my comments today, when I
21 refer to the evidence, to the extent possible, I'll be
22 referring to the .pdf pages. I think that's going to
23 be more convenient for anybody who is using electronic
24 versions of the documents.
25 The transmission line, Line 71 connects the
26 Waneta Dam to the transmissions systems in the United

1 States and it has been used by Teck for the purpose of
2 providing power to the smelter load when it's
3 economical to do so by import from U.S., and has been
4 used by Teck historically to sell surplus power from
5 the Waneta facility when it’s again economic to do so.
6 So Line 71 goes from Waneta, effectively,
7 to the border, allows import and export. Teck has
8 used it for those purposes since it was built, and
9 importantly, it has used it for its own commercial
10 purposes. That is both the Waneta Dam and Line 71 are
11 unregulated assets. They are, and have never been,
12 dedicated to the public utility service. They are
13 assets available for Teck's use, for its private
14 commercial purposes.
15 That, as a matter of law right now, is
16 affected through the 1996 exemption order. That's an
17 exemption order in favour of Teck and it exempts Teck
18 from all application of Part III of the *Utilities*
19 *Commission Act*. And that exemption order is found
20 attached to BC Hydro's response to BCUC IR 1.60.4,
21 Exhibit B-8-2. And that current exemption order, the
22 1996 order is just the latest in a series of exemption
23 orders in favour of Teck with respect to its
24 hydroelectric and transmission facilities, and goes
25 back 30 years approximately.
26 It's difficult to talk about big picture

1 items and issues in the West Kootenay Region without
2 mentioning, at least in a few words, the Columbia
3 River Treaty. The Treaty was entered into in 1964.
4 Pursuant to the treaty, among other things, BC Hydro
5 built and operates the three treaty storage projects
6 in Canada, namely Mica and Keenleyside on the Columbia
7 River, and Duncan on the Kootenay River, which is a
8 tributary of the Columbia River.
9 Commission Morton, sorry, was I -- I
10 thought I might have a question there.
11 THE CHAIRPERSON: No.
12 MR. CHRISTIAN: One aspect of the Columbia Treaty I just
13 want to mention that relates -- hopefully we'll see as
14 I go through my submissions, is the overarching
15 principle of the Columbia River Treaty, the kind of
16 logic behind it or underneath it, I guess, that
17 underpins it, is that coordinated operation,
18 coordinated operation, of the various treaty projects
19 yields benefits to both Canada and the United States
20 that are greater than each would receive through
21 uncoordinated operation for their own sole purposes.
22 The coordinated operation kind of principle underpins
23 the treat and led to the development of those
24 projects. And that's relevant because it goes to the
25 next thing I'm going to address, which is the Canal
26 Plant Agreement.

1 **Proceeding Time 8:54 a.m. T11**
2 The Canal Plant Agreement was an agreement
3 entered into in 1972 and it has a similar underlying
4 principle as the Columbia River Treaty. The idea
5 behind the Canal Plant Agreement is that, again,
6 coordinated operation of all the generation resources
7 in the lower Columbia region results in a greater
8 benefit to the project owners on that part of the
9 river than would be available through their own sole
10 operation.
11 And so the way the Canal Plant Agreement
12 works is that each of the project owners gets an
13 entitlement of energy, effectively a fixed amount of
14 energy based on their historical stream flows and
15 their historical generation capacity. And that's an
16 entitlement amount. It's referred to as "entitlement"
17 because they get it kind of on a regular basis
18 regardless of stream flows. And so BC Hydro, there is
19 the stream flow risk, if you will, under the Canal
20 Plant Agreement, because it gives to the entitlement
21 parties a fixed amount, the entitlement amount. To
22 the extent that actual generation is less, it gets
23 less.
24 But what it gets in return is the benefit
25 of the coordination operation. So the incremental
26 generation that can be achieved through coordinated

1 operation kind of goes to BC Hydro's credit.
2 And one of the entitlement parties under
3 the Canal Plant Agreement has been and always been
4 Teck. So they have been able to receive an
5 entitlement for their ownership of Waneta under that
6 Canal Plant Agreement. And the Canal Plant Agreement,
7 I said, was first entered into in 1972. It's been
8 revised and amended a number of times. The most
9 recent version was put on the record in this
10 proceeding I think in the last round of IRs. I don't
11 have an exhibit reference, but the current version is
12 on the record right now. And it is also an
13 unregulated arrangement, insofar as it's subject to an
14 exemption order.
15 I'm going to say a few words about
16 FortisBC. FortisBC is the load-serving electric
17 utility in the region. They are a separate legal
18 entity from its corporate parent, Fortis Inc. It was
19 the latter, Fortis Inc., that entered into a
20 transaction with Teck to purchase the two-third
21 interest of Waneta that Teck still had after the 2010
22 transaction. And it's Fortis Inc. who caused the
23 issuance by Teck to BC Hydro of the sale notice that
24 allowed Hydro to exercise its Rule 4 rights.
25 And I just wanted to emphasize that a bit,
26 because in my friend's comments earlier, there was a

1 suggestion, I think, that Fortis Inc. and FortisBC
2 maybe were overlapping a bit, or similar. They are
3 distinct entities and it was unregulated Fortis Inc.
4 to whom BC Hydro is effectively responding through its
5 Rule 4 rights.
6 FortisBC, as we know, has had some concerns
7 about this transaction, primarily related to the
8 transmission aspects of the transaction. And those
9 were resolved through an agreement with BC Hydro filed
10 as Exhibit B-17. That was on February 16th of this
11 year. And another agreement between FortisBC and Teck
12 was filed also on February 16th, and that was Exhibit
13 C1-10. And so our understanding is that FortisBC's
14 concerns about how its ability to serve customers and
15 meet its public utility obligations have been largely
16 resolved by those agreements between it and BC Hydro,
17 and it and Teck.
18 So, I'm going to now speak a little bit
19 about the Waneta 2010 transaction. So that was -- the
20 transaction documents were actually entered into in
21 2009. The application went to the Commission in late
22 2009 and was ultimately approved and the transaction
23 closed in 2010. So I'll be calling it the 2010
24 transaction.
25 Under the 2010 transaction, BC Hydro
26 purchased a one-third interest in the Waneta dam for

1 $825 million, and that purchase was approved by
2 Commission Order G-12-10 on February 3rd of 2010.
3 There is a number of similarities, and there's a
4 number of differences between the 2010 transaction and
5 the current transaction. And I'm going to highlight
6 some of those that I think are relevant to the
7 Commission's consideration of this application today.
8 So, firstly, some similarities. In 2010, a
9 significant factor in the Commission's decision to
10 approve BC Hydro's purchase of the one-third interest
11 in Waneta was that Waneta had a history -- now I'm
12 quoting -- "a history of reliability in the generation
13 of clean renewable energy." That was a finding, a
14 conclusion, that the Commission drew in 2010. It's
15 actually reflected right in the executive summary of
16 the 2010 decision, and BC Hydro submits that's a
17 similarity between then and today that is relevant.
18 That is, Waneta continues to have a history of
19 reliability in the generation of clean and renewable
20 energy. That's a fact that the Commission has already
21 found.
22 **Proceeding Time: 8:59 a.m. T12**
23 In 2010 the Commission found -- and this
24 was in the context of considering First Nation issues,
25 but it found that the Waneta 2010 transaction would
26 not cause any changes to day-to-day operations, that

1 the transfer of ownership of the one-third interest
2 didn't change how the plant was operated or generally
3 how things were going to happen on the ground, and
4 that's exactly the same as it is today in 2017. And
5 that will be relevant again when we talk later on
6 about environmental issues and the extent to which
7 Waneta can be considered a green facility compared to
8 other facilities.
9 In neither transaction, that is neither
10 2010 nor in 2017, is B.C. Hydro acquiring Waneta to
11 operate it as a load serving facility. Now, in 2017
12 there's a little nuance, of course, because after the
13 lease period Hydro will operate Waneta as a load-
14 serving facility, but the application in front of the
15 Commission, at least for the first 20 years, and the
16 reason this is a Section 44.2 application at least in
17 part is that BC Hydro is not operating it. It's not
18 constructing it, not operating it, and in 2010 that
19 was exactly the same thing. BC Hydro was not going
20 to be constructing, it wasn't going to be operating,
21 and therefore a Section 42 order was the appropriate
22 relief to be sought from the Commission. And that was
23 ultimately the relief that was granted by the
24 Commission panel at the time.
25 And again, just a point to underscore,
26 Section 42 expenditure schedule applications, like in

1 2010 and now in 2017, BC Hydro has, as practice,
2 always filed those applications relying on the
3 Commission's CPCN guidelines. And by that I mean when
4 BC Hydro files a Section 44.2 application, it's not a
5 slimmed-down version of the type of information and
6 evidence that we would put in front of the Commission
7 relative to a CPCN proceeding, it's the same. It
8 applies the same type of analysis that the Commission
9 asked for, it has the same type of comparators, in
10 all ways, from an evidentiary perspective, a 44.2
11 application is the same as a CPCN application. And I
12 would say in all ways procedurally as well. I'm not
13 familiar with any Commission process that has turned
14 in any way on the difference between a CPCN order and
15 44.2 order.
16 And then lastly this -- now we're going to
17 find out why I talked about the Canal Plant Agreement
18 for a moment. In 2010 the transaction was
19 characterized, or could have been characterized and
20 was characterized in the evidence, at least in once
21 incidence that I'm familiar with, as a buy-down. That
22 is a buy-down of Teck's entitlement obligation.
23 Remember under the Canal Plant Agreement, Teck was
24 entitled to a certain amount of electricity from BC
25 Hydro pursuant to the Canal Plant Agreement, and the
26 acquisition of the asset affected, from a commercial

1 perspective at least, a buy-down of BC Hydro's
2 entitlement obligation to Teck.
3 So the observation I'm drawing to the
4 Commission's attention is that Waneta 2010 had a
5 significant commercial kind of flavour to it, in the
6 sense that it had that kind of Canal Plant Agreement
7 background, and when you're trying to understand the
8 economics of that transaction, it was, and could be
9 understood as a buy-down of that entitlement
10 obligation. And of course, we suggest that that's
11 comparable to our current situation which Hydro has
12 described and has analyzed as a commercial
13 transaction.
14 Still on some similarities between the 2010
15 transaction and the 2017 transaction. In 2010 the
16 Commission was concerned about including Waneta in BC
17 Hydro's rate base, and there's a discussion on page 40
18 of the 2010 decision on that topic, and it raised that
19 concern in light of BC Hydro’s non-operational role.
20 Remember, under the one-third acquisition, BC Hydro
21 wasn't going to be operating it's one-third, that's
22 why it was seeking a 44.2 relief and not a CPCN relief
23 from the Commission. And so it seems to BC Hydro,
24 reading the Commission's question from A-26, that
25 there's a similar concern motivating the panel here.
26 And in 2010 the Commission answered the

1 question about whether or not the one-third interest
2 should go into rate base in favour of the asset
3 inclusion. It should go into rate base because the
4 transaction was in the public interest. That was
5 essentially the logic, and that's on page 41 of the
6 Waneta 2010 decision.
7 So I said I'm talking about similarities.
8 There is actually one change here. Of course, now,
9 the legislation has changed and the question of
10 whether or not BC Hydro's acquisition of the two-third
11 interest in Waneta, assuming the transaction proceeds,
12 should go into rate base is moot. Moot in a financial
13 sense from the perspective of BC Hydro's rates and
14 revenue requirements. And that's because the change
15 in legislation means that incremental investments
16 don't go into -- well, whether they go into deemed
17 equity or not doesn't matter. There's no return on
18 deemed equity that's included in BC Hydro's revenue
19 requirements anymore. And so the question of rate
20 base/not rate base has no financial impact from a
21 ratepayer perspective.
22 THE CHAIRPERSON: What about amortization?
23 MR. CHRISTIAN: Well, amortization will still be
24 reflected in BC Hydro's books, and I'm going to get to
25 that when I talk about how the transaction looks from
26 a ratepayer perspective, both during the lease period

1 and after the lease period.
2 **Proceeding Time 9:04 a.m. T13**
3 And then one final similarity with respect
4 to the 2010 transaction and the 2017 transaction that
5 BC Hydro suggests is relevant to the consideration of
6 the transaction today, or the application today, is
7 that in some ways, in important ways, the regulatory
8 framework hasn't changed very much at all. So BC
9 Hydro, as I said, applied for 44.2 relief in 2010 and
10 seeks the same relief today with respect to the
11 expenditures. And back in 2010 and in 2017 or 2018
12 now, the paramount kind of requirement for the
13 Commission to consider in 44.2 application is
14 ratepayer interest. And those are the words in
15 44.2(5.1) of the *Utilities Commission Act*, and the
16 specific words are, "give consideration to the
17 interests of persons in British Columbia who receive
18 or may receive service from the Authority." And the
19 words clearly contemplate the benefit of not only
20 current ratepayers but also future ratepayers.
21 Both in 2010 and 2017, the other material
22 kind of consideration that the Commission is required
23 to give to a 44.2 application was the provincial
24 energy objectives. They're now called the *British*
25 *Columbia Energy Objectives* instead of the *Clean Energy*
26 *Act*. Back then they were, I think, the provincial

1 energy objectives set out in the *Utilities Commission*
2 *Act*. But specific policy objectives that the province
3 has identified for the Commission to consider were set
4 out in both -- and to a fair degree there's a period
5 of overlap between them, particularly with respect to
6 the *Clean Energy Objectives*.
7 So now I want to identify a few differences
8 between the two transactions that may or may not be
9 relevant. The first one actually isn't terribly
10 relevant, but it just seems such an obvious difference
11 that I thought I needed at least to say something
12 about it, and that is BC Hydro paid 825 million for
13 one-third in 2010, and now it pays 1.2 billion for
14 two-thirds. And on that basis, one might conclude,
15 well, we got a screaming good deal now, or it wasn't
16 such a good deal back then. I don't want the
17 Commission to actually form either of those
18 impressions. Those transactions are different enough
19 that we can understand that the price and the thing
20 that's been bought should be different.
21 But I do want to suggest one thing that is
22 relevant, and that is in 2010, one of the things that
23 BC Hydro bought, one of the things that it negotiated
24 for and was reflected in the transaction agreements,
25 was the ROFO, the right of first offer. So it was
26 paying for, then, the right to come back and match

1 anybody's offer when they made an offer to buy the
2 two-third interest that Teck still had. So.
3 Another difference I would say that is
4 material to the Commission's consideration, it's
5 really not determinative, but it's quite interesting,
6 really. Reading back in the 2010 decision and
7 particularly if one reads the arguments, it was
8 dominated, dominated by First Nations concerns. The
9 amount of ink that was spilled on First Nations
10 concerns dwarfed the amount of ink that was spilled on
11 figuring out discount rates and unit energy costs and
12 so on.
13 And so the helpful thing for our panel
14 today is, you'll hear me say this shortly, the First
15 Nations issues really have not been -- needed to be
16 addressed by this panel, and it has allowed kind of a
17 more focused kind of look at the economics of the
18 transaction.
19 Another difference between 2010 and 2017
20 that we suggest is relevant is that in 2010 the asset
21 was a new asset to BC Hydro. BC Hydro did not have
22 operational familiarity. It certainly didn't have
23 people on the ground on the site seeing how the thing
24 worked. But as a result of the 2010 acquisition of
25 the one-third interest, BC Hydro has been part of an
26 operating committee with Teck and has had eight years

1 of insight now into both the physical condition and
2 the operational characteristics of the facility. So
3 both it sees what the condition of the assets are
4 like, and it understands how they work. And so it's a
5 far better place today, we say, to assess risk and
6 understand how it can extract value from the assets
7 than it did when it went into the one-third
8 transaction eight years ago.
9 In 2010, one other difference. The
10 arrangements and the resulting transaction actually
11 resulted in an upward -- an increase in BC Hydro's
12 revenue requirements, and for the first few years an
13 upward pressure on BC Hydro's rates. And I'm going to
14 show that through a few extracts that I have from the
15 2010 decision, and a few other evidentiary references
16 that I have. What I'd like to do is hand them up to
17 the Commission panel and Mr. Wiens will circulate to
18 the rest of the room.
19 So other than the -- so this will --
20 THE CHAIRPERSON: We have an exhibit number?
21 MR. CHRISTIAN: So this booklet contains extracts from
22 the 2010 decision, and everything else that's in this
23 little booklet is already on the record and the
24 exhibit numbers identified on the pages. So whether
25 the booklet itself goes in as an exhibit or not, I
26 think, is not important to me. But just so that

1 everybody understands, everything here is either on
2 the record or already is a decision.
3 THE CHAIRPERSON: Okay. I'll just get some clarification
4 on -- are we marking this as an exhibit?
5 MR. BUSSOLI: Well, if we are, it's B-25, and I think we
6 should, Mr. Chair.
7 THE CHAIRPERSON: Okay, B-25, thanks. Please go ahead,
8 sir.
9 (REASONS FOR DECISIONS TO ORDER G-12-10 BOOKLET MARKED
10 EXHIBIT B-25)
11 MR. CHRISTIAN: Right. And so there's eight pages in
12 this little booklet. The pages are numbered in the
13 top right, so when I refer to the little booklet I'll
14 be talking about the page numbers and you'll see them
15 in the top right.
16 And my first reference, if I could have the
17 Commission panel turn to, is on the second page, page
18 2 of this little booklet. And it's actually page 9
19 from the Waneta 2010 decision.
20 THE CHAIRPERSON: Mm-hmm.
21 MR. CHRISTIAN: And I was mentioning the fact that in
22 2010 there was an immediate upward increase in BC
23 Hydro's revenue requirements as a result of the
24 transaction, and you can see that here in the rate
25 impact analysis that the Commission accepted as part
26 of the evidentiary record at the time.

1 And you can see the fiscal years on the X
2 axis on the bottom, and then the percent, the
3 cumulative impact on BC Hydro's revenue requirement,
4 or rates. With rate increases, I think is what that
5 is relevant to, or related to. And then you can see
6 that right out of the gate, there is an increase in
7 what the rate impact that is -- you know, and up is
8 bad. Down is good. And it took almost seven years
9 before it was anticipated it would start to be a
10 positive impact on BC Hydro's revenue requirements.
11 And --
12 THE CHAIRPERSON: And has that turned out to be the case?
13 MR. CHRISTIAN: Well, that I don't know, but I can tell
14 you that there was a regulatory account put into place
15 that was meant to effect a smoothing of that impact.
16 THE CHAIRPERSON: Right.
17 MR. CHRISTIAN: So I don't believe that was actually
18 ordered here in this proceeding. I think it came out
19 of the F2011 revenue requirement application. And so
20 my guess is that, if you look at that rate smoothing
21 and how that worked, it's probably hard to say whether
22 this -- almost certainly just did not come to pass.
23 **Proceeding Time: 9:12 a.m. T14**
24 Anyway, so what I wanted to say here, so
25 this transaction that we have in front of you now, as
26 we'll see shortly, has a positive ratepayer impact

1 from the first year forward, and that -- accounting
2 for amortization, mentioned by you, Mr. Commissioner
3 Morton, and accounting for the lease revenues and so
4 on. Back in 2010 we didn't have the benefit of a
5 transaction that benefitted ratepayers immediately.
6 And just to point out, of course, that the
7 rate impact analysis shows B.C. Hydro's actual cost as
8 reflected in a revenue requirement. So there's no
9 question of what is an appropriate discount rate to
10 use, or what the financing uses, B.C. Hydro uses
11 actually financing costs arising from the transaction
12 in its actual amortization and all the costs, at least
13 in so far as they're known. One of the kind of issues
14 that arises in the net present value analysis is of
15 course what cost of financing to assume, and my
16 friend, Mr. Austin, will be speaking of that, I'm
17 sure, quite a bit. The ratepayer impact analysis, as
18 presented here at least, strips away that kind of
19 issue and makes it a little bit simpler to see from a
20 ratepayer perspective what's going on.
21 I closed my book and now I'm trying to find
22 my page.
23 So I was talking about the differences
24 between the 2010 transaction and the 2017 transaction,
25 trying to identify some of the similarities and
26 differences that are relevant to the Commission's

1 consideration today. And one last difference I would
2 suggest that is relevant to the Commission's
3 appreciate of the transaction in front of it today is
4 the way that the transaction came about.
5 So in 2010, the one-third interest that was
6 acquired by B.C. Hydro was the result of bilateral
7 negotiations between BC Hydro and Teck. In those
8 circumstances, the Commission is always properly
9 concerned with the possibility of an opportunity cost
10 issue on the counter-party side, and indeed whether or
11 not the process that led to the acquisition was
12 necessarily a competitive one. And BC Hydro says that
13 in the 2017 transaction that you have before you
14 today, those concerns are largely mitigated.
15 The process that resulted in BC Hydro being
16 acquire the two-third interest came out of the ROFO
17 but it came out, primarily from Teck's perspective, a
18 competitive sales process that it entered into that
19 yielded on purchasers and BC Hydro was able to match
20 that purchaser's offer effectively subject to a few of
21 their rele- -- because I'll talk about -- but it's
22 important to understand a commercial sale process led
23 to the terms and conditions of the arrangement that BC
24 Hydro has. My friend Mr. Weafer and I'm not going to
25 try and do this very much, if I can avoid it. I don't
26 want to do it in reply argument. I'm going to talk

1 about BC Hydro structuring the transaction. So with
2 the exception of the transmission elements, BC Hydro
3 did not structure the transaction. The transaction
4 came through a competitive sale process that Teck had
5 done, and their process, BC Hydro effectively
6 inherited it, again with the exception of some
7 transmission aspects of it.
8 And so concerns that the Commission may
9 have had in 2010 about the degree to which you can
10 count on that process, in BC Hydro's submission are
11 largely resolved by the process that was engaged in at
12 this time, which yielded a commercially viable
13 transaction.
14 Another important aspect that came out of
15 the 2010 proceeding I suggest that's relevant to the
16 Commission today, is the consideration of due
17 diligence by BC Hydro, and the Commission's views on
18 that due diligence. And the little booklet I have,
19 I'm going to quote a little bit from the Commission's
20 decision. If you go to top of page 3, third page of
21 that booklet.
22 Of course, BC Hydro is buying an asset that
23 they didn't know very much and so due diligence was a
24 particularly important issue and a number of concerns
25 were raised by interveners in the proceeding.
26 At the top of -- sorry, right under the

1 words "The Commission determination", the Commission
2 identifies the issue.
3 "The Commission Panel recognizes it concurs
4 with BC Hydro's statement that all resource
5 acquisitions and decisions carry with them
6 some elements of risk, and the Waneta
7 transaction is no exception."
8 And then down below you'll see I marked the words in
9 the margin:
10 "The Commission Panel considers that BC
11 Hydro's evidence considering risk analysis
12 and related activities, considered along
13 with the due diligence and asset acquisition
14 assessment activities, is adequate to
15 support the Waneta transaction. The
16 Commission Panel considers that BC Hydro has
17 made reasonable attempts to identify and
18 mitigate a risk to a tolerable level."
19 **Proceeding Time 9:17 a.m. T15**
20 And then the next page of the booklet, it's
21 page 17 of the decision.
22 "The Commission Panel views the due
23 diligence process conducted by BC Hydro as
24 satisfactory. The KCB report…"
25 That's Klohn Crippen Berger, an engineering firm,
26 "…outlines eight previously identified risks

1 -- unidentified risks. Commission panel
2 accepts that when costs for mediating these
3 risks are added to the unit energy cost, the
4 impact is a relatively minor -- is
5 relatively minor and has little impact on
6 the viability of the transaction.
7 The Commission Panel finds no evidence
8 to support any assertion that the
9 probability and potential impact of these
10 risks will be sufficient to offset the
11 identified benefits of the Waneta
12 transaction."
13 So despite what I said about First Nation
14 issues kind of dominating that proceeding, due
15 diligence was a big deal. It was a new asset for BC
16 Hydro to be investing in. It was buying a one-third
17 interest. It wasn't on a -- it was going to be
18 committed to that one-third interest for as long as it
19 owned it and at least as long as our facility was
20 there, and so due diligence was properly a concern and
21 addressed by the Commission panel at the time in the
22 words that I've just relayed to you.
23 Also coming out of the 2010 transaction was
24 a very important agreement called a Co-ownership and
25 Operating Agreement, sometimes referred to as the COA
26 or C-O-A, the COA. And this is the agreement that

1 allowed for BC Hydro to be on the operating committee
2 that I mentioned earlier. And it's through being on
3 the operating committee that BC Hydro was able to
4 further its knowledge and has been able to further its
5 knowledge of the asset, right? So had the due
6 diligence in 2010, now it's been on the operating
7 committee for eight years, it's done that work then
8 and it gets to see it constantly for eight years and
9 get a more firm handle of the physical condition of
10 the asset and its operational characteristics.
11 And BC Hydro says that between the due
12 diligence it did in 2010 and the operational role it's
13 had on that committee in the last eight years, it's
14 assessment of risk today is not to be informed simply
15 by what it's done in the last year since it's started
16 talking to Teck about buying the two-third interest,
17 it's got an eight-year history. And its views on risk
18 of this asset ought to be given determinative weight
19 because of that history and proceeding prior to it in
20 which it analyzed these question in some detail.
21 The 2010 COA also led -- is where the ROFO
22 was included, so that's the right of first offer. And
23 as I've said, the ROFO entitles BC Hydro to match the
24 offer made by any other would-be purchaser of Waneta.
25 And the only one point I want to emphasize again on
26 the ROFO is it was known to everybody that Hydro might

1 be back, that was part of the deal in 2010. Hydro
2 purchased a one-third interest with the right to come
3 back and buy the two-third interest at a matching
4 offer. And so there's no -- should be no surprises
5 that eventually down the road somehow BC Hydro might
6 be back here today with an offer in hand and a
7 transaction it would like to proceed with.
8 And then there's two other points that I
9 want to refer to arising from the 2010 decision. And
10 the reason I'm raising these is because they touch on
11 issues raised by the Commission panel in IR -- the
12 Commission panel IR 1.3.2, where the Commission
13 inquired about opportunities for regulatory review of
14 BC Hydro assuming it was owner of the two-third asset,
15 but subject to the leaseback. And in 2010 the
16 Commission had similar type concerns and expressly
17 noted in the order approving the one-third
18 acquisition, that additional expenditures by BC Hydro
19 not contemplated by the agreements would be subject to
20 a potential prudence review.
21 And in paragraph 5 of the order approving
22 the 2010 transaction, the Commission established
23 extensive reporting requirements for BC Hydro. Going
24 to the type of question, Commissioner Morton, that you
25 just asked earlier about how the thing's going,
26 there's regular reporting right up to 2036 imposed

1 upon the Commission because of the original
2 acquisition that keeps the Commission and staff at
3 least -- I'm not sure how public they are, but they're
4 -- the kind of day to day understanding of what's
5 happening is available, institutionally at least, to
6 the Commission as a result of that 2010 order.
7 A little bit more background, we're going
8 to talk a bit more about the sale process. I talked a
9 bit about that, just to kind of make sure because I
10 just skipped over it a little bit, I just I wanted the
11 panel to understand the evidence is clear. I think
12 that discussions between BC Hydro and Teck started in
13 2016, in early 2106 with respect to the potential sale
14 of the two-third interest that Teck at that time still
15 had -- well, and still has. That sale process is
16 described in the application, again, Exhibit B-1, pdf
17 page 28.
18 Teck was advised by an investment banker,
19 CIBC World Markets. The evidence says that there was
20 over 100 different parties who were approached with a
21 potential -- to see if they had a potential interest
22 in the acquisition. And six of those entered into a
23 second round of discussion with Teck.
24 **Proceeding Time: 9:22 a.m. T16**
25 Eventually it was Fortis Inc. Again, not
26 FortisBC but Fortis Inc. that Teck got into a binding

1 deal. Binding, that is it would have completed
2 subject the ROFO, the exercise by BC Hydro, the ROFO.
3 If that deal had completed, it's clear that
4 the assets would not be available for public utilities
5 purposes. Fortis Inc. is not a regulated utility.
6 There is no reason to believe that it would have
7 dedicated those assets to view public utility service
8 and would have enjoyed the benefits, but enjoyed the
9 burdens of being a public utility. They are the
10 unregulated parent, as we know, of FortisBC.
11 The fact that Fortis Inc. was unregulated
12 and is unregulated, and it was purchasing assets that
13 would have been unregulated and continue to be
14 unregulated is significant in at least two ways, BC
15 Hydro suggests. The first is, there is no reason to
16 think that Fortis Inc. would have been looking at this
17 transaction from anything other than a commercial
18 perspective, and by that I mean long-run marginal cost
19 and load-serving obligations and all the factors that
20 are kind of raised by Commission panels 1 and 2, we
21 can assume weren't part of Fortis Inc.'s logic in
22 buying the thing. They are a non-regulated entity,
23 they don't have a load-serving obligation. The
24 benefit of deferring a needed resource in the future
25 that you need to meet your load-serving obligations,
26 as I say, can't have been part of their consideration.

1 And the other factor that's significant
2 about the Fortis Inc. transaction, or their offer, I
3 call it the "Fortis transaction", and that's what's
4 referred to in the evidence, in the IRs. The other
5 significant aspect of the Fortis transaction is that
6 Fortis almost certainly was not able to finance that
7 transaction at the same cost of debt that BC Hydro was
8 able to finance its transaction at. And I say that
9 because BC Hydro is able to finance at the cost of
10 debt, the triple A rating that the province enjoys,
11 and it's an inference I suggest the Commission can
12 make that whatever Fortis Inc. was going to pay for
13 the assets, it was going to finance them at a more
14 expensive or higher financing cost than Hydro is going
15 to be able to.
16 So the Fortis transaction was announced in
17 May of 2017. The sale notice was delivered to BC
18 Hydro on June 1st and that's what triggered the ROFO.
19 BC Hydro had two months, until August 1, to match the
20 transaction. And I'm using "match". Match is one of
21 the words that I'm probably going to get in trouble
22 with, because I think "match" is not exactly right,
23 but for our perspective they inherited the transaction
24 basically with all the terms intact.
25 BC Hydro triggered the ROFO, exercised its
26 ROFO rights by issuing a reply notice on August 1, and

1 I guess the point I really want to make is I know
2 we've talked a little bit about it, but I just want to
3 make sure -- or to put the proper emphasis on it. The
4 two-month period between the receipt of the reply
5 notice and the issuance of -- or sorry, the receipt of
6 the sale notice and the issuance of the reply notice
7 wasn't the only period of time B.C. Hydro had to
8 analyze this transaction. There had been discussions
9 with Teck since at least the beginning of 2016. It
10 had been on the operating for eight years, and it knew
11 when it bought the one-third interest in 2010 that it
12 might someday come back. So there's a long history
13 leading up to that August 1st decision to issue the
14 reply notice and enter into the transaction.
15 And that, I suggest, can give the
16 Commission some comfort that the thing was not done
17 lightly, it was given a fair degree of consideration.
18 I think even a cursory view of the 2017 business case
19 reveals that that wasn't something that was put
20 together in the period of a few months.
21 Now, I'm going to turn to the Waneta 2017
22 transactions, some of the aspects of the transaction I
23 may not have fully covered yet, and some of the key
24 documents that set that out. I'm happy to take
25 questions on anything I've said to date, or just keep
26 going. Or it might be break time as well, so.

1 THE CHAIRPERSON: Yes, I'm just wondering when would be
2 a good time for break? Would now be?
3 MR. CHRISTIAN: Now, would be totally fine.
4 THE CHAIRPERSON: Would be a good a time. So we will
5 come back at twenty to.
6 MR. CHRISTIAN: Thank you.
7 THE CHAIRPERSON: Thank you.
8 **(PROCEEDINGS ADJOURNED AT 9:27 A.M.)**
9 **(PROCEEDINGS RESUMED AT 9:40 A.M.)** **T17**
10 THE CHAIRPERSON: Please be seated. Thank you.
11 Please continue, Mr. Christian, when you're
12 ready.
13 MR. CHRISTIAN: Thank you. The next topic I was going to
14 address in this -- I think it will be fairly short,
15 and I doubt will be controversial in any way. It's
16 just a summary of the key transaction elements and the
17 key transaction documents that affect those
18 transaction elements.
19 In Waneta 2010 transaction -- in the way
20 that I'm talking about it now, that is speaking to the
21 agreements that effected the transaction, that's the
22 subject of Chapter 3 of the application. And also in
23 part Exhibit B-12, which the Commission might recall
24 is the exhibit number that was given to the
25 transmission agreements that were filed in January, I
26 think, of this year.

1 I'd like just to confirm that all the key
2 agreements have been filed, and are on the record, and
3 are before the Commission panel. They're part of the
4 evidentiary record.
5 So the first -- in some ways probably the
6 most important agreement of the agreements is the
7 Waneta purchase agreement. That's Appendix E to the
8 application. And it's through the Waneta purchase
9 agreement that BC Hydro purchases the two-thirds
10 interest in Waneta from Teck encumbered by the
11 leaseback to Teck. And that purchase price, as we
12 know, is $1.203 billion, and the Waneta purchase
13 agreement is described in Section 3.2.3 of the
14 application.
15 The Waneta lease agreement is at Appendix F
16 of the application. That effects the leaseback
17 arrangement that we've talked about already a number
18 of times. It's a default 20-year term with an option
19 for Teck to renew and extend the term to a 30-year
20 period in total.
21 And during the term of the lease Teck makes
22 lease payments pursuant to the Waneta lease agreement
23 for the first 20 years at $74 million a year,
24 escalated at 2 percent per year, with some minor
25 adjustments at the end of the lease period. And then
26 from years 21 to 30, if the extension option is

1 exercised by Teck, then the lease payment would be
2 $144 million per year, again with a 2 percent pure
3 inflation adder, more adder. And the whole agreement
4 is described in Section 3.2.4.
5 The Co-possessors and Operating Agreement,
6 called the COPOA, we'll refer to as the COPOA, C-O-P-
7 O-A, that's Appendix H to the application. The COPOA
8 would replace and continue the COA that I talked about
9 earlier, that came out of the 2010 transaction. There
10 was an IR, I think from the Commission staff early on,
11 that asked for a comparison of the COPOA and the COA,
12 and that -- actually, no, that couldn't have been,
13 because it's actually attached to the application.
14 It's Appendix G to the application. So there is an
15 opportunity for those who are interested to compare
16 exactly the relationship between Hydro and Teck in its
17 capacity as one-third owner, and its capacity as a
18 two-third owner subject to a leaseback. And so we can
19 see the differences between the two, and what changes
20 needed to be made between those two arrangements.
21 Importantly under the COPOA, the operator
22 role continues, with BC Hydro continuing to have a
23 seat on the operating committee. And so that will
24 continue to give BC Hydro an insider's view on both
25 the physical characteristics and the operational
26 characteristics of the asset, while it owns it but

1 it's subject to the leaseback to Teck.
2 And importantly also under the COPOA, BC
3 Hydro and Teck continue to share costs associated with
4 the facility on a one-third/two-thirds basis; that is,
5 BC Hydro pays one-third and Teck pays two-thirds,
6 reflecting the leaseback of the two-thirds interest to
7 it.
8 The other important agreement is the Waneta
9 transmission agreement. That was filed as Exhibit B-
10 12. That was on January 31. The Waneta transmission
11 agreement was contemplated by the transmission
12 agreement term sheet. And the transmission agreement
13 term sheet was filed with the application as Appendix
14 M. The Waneta transmission agreement contemplates or
15 provides for the sale of the transmission assets at
16 the expiry or early termination of the lease. And the
17 transmission assets include Line 71, which we talked
18 about already, which is the way by which Teck is able
19 to import and export electricity from the United
20 States. Line 71 also importantly is the
21 interconnection between Waneta -- or the direct
22 interconnection between Waneta and BC Hydro's
23 integrated transmission system.
24 The Waneta assets -- sorry, the
25 transmission assets would be sold at the end of the
26 lease period for $20 million, and that's the dollars

1 of the day, so that's $20 million whenever the lease
2 period expires.
3 **Proceeding Time: 9:44 a.m. T18**
4 And then the other interesting element of
5 the Waneta Transmission Agreement is that some aspects
6 of COA that weren't continued in the COPOA were
7 actually continued in the Waneta transmission
8 agreement. So it has kind of an ongoing basis to
9 continue and govern the relationship in part with the
10 COPOA.
11 The Teck wheeling agreement is the last
12 important agreement I'm going to mention. It's
13 Exhibit -- it was also filed as Exhibit B-12. It was
14 also contemplated by the transmission agreement term
15 sheet filed with the application, again as Appendix M,
16 and under the Teck wheeling agreement, BC Hydro
17 provides, after the lease period, an import wheeling
18 service on Line 17. That import wheeling service is
19 in a capacity up to 300 megawatts, and that's compared
20 to 370 megawatts that Teck currently enjoys. And so
21 the reduction in the kind of priority to Teck's use of
22 Line 71 drops from the current 370 to 300 maximum,
23 maybe less. It can't be any more than 300, and that
24 will free up some import capacity on BC Hydro's
25 intertie, or it's expected to free up some capacity on
26 B.C. Hydro's intertie and to be made available for

1 B.C. Hydro OATT customers, open access transmission
2 tariff customers, wholesale customers who like to
3 import and export.
4 That Teck wheeling agreement that provides
5 for the import wheeling service, that's only for
6 import and it's only to serve load. So that is Teck
7 can't use that wheeling service to import electricity
8 and then sell it into the markets in Alberta, for
9 example.
10 And of course, there's no transmission
11 service provided by B.C. Hydro under the Teck wheeling
12 agreement or any other agreement with respect to
13 exports. So the wheeling agreement, the service that
14 Hydro would provide to Teck for import is only for
15 imports and all the export capacity that is now
16 effectively reserved to Teck through its ownership of
17 Line 71 will be made available to BC Hydro and
18 ultimately should, as I say, increase the available
19 transmission capacity for export sales for any party
20 that wants to avail themselves to that, pursuant to
21 B.C. Hydro's open access transmission tariff.
22 Now, the Teck wheeling agreement also
23 provides for the provision by BC Hydro to Teck of some
24 ancillary services. These are ancillary services
25 similar to the type of ancillary services that BC
26 Hydro provides under its OATT, to its OATT customers.

1 And OATT, sorry, I think I didn't define the acronym,
2 open access transmission tariff.
3 So the Teck wheeling agreement has that
4 aspect as well. And so it's for those reasons, the
5 provision of the import wheeling service and the
6 ancillary services that makes the Teck wheeling
7 agreement a rate under the *Utilities Commission Act*
8 that requires the Commission approval pursuant to
9 Sections 58 to 61.
10 Now, originally it was contemplated by the
11 Teck -- or the transmission terms sheet agreement that
12 the Waneta interconnection agreement would also
13 provide for some service to BC Hydro. In particular,
14 it was contemplated that the interconnection agreement
15 would be the vehicle by which BC Hydro provided the
16 ancillary services that I just referred to, and in the
17 end, in the course of negotiating those agreements,
18 that is the Waneta interconnection agreement and the
19 Teck wheeling agreement, it became obvious that it
20 didn't really make any sense to separate the regulated
21 services into two separate agreements, and they ended
22 up being in one.
23 And I believe that's the only substantive
24 difference between the agreements that were
25 contemplated by the term sheet that was filed with the
26 application and what ended up as the transmission

1 agreements that were file a few months later in
2 January. The movement of the ancillary services from
3 one agreement to the other. Exhibit B-12 gives a bit
4 more of an explanation about the differences between
5 the -- or what happened between the time of the term
6 sheet and the finalized agreements were filed. But I
7 think that was the key one that's identified there.
8 And I just go back to the Teck wheeling
9 agreement, just to be clear here, significance, of
10 course, of the import service that BC Hydro would
11 provide to Teck is that it allows Teck to continue to
12 serve its smelter load after the lease period in
13 whatever way that it chooses; through imports if it
14 decides that that's the economic way to go. It
15 continues its historic ability to service its load
16 from U.S. markets, U.S. wholesale markets that were in
17 part the reason for its construction back in 1964, I
18 think it came into service. So it kind of maintains
19 an historical access right that Teck has long enjoyed
20 and now expects to continue to enjoy under the
21 transaction.
22 **Proceeding Time: 9:49 a.m. T19**
23 THE CHAIRPERSON: And that access right is manifest
24 through exemptions, is that --
25 MR. CHRISTIAN: That's currently the case, exactly.
26 So the exemption order I referred to earlier, exempts

1 Teck from any public utility service obligations with
2 respect to both its transmission assets and its
3 generation assets, including Line 71. And that's why
4 Line 71 is an unregulated transmission asset that Teck
5 can use for its purposes right now.
6 THE CHAIRPERSON: So is that explicitly part of the
7 agreement, that it would maintain that beyond --
8 maintain those exemptions beyond the term of the
9 agreement?
10 MR. CHRISTIAN: Well, that's a good question. I don't
11 know that it would have been capable of BC Hydro and
12 Teck to do that.
13 THE CHAIRPERSON: Exactly. Yes.
14 MR. CHRISTIAN: The exemption order exists. Presumably
15 if the exemption order were to go away for some
16 reason, the landscape would change a little bit
17 obviously. Does that affect the transaction
18 potential? I'm not sure that it would. It certainly
19 changes Teck's position.
20 THE CHAIRPERSON: Yes.
21 MR. CHRISTIAN: Probably -- well, I don't know, I don't
22 want to speculate, but certainly BC Hydro and Teck
23 were not in a position to promise that that exemption
24 order continues, right?
25 THE CHAIRPERSON: Okay.
26 MR. CHRISTIAN: So that takes me to, now, having

1 summarized some of the key transaction elements in the
2 agreement, the Waneta 2017 business case, this will
3 get it to some more meatier issues that are the
4 subject of the Commission panel's interest, I know,
5 and the interveners here today.
6 I just want to confirm a redacted version
7 of the business case was filed as Appendix N to
8 Exhibit B-1 and then it was refiled as Exhibit B1-5,
9 where some information that had been previously
10 redacted was now made available and put on the public
11 record. And then unredacted version has been filed in
12 confidence under Exhibit B1-1, and that's confidential
13 for the BCUC, but it's also been made available to all
14 interveners who have taken the undertaking with
15 respect to the receipt of the confidential
16 information.
17 The date is July 26, 2017. I mentioned
18 that already. That was right before BC Hydro issued
19 the reply notice, just shy of two months after it
20 received the sale notice from Teck, but it had a bit
21 of a pedigree going back to the time of the early
22 discussions between BC Hydro and Teck.
23 It's a robust business case, we'd say. On
24 its face it analyses a wide range of scenarios, a
25 number of analytical tools are employed, but despite,
26 that it's actually relatively accessible and a short

1 document. So if the Commission panel hasn't read that
2 document itself, I would urge that part of the
3 evidentiary record to you, subject to some of its
4 consideration.
5 There was suggestions made that the Waneta
6 2017 business case should have been updated to reflect
7 changed circumstances, and in particular the Site C
8 review that happened after August 1st. BC Hydro --
9 now, in fairness to Mr. Austin, who I think raised
10 this issue originally, also I think modified that
11 concern in the procedural conference we were last at.
12 But in any event, I just want to be clear why BC Hydro
13 has resisted the idea that it should update the
14 business case. It was an internal document. It was
15 the decision making document primarily employed by BC
16 Hydro when they decided to enter into the thing, into
17 the transaction, into -- amended after that fact to
18 reflect changed circumstances, would distort the
19 reality of what the situation was at the time in late
20 July of 2017.
21 The business case has a number of scenarios
22 in it, and I'm going to be throwing a few numbers
23 around here, my apologies.
24 THE CHAIRPERSON: It's okay.
25 MR. CHRISTIAN: We've heard the number 450 before. The
26 450 includes about a hundred sensitivity analysis that

1 Hydro did as part of the business case back in the
2 summer of 2017. So if you start with that 450 number
3 and think how many were actually added, it's 350 that
4 were added in addition to what Hydro had done.
5 I, of course, am not going to be speaking
6 to those hundred, let alone the 450 because it's not
7 going to be possible to do that standing on my feet
8 here today. But I just want to kind of remind the
9 Commission, I'm going to go through the five post-
10 lease scenarios and I just don't want anybody to think
11 that that's all that Hydro did. It did a hundred in
12 total before it ever did this deal or entered into the
13 transaction on August 1st.
14 And then unfortunately, to continue
15 bandying numbers around a little bit, the 450 is
16 actually not quite right either, because that 450
17 number came out of the first procedural conference
18 following which there were a few more IRs put to BC
19 Hydro by the Clean Energy Association and so we did
20 another 40 model runs. So in fact the total number of
21 scenarios --
22 THE CHAIRPERSON: It does say approximately 450.
23 MR. CHRISTIAN: Okay. Let's leave it at 450. Except
24 for those people who did those extra 40 who might be
25 wanting some credit for it. But with that note we'll
26 stay with 450.

1 So the basic logic of the business case has
2 three elements, I suggest. The first is what happens
3 during the lease period, what happens after the lease
4 period and what uncertainties and risks should be
5 accounted for in both those periods. And I'll start
6 with the lease period first.
7 **Proceeding Time 9:54 a.m. T20**
8 So, from a ratepayer perspective, the lease
9 period, there's three important things that happen.
10 From a ratepayer perspective during the lease period
11 there's incremental revenues coming into BC Hydro.
12 And I talked about that, during the first 20 years of
13 the lease period that's 74 million bucks a year. From
14 a ratepayer perspective there's incremental
15 amortization and there's incremental finance charges.
16 There are other costs, but they are trivial
17 relative to those three bucket items. The incremental
18 operating costs that BC Hydro expects relative to the
19 current, remember it's already paying some operating
20 costs through its one-third interest, the incremental
21 costs are estimated to be about $250,000 a year and
22 that's at Figure 1 of the application on PDF page 530
23 of the electronic version.
24 Now, if I could have the Commission panel
25 turn to the fifth page in the little booklet that I
26 handed up earlier. So this is from Exhibit B-1, the

1 application, PDF page 610 if anybody's following along
2 on their electric version. And what this shows here
3 is the impact, rate impact analysis, the rate impact
4 of the transaction. And right now at least I'm just
5 focusing on the part of the curve that's on the left-
6 hand side. So just to orient ourselves, on the top
7 axis, the x-axis, we have Fiscal Periods, Fiscal
8 Years, and then on the bottom on the y-axis we have
9 Rate Impact. And here, being below the line is good.
10 Being below line means there's a positive impact on BC
11 Hydro's rates, all else being -- they will be lower by
12 the amount indicated on the y-axis.
13 And so you can see the line coming down at
14 an angle from the axis at the left, top left of the
15 graph, declines throughout the entire period of the
16 lease. And where the line diverges is at the end of
17 the lease period. So during the lease period it's a
18 straight line and that straight line reflects the
19 economic -- or the revenue requirement, I guess,
20 impact of the lease revenues minus the incremental
21 amortization and minus the incremental finance
22 charges.
23 So when BC Hydro says that this transaction
24 generates a positive ratepayer impact from day one,
25 that's the reason for it. You can see the adding up
26 the numbers effects that impact on BC Hydro's rates.

1 And if you recall, this is in contract to the
2 transaction that the Commission approved in 2010 where
3 we had a significant upward pressure on BC Hydro's
4 rates in the first seven years of the transaction at
5 that time.
6 So now if I can have the Commission panel
7 turn to the next page in the booklet, it's marked page
8 6 on the top. Oh, and I should say before I move off
9 of page 5, this was a figure that was reproduced for
10 the purposes of the application. Originally in the
11 business case this figure included some confidential
12 information, so it was redacted from the public
13 version of the business case. And then to make it
14 available to participants the redacted information was
15 just simply removed and the figure was recreated as
16 part of what was called Appendix N-1. So this figure
17 is in the application. It's exactly the same as the
18 figure in the business case with the exception that
19 the confidential information has been removed, and
20 that way it could be made available on the public
21 record.
22 THE CHAIRPERSON: Just a quick, yeah, question. So the
23 discount annuity there, approximately fiscal 39, what
24 that represents is the fact that none of the energy
25 from two-thirds Waneta is being consumed by ratepayers
26 prior to that, and then all of the energy is being

1 purchased or consumed by ratepayers after that?
2 MR. CHRISTIAN: Partially right. So, during the first --
3 during the lease period, again from a ratepayers'
4 perspective, all the ratepayers see are the lease
5 revenues that hydro earns and the incremental
6 amortization of finances charges it incurs. After the
7 lease period the graph diverges in a number of
8 different ways and those divergent lines reflect the
9 value of the electricity to BC Hydro under the five
10 different scenarios I come to, okay? But in some
11 cases that energy is not necessarily being used for
12 rate -- or sold to ratepayers. It actually is used to
13 provide service, but not necessarily sold on a
14 ratepayer tariff basis. That's the only distinction I
15 wanted to draw from --
16 THE CHAIRPERSON: So what else would happen to it if it
17 wasn't sold to ratepayers?
18 MR. CHRISTIAN: Well, it's available to be exported into
19 wholesale market, right?
20 THE CHAIRPERSON: Okay. And is there an explicit
21 assumption about what's exported and what's sold to
22 ratepayers?
23 MR. CHRISTIAN: Well, I think I'm going to get to that
24 when I talk about the post-lease period, okay?
25 THE CHAIRPERSON: All right, thank you.
26 MR. CHRISTIAN: So I just want to focus for now at least

1 -- and I'll answer all your questions about the post
2 leas period, let me just talk about the lease period
3 in terms of what the ratepayers see at least.
4 THE CHAIRPERSON: Okay.
5 Track 21
6 **Proceeding Time 9:59 a.m. T21**
7 COMMISSIONER FUNG: Mr. Christian, I just want to make
8 sure I understand this. On your graph where it says
9 in 2039, does that include, then, anything that comes
10 out of Line 71?
11 MR. CHRISTIAN: So, Line 71, there's no costs or revenues
12 to BC Hydro associated with Line 71 during the lease
13 period.
14 COMMISSIONER FUNG: Right.
15 MR. CHRISTIAN: After the lease period, there's -- BC
16 Hydro paid 20 million bucks --
17 COMMISSIONER FUNG: Right.
18 MR. CHRISTIAN: -- and it gets the transmission assets.
19 If you're asking whether the curve reflects BC Hydro's
20 payment for the Line 71 asset -- the transmission
21 assets, I think it's more than just Line 71, I don't
22 know the answer to that question. But if that's the
23 question you want, does that kind of graph reflect the
24 cost of buying those assets, we'll answer that in the
25 written argument.
26 COMMISSIONER FUNG: And presumably once you get Line 71,

1 there should be some incremental revenues that come to
2 you as a result of that, should there not be?
3 MR. CHRISTIAN: There are. And BC Hydro expects that.
4 And I believe in the business case, and this would be
5 subject to the confirmation of the written argument,
6 but I believe in the business case BC Hydro
7 contemplated some incremental benefits from the
8 transaction arising from the possibility of OATT
9 revenues that it couldn't currently earn. But I don't
10 believe those are actually built into the net present
11 value analysis. So they're an assumption of -- or,
12 you know, if you're thinking about this in terms of
13 risk terms, there's upsides and downsides. It's an
14 upside that wasn't expressly accounted for, or
15 quantitatively accounted for, in the net present value
16 analysis.
17 And I'm looking around, hoping I didn't
18 screw it up.
19 COMMISSIONER FUNG: Okay. My second question is, does
20 this graph only contemplate your incremental revenues
21 from the lease, less amortization, less finance
22 charges. Is that correct?
23 MR. CHRISTIAN: During the first 20 years.
24 COMMISSIONER FUNG: Right.
25 MR. CHRISTIAN: So, for -- yeah.
26 COMMISSIONER FUNG: And then it doesn't take into account

1 extraordinary capital expenditures that Hydro may need
2 to expend in order to upgrade the system.
3 MR. CHRISTIAN: So, my understanding is, and this again
4 will be subject to confirmation, is that, remember,
5 Hydro is already contributing on a one-third basis to
6 the cost of the facility during the lease period, and
7 Teck pays two-thirds. And so if there's an
8 extraordinary expense it's not at all contemplated by
9 the business case, clearly it wouldn't be in here.
10 But what allowances in that line, and for anticipated
11 incremental costs, I can't answer that. But I think
12 that's a fair question which we'll get you an answer
13 to in the written argument.
14 COMMISSIONER FUNG: Okay, thank you.
15 MR. CHRISTIAN: So I just want to be clear what we're
16 talking about here. We're talking about incremental
17 costs that aren't already covered by BC Hydro that
18 arise during the lease period that BC Hydro
19 anticipates it might have to incur.
20 COMMISSIONER FUNG: Exactly. Thank you.
21 MR. CHRISTIAN: Thank you.
22 All right. So then clearly I jumpted to
23 the next page a little too early the last time. We'll
24 try now. This is labeled page 6 in the little booklet
25 I gave you. And this is really a similar graph in the
26 middle there, it's just Figure 7. This comes right

1 out of the business case. And it shows how BC Hydro
2 quantified two of the big risks that it sees coming
3 out of the transaction. One of those risks is that
4 there's a default during the lease period. And so BC
5 Hydro becomes the owner of the entire facility before
6 the 20-year lease -- initial lease period is up.
7 And then it also contemplates an extension
8 of the lease at the end of the lease period. And so,
9 the line, you can see, continues in a straight line
10 from the top left, and then it diverges to accommodate
11 those different considerations.
12 And the point I wanted to only make here
13 really is that, looking at the two big quantifiable
14 risks that BC Hydro thought that were the ones that
15 really drove some value potentially during the lease
16 period were that default risk and the possibility of
17 the extension.
18 And on the default risk, the interesting
19 thing is there it may be a risk insofar as it might
20 undermine some of the value of the transaction, but it
21 might actually increase some of the value of the
22 transaction. And the difference depends on whether BC
23 Hydro is in surplus, and basically looking to sell its
24 Waneta energy into the market, or they were in deficit
25 and therefore can now defer other investments that it
26 might otherwise have to make and do that sooner.

1 And so the risk of a default is the risk
2 that can kind of -- as a double-edged sword, in that
3 it can go both ways.
4 But in any event, you can see that under
5 these two significant quantified risks, the
6 possibility of default and the possibility of
7 extension, the ratepayer impact still remains below
8 the horizontal axis and therefore to the benefit of
9 ratepayers throughout the 40-year period of time
10 contemplated by this analysis.
11 **Proceeding Time: 10:04 a.m. T22**
12 So, what other risks are there during the
13 lease period? Commissioner Fung has already asked
14 about a couple.
15 Some of the risks that were identified in
16 the IRs are the possibility of finance charges being
17 different than what BC Hydro assumes, and so just to
18 be clear, BC Hydro used a 3.4 percent financing charge
19 or rate as the basis of its actual financing the debt
20 it will be issuing, and that compares to the 3.18
21 percent cost of debt that BC Hydro has just recently
22 hedged as described in BC Hydro's response to BCU
23 Panel IR 1.2.3. So we would say that the risk of
24 finance charges being materially higher than the 3.4
25 percent assumed in the financial -- the ratepayer
26 impact analysis during the lease period has been

1 mitigated already through the -- at least to a large
2 extent by the physical — the hedge is not physical —
3 the hedge that BC Hydro has just entered into.
4 The other risk issue one might ask about is
5 the amortization period. Mr. Weafer talked about that
6 a little bit. BC Hydro's analysis here shown on
7 Figure 7 assumes the conservative assumption of a 40-
8 year economic life. That is there is a 40-year
9 economic life and this facility has no economic life
10 left after 40 years from now.
11 In response to an IR on this topic asked by
12 the Commercial Energy Customers, BC Hydro explained
13 that if it, as it expects probably will, make
14 investments that extend the asset life past 40 years,
15 that would have a decreasing effect on the
16 amortization payments that Hydro would be incurring
17 during a lease period. So investments that Hydro
18 makes that extend the life past 40 years would
19 actually drive down your amortization costs, not up,
20 as was, we think, supposed in the IR question.
21 And the question was actually a
22 confidential IR. It was CEC Confidential 2.1.4, but
23 because the issue was important, and because the
24 answer itself contained nothing in confidence, it was
25 filed publically as part of Exhibit B-21-1.
26 And so in light of that, BC Hydro submits

1 that during the lease period, the likelihood of the
2 transaction not providing a net benefit to BC Hydro's
3 ratepayers is very small. Very small. The lease
4 payments are there.
5 I forgot to mention one thing on the
6 default risk as well. Not only does the default
7 scenario have a possibility of benefit to BC Hydro and
8 its ratepayers, but it's also mitigated because of the
9 corporate guarantees provided by Teck's parent through
10 the different transaction documents.
11 So in any event, risks, we think, during
12 the lease period are very small. It’s very unlikely
13 that the ratepayers bear anything other than a
14 positive benefit from this transaction during the
15 lease period for the reasons that I've just explained.
16 So I'm advised -- I think this may answer
17 your question, Commission Fung, that both the rate
18 impact analysis and the net present value calculations
19 include Line 71 costs. That was one of the specific
20 questions you had. And post-lease revenues from that.
21 And so I was wrong in assuming they didn't include the
22 post-lease revenues.
23 They include the BC Hydro's share of
24 extraordinary capital included in the leading utility
25 practice forecasts. Remember -- I don't know, I'm not
26 sure, this was the subject of a lot of IRs, that

1 there's a distinction between a good utility practice
2 level investment and a leading utility practice
3 investment. BC Hydro has assumed the leading level,
4 which is a higher level than the investment levels and
5 those numbers are included in the NPVs and the rate
6 impact analysis.
7 Okay, so now that covers the lease period
8 and now we're going to talk about after lease period
9 and I think foreshadow a little bit, and the kind of
10 theory is what happens, what do you do with the
11 energy. You've got the full asset now, how do you
12 value that electricity standing here today looking
13 forward twenty years from now. And BC Hydro developed
14 five main ways of assessing the potential value of the
15 asset at the end of the lease period.
16 The first one is called LRMC Clean. And so
17 the idea between LRMC Clean is that BC Hydro, at the
18 end of the lease period, has a need for energy, and in
19 Waneta, and the possession that Hydro has now is a
20 load-serving asset, avoids the cost of acquiring new
21 supplies and new resources. And that was the basic
22 logic accepted by the Commission in 2010 when it
23 approved that. It understood the deferral of assets
24 is as important as actually needing them today.
25 The LRMC Clean scenario assumes that load-
26 serving obligations of BC Hydro may only be met by

1 clean resources, and that, of course, is consistent
2 with current provincial policy and the legal
3 framework.
4 **Proceeding Time 10:09 a.m. T23**
5 That deficit assumption, that is that BC
6 Hydro would have some load serving obligations at the
7 end of the lease period, is consistent with BC Hydro's
8 2013 IRP and its 2016 load forecast that was the
9 subject of the RRA and the recent Site C inquiry. I
10 refer to the IRP only because even though the load
11 forecast in 2016 -- sorry, the 2016 load forecast that
12 underpins this financial loss, it's based on the 2013
13 IRP. The 2013 IRP is one of the things that the
14 Commission is obliged to give some consideration to
15 under Section 44.2(5.1) of the *Utilities Commission*
16 *Act.* So I just wanted to draw that link between those
17 two things there for the Commission Panel's benefit.
18 So we suggest that the LRMC Clean Scenario
19 is the only scenario that's fully consistent with
20 government policy and what we would call a robust
21 forecasting methodology. Namely it is based on the
22 2016 load forecast, which is tied back to the 2013
23 IRP.
24 The second scenario, now we're saying okay,
25 we've got the asset, where are we today, how do you
26 evaluate. The second scenario with values is to look

1 at -- is referred to as LRMC Clean Plus Gas. So the
2 LRMC Clean Plus Gas Scenario is similar in the sense
3 that it assumes that BC Hydro has a load serving
4 obligation at the end of the lease period. It needs
5 to -- or that it needs Waneta to help meet that load
6 serving obligation, and that Waneta availability to
7 Hydro for that purpose allows it to avoid acquiring
8 new resources. But LRMC Clean, unlike LRMC Plus Gas
9 -- unlike LRMC Clean, assumes that BC Hydro can serve
10 a portion of its load through natural gas-fired
11 generation. So PICA plants effectively. That is
12 inconsistent with government policy, but does show a
13 different scenario where the value of the energy from
14 Waneta would be lower than under the LRMC Clean
15 Scenario.
16 The third scenario, big major scenario that
17 Hydro looks at in the business case is called the BC
18 Hydro Industrial Tariff. And so under this assumption
19 BC Hydro -- Waneta energy is required by BC Hydro to
20 meet its load serving obligations, but it doesn't
21 displace any other resources. And so BC Hydro
22 essentially sells the output at industrial tariff
23 rates. That can only arise in some unique
24 circumstances where BC Hydro is obliged or chooses to
25 serve a new industrial load more or less at the same
26 time that the lease expires. So that's a third kind

1 of analytical framework.
2 Now the next two, Market Prices ABB and
3 Market Prices Extrapolated. Both of these take the
4 question of what BC Hydro's load serving obligations
5 after the lease period are off the table. They do not
6 forecast zero load. They do not say our load is going
7 to be small. They simply say if BC Hydro doesn't need
8 any more generation resources in the 40-year period
9 from the date this transaction goes forward, what can
10 we do with the energy and what value does it have? So
11 it doesn't have an idea that we're assuming load is
12 going to be zero. We're just saying accieve [sic]
13 this transaction had value regardless of whether Hydro
14 has a load serving obligation that we need Waneta to
15 help us fill. That's the same -- a common aspect
16 between a market price scenario and the extrapolator
17 price scenario.
18 The ABB Market Price Scenario assumes or is
19 based on a methodology developed by the third party
20 consultant ABB. It's a robust forecasting
21 methodology. It looks at all the generation resources
22 into western interconnection and all those that are
23 planned, and it takes account of retirement dates, it
24 takes account of market nodes in which electricity is
25 traded at wholesale prices, develops a market clearing
26 price for those nodes on a time-step basis. It's a

1 robust methodology employed by BC Hydro and numerous
2 other utilities.
3 And then the Market Price Extrapolated
4 Scenario is similar again. As I say, it assumes how
5 do we -- you know, does this transaction make sense if
6 we don't need any new generation resources? But
7 instead of using the ABB Report, which is based on
8 this methodology employed by the third party
9 consultant, it takes Powerex four price curves,
10 confidential price curves -- that has been the subject
11 of some debate in this proceeding already -- and then
12 extrapolates them to the end of the 40-year period.
13 Unlike the ABB Report, the extrapolated
14 curve we would say is a sensitivity analysis. It
15 doesn't have a robust methodology that underpins. It
16 is tentatively taking ten years of numbers which have
17 some robustness and then straight lines them off into
18 the future. Actually I'm not sure if it's exactly a
19 straight line, but it's an extrapolation into the
20 future.
21 **Proceeding Time 10:14 a.m. T24**
22 So both 4 and 5 assume, consistent with the
23 current regulatory framework, that any incremental
24 trade revenues that BC Hydro through Powerex would
25 earn goes to the benefit of ratepayers. And that's
26 true today because of a definition of "trade income"

1 which effectively takes power to the net income and
2 credits it to BC Hydro's revenue requirement. And
3 because the trade income deferral account mitigates
4 any forecasting risk associated with that. So
5 whatever the trade income is generated comes into BC
6 Hydro's ratepayers through its revenue requirements.
7 And that assumption underpins both the market and the
8 -- both market scenarios, ABB and extrapolated.
9 So, we would say -- BC Hydro would say that
10 the first two scenarios, the LRMC Clean and the LRMC
11 Plus Gas, have the most robust methodologies
12 supporting them, because they're both based on the
13 load forecast, the 2016 load forecast, which is a
14 robust methodology that's been developed and employed
15 by BC Hydro for a long time. It's been subject to the
16 Commission's review, of course, from time to time; BC
17 Hydro has responded to the Commission's concerns from
18 time to time affecting it. But it's a methodology
19 that, you know, is underway, and is markedly different
20 from an extrapolation of points on a line.
21 Now, the Commission may be anticipating
22 that I'm going to tell you which of the five scenarios
23 to put the most weight on. I will be getting to that
24 a little bit later. The main point really is to kind
25 of underscore the important point here is that the
26 market price forecasts, the Market ABB and the Market

1 extrapolated, are starting with not an assumption of
2 what's going to happen in the future, it's a way of
3 testing the transaction and saying, "Let's take off
4 the possibility of BC Hydro needing the resource to
5 meet the load some time down the road, and see whether
6 this makes sense from a commercial transaction, the
7 way, presumably, somebody like Fortis Inc. might have
8 done without their load-serving obligations."
9 So it doesn't -- it's not an assumption of
10 what load's going to be. It says, let's take the load
11 question off the table. And that's the part that I
12 think I wanted the Commission to take away, this panel
13 to take away, if I can, today. It's not a sensitivity
14 analysis in that sense. It looks at -- it's tries to
15 look at the transaction from that commercial
16 perspective as best as it can.
17 And the consequence of that, we would say,
18 and an important consequence, is that the Commission
19 to the extent that they kind of accept the logic of
20 the business case, doesn't need -- and shouldn't --
21 try to figure out exactly where BC Hydro's going to be
22 at the end of the lease period in terms of its load
23 resource balance and long-run marginal prices. It
24 doesn’t need to have a conclusion, a determinative
25 conclusion, on what that load resource balance looks
26 like; what the load serving obligations are, and what

1 the market prices are. Because the transaction
2 analysis covers an enormously wide range of scenarios,
3 including scenarios where the load resource balance is
4 not even relevant.
5 BC Hydro suggests that, to the extent the
6 Commission would want to determine with some precision
7 what exactly Hydro's load resource balance looks like
8 in 20 years, to a large extent it's going to be
9 engaging in a resource planning exercise. You can't
10 ask that question without doing all of the resource
11 planning work. To a large extent, the resource
12 planning exercise in review of BC Hydro's long-run
13 planning exercises are still the domain of the
14 province under the *Clean Energy Act*.
15 To the extent that the Commission does feel
16 it needs to actually say "Here's what we think the
17 load resource balance looks like at year 20," BC Hydro
18 notes that Special Direction No. 10, or Special
19 Direction 10 to the Commission, may also be relevant.
20 It speaks to how the Commission, when it's regulating
21 BC Hydro and looking at BC Hydro's self-sufficiency
22 obligation, how it measures that self-sufficiency
23 obligation. We'll be addressing that more in written
24 argument as well.
25 So, I've talked about the rate impact
26 analysis, I've talked about the five post-lease

1 scenarios that BC Hydro used to consider what the
2 value of Waneta would be after the lease period. But
3 of course BC Hydro also did the net present value
4 analysis. It analysed the transaction of those five
5 scenarios on an NPV basis.
6 The important thing about the NPV analysis,
7 the net present value analysis, that BC Hydro doesn't
8 and didn't use its actual costs of financing, its net
9 cost of debt, but instead assumed a combination of
10 debt and equity financing at its weighted average cost
11 of capital. And we talked about this a little bit at
12 the procedural conference.
13 The assumed financing at the weighted
14 average cost of capital is more consistent with an
15 assessment of commercial transactions. It's done
16 despite the fact that BC Hydro won't actually issue
17 any equity to finance this transaction. It's done
18 despite the fact that any incremental investments BC
19 Hydro made don't affect its return on equity from a
20 revenue requirements perspective. But nevertheless it
21 does that.
22 And the kind of most fulsome description of
23 why it does that is set out in BC Hydro's response to
24 BCUC 2.90.3.1.
25 **Proceeding Time 10:19 a.m. T25**
26 So the weighted average cost of capital,

1 that is the assumed debt equity financing cost that BC
2 Hydro would incur or that it assumes for the purpose
3 of the net present value analysis, the methodology and
4 how that weighted average cost capital was determined
5 is set out in Section 4-1-2 of the application.
6 That's PDF page 95. And it is consistent with BCUC's
7 -- the BCUC's determinations regarding a benchmark
8 rate of return on equity for FortisBC and it's
9 consistent with BC Hydro's target debt-equity ratio
10 reflected in Heritage Special Directive No. HC1.
11 I'm going to spend a few moments to talk
12 about the three components of how that weighted
13 average cost of capital was calculated. It's got
14 three components. It's got the cost of debt at the
15 time of issuance; it's got the cost of equity; and
16 it's got a debt-equity ratio. Those are the three
17 numbers that go into the calculation of weighted
18 average cost of capital that BC Hydro again assumes
19 for the purpose of its NPV analysis.
20 BC Hydro says that the calculation of
21 weighted average cost of capital -- by the way, the
22 number is 6 present. I think that's probably familiar
23 to people. It's a conservative calculation for three
24 reasons that relate to each of the three elements of
25 the things, the components that make it up.
26 First of all, it uses an average future

1 cost of debt of 4.01 percent. That's different than
2 the 3.4 percent that BC Hydro assumed it would be
3 issuing debt at when it entered into that transaction.
4 And it's obviously quite a bit higher than 3.18
5 percent average rate that BC Hydro has been able to
6 secure to the recent debt hedges it's entered into.
7 The explanation for the difference between the 3.4 and
8 the 4.01 is set out in footnote 113 of page PDF -- or
9 PDF page 96.
10 But the key is that had it used a lower
11 cost of debt rather than the higher 4.01 percent, it
12 would've yielded a lower weighted average cost of
13 capital and a greater net present value. So BC Hydro
14 says that the use of the 4.01 rather than the lower
15 numbers are conservative insofar as it tends to
16 overstate what the net present value of the
17 transaction is.
18 And similarly for the return on equity, BC
19 Hydro used the rate of return on equity. BC Hydro
20 used the 8.75 percent established recently by the
21 Commission with respect to FortisBC. That's a
22 benchmark rate. Smaller utilities, one might imagine
23 Hemlock, I think they're now called Sasquatch, would
24 have a rate of return equity that's somewhat higher
25 than the 8.75 present, reflecting its smaller customer
26 base and riskier operation. Relative to FortisBC, BC

1 Hydro is pretty confident that if the Commission was
2 ever empowered to look at Hydro's rate of return on
3 equity it wouldn't be higher than the 8.75 percent, it
4 would be lower. And so the use of the 8.75 percent is
5 similarly conservative insofar as it yields a lower
6 weighted average cost of capital -- or, sorry, a
7 higher weighted average cost of capital and a lower
8 NPV.
9 And finally, the debt-equity ratio that BC
10 Hydro uses for their calculation is again
11 conservative. It uses the target 60/40 debt-equity
12 ratios set out in HC1, Special Directive HC1, rather
13 than the 80/20 which is pretty close to its current
14 actual debt-equity ratio. And, again, the use of the
15 60/40 puts more weight on a smaller number that is the
16 debt number and less weight on the equity number, and
17 ultimately drives a net present value calculation
18 that's lower than it otherwise would be.
19 Finally, of course, the assumption of debt
20 and equity financing itself in inherently conservative
21 given that Hydro is actually able to finance this
22 through debt and debt only. I think it's fairly self-
23 evident that the higher the weighted average cost of
24 capital that's assumed, the lower the future benefits
25 are, and the lower the net value present of the
26 transaction. So there's an inherent conservativism

1 just simply by using the assumption of debt-equity,
2 financing, and a weighted average cost of capital of 6
3 percent rather than the 3.4 percent BC Hydro expects
4 to be issuing debt at, let alone the 3.18 percent
5 So some conclusions regarding the business
6 case. The business case addresses a number of
7 additional risks and sensitivity analysis beyond what
8 I've described here. Even before describing any of
9 those 450 things it's clearly not going to happen in a
10 way that is responsive, that covers the entire scope
11 of them. But I would like to turn — and this may be a
12 partial response to Mr. Weafer this morning — to one
13 IR response that I think kind of puts some of all this
14 in context. And that is -- well, it's actually in the
15 booklet, so we don't have to go anywhere. It is pages
16 7 and 8 of the little booklet. And page 7 in
17 particular we'll take a look at here.
18 **Proceeding Time 10:24 a.m. T26**
19 So this is BC Hydro's response to the BCUC
20 IR 2.83.3, part of Exhibit B-18. My apologies,
21 firstly, there's some scribbling on there. I'll
22 explain what that's for, but I should have actually
23 properly handed these up without any of my hand
24 marking, handwritten notes on it.
25 Let me just explain what's going on here.
26 The table shows in the top five columns -- sorry, the

1 top five rows, the five scenarios that BC Hydro
2 analyzed, that I talked about as being the means by
3 which it assesses the value of electricity after the
4 lease period. So you'll see LRMC Clean, Clean Plus
5 Gas, industrial tariff, market ABB, and extrapolated
6 prices.
7 And then if you move across the columns,
8 you'll see that the adjustments are made for the
9 default risk and extension option. And then the net
10 present value on the far right column indicates a net
11 present value that BC Hydro calculated for those five
12 main scenarios.
13 And all of these, by the way, on a
14 ratepayer impact analysis would clearly show a
15 positive benefit. This is net present value analysis.
16 And what you see then, looking at the five scenarios
17 that BC Hydro analyzed in the business case, is a
18 range of from negative $31 million to 887 million
19 positive. So, roughly a $900 million range.
20 Considering the size of the transaction, I
21 think it's fair to say that the value of the
22 transaction that BC Hydro analyzed is from zero to
23 $900 million.
24 If you look below those top five scenarios,
25 these are a number of other scenarios that were
26 posited to BC Hydro through the IR process. There's

1 the industrial tariff with higher load, LRMC Clean but
2 less 15 percent, LRMC Clean less 40 percent. So that
3 takes the LRMC value of the deferred energy that might
4 be possible for BC Hydro to avail itself of at the end
5 of the lease period, and just reduces it by a
6 percentage amount. And then finally at the bottom
7 there is the panel mid-C price forecast. That comes
8 out of the Commission's review into the Site C
9 proceeding.
10 And again, the adjustments are made for
11 default risk and for extension option, and you can see
12 interstingly that the range of values that were posted
13 -- posited by participants in this proceeding to date,
14 is actually within the range of values that BC Hydro
15 analyzed in the business case to start with. So the
16 worst number is the negative 8, the panel mid-C price
17 forecast, which is more favourable than negative 31
18 unextrapolated, and the largest number is 679, roughly
19 $200 million less than the higher end that BC Hydro
20 calculated. So the range of what we would say are
21 reasonable kind of ways to assess this, and that
22 people put to BC Hydro, were largely already captured,
23 or enveloped, by the analysis that BC Hydro did in the
24 business case.
25 And again, just to remind the Commission
26 panel, I'm going to come back to this probably more

1 than you want to hear today, but the market price
2 scenario, both ABB and extrapolated in the Commission
3 panel's mid-C price forecast, those all assume that BC
4 Hydro needs no new generation resources for a 40-year
5 period. Right? So it's not an assumption of the load
6 forecast, it's just saying, "Forget about any need for
7 new generation resources." And again, all on the NPV
8 basis. If these numbers are ran on a ratepayer impact
9 basis, they would all show positive numbers.
10 And so when it comes time to consider the
11 transaction, whether it's a good investment for BC
12 Hydro to make, BC Hydro says that the range of
13 positive values here demonstrate that the transaction
14 is a good investment for BC Hydro to make. It
15 provides positive benefits to BC Hydro's ratepayers in
16 virtually all circumstances that one can reasonably
17 imagine. It is cost-effective and it is public -- in
18 the public interest for the Commission to approve it.
19 I'm going to go into a little bit more
20 elaboration on those points when I come to talk about
21 the Commission's A-26 topics. But for now, at least,
22 that concludes my comments on the business case. If
23 there's any questions on that, I'm happy to take them,
24 or we can wait until I go into a little bit further.
25 THE CHAIRPERSON: Okay. No, please go ahead.
26 **Proceeding Time 10:28 a.m. T27**

1 MR. CHRISTIAN: I have a few comments to make now on
2 First Nations. In Chapter 5 of the application BC
3 Hydro sets out its view that -- on its obligations
4 with respect to potentially affected First Nations.
5 In particular, BC Hydro has expressed the
6 view that a legal obligation to consult does not rise
7 in the circumstances of this transaction because it
8 will not adversely affect their First Nation claim or
9 right, and that's set out on PDF page 131. Despite
10 that view, BC Hydro has engaged -- so I'm using the
11 words purposefully here. The legal obligation to
12 consult hasn't arisen, but nevertheless BC Hydro has
13 engaged with First Nations regarding this transaction
14 and the First Nations that it has engaged with are
15 those whose consultative boundaries include the Waneta
16 facilities.
17 Those engagement activities are described
18 in Chapter 5 of the application and they were updated
19 in Exhibit B-23, which was filed on March 8th.
20 In summary, BC Hydro has provided
21 information, including the application of course, to
22 all the First Nations who wanted it, and offered to
23 meet with all who wanted to meet and met with some who
24 didn't want to meet, and where we are today is that no
25 First Nation has intervened in this proceeding and no
26 intervener has challenged BC Hydro's position on this

1 issue with respect to obligation to consult. In other
2 words, nobody's raised any evidence or submissions to
3 that point. And so we say there's no evidence or
4 submissions to the effect that any actions to date
5 would be inconsistent with the honour of the Crown.
6 And that's where we stand on First Nations.
7 A stark contrast from where we were eight years ago on
8 that topic.
9 Now, I have a few things to say about legal
10 and regulatory issues and then I'll be going to
11 Exhibit A-26 and the Commission's quick eight topics.
12 So first, just really a reminder, the
13 expenditure schedule that BC Hydro seeks the 44.2
14 Order in respect of is table 1-1 in the application.
15 That's on PDF page 30, and the elements of that
16 expenditure schedule are the $1.203 billion for the
17 purchase of the Waneta assets, $20 million for the
18 transmission assets and up to $50 million of
19 transaction costs. The $50 million of transaction
20 costs was assumed for the purpose of the financial
21 analysis, but BC Hydro doesn't seek a number, that
22 that's in the public interest. Rather it seeks up to
23 that amount, based on the evidence that the Commission
24 will have seen on that topic in the proceeding today.
25 With respect to the expenditure schedule,
26 BCUC -- the Commission Panel is obliged to consider a

1 number of factors pursuant to the *Utilities Commission*
2 *Act*, Section 44.2(5.1). I mentioned some of those
3 already, the key ones being the ratepayer interest now
4 and in the future, the provincial energy objectives
5 and the 2013 IRB.
6 BC Hydro also seeks rate orders from the
7 Commission. We mentioned these as well. It requires
8 an order seeking approval of the Teck wheeling
9 agreement, because under the Teck wheeling agreement
10 BC Hydro will be providing regulated services to Teck,
11 so therefore requires that an order pursuant to
12 Sections 58 to 62 -- or 61 of the *Utilities Commission*
13 *Act*.
14 And then lastly BC Hydro seeks some
15 accounting orders. The accounting orders fall into
16 two buckets. The first accounting order BC Hydro
17 seeks is intended to ensure that if the transaction
18 proceeds and lease payments are made to Teck to BC
19 Hydro this year, that BC Hydro's ratepayers get the
20 benefit of that lease payment. Currently BC Hydro's
21 regulatory accounts don't contemplate the possibility
22 of that payment. So if that payment is made in the
23 current fiscal year and there's no regulatory account
24 order in place, all else being equal the benefit of
25 that lease payment goes to the province.
26 To avoid that, bearing in mind that the

1 transaction is being down for the purpose and benefit
2 of BC Hydro's ratepayers, that first accounting order
3 would ensure that the revenue gets accounted for in a
4 future period and therefore gets netted against BC
5 Hydro's revenue requirement.
6 The second set of accounting orders arise
7 from a difference of view between lawyers and
8 accountants. Lawyers see that the possibility of an
9 undivided two-third interest -- or a lease of an
10 undivided two-third interest in asset is not at all
11 problematic. Accountants apparently do see some
12 issues with that and so they say, from an accounting
13 perspective we're not sure that this really is a
14 "lease" and therefore we think that BC Hydro's -- the
15 payments that BC Hydro receives from Teck, the two-
16 third of the operating and maintenance cost and
17 capital costs that Teck will incur, that that should
18 be accounted for as revenue to BC Hydro.
19 And that has some adverse affects from a
20 ratepayer perspective on Hydro's revenue requirements.
21 They're not overwhelmingly bad, but they're not as
22 beneficial for ratepayers as they could be so BC Hydro
23 seeks accounting orders from the Commission to reverse
24 that and ensure that the transaction does maintain the
25 maximum benefit for ratepayers in a fair way.
26 **Proceeding Time 10:33 a.m. T28**

1 Those accounting orders are sought pursuant
2 to Section -- I didn't write the note down here, but
3 it's not the rate-setting provisions. I think it's
4 49. That will be described in the written argument.
5 And in BC Hydro's response to BCUC IR
6 2.109.1, that's Exhibit B-18, BC Hydro described a
7 little bit in greater detail the specific legal tests
8 set out in the *Utilities Commission Act* with respect
9 to the orders that BC Hydro seeks here. So it talks a
10 little bit more about where the public interest aspect
11 fits in, in a kind of narrow legal sense, both on the
12 expenditure schedule, the rates, and the accounting
13 orders that BC Hydro seeks.
14 And then finally, the final order that BC
15 Hydro submitted in draft, it was originally attached
16 -- there is one attached to the application as
17 Appendix A, but that has been superseded by the final
18 draft order that's part of Exhibit B-13. And the
19 difference between the two orders is that the former
20 assumes that the ancillary services that BC Hydro
21 would provide to Teck are part of the interconnection
22 agreement. And as we discussed, they're actually part
23 of the wheeling agreement. And so the order was
24 revised to accommodate that change in the transmission
25 agreements. And that again is Exhibit B-13.
26 So that takes me to the panel questions.

1 COMMISSIONER FUNG: Mr. Christian, before you go there,
2 can you just remind me whether the $50 million in
3 transaction costs that Hydro is estimating includes
4 the break fee that Teck has paid Fortis? Or is that
5 solely Teck's responsibility?
6 MR. CHRISTIAN: Solely Teck's responsibility.
7 COMMISSIONER FUNG: Okay, thank you.
8 MR. CHRISTIAN: Okay. So the first question talks about
9 -- this is the Commission panel's questions from A-26,
10 talks about BC Hydro's load-serving obligations in the
11 post-lease period. And as I've said before, I'll
12 summarize again quickly, we don't believe that the
13 Commission is obliged to, and should, in fact,
14 determine exactly what BC Hydro's load-serving
15 obligations are, because the transaction analysis
16 contemplates a range of scenarios, including two where
17 there are no load-serving obligations that turn on the
18 value of Waneta.
19 In other words, two scenarios assume we
20 don't need any generation resources for 40 years, and
21 so to the extent you can imagine that that is the
22 bottom end of the transaction value, any possibility
23 of any load-serving obligation that requires Waneta in
24 the 40 years gives it some positive value. And so to
25 focus on a particular outcome we suggest would be
26 risky from the perspective of potentially denying the

1 benefit of this transaction to BC Hydro's ratepayers.
2 I think --
3 THE CHAIRPERSON: Sorry. So, please help me understand,
4 then. If there is no requirement for this energy for
5 load-serving purposes, and this is essentially a
6 financial transaction, it's not the acquisition of --
7 I realize that Hydro perhaps doesn't have a normal
8 notion of rate base, but it's not the acquisition of a
9 rate base asset for a utility.
10 MR. CHRISTIAN: There's two aspects to that -- a couple
11 of aspects. The first part is, BC Hydro says the
12 evidence actually shows that there will be a need for
13 Waneta.
14 THE CHAIRPERSON: Right.
15 MR. CHRISTIAN: So that the load forecast, and even any
16 kind of uncertainty one applies to the load forecast,
17 show that some time in the 40-year period Waneta will
18 be available to displace other alternatives. So
19 that's -- so that part is what the evidence says.
20 But if you got rid of that, and assumed
21 that there was never going to be a need to use Waneta
22 to serve load in the 40-year period, does it still
23 have some commercial basis? And so in that sense,
24 yes. And that's how BC Hydro thought it should
25 analyze it, because it will be owning the asset for 20
26 years, but not using it to provide service and because

1 of the inherent certainty [*sic*] about when an asset in
2 fact will be needed for load-serving obligations.
3 THE CHAIRPERSON: I appreciate that's the view of it.
4 But another view could be that if the panel wasn't
5 persuaded by the evidence to support that position,
6 and instead was persuaded that the load forecast
7 didn't in fact show that there was a need for the
8 energy, then this would -- the characteristics of this
9 transaction would be different. It would be a
10 transaction purely for financial purposes. Would you
11 agree with that.
12 MR. CHRISTIAN: The transaction is for its purpose -- I
13 mean, the transaction's purpose doesn't change based
14 on what one thinks is going to happen in the future.
15 I mean, the transaction is what it is. The analysis
16 of the transaction that BC Hydro has undergone starts
17 with the view that there will be a need for the energy
18 from Waneta, but says if we are wrong, does it still
19 make sense to go ahead?
20 So, and it's that aspect of it that caused
21 Hydro to call this a commercial kind of assessment.
22 But to say that it's purely a commercial transaction I
23 think is not right, because in the end BC Hydro will
24 own this asset, and it will be available for load
25 serving purposes, and even in a circumstance where BC
26 Hydro is in surplus, the Waneta asset will be used and

1 dispatched in an economic merit order consistent with
2 all other BC Hydro resources. And it will undoubtedly
3 be in fact used to meet service obligations on an
4 hourly basis, if not on an annual basis.
5 THE CHAIRPERSON: Okay.
6 **Proceeding Time 10:39 a.m. T29**
7 MR. CHRISTIAN: And so I think, you know, that commercial
8 part of it is a lens through which Hydro looked at the
9 transaction to understand it. It's reflected in a
10 number of different ways. But I think it would be
11 wrong to think, and come out of this proceeding,
12 thinking that this asset is never going to be devoted
13 to public utility service. It will. After the lease
14 period.
15 THE CHAIRPERSON: Okay, thank you.
16 MR. CHRISTIAN: After 20 or 30 years from now.
17 THE CHAIRPERSON: Okay, thank you.
18 MR. CHRISTIAN: I just want to get back to one topic
19 point that I didn't kind of finish on, which is this
20 idea that, you know, the value or the merit or the
21 desirability of picking where Hydro's going to be from
22 a load resource balance perspective at the end of the
23 load period -- at the load -- lease period. And I've
24 argued that I don't think the Commission needs to pick
25 a place and time where Hydro's going to land. It
26 needs to kind of assess the range of possibilities.

1 And it seems to me that that actually has some
2 precedent. The analogy may not be perfect, but let me
3 try.
4 Both the trading come deferral account and
5 the heritage deferral account are deferral accounts
6 that were established by the Commission in about 2004
7 or '05, arising out of the Heritage contract inquiry.
8 And the proposal that BC Hydro put to the Commission
9 back then was to say, load forecasting -- or, sorry,
10 trade revenue forecasting and our cost of energy
11 arising from our Heritage assets, those are very
12 inherently uncertain. It's hard to know how much
13 you're going to earn in the market. It's hard to know
14 how much water is going to come down the mountains.
15 And therefore your cost of energy and your trading
16 forecasts are inherently uncertain and therefore
17 they're risky. To the extent you pick a number, you
18 risk possibly not giving enough money to ratepayers
19 because you picked too low, or you picked too high,
20 and you end up putting a windfall into the province's
21 hands.
22 So the proposal to create those deferral
23 accounts was specifically to acknowledge the risk
24 associated with that type of forecasting and take some
25 of the risk away. And so those deferral accounts,
26 which have been around now for 15 years, I know the

1 Commission is asking questions about them in the
2 follow-up to the RRA. But the fundamental purpose for
3 them was to avoid having the Commission to spend a lot
4 of time and have a lot of evidence put on. What are
5 you going to earn in trade income next year? What is
6 your stream flow expectation next year? Those
7 questions are difficult. There's a lot of
8 uncertainty. There's a risk associated with getting
9 it wrong. To take some of that risk away, those
10 deferral accounts were proposed for exactly that
11 purpose.
12 And so the analogy I'm suggesting here is
13 that where the Commission has available to it a
14 mechanism that allows it to mitigate some of the
15 forecast uncertainty and associated risk, it's not
16 improper to do it. In fact quite to the contrary, it
17 is quite proper for it to do it.
18 So here, the transaction model effectively
19 does that by saying you don't need to pick a
20 particular place that we're going to land at the end
21 of the lease period, you just need to understand that
22 the range of options is sufficient that we can see
23 that there is positive value for ratepayers.
24 Nevertheless, clearly the Commission might
25 have a different view on this matter. I've already
26 alluded to at least one issue that might arise if the

1 Commission feels that it does need to figure out
2 exactly where Hydro's resource load balance is at the
3 end of the lease period. The question then is, how do
4 you do that? What tools do you look for, and look at?
5 And I have talked a little bit about the difference
6 between sensitivity analysis and forecasts. I'm going
7 to go back to that and say that those are quite
8 different things. A forecast is something that has
9 some sort of methodological underpinning. That's how
10 BC Hydro described it in the response to BCSEA IR
11 1.47.1. By "methodological underpinning" I mean a
12 forecast is a feature that either has a theoretical
13 basis or some empirical evidence supporting its use.
14 And so I say that a forecast, defined in those terms,
15 is the proper focus of the Commission's consideration
16 when it is obliged to look into the future to
17 understand what's going to happen.
18 That's because firstly the methodological
19 underpinning is a rational reason to believe the
20 forecast. It gives you a reason to believe it. And a
21 reason to believe it is important, because the
22 Commission here is, issues reasoning-based decisions
23 or reason-based decisions. It's a panel of experts,
24 specialized expertise in finance, accounting,
25 engineering, the law. That expertise is brought to
26 bear not just to be a good guesser, but to be able to

1 understand the analytics and the kind of
2 methodological underpinnings of what a real forecast
3 is. So my suggestion to the Commission panel is,
4 forecasts should be the starting point for any kind of
5 consideration of where you're going to land in the
6 future if you need to answer that question.
7 Sensitivity analyses are a little bit
8 different. A sensitivity analysis acknowledges the
9 probability that forecasts are never going to be
10 exactly right. So how do you kind of test your
11 forecasts? So we would say sensitivity analysis is a
12 way of moving away from your forecast, your
13 methodologically underpinned view into the future, and
14 test where it might go. And so we would say that a
15 sensitivity analysis, to be valid, needs to have some
16 rational basis for its use. Extrapolations are
17 commonly used in sensitivity analysis. But that they
18 still need to have some bearing in reality. Some
19 reason to use them. They're not the methodological
20 underpinned ones, but they at least have some basis to
21 use them.
22 **Proceeding Time 10:44 a.m. T30**
23 And then to third catie [*sic*] that I would
24 suggest that could be added, which wasn't discussed in
25 the IR response, is guesses. And I think a guess is
26 just -- self-evident what a guess is. It's just a

1 number, you pick a number. The problem with a guess
2 is, in contrast to a sensitivity analysis, in a
3 sensitivity analysis one can maybe find a rational way
4 to understand why you might use it, but a guess
5 doesn't have any rational basis for it at all. And
6 the guesses have a second, more problematic issue
7 associated with them, which is that guesses can be
8 quite self-serving. If we're not putting a guess on
9 the table that has a rational reason to do it, they
10 can disguise and attempt to get to a self-serving
11 outcome.
12 So we would say to the Commission panel, if
13 it feels the need to determine where BC Hydro's load
14 resource balance is at the end of the 20 year period,
15 it should give forecast the most weight and give
16 sensitive analysis some wait and give the guesses that
17 are on the record no weight.
18 And so now I'm going to turn to specific
19 subject matter with all that introduction of question
20 number 1, which is, will BC Hydro need energy after
21 the lease period? And BC Hydro says yes it will.
22 2016 load forecast is the basis of the
23 Waneta 2017 business case. It shows a need for energy
24 and capacity well before the end of the lease period
25 under both the high and the mid-forecast range. And
26 under the low-forecast range, energy is required just

1 after the lease period and capacity is acquired just
2 before the end of the lease period. And that's after
3 accounting for Site C, which I think my friend, Mr.
4 Weafer, also mentioned as an uncertainty.
5 So again, just to be clear here on the
6 years we're talking about, the lease period ends on
7 2039. Energy's required in fiscal 2044. That's 2043
8 under the low load scenario in the 2016 forecast.
9 Capacity is required in fiscal 2038 or 2037. So
10 capacity is required just before, energy required just
11 after. That's the low load forecast from -- or the
12 low range of -- BC Hydro's load forecast, in the 2016
13 forecast. And the evidentiary reference for that is
14 BCUC -- BC Hydro's response to BCUC 1.1.2.1, Exhibit
15 B-8.
16 BC Hydro would say that the methodology
17 acknowledging the Commission's concerns with it
18 remains the most robust and only, in fact, robust
19 method of looking into the future and trying to
20 understand what BC Hydro's load serving obligations
21 are going to be 20 years from now. And everything
22 else is, at best, a sensitivity analysis.
23 The load forecasting methodology has been
24 use -- employed by BC Hydro since 2008 when it was the
25 last subject of a Commission direction in terms of
26 things that needed to be done to it to bring it more

1 into line with the current -- or the Commission's
2 thinking.
3 The other aspect of question number 1 talks
4 about the mismatch between BC Hydro historical load
5 forecasts and actuals. And the implication of the
6 question is that BC Hydro's load forecasting
7 methodology consistently over forecasts and therefore
8 can't be relied on.
9 So I have a first -- a few kind of
10 observations to make that are basically kind of an
11 observation of the facts or the evidence before the
12 Commission right now. And the first is that the
13 forecast, the 2016 forecast and actuals are actually
14 tracking reasonably well in the last two years, and so
15 the reason we say that is provided in BC Hydro's
16 response to Panel IR 1.1.2. That was the one that was
17 filed last week as part of Exhibit B-24 and they show
18 pretty close consistency in the last two years of the
19 current forecast.
20 And second thing we'd say is that while it
21 is true that there's been more over-forecasting than
22 under-forecasting, there have been significant periods
23 of under forecasting as well. If you go back to the
24 load forecast going all the way back to 1964, which BC
25 Hydro filed as response to BCUC IR 1.1 -- or Panel IR
26 1.1.1, you can see there's a significant number of

1 periods, particularly in the 1970s and 1980s, where BC
2 Hydro was under forecasting and not over forecasting.
3 So it's dangerous to assume, you know, it's
4 necessarily going to continue and it's going to
5 necessarily be bad given you can look back and see
6 it's actually gone both ways.
7 But accepting that Hydro's forecasts have
8 more often over forecast than under forecast, BC Hydro
9 wants to challenge, I guess, the implicit assumption,
10 the idea that it's necessarily shouldn't be relied on.
11 And we appreciate that Commission gave some
12 consideration to this question in the Site C final
13 report. To paraphrase the Commission, I think it said
14 that Hydro and Utilities more generally maybe should
15 always be trying to forecast so that they're over and
16 above as equally as -- well, as equally above and as
17 they are under in terms of their forecasting
18 methodology. Should get you to the same place equal
19 times.
20 **Proceeding Time 10:49 a.m. T31**
21 And their rationale for that can't be
22 faulted. Of course the rationale for trying to get
23 your forecast exactly where you want it to be, equally
24 over and under, because it allows for a transparent
25 assessment of the trade-offs of maybe potentially over
26 forecasting.

1 And there was a comment I think in the Site
2 C panel report about an understanding about why
3 utilities might want to over forecast, given that they
4 have a load serving obligation is presumably one of
5 them, but in any event, what I want to get at is --
6 and this is not to criticize the Commission panel in
7 the Site C proceeding, but that question whether over
8 forecasting and under forecasting should necessarily
9 be about the same was not squarely before the
10 Commission panel.
11 It's an issue that the Commission had to
12 deal with, but it wasn't an issue that was the subject
13 of evidence by BC Hydro directly. It wasn't the
14 subject of intervener evidence. It certainly wasn't
15 the subject of cross-examination. The Site C enquiry
16 I suggest was a somewhat unique affair, governed by a
17 terms of reference that asked the Commission panel to
18 look in specific questions. It was done in a very
19 short timeframe, and it meant the Commission had to
20 act largely in an inquisitorial fashion rather than
21 hearing parties who have interest in the outcome of
22 the debate come forward, put their evidence forward
23 and test each other's evidence through cross-
24 examination.
25 So the circumstances of that kind of
26 conclusion, that implicit conclusion if we will, we

1 say need not and should not be imported into this
2 proceeding as a reason to undermine or toss out the
3 load forecast. That was a very specific proceeding.
4 The conclusions on that point came out of a specific
5 fact circumstance and should not be brought into this
6 world here, particularly whereas we say it's not
7 actually necessary to land on a load resource balance
8 that Hydro is going to face at the end of the lease
9 period.
10 THE CHAIRPERSON: Mr. Christian, on the subject of load
11 forecast I wonder if you could just clarify something
12 for me, please. Earlier you pointed out that Section
13 44.2 requires us to consider the load forecast in the
14 -- or at least the 2010 IRP, which includes a load
15 forecast.
16 MR. CHRISTIAN: Yes.
17 THE CHAIRPERSON: However, now it appears that you're
18 saying that the business case was based on the 2016
19 load forecast and I believe a lot of what you just
20 discussed in the last five minutes was the 2016 load
21 forecast.
22 MR. CHRISTIAN: Right, indeed. The business -- my
23 apologies for making that unclear.
24 THE CHAIRPERSON: Yeah.
25 MR. CHRISTIAN: So the business case is clearly founded
26 on the 2016 load forecast. The 2016 load forecast is

1 founded on the 2013 IRP. It's not a big point, so I
2 don't think that the obligation of the Commission to
3 look at the 2013 IRP means that it needs to pick the
4 load forecast. In the 2013 IRP I just meant to
5 provide some context for that load forecast that is in
6 the business case, namely 2016 where it comes from.
7 THE CHAIRPERSON: But the 2016 load forecast is different
8 from that load forecast.
9 MR. CHRISTIAN: It does differ in some ways.
10 THE CHAIRPERSON: Yes, okay. Thank you.
11 MR. CHRISTIAN: So then the other point picked up on
12 issue number 1 of the Commission's Exhibit A-26 is the
13 comment about the lack of load growth since 2010. So
14 with respect, it's to some extent at least factually
15 incorrect, there has been load growth since 2010.
16 And, again, BC Hydro's response to panel IR 1.1.1
17 shows that BC Hydro's load serving obligations have
18 increased by about 1400 gigawatt hours since 2010.
19 That's an average of about 200 gigawatt hours per
20 year.
21 BC Hydro would suggest further that an
22 extrapolation of that number would not be a forecast,
23 it would be at most a sensitivity analysis and it
24 wouldn’t account to the myriad other aspects that go
25 into a load forecast, in particular on the industrial
26 sector, knowledge about the specific activity sector,

1 right? And so it's -- you know, the comment about no
2 load growth, as I say, not quite right factually, but
3 implies an inclination to take that number and
4 extrapolate it. We would say that's at most a
5 sensitivity analysis and not a forecast of the type
6 that this Commission is properly meant to be
7 considering when it -- if it has to decide where
8 Hydro's load resource balance is at the end of the
9 lease period.
10 So that covers question 1 for me. And I'm
11 going to move to question 2 if there's no questions
12 from the panel.
13 Question 2 asks bout Waneta energy and
14 whether it's most cost effective and clean relative to
15 alternatives. So it, you know, by implication assumes
16 that there's a need for energy sometime after the end
17 of the lease period. You know, we're assuming a 40-
18 year economic life, so we're talking about year 21 to
19 40. Hydro needs energy in that time, is Waneta the
20 choice, and ask that question in the context of clean,
21 least cost, and also cost effective.
22 And so, dealing with clean first, we would
23 say that Waneta of course is as clean as any non-GHG
24 resource. Clearly it's a non-GHG producing resource.
25 And we would say further that that's relevant
26 regardless of whether BC Hydro is in surplus or

1 deficit. The cleanness of Waneta is a factor in all
2 circumstances in this proceeding because under the
3 *Clean Energy Act*, Section 2(n), this is one of the
4 B.C. energy objectives that the Commission is obliged
5 to consider in assessing a 44.2 application. One of
6 the B.C. energy objectives is that B.C. is to be a net
7 exporter of electricity, a net exporter of electricity
8 from clean or renewable resources with the intention
9 of benefiting all British Columbians and reducing
10 greenhouse gas emissions in regions in which British
11 Columbia trades electricity.
12 **Proceeding Time 10:54 a.m. T32**
13 So the greenness of Waneta, the non-GHG
14 aspect in particular, something that's relevant
15 regardless of load serving obligation circumstances.
16 More importantly we would say on the green
17 aspect is that Waneta faces one unique advantage
18 relative to any other alternative and that is Waneta
19 is build and it is operating. So there's no need for
20 consideration of footprint issues associated with the
21 plant itself or any of the transmission connections.
22 There's no need to be concerned about the construction
23 of -- again of the plant or the transmission
24 connection. So you've got the operating facility
25 already permitted and in that sense we say Waneta is
26 clearly superior to any alternative on the clean

1 factor, environmental factor.
2 On the cheap and least cost criteria, we
3 think it's necessary to use unit energy costs. I
4 believe that's the only way that we seem to have a way
5 to do an apples -- maybe an apples to pears. It's not
6 quite that we have apples to apples, but some sort of
7 close comparison. And the starting point for that
8 would be BC Hydro's number of 48.25. That's $48.25
9 cents per megawatt hour. That's in table 4 of the
10 Waneta 2017 business case. You'll find that on PDF
11 page 538.
12 And so BC Hydro says at the end of the
13 lease period that's really its comparator to any
14 alternative, $48,25. And what we see on the record is
15 a number of numbers that are, as I just alluded to,
16 are difficult to compare exactly to 48.25. Mr. Weafer
17 himself suggested it wasn't clear whether capacity was
18 included in some of the Clean Energy numbers or not,
19 to take one example. But in any event, what we see
20 from the record is that the lowest number that seems
21 to be advanced is somewhere between the mid-40s and
22 the high 40s on a unit energy cost basis at that same
23 time. That's kind of an assumption we have to make
24 because we haven't been able to satisfy ourselves that
25 these are directly apples to apples numbers.
26 So let's assume that they are apples to

1 apples. The other concern we have about that mid-40
2 to high-40 number is that it's based on one call for
3 power in Alberta and BC Hydro's filed a significant
4 amount of evidence -- this is BCUC IR 2.80.1 -- saying
5 why it believes its very unlikely that that call value
6 will be repeated, certainly in BC, any time in the
7 future. And so we think that the 40 to 40 -- the mid-
8 40 to high-40 number is quite speculative and doesn't
9 have a particularly solid grounding. And that's in
10 comparison to 48.25, which of course is a financial
11 number that's based on what we know we're paying for
12 the asset, what we know we're getting in lease
13 revenues, what we know we're paying on amortization,
14 what we have a very, very high degree of knowing what
15 we're paying in terms of incremental financing costs.
16 So you compare the solidity of our 48.25,
17 assuming apples to apples comparison, to the 40, mid-
18 40 to high-40, we would say they might look similar on
19 a superficial basis, but they're not. That our
20 number, the 48.25 is a real number you can take to the
21 bank today and the mid-40 to high-40 is not a number
22 you can take to the bank. And so to say that they are
23 the same on just a pure cost basis would be wrong.
24 The BC Hydro number is better.
25 And then that leads to further observation
26 that a little bit overlaps with the least cost and

1 that is the Commission has distinguished between least
2 cost and cost effective. Both those phrase, least
3 cost and cost effective, are used in question 2, but
4 there is a clear distinction, I think, in terms of the
5 Commission's practice.
6 And I'm going to refer to an application
7 brought by BCTC in 2005, I think it was, or early 2006
8 with respect to the Vancouver Island Transmission
9 Reinforcement Project. So this was a proposal by BCTC
10 to build a new transmission line to Vancouver Island.
11 It was at least two competing alternatives. I think
12 by one proponent put two alternatives in front of the
13 Commission to say, "Our project is better." One of
14 them, at least, was a high voltage direct current
15 line. I can't remember what the other one was.
16 The Commission, though, was forced to deal
17 with actual projects in front of it in a CPCN context,
18 somewhat different circumstance than we have here.
19 Here we're talking about one RFP in Alberta. Back in
20 2006 the Commission actually had three projects
21 sitting in evidence in front of it for its
22 consideration and the two proponents, as you can
23 probably guess where I'm going with this, the two
24 alternatives to VITR looked on their face to be
25 cheaper, least cost. And the issue though was whether
26 or not that was the appropriate metric by which to

1 judge the comparing -- competing projects.
2 And here is what the Commission said. This
3 is at it's July 7th, 2006 decision at page 15.
4 "The task is not to select the least cost
5 project but to select the most cost
6 effective project. Therefore, as suggested
7 by BC Hydro, reliability, safety, schedule
8 and finance arrangements and other factors
9 are also relevant to the task at hand before
10 the Commission panel."
11 So task at hand being which of these projects should
12 be certificated with a CPCN.
13 In Waneta 2010 -- in the Waneta 2010
14 decision the Commission accepted a similar logic with
15 respect to BC Hydro's transaction at that time. Again
16 remembering that the same basic regulatory framework,
17 a 44.2 application.
18 And so in addition to reliability, safety,
19 schedule and financing arrangements in Waneta 2010 the
20 Commission also added as relevant factors in a cost
21 effectiveness assessment, dispatchability, timing,
22 location, environmental impacts, and back then at
23 least Teck's opportunity costs, or the counterparty's
24 opportunity costs.
25 **Proceeding Time 11:00 a.m. T33**
26 And the scope -- that wide scope of factors

1 that the Commission should bring to bear in a cost-
2 effectiveness test, we say, has been most recently
3 affirmed by the Commission in its recent decision
4 regarding the Salmon River facility and its
5 decommissioning, where the Commission had to decide
6 largely on those factors, because economics were
7 almost irrelevant. So that's the June 16th, 2017
8 Salmon River diversion decision, page 4 of 22. And
9 you'll see a discussion on that topic.
10 So going to the elements of cost-effective
11 -- so, reliability, safety, schedule, and financing
12 arrangements. Those are all factors that relate to
13 getting the project built and operating. Both built
14 and operating. Safety was primarily, I would say to
15 operating, given the longer time line. But any event,
16 it seems clear to BC Hydro that that on those four
17 factors Waneta is superior to any alternative, because
18 it is built. And it is operating. And so any
19 alternative can't be as cost-effective to BC Hydro
20 insofar as it is yet still a twinkle in the
21 developer's eye. Reliability, safety, schedule and
22 financing mean by definition, these things aren't
23 built, and they need to be given a lower weighting on
24 cost-effectiveness.
25 Dispatchability was another factor referred
26 to by the Commission in 2010. And again, the ability

1 to shape and coordinate is given value, and the extent
2 to which a resource can't means it's less cost-
3 effective. And in BC Hydro's application, this is at
4 PDF page 120, it talks about the disability of Waneta
5 and says Waneta is comparable with highly dispatchable
6 resources such as Seven Mile facility and are superior
7 to most other resources available to BC Hydro. So we
8 would say, unless you've got a facility that has those
9 characteristics, BC Hydro's Waneta project and its
10 potential investment into it wins on the cost-
11 effectiveness side on that measure.
12 Timing favours Waneta, which will be there
13 when it's needed to provide service, and location
14 favours Waneta, because it's built -- the transmission
15 connections are there and everything around it,
16 infrastructure, is all kind of ready to receive power
17 from it. Environmental issues I've already addressed.
18 Teck opportunity costs, we would say is not
19 much of a factor if at all on this one. It's one area
20 where the cost-effectiveness test does defer a little
21 bit between now and 2010. And that's because of the
22 different sale process that I described earlier. So
23 if you remember, in 2010 the process involved a
24 bilateral negotiated arrangement. And so the
25 Commission was properly concerned to understand what
26 the counterparty to BC Hydro's opportunity cost was.

1 We suggest that in this certain -- in this context,
2 where the process resulted -- was a competitor process
3 undergone by Teck, where BC Hydro got the asset
4 through the exercise of its ROFO, opportunity cost is
5 not actually a relevant factor here and probably
6 doesn't matter in the kind of relative assessment of
7 Waneta to other factors, and to other resources.
8 So we would say that BC Hydro is confident
9 that the evidence before you demonstrates that Waneta,
10 relative to any alternative, bearing in mind that what
11 we're talking about is a world after the lease period
12 where some energy is required, some additional
13 resource required, we say that Waneta is cleaner than
14 any alternative, it's more cost-effective than any
15 alternative, and at worst it's the same price as
16 alternatives. If you give them the apples-to-apples
17 comparison and then assume away all the uncertainty
18 associated with the number.
19 It's eleven o'clock. I've been going for a
20 while. People -- I'm happy though, I think I can
21 probably finish up in probably about, I'd say, half an
22 hour. But -- I don't want to make --
23 THE CHAIRPERSON: A break is good. Yes. I think a break
24 would be a good idea. Thank you.
25 MR. CHRISTIAN: Okay.
26 THE CHAIRPERSON: Quarter past?

1 MR. CHRISTIAN: That would be great. Thank you.
2 **(PROCEEDINGS ADJOURNED AT 11:04 A.M.)**
3 **(PROCEEDINGS RESUMED AT 11:17 A.M.)** **T34**
4 THE CHAIRPERSON: Go ahead, please, sir.
5 MR. CHRISTIAN: Thank you. So I was on question 3 of
6 Exhibit A-26. This is the question that asks, will
7 Waneta be available for domestic supply needs if the
8 application is denied. I'm paraphrasing of course.
9 In light of question 4 which asks about the
10 availability of Waneta if acquired by a third party,
11 we assume that question 3 talks about if BC Hydro
12 acquire -- or whether BC Hydro might acquire it again
13 in the future if this transaction doesn't close or
14 whether Teck might make the asset available. So we're
15 looking at it from a Teck and BC Hydro perspective.
16 And so looking first at BC Hydro. You
17 know, we note that, you know, Fortis Inc. was willing
18 to buy this transaction on the same terms that BC
19 Hydro is buying it on. Five other parties as we
20 understand it went into the second round of
21 negotiations with Teck. The commercial value we say
22 is self-evident, at least through the Fortis Inc.
23 transaction that BC Hydro has been able to inherit
24 through the exercise of its ROFO.
25 Importantly, BC Hydro did not have its ROFO
26 rights for 12 month after this transaction if it

1 doesn't close. So if the Commission denies the relief
2 BC Hydro seeks, there's a 12-month period during which
3 Teck is free to sell it to whoever without BC Hydro
4 being able to exercise that ROFO right. And that's
5 explained in response to BCSEA 1.7.1, Exhibit B-9.
6 And so BC Hydro submits that, you know, if
7 the Commission accepts that this transaction continues
8 to have commercial value, the fact that Hydro won't
9 have a ROFO right for 12 months means that there's
10 really -- the Commission can't have any confidence
11 that this asset will ever be in BC Hydro's hands again
12 for load serving obligations if it's not now. Not,
13 obviously not one to speak in terms of certainties,
14 but it's -- you can't have any confidence. Right now
15 you can have confidence. You don't have any
16 confidence going forward.
17 With respect to Teck, it's never been a
18 public utility, at least it's never been a regulated
19 public utility. It's never devoted its assets to the
20 public service or public utilities service. It has
21 the benefit of the exemption order that I referred to
22 earlier, the 1996 exemption order, which it's had in
23 its predecessor forms going back 30 years.
24 I don't think there's any basis for the
25 Commission to infer that Teck would ever take its
26 assets and use them to provide public utility service,

1 make them available for load serving purposes in B.C.
2 Like there's just no reason to think that. The
3 history is quite the contrary. They've been private,
4 commercial assets used by Teck for its purposes since
5 they were built and have been protected by legislation
6 for that purpose ever since. So we say with respect
7 to BC Hydro and Teck, the answer is no.
8 With respect to third parties. Firstly we
9 observe that other than BC Hydro, the only other load
10 serving entity, that is the only public utility with
11 load serving obligations in the region is Fortis Inc.
12 -- or, sorry, FortisBC. We talked about FortisBC
13 already a little bit earlier. There's no evidence to
14 suggest that FortisBC wants the assets and wants to
15 acquire those assets. They didn't, as far as we know
16 at least, participate in the sale process. Its parent
17 did, the unregulated parent. And so we say that
18 there's no reason to think that FortisBC would be the
19 one who gets Waneta.
20 And with respect to any third party, other
21 than FortisBC, and other than BC Hydro and Teck, we
22 think it's pretty questionable to imagine why anybody
23 would buy those assets and put them under regulation.
24 You know, Fortis Inc. didn’t want to. There's a lot
25 more flexibility clearly with that asset if it's not
26 regulated and not dedicated to public utility service.

1 So we think if a third party buys it, the
2 Commission should assume it's not going to be a public
3 utility service available for load serving purposes,
4 it'll be a market asset maybe available to BC Hydro
5 and Fortis. But frankly it doesn't matter as a market
6 asset whether it's in B.C. or in California or
7 anywhere else. It's part of the market pool of power
8 and it'll be sold at a market price, and so we say
9 it's not going to be available to BC Hydro through
10 some third-party acquisition, at least for load
11 serving purposes in the way that I think we understand
12 the Commission question.
13 That leads to question 5, should ratepayers
14 assume risk of this transaction during the lease
15 period. And so I spent a little bit of time talking
16 about the lease period earlier and trying to kind of
17 explain BC Hydro's views on risk, relative risk during
18 the lease period and after the lease period, and that
19 was in part prompted by this question. It's because
20 BC Hydro doesn't see there being very much risk at all
21 during the lease period. You know, as much as can be
22 known is known. Very few uncertainties are exist.
23 The one big uncertainty is the possibility of default,
24 and that can actually have a positive benefit on the
25 transaction.
26 So we think that during the lease period

1 there's very little risk to be incurred by ratepayers.
2 Where there is potential risk, because you have to
3 look into the future and understand what the load
4 serving obligations of Hydro are, it's actually after
5 the lease period. And so as we say, during the lease
6 period there's particular value, we would say, for the
7 ratepayers.
8 **Proceeding Time 11:22 a.m. T35**
9 And why should we -- why should ratepayers
10 assume that risk? Well, because it's in their
11 benefit, their net benefit. They'll ultimately get an
12 asset that can be used to serve load. Between now and
13 then they get a positive impact on their revenue
14 requirement every single year.
15 That takes us to question 6. And the
16 question here is, is Section 44.2 appropriate -- is an
17 Order under Section 44.2 appropriate for an asset that
18 will be acquired but not used for service for 20 years
19 -- I'm paraphrasing again, of course. And the first
20 aspect we want to focus on is Section 44.2. And to
21 observe it first, as I have observed already, that BC
22 Hydro will ultimately acquire and have the entirety of
23 Waneta available for load serving purposes after the
24 lease period. It will be using Waneta to serve load
25 after the lease period, and that's regardless of
26 whether it's in surplus or deficit energy. And that's

1 because it will be a facility -- part of BC Hydro's
2 generation fleet, to dispatch on an economic basis.
3 So that even when Hydro is surlus on a
4 yearly basis, you can -- one can assume that all its
5 generation assets are being used to serve load. I
6 think there is a very few number of facilities in B.C.
7 that are dedicated to export. And so -- and certainly
8 none of the big generation assets.
9 Second, we would say that 44.2 exists for
10 the purpose of allowing utilities to bring capital
11 expenditure requests forward to the Commission that
12 don't have direct load-serving connections. That's
13 why it's there. If the Commission's jurisdiction
14 extended only with respect to investments into assets
15 that were there to provide service, and that -- you
16 have the CPCN provisions of the *Act*, because that's
17 what they speak to. The operation and construction of
18 public utility plant or system. Those are the words
19 in the CPCN provisions of the *Act*, and that's what
20 normally a utility needs to go to the Commission for,
21 when it's making a major investment into a load-
22 serving facility. 44.2 has a much broader scope and
23 is used for different types of transactions, including
24 transactions that don't relate directly to a load-
25 serving obligation.
26 We say Waneta does, just tentatively down

1 the road, but even if you look at something that had a
2 purely financial transactions with no possibility of a
3 load-serving obligation associated with it, 44.2 would
4 be more than adequate. And the example we have in
5 mind here is BC Hydro's application in front of the
6 Commission for a 44.2 Order in regard to its SAP
7 supply chain system. And that's an IT investment that
8 BC Hydro is making. It's got a Commission Order under
9 44.2 in respect of that, and that project has as its
10 purpose -- and this is from the Commission's recent
11 decision on that project.
12 "In the panel's view there is a need for a
13 high-capability supply chain system to
14 manage purchasing and related processes in a
15 manner that is effective and efficient, and
16 which allows for sufficient oversight of the
17 process of the vendors and ongoing
18 management of a supply chain."
19 So we say that, you know, BC Hydro's supply
20 chain application is an example of a case where the
21 Commission has given a 44.2 Order on an expenditure
22 that really is meant to generate financial benefits to
23 Hydro's customers, through the more efficient
24 acquisition of third-party materials and services,
25 regardless of whether they are used to serve load or
26 not.

1 And so again, 44.2 is there for the purpose
2 of allowing capital expenditures to come into -- to
3 come to the Commission for review to see whether they
4 make sense from a ratepayer perspective.
5 THE CHAIRPERSON: Mr. Christian? Over here.
6 MR. CHRISTIAN: Oh, sorry.
7 THE CHAIRPERSON: That's okay.
8 MR. CHRISTIAN: It was weird, your voice was coming from
9 back there.
10 THE CHAIRPERSON: Is it your view, then, that in 20 or 30
11 years' time, whatever the case may be, when this does
12 become -- or this may become a load-serving entity,
13 that it would require a CPCN at that time?
14 MR. CHRISTIAN: I don't think that it does. I think
15 because right now it came into -- at the end of the
16 lease period it would be an extension, if anything, of
17 Hydro's system. And an extension deemed to have a
18 CPCN subject to a Commission Order under 44.5. So I
19 suppose -- so, the answer to the first question is, it
20 wouldn't need a CPCN just as a matter of course. I
21 think that's pretty clear, because of the current
22 legislative rules regarding extensions and this would
23 be an extension, I think.
24 Whether or not the Commission having issues
25 -- I'm assuming -- we're assuming a 44.2 Order issues
26 now and the transaction completes. Whether in that

1 circumstance the Commission still could issue a 45(5)
2 Order requiring a CPCN application at the end of the
3 lease period, that I don't know. I'd have to give
4 some thought to that.
5 THE CHAIRPERSON: Thank you.
6 **Proceeding Time: 11:27 a.m. T36**
7 MR. CHRISTIAN: Anyway, the last point on 44.2 is, it's
8 just -- I think it's clear that there is nothing in
9 44.2 itself that limits the scope of capital
10 expenditures to those capital expenditures that will
11 have an immediate load serving capability or aspect to
12 them. They talk about the interests of ratepayers now
13 and in the future without regard for whether the
14 capital investment is going to be facilitating or a
15 part of the load-serving assets that the utility owns
16 and that makes it a public utility. The words just
17 don't lend themselves to that kind of construction.
18 So in summary, 44.2 exists to allow exactly
19 this type of application, as it did in 2010.
20 And if it is appropriate, why should the
21 Commission issue the order? I mean that really goes
22 to the heart of why we are here. The argument, of
23 course, that BC Hydro will be filing a written form,
24 you've heard me summarize it today. We'll elaborate
25 on this, but the bottom line is the transaction is in
26 BC Hydro's ratepayer interest. It will give them a

1 positive financial impact for the next 20 years, or
2 during the lease period, and then under any scenario
3 where hydro needs new generation resources in the next
4 40 years, there's a further positive benefit. And
5 that really is the answer.
6 It also serves a number of provincial
7 energy objectives as set out in the *Clean Energy Act*.
8 There's nine of sixteen objectives that we think that
9 this transaction advances, and seven that we think
10 it's neutral on. So that's the other thing. If you
11 are looking at it from the perspective of what you
12 have to look at under 44.2(5.1), those are the main
13 issues.
14 Issue number 7 asked about the issuance of
15 additional debt and whether or not it's in the public
16 interest for BC Hydro to issue 1.203 million in
17 additional debt.
18 So the first observation to make is that
19 under the *Utilities Commission Act*, the Commission
20 doesn't actually have the jurisdiction to assess BC
21 Hydro's debt issuances. *UCA* Section 50 requires a
22 public utility to obtain the Commission's approval to
23 issue debt for terms greater than one year, but that
24 section is not applicable to BC Hydro by virtue of
25 Section 32(7)(x) of the *Hydro and Power Authority Act*.
26 So the question we take, though, in a broader, more

1 public interest sense, rather than the narrow legal
2 sense, and here we refer to BC Hydro's responses to
3 panel IRs, 1.2.1 and 1.2.2, and also BCUC Panel IR,
4 the confidential one, 1.1.1, which we also filed on
5 the public record even though we redacted part of the
6 question.
7 And the bottom line is that evidence in
8 those IRs supports the proposition that there is no
9 impact on the province's credit rating arising from
10 this transaction, and there's no impact on BC Hydro's
11 status vis-à-vis the province, as a self-supporting
12 entity whose debt is excluded from the province's
13 debt. And so that was the assessment that we say the
14 Commission can infer from the fact that Moody's kind
15 of looked at this, had the transaction in front of
16 them and then -- or sorry, gave their credit rating,
17 and then had the transaction in front of them and then
18 gave the credit rating again, and wrote that report
19 that's referred to in that third IR.
20 And we would say that Moody's, of course,
21 is an creditable, obviously, credit rating agency and
22 their assessment should be determative on that point.
23 And that takes us to question 8. And
24 there's two arms to 8. I'm going to actually have a
25 few introductory words to say about issue 8. It talks
26 about the 450 sensitivity analysis, and what BC Hydro

1 would like to observe is that staff and interveners
2 and the Commission panel itself we think have offed
3 good faith suggestions on how we might further test
4 the transaction. Right? So there's good faith effort
5 to see what are the bounds of the economics of this
6 transaction. But we will not say, and don't say, that
7 the testing that has been put to BC Hydro has been
8 unbiased testing. We think that most people who are
9 looking at this transaction are not interested in
10 whether there is a greater upside if you assume $200
11 per megawatt power at the end of the lease period, for
12 example, or interest rates at 1 percent. In other
13 words, there's a bias towards understanding what the
14 regret scenarios are going to look like rather than
15 what the "oh, my gosh, what a great idea that was,"
16 scenarios.
17 So in light of that inquiry and the
18 anticipated focus on where the downsides are, you
19 might expect that in those 450 sensitivity analysis we
20 generated a significant number, a majority even, that
21 show that this transaction has a negative value. In
22 fact, that hasn't been the case. It's been the
23 reverse. The vast majority of the scenarios,
24 interveners and staff and the Commission panel has
25 asked BC Hydro to run -- actually, sorry, I don't
26 think you asked us to run sensitivity analysis, you

1 were happy with the 450.
2 **Proceeding Time: 11:32 a.m. T37**
3 The vast majority of those analysis show that the
4 transaction still has positive value. And so despite
5 what we would say is a bias towards testing the lower
6 bounds of the transaction of those 450, you still have
7 a vast majority that are showing a positive
8 transaction value.
9 So the specific question in 8A, which
10 scenario was most and least likely. You know, as you
11 know, our view is that the Commission should not gaze
12 in a crystal ball and say exactly where we're going to
13 be, but we do want to offer kind of one way to maybe
14 get at that question in a not necessarily determative
15 way, but how you might consider analyzing those 450
16 scenarios.
17 We first suggest you start with the LRMC
18 Clean scenario. That's the scenario remember at a
19 post-lease period that is consistent with both the
20 current legislative framework, the law, and is
21 supported by what we would say is a robust,
22 methodologically sound forecast, the 2016 load
23 forecast.
24 It is supported by, we would say -- we
25 would say that you use a 6 percent discount rate for
26 all the reasons I've described earlier. That 6

1 percent discount rate is the assumed cost of financing
2 in the net present value analysis that BC Hydro did,
3 and it's a conservative number for the three regions
4 that are described. Each of the three components
5 could arguably have been changed in a way that
6 resulted in a higher net present value rather than
7 what we actually put forward to the Commission.
8 Yeah, and so, these, as I say, so the LRMC
9 Clean 2016 load forecast 6 percent discount rate, that
10 starting point is methodologically robust, consistent
11 with provincial law and policy regarding clean energy
12 and consistent with the framework of BC Hydro's debt-
13 equity ratio under HC1 and consistent with the
14 Commission's decision with respect to return on equity
15 for FortisBC.
16 But -- so that's the starting point. We'll
17 admit that's the starting point for the Commission.
18 You might then think about, okay, what are some of the
19 reasonable sensitivity analysis that we've looked at
20 and we would suggest that an LRMC minus 15 percent, a
21 lower market price, a lower load forecast, are some
22 issues you might take into account, and we that think
23 if you look to BCUC IR 1.24.1 you see some modest kind
24 of movement on each of those factors, and this
25 transaction still has $360 million in net present
26 value benefits. Again, that's the net present value,

1 not the ratepayer benefit which will always be higher.
2 And then if you want to look seriously at
3 what the regret bookend looks like, then you have to
4 assume -- remember a red bookend means we don't need
5 any new generation resources for 40 years. You maybe
6 say, okay, maybe we need some resources in that 40
7 years but we still want to be extremely conservative.
8 Then you look at LRMC Clean plus gas minus 40 percent,
9 and you look at the low market prices, extrapolate or
10 panel Site C, and these scenarios are in that IR that
11 we talked about earlier. That is BCUC 2.83.3. And so
12 we looked at the entire range of transaction values
13 looking at the most conservative assumptions that you
14 can reasonably come to.
15 And the key there is as long as we need a
16 resource, sometime in the next 40 years, then you can
17 use some LRMC number and give some value to the
18 transaction. And that's really the key. Like you
19 have to have no market value and no need for
20 generation resources before this is at zero. You need
21 some generation at all in that 40 year period that
22 gets deferred by Waneta and you get some positive
23 value.
24 If you look at from that perspective, we
25 say that these scenarios in 2.83.3 illustrates them
26 best, that the transaction across the range of

1 transaction values is cost effective, and in the
2 public interest.
3 And then that takes me to the second arm,
4 the last arm of eight. And this question asks about
5 the material variances net present value. And what BC
6 Hydro understood this question to refer to was, would
7 you do this deal if you thought you were going to earn
8 just a buck or two bucks? Like clearly, quite aside
9 from your weighted average cost of capital, you know,
10 you need to return your capital, how much is this
11 worth? You know.
12 And so what Hydro's view is that net of the
13 cost of capital, the deal, I gave it a five to ten
14 percent return in its circumstances for the benefit of
15 it ratepayers makes sense. So on a purchase of $1.2
16 billion, that equates to a net present value between
17 60 and 120 million bucks. That's kind of the lower
18 end of what we would need before we proceed. Again,
19 that's net of cost of capital.
20 We note that the range again for Waneta is
21 between zero and 900 million bucks. So there's lots
22 of upside that makes this quite obviously a worthwhile
23 investment. A little bit of potential where you go,
24 "Oo, maybe we shouldn't have done that." But even in
25 those scenarios you're not actually losing anything,
26 you're just thinking, "Hmm, was it worth it?"

1 **Proceeding Time 11:37 a.m. T38**
2 So, again, 5 to 10 percent after a net of
3 cost of capital on 1.2 billion, that gives you between
4 60 and 120. Well within the range of zero to 900 that
5 BC Hydro has shown you in that IR response.
6 So, that concludes my presentation. I'm
7 happy to take any questions, either now or -- I think
8 it's also -- we haven't addressed this, but to the
9 extent the Commission has questions that would arise
10 through today that they would like to have addressed
11 in written argument, that would be also another way to
12 do that as well.
13 THE CHAIRPERSON: I appreciate that, thank you. I think
14 we're fine.
15 MR. CHRISTIAN: Thank you.
16 THE CHAIRPERSON: Thank you, sir.
17 Hello, Ms. Herbst.
18 **ARGUMENT BY MS. HERBST:**
19 MS. HERBST: Thank you.
20 THE CHAIRPERSON: Just so we can do a bit of time
21 planning, I'm wondering do you have an estimate of how
22 long you'll be?
23 MS. HERBST: I'm hoping five minutes or less.
24 THE CHAIRPERSON: Well, okay.
25 MS. HERBST: Of course, I say hope, and lawyers are
26 notoriously off, but I think so.

1 THE CHAIRPERSON: We can have hope.
2 MS. HERBST: All right. Well, thank you. So I'm here
3 for FortisBC Inc., and over the last couple of months
4 FortisBC Inc.'s role primarily has been to monitor the
5 proceeding. And I say the last couple of months,
6 because in mid-February it arrived at letter
7 agreements with BC Hydro and Teck which, from
8 FortisBC's perspective, or FBC's, as I'll call it, are
9 significant.
10 So it's continued to monitor, and it's in
11 the course of that monitoring seen nothing to change
12 its view that it should support the completion of this
13 transaction as being for the benefit of FBC
14 ratepayers.
15 The expected positive net present value of
16 the transaction, whatever its precise extent, is going
17 to flow to FBC ratepayers because FBC itself is a
18 customer of BC Hydro. And the February, 2018 letter
19 agreements provide stability and certainty in terms of
20 FBC's access to Line 71 in the context of the Waneta
21 transaction. So both those components are important
22 to FBC in how it emerges, and how it views this
23 transaction.
24 Given FBC's recent involvement and its
25 nature, my remarks otherwise are going to be brief.
26 And while some of my comments overlap in part with

1 some of the questions that the Commission asked in
2 Exhibit A-26, we're not here to engage on the
3 specifics of them, or engage question by question, but
4 there is a bit of overlap.
5 So, first all, what I'd like to say is that
6 FBC, while it doesn't have specific comments on Fortis
7 -- on BC Hydro's load forecasts, from its perspective
8 it's likely that BC Hydro will require additional
9 energy in the post-lease period. This is especially
10 true if, during the lease period, and beyond, adoption
11 of electric vehicles or the displacement of other
12 energy resources or sources by electricity continues.
13 Some of this could be policy-driven. But in any event
14 it seems to be a trend that BC Hydro should and does
15 take into account.
16 In terms of whether there are other
17 resources -- cheaper or more clean resources, we agree
18 with Mr. Christian's point on cost-effectiveness being
19 a key, as opposed to necessarily least cost. If the
20 question is whether there are lower costs or cleaner
21 energy resources that are likely to be available in
22 the post-lease period, in a sense that's not possible
23 to determine fully at this time. But the fact remains
24 that the Waneta plant is a reasonably priced clean
25 generating, as Mr. Christian pointed out, asset that's
26 available now.

1 FBC submits that current decisions should
2 be made with the best available information at the
3 time. If decisions were postponed or deferred in
4 order to see if a better or other opportunity
5 materializes, an existing opportunity to purchase an
6 asset that's available now could be lost.
7 In other words, if generating assets aren't
8 purchased at the present, there is no guarantee they
9 will be available in the future when needed. If
10 another party were to purchase the two-thirds interest
11 in the Waneta assets, it would be up to that
12 purchasing party to determine what use they'd make of
13 them, whether or not they'd make the energy available,
14 and at what cost it may be avaialble. In that context
15 as well, FBC would like to point out that utility
16 assets typically require large investments. They're
17 not typically perfectly scaleable. When utility
18 infrastructure is required, it's commonly constructed
19 or purchased in advance of the load materializing, in
20 order to ensure that the assets are readiliy available
21 when needed.
22 **Proceeding Time: 11:42 a.m. T39**
23 And so those are elements particularly
24 relating to questions 1 to 6 that we bring forward
25 just as a general comment. And conceptually, before I
26 sit down, I'd just like to add that we agree that the

1 Commission should be able to consider a transaction of
2 this sort under Section 44.2 of the *Act.*
3 And just to wrap up then, in sum, FBC
4 continues to support the completion of the transaction
5 and those are the end of my comments subject to any
6 questions that the Commission may have.
7 COMMISSIONER FUNG: I do have one, Ms. Herbst.
8 MS. HERBST: Yes.
9 COMMISSIONER FUNG: We've heard Mr. Christian make much
10 of a point that it was Fortis Inc. that put in the bid
11 for the asset, and you may not be able to answer this
12 question and I can understand why you wouldn't, but I
13 do want to ask you the question. Do you know why
14 FortisBC Inc. did not consider applying to purchase
15 the assets rather than Fortis Inc?
16 MS. HERBST: I don't know that information.
17 COMMISSIONER FUNG: Okay, thank you.
18 THE CHAIRPERSON: Thank you very much.
19 MS. HERBST: Thank you.
20 THE CHAIRPERSON: Ms. Worth, I'll ask you the same
21 question.
22 MS. WORTH: I may be slightly longer than Ms. Herbst, but
23 not much longer.
24 THE CHAIRPERSON: That's okay. I'm just trying to
25 think when we should break for lunch, but let's go
26 ahead then.

ARGUMENT BY MS. WORTH:

MS. WORTH: In Exhibit A-26 the Commission has asked us as participants to address a number of questions that many of us have already spoken to this morning, and I have chosen, in my submissions this morning, to address solely those questions because in many ways they address the issues that we were intending to address in our substantive submissions and I'll leave those to the written section of this particular process.

The first asked whether BC Hydro will need additional energy after the Teck lease expires, particularly in light of the mismatch between BC Hydro's historical load forecast and the actuals, and the lack of load growth since 2010.

Now, we recognize that there's some concern regarding the forecast need for this power in 20 years, but we do have the degree of comfort necessary to support this transaction, in that this power will be needed to some degree. However, Mr. Christian has discussed the analysis BC Hydro has undertaken where there is no need, and that provides an additional level of comfort to my clients.

Any transaction like this where the time horizon is long is a challenge, and that's something that we often face here in the utilities regulation.

1 Can we ever know for certain whether power for any
2 additional turbine, asset purchase, or dam will be
3 needed in the timelines that we have been presented
4 with by the utility? Forecasting is an art. That is,
5 when it's working, it's high 50 percent of the time
6 and low the other 50. Is it possible to ever actually
7 forecast with any degree of certainty? No, it's not.
8 However, we do note that even when using BC
9 Hydro's load growth forecast, this additional energy
10 will be needed in the first ten of the twenty year
11 post-lease period.
12 Now the second question asked participants
13 to offer submissions on whether this energy would be
14 the most cost effective and clean in that 20-year
15 post-lease period and then also whether it would be
16 the least cost. And then also the likelihood of those
17 particular scenarios.
18 We, like Mr. Christian, feel that the cost
19 effective question is the one that needs to be asked
20 here, but when looking at the green question, whether
21 it's clean, Waneta is a hydro-based asset. It's an
22 existing facility with no additional environmental
23 impacts or footprint impacts associated with it, and
24 it will most likely still be operating in the post-
25 lease period absent any transaction with BC Hydro. So
26 it's difficult to see how this use in comparison with

1 any alternative sources of generation could be cleaner
2 or less impactful.
3 BCOAPO has looked at BC Hydro and CEABC's
4 evidence detailing their readings of the goat's
5 entrails regarding the alternatives, and we note that
6 even using CEABC's optimistic figure of $40 per
7 megawatt hour for wind energy, the resulting long-run
8 marginal cost of that combined energy and capacity in
9 2034 would be more than $50 per megawatt hour in our
10 assessment.
11 **Proceeding Time 11:47 a.m. T40**
12 Building a result that the un-risked value
13 of the transaction would still be positive. While
14 given my reference to the soothsaying, it should come
15 as no surprise that we feel it is difficult, really
16 impossible, to forecast the future cost of wind energy
17 over the next four years. Absent any compelling
18 additional evidence, evidence that we submit is not
19 currently on the record, we do not feel that it is
20 more than speculation to say whether there would or
21 would not be cleaner or more cost-effectve
22 alternatives.
23 Now, this question -- question 4 asks
24 whether other parties acquiring this two-thirds
25 interest in Waneta would make this energy available to
26 BC Hydro customers, or to BC Hydro on behalf of its

1 customers, and at a comparable cost, should the demand
2 materialize. This is again a very difficult question
3 to answer, because the answer would depend on what
4 that other party is -- sorry, who that other party is,
5 what their needs are going to be, what they decide to
6 do with that power, BC Hydro's needs, or at least
7 their assessment of BC Hydro's needs, versus other
8 options. And because the seriousness and the urgency
9 of those needs, and the availability or lack thereof
10 of alternatives, would inevitably affect the price
11 that was offered to BC Hydro should they need that
12 power.
13 In other words, the best that can be said
14 is that there is no guarantee that under this scenario
15 power would be made available to BC Hydro should the
16 demand materialize, or that it would be made available
17 at a comparable cost.
18 Now, question 5 asks whether -- assuming
19 demand materializes for this power, whether today's
20 ratepayers should assume the risk of the investment
21 and pay the depreciation on the assets for the full
22 duration of the lease. And we acknowledge that there
23 is a benefit/cost trade-off here, but really there
24 isn't any utility asset planning, purchase, or build.
25 We as ratepayers and interveners, and you as
26 regulators, engage in examinations of these kinds of

1 unknowables on a regular basis. And while it never
2 gets any easier, we must continue to do so for the
3 public inteerst.
4 In this particular case, BC Hydro's
5 analysis, including the core evaluation scenarios and
6 the sensitivity analyses, suggest that there is a
7 strong likelihood of a significant benefit accruing to
8 the ratepayers during the lease period.
9 Now, is this a guarantee? No. Is there a
10 risk? Absolutely. But BC Hydro has, we submit,
11 presented sufficient evidence that we can support this
12 as a reasoned, acceptable, minimal risk that is in
13 line with the others that we have examined here in the
14 past.
15 Question 6 is -- the Commission is asking
16 us to comment on whether we should approve and -- or
17 sorry, whether it should approve an expense under 44.2
18 for an asset that is not going to be used to provide a
19 regulated service within the next 20 years.
20 Now, it's difficult to imagine a situation
21 aside from this where that question might arise,
22 although it is within the realm of possibility. But
23 it highlights the fact that this is an unusual
24 transaction with some unique characteristics that are
25 material to the position that we're here today taking.
26 A position that is particular to this transaction and

1 cannot, I want to make clear, be said to represent a
2 position that we might take in a future process where
3 this may arise again.
4 We looked at the *Act* and we, like CEC,
5 believe BC Hydro is not prohibited from completing a
6 transaction of this kind under the *Act*, and under this
7 section. And in fact, we see that there -- that
8 because there is a case for economic benefit to
9 ratepayers, both in the initial 20 years and in the
10 subsequent 20, that -- sorry, the Section 44.2(5)(e),
11 that my friend Mr. Christian has discussed earlier
12 this morning, does tend to actually indicate that this
13 is specifically something that is contemplated by that
14 section, and permitted by it.
15 Now, question 7 is a tough one. These are
16 all tough questions. My clients and I do not envy you
17 the decision that you're having to make, based on
18 forecasts and analyses and sensitivity projections.
19 But it does all boil down to what is on the balance of
20 probabilities, and in your best judgment, in the
21 public interest. So with that in mind, does BCOAPO
22 believe that it is in the public interest for BC Hydro
23 to issue $1.203 billion in additional debt at this
24 time? And this time is when there are already
25 significant concerns regarding the levels of BC
26 Hydro's debt.

1 Now, I'm not going to lie, this question is
2 a really rough one for groups like ours, that remain
3 concerned regarding the long-term impact of the trend
4 that we've seen in recent years of deferring costs for
5 no other reason than the public is being asked to --
6 sorry, the public is asking to be shielded from costs
7 associated with the number of questionable and
8 significant additional costs that have been incurred
9 due to government policies and decisions.
10 **Proceeding Time 11:52 a.m. T41**
11 However, this transaction is not one that
12 has been undertaken in response to, for example, a
13 government imposed requirement that we plan for energy
14 self-sufficiency based on worst-case water years.
15 This is a proposal to acquire an asset that is going
16 to yield ratepayer benefit both in the short-term and
17 in the long-term, with benefits increasing as time
18 passes.
19 Again, we acknowledge that there are some
20 risks associated with this transaction, but they are
21 few and far between. And quite frankly, the situation
22 is such that the utility, its ratepayers, and this
23 panel need to be willing to take informed minimal
24 risks like the ones proposed by this transaction, in
25 an effort to begin to right the ship in the short-term
26 and to secure what benefits we can to offset those

1 that exist in the long-term.
2 Now, given these considerations and the
3 information requests referenced by Mr. Christian this
4 morning dealing with the credit rating and debt
5 issues, we do support the issuance of this additional
6 debt in a public interest context.
7 Now, in regards to the last question we are
8 in the same position as Mr. Weafer and his clients.
9 We don't have the capacity to undertake the task that
10 was imposed by that -- the assessment of the 490 --
11 I'm going to acknowledge the additional 40. The 490
12 scenarios that were generated by BC Hydro during the
13 course of its entire examination of this transaction.
14 Now this isn’t due to a lack of interest or commitment
15 to the regulatory process and to the examination of
16 this issue, but instead due to a lack of time and
17 given the constraints of PACA funding and our desire
18 to maintain regulatory efficiently, including cost, to
19 actually examine that number of scenarios.
20 Now, we support Mr. Weafer's proposal. It
21 is, in my view, a reasonable one that would allow for
22 groups like ours to respond to the Commission's
23 concerns without undertaking the herculean effort and
24 cost associated with sifting through a mountain on
25 analysis. So Mr. Christian has actually discussed
26 some of the scenarios this morning, and if BC Hydro

1 would in its -- would undertake in its final argument
2 to identify any others that it feels are relevant in
3 the manner that Mr. Weafer has suggested, we would ask
4 that they do so and we will attempt to respond in kind
5 in our written submission.
6 Subject to any questions, those are my
7 submissions.
8 THE CHAIRPERSON: Questions?
9 Thank you very much, Ms. Worth.
10 MS. WORTH: Thank you.
11 THE CHAIRPERSON: So looks like this would be a good time
12 to break for lunch. So we'll come aback at one
13 o'clock. Thank you.
14 **(PROCEEDINGS ADJOURNED AT 11:56 A.M.)**
15 **(PROCEEDINGS RESUMED AT 1:00 P.M.)** **T42**
16 THE CHAIRPERSON: Please be seated. Thank you.
17 Okay, Mr. Andrews. Oh, there you are,
18 okay.
19 **ARGUMENT BY MR. ANDREWS:**
20 MR. ANDREWS: Members of the Commission panel, I
21 represent the B.C. Sustainable Energy Association and
22 the Sierra Club of B.C. Their interests are as
23 ratepayers of BC Hydro and as energy and environmental
24 policy organizations. In terms of this particular
25 proceeding, their pertinent objectives and goals are
26 low carbon electrification and demand side management

1 and efficiency in conservation.
2 And that plays out in this proceeding in
3 terms of the price of electricity as an alternative to
4 fossil fuels going forward. So my clients have a
5 strong interest in anything that has a downward
6 pressure on electricity rates, so that electricity is
7 more advantageous compared to fossil fuels. And as it
8 turns out, and this is my submission, that the main
9 issue in this proceeding is whether acceptance of the
10 transaction would have a downward pressure on rates on
11 balance compared to upward pressure on rates.
12 As I will be emphasizing, in my submission
13 this -- the analysis of the impact on rates is
14 primarily the transaction as an investment decision,
15 and that the planning factors enter into the
16 discussion quite properly, but as secondary factors,
17 that affect the valuation of the transaction from an
18 investment point of view.
19 On balance at this point, BCSEA and Sierra
20 Club are supportive of acceptance of the expenditure
21 schedule and I'm going to focus on the Waneta
22 transaction, the 2017 transaction agreement itself.
23 There are other elements, of course, to the
24 application and we'll address those in our final
25 argument.
26 Commissioner Fung asked one of the

1 preceding parties what factors the Commission should
2 consider to be the most important in exercising
3 judgment about the acceptance or not of the
4 transaction. In my submission, the impact of the
5 transaction on rates is the most important factor that
6 the Commission ought to have in mind. That is, there
7 are considerable uncertainties, and the issue is for
8 the panel ultimately to determine whether the downward
9 pressure on rates due to acceptance is -- how that
10 compares to the upward pressure or the likelihood of
11 upward pressure on rates due to acceptance, and I'll
12 come back to that point.
13 One preliminary note, Mr. Hackney and I
14 have received the confidential information that was
15 filed and I'm going to say here that considering that
16 information doesn’t change the submissions that I'm
17 making today, none of the submission I make today are
18 dependent on the confidentially filed evidence.
19 I'm going to address first the
20 environmental factors, the smelter issues, some of the
21 uncertainties and then I'll come hopefully at that
22 point much more briefly to responses to questions in
23 A-26.
24 **Proceeding Time 12:58 p.m. T43**
25 So in terms of the environmental factors,
26 and recognizing that this is not the only criterion,

1 of course, to do with the transaction, but the Waneta
2 two-thirds interest is a clean or renewable resource,
3 as defined. Secondly, it is already built. And that
4 creates significant environmental advantages over
5 alternatives. Not only is the facility itself built,
6 but the transmission to connect it is built.
7 Another factor is that with BC Hydro owning
8 the Waneta two-thirds interest, BC Hydro uses the
9 approach of a leading utility in making decisions
10 about capital expenditures to do with maintenance and
11 updating -- upgrading of the facility. And that's
12 likely to be higher than a good utility standard that
13 other -- that either Teck or some other third-party
14 owner of the two-thirds interest would apply. And
15 although one can't be too specific about it, in
16 general a higher standard of maintenance is likely to
17 result in better environmental performance or reduced
18 environmental impacts.
19 An additional consideration is that BC
20 Hydro is the only utility that -- the only operator of
21 hydroelectric dams in B.C. that enters into water use
22 plans, WUPs, under the *Water Act*. And so if the
23 Waneta two-thirds interest is owned by BC Hydro, there
24 would be a corresponding likelihood that there would
25 be a water use plan associated with it. That's not a
26 certainty. That would depend on a variety of other

1 factors. But that is certainly a positive
2 environmental outcome, or at least the opportunity of
3 a positive environmental outcome, compared to other
4 potential owners of the Waneta two-thirds asset.
5 In terms of the future of the Teck smelter,
6 we've looked very carefully at the transcript of the
7 session that the Commission held in Trail. And we
8 acknowledge that there are strong local desires to
9 continue the smelter in operation. And I would add
10 that there is presumably a strong provincial desire to
11 continue the smelter in operation.
12 The sale of the one-third interest in the
13 Waneta generation to BC Hydro was on the basis that
14 this power was in excess of what Teck needed to
15 operate the smelter. And so the two-thirds interest
16 in Waneta is used for the smelter. In my submission,
17 the key decision to do with the ownership of the
18 Waneta two-thirds interest in terms of its impact on
19 the long-term operation of the smelter was Teck's
20 decision to offer for sale and lease back its two-
21 thirds interest in the Waneta facility. That is, at
22 that point in time, the train was leaving the station.
23 Teck had, until that point in time, operated on a
24 model in which it owned the generation that it used to
25 supply the smelter, and it had on that basis a cost of
26 energy that it controlled, and for many years was

1 advantageous to it.
2 Once Teck decided to sell the two-thirds
3 interest, it was making a corporate decision that the
4 smelter would be operated on the basis -- on using
5 energy that was one way or the other priced at the
6 market. Whether it was priced through a lease or
7 priced through purchases on the market, it was no
8 longer going to be using the model in which it owned
9 the generation and controlled its own cost of
10 generation of energy in that respect.
11 **Proceeding Time 1:07 p.m. T44/45**
12 So, in that respect, I would say that the
13 decision today, that we're addressing today as to
14 whether the transaction should be accepted doesn't
15 change Teck's decision to change its model of
16 acquiring energy for the smelter. That is, that that
17 decision has already been made. If this transaction
18 goes through, then it will be crystallized. If this
19 transaction doesn't go through, then Teck presumably
20 would still be in the market to implement its
21 corporate decision to leave the self-supply model.
22 As has been emphasized a number of times,
23 there are quite a few uncertainties involved in the
24 analysis of this transaction. I'm going to describe
25 the uncertainties in two general categories. One is
26 future events, and the other is uncertainties

1 regarding the parameters and the values for the
2 financial valuation of the investment.
3 So in terms of future events, the three
4 major ones, in my submission, are, number one, the
5 possibility of a Teck default on the lease. That's an
6 actual event, or would be. The second would be the
7 possibility of Teck exercising its option to extend
8 the lease from year 20 to year 30, and the third major
9 event would be the BC Hydro coming to serve the
10 smelter load. That is, for whatever reason Hydro is
11 serving the smelter load.
12 There is a fourth category of future events
13 which is -- would be the capital spending on the
14 Waneta two-thirds and to a certain extent also the
15 one-third, by BC Hydro. But in my submission, those
16 are small financially relatively speaking and they've
17 been well documented. So I won't be spending any time
18 further on that.
19 So in contrast, the issues to do with the
20 future prices and the valuation parameters, that -- I
21 include in that the load resource balance questions
22 and the timing of when Hydro would be in a surplus
23 compared to a deficit, discount rate, electricity
24 market prices, and so on.
25 So, turning to the issue of the default on
26 the lease as an event that creates uncertainty, first

1 of all my submission is that the impacts on the
2 benefit costs of the transaction due to a Teck default
3 on the lease have been well examined and analyzed.
4 That we don't lack information about those
5 consequences.
6 My next point is -- and this may be rather
7 obvious -- but in my submission, the Commission has no
8 basis for making a conclusion as to the likelihood of
9 Teck defaulting on the lease. That is, it's simply an
10 uncertainty. There isn't evidence as to why one would
11 think it's more or less likely that Teck might
12 default, it's just an unknown. And so, the Commission
13 will have to determine the benefit to cost of the
14 transaction in both scenarios. That is, Teck does
15 default; Teck doesn't default.
16 Now, in most of the scenarios, a default by
17 Teck reduces the net present value, or the benefit to
18 rates, of the transaction. And that's because most of
19 the net present value, and the reduction of rate
20 impact, comes from the lease payments. And so by
21 definition default on the lease means no lease
22 payments. And obviously then that would -- that
23 reduces the lease payment financial advantage.
24 **Proceeding Time 1:12 p.m. T46**
25 The exception, that is where a Teck default
26 increases the value of the transaction, are scenarios

1 where BC Hydro is able to sell the two-thirds
2 interest's power into a high-priced market or where BC
3 Hydro is able to use the power from the two-thirds
4 interest context default to meet high domestic load,
5 like unexpectedly high domestic load and it would be
6 therefore valued at the long-run marginal cost.
7 I would also comment here that the size of
8 the impact of this uncertainty diminishes the later
9 the default occurs. And, again, the reason for that
10 is that the large portion of the financial benefits
11 are the lease payments, and so obviously the longer
12 the lease payments continue, the less impact the
13 default has on the potential for reducing the value of
14 the transaction.
15 The second event I'll address is the event
16 that BC Hydro is called upon to serve smelter load.
17 Like the possibility of a Teck default, my submission
18 is that there's no basis for the Commission to make a
19 determination to the likelihood of this event
20 occurring. It would be driven by political factors at
21 the time, market factors, financial issues, none of
22 which are in evidence before the Commission and none
23 of which offer any reasonable prospect for the
24 Commission to be able to make any determination. So
25 it's going to be an uncertainty that the Commission
26 will have to consider.

1 And I would also add that the possibility
2 of BC Hydro serving the smelter load interacts with
3 the possibility of Teck defaulting on the lease,
4 because Teck being in financial trouble would be the
5 common denominator in both those scenarios. But
6 directionally the possibility of BC Hydro serving the
7 smelter load increases the value of the transaction.
8 it's a very -- the smelter load is a very large new
9 load. And in planning terms it's a sudden new load,
10 it's not something that could be planned for in
11 advance. And in some ways one can consider at least
12 one aspect of the Waneta 2017 transaction is that it's
13 a mitigation of the risk of BC Hydro ending up serving
14 the smelter load.
15 The third event that I'll briefly discuss
16 is the Teck exercising the lease option. And once
17 again, I'd say there's no basis for the Commission to
18 make a determination of the likelihood of Teck
19 exercising that or not. The impact in any event is
20 muted by the fact that this is an event that would
21 occur to nor occur 20 years out into the future. In
22 addition I would add that the impacts financially are
23 readily quantifiable and they have been quantified in
24 the evidence.
25 Turning to the various valuation parameters
26 and the, in a sense, the softer uncertainties. The

1 discount rate is clearly an important variable in the
2 analysis. This transaction is fundamentally short-
3 term pain for long-term gain. You put out -- you pay
4 $1.2 billion, you get a stream of benefits and costs
5 into the future. The discount rate clearly is
6 material. In short, BC Hydro's use of a 6 percent
7 weighted average cost of capital is a conservative
8 approach. The analysis that relies on BC Hydro's
9 actual debt financing is more favorable to the value
10 of the transaction, but my clients consider that the 6
11 percent approach is conservative and suitable.
12 In terms of future electricity market
13 prices, certainly low market prices are a sensitivity
14 that has to be examined. And the main observation
15 that I would have is that under all but the most
16 extremely low market price scenarios, the net present
17 value of the transaction remains positive.
18 **Proceeding Time: 1:17 p.m. T47**
19 And by saying that, I'm not suggesting that that alone
20 should be determative, because my submission is that
21 the Commission doesn't have to decide, doesn't have to
22 land on a particular market price forecast, but that
23 it can take into account that in most of the market
24 price forecasts, the net present value remains
25 positive.
26 The BC Hydro load resource and balance is

1 in some senses -- the issue is at what point will
2 Hydro change from being in surplus to being in
3 deficit? This is a point in time question. When will
4 it happen? And I suppose theoretically you have to
5 include "if ever". But I think that the other thing
6 to bear in mind is that the post-lease period could
7 occur in any of three time periods. One is if there's
8 a default by Teck, it could be anything from the
9 second date after -- the first day after the
10 completion to year 19.
11 Another possibility is the post-lease
12 period begins in 20 years or in 30 years. And on this
13 point I would emphasize that the issue is not a
14 planning decision here. It's not how to meet Hydro's
15 need to serve its customers at some particular point
16 which would be anywhere between now and 30 years from
17 now. It's now to value the effect of Hydro's deficit
18 or surplus in terms of the investment decision. It's
19 how the timing of the deficit affects the valuation of
20 the transaction.
21 And to state the obvious, the effect of BC
22 Hydro being in a deficit position is that the
23 valuation of energy from the two-thirds interest flips
24 from being valued at a market basis, whatever that
25 price forecast is, to being valued on a long-run
26 marginal cost basis, and that, of course, has an

1 impact on the value of the transaction, and in
2 general, the earlier Hydro has a load resource balance
3 deficit, the higher the value of the transaction.
4 In terms of the 20 and 30 year categories
5 of post-lease period, in my submission it's important
6 to remember or to take into account how far into the
7 future that is. Twenty or thirty years in the future
8 is a long period of time. The load forecast itself
9 only goes 20 years. So the uncertainties as to what
10 Hydro's exact load requirements will be are going to
11 be correspondingly large.
12 So I'm going to now turn to the
13 Commission's questions in A-26, and the first one,
14 continuing from the topic that I was addressing, the
15 first question being whether Hydro will need
16 additional energy in the post-lease period for
17 domestic consumption, my comment on the accuracy of
18 the BC Hydro 2016 load forecast, comments, plural, are
19 as follows:
20 First of all, it's easy to eyeball the
21 graph showing Hydro's previous forecasts and actuals
22 and come to the conclusion that Hydro has over-
23 estimated in its forecasts. And that is clear. From
24 my client's perspective, they see, going forward, a
25 considerable increase in load for electricity as a
26 substitute for higher carbon fossil fuels.

1 **Proceeding Time 1:22 p.m. T48**
2 That said, they also look toward increased
3 efficiency in conservation, which of course produces
4 an opposite impact on the load forecast.
5 So, but these -- I acknowledge, these are
6 what these groups would like to see happen. These are
7 not analysis of what will happen from a load
8 forecasting point of view. And in terms of the load
9 forecast, I think -- and the way that that impacts the
10 date at which Hydro becomes in a deficit load resource
11 balance situation, and the impact of that date on the
12 valuation of the transaction, lumpy events are
13 extremely important if not larger than the sense by
14 eyeballing Hydro's 2016 forecast that it's higher than
15 it should be.
16 So, for example, LNG load would have a huge
17 impact on Hydro's forecast, or on the downside, the
18 closure of one or more industrial operations would
19 have a considerable impact. And not least would -- in
20 increasing the load forecast size would be the
21 possibility of BC Hydro serving the smelter load. So
22 when we talk about the timing of a deficit, the
23 possibility of Hydro having to serve the smelter is a
24 factor that goes into the uncertainty that has to be
25 taken into account.
26 So my submission is that the Commission

1 can't meaningfully form a conclusion as to the actual
2 timing, the predicted timing, that Hydro will go into
3 a deficit load resource balance. My submission is
4 that over the course of 40 years, the economic life
5 for valuation purposes of the dam, it's exceedingly
6 likely that Hydro will at some point require
7 additional resources. But that's not anything more
8 than a factor that can be considered.
9 But in terms of the evaluation of the
10 transaction, the Commission doesn't need to put a date
11 on when Hydro would be in a deficit load resource
12 balance because the market price valuations already
13 assume no need to use the two-thirds interest energy
14 for load serving purposes.
15 So this entire discussion about the load
16 forecast in some ways becomes moot when one starts
17 looking at the valuation based on the market prices.
18 The second question, whether the Waneta --
19 assuming that additional energy is needed to meet
20 domestic consumption in the post-lease period, is the
21 Waneta energy the most cost-effective and clean
22 source?
23 In response, first, the Waneta two-thirds
24 energy is a clean resource. It already exists. And
25 as I said earlier -- as I said earlier, it already
26 exists. So there is no alternative that would be

1 cleaner than the Waneta two-thirds resource.
2 In terms of the cost, the cost on a unit
3 energy basis of the Waneta two-thirds interest, at an
4 estimate of $48 per megawatt hour, and there is all
5 different ways that that can be adjusted, but in any
6 event it has two factors associated with it. One is
7 that it's known, and two is that it's extremely low.
8 Both whether you change the analysis to adjust the $48
9 to something a little higher or a little lower, it's
10 still very low for firm power, and most importantly
11 it's a known factor. In comparison, the predictions
12 about the cost of generation from alternative sources,
13 whether that's 20 or 30 years out, or whether it's 5
14 or 10 or 15 years, if there is a default -- those are
15 speculative.
16 **Proceeding Time: 1:27 p.m. T42**
17 My clients fondly hope that those prices are
18 incredibly low, but that has to be compared completely
19 to a known price that is what is up for decision.
20 It should also be noted that Waneta also
21 has a transmission facility in place. So in terms of
22 evaluating the alternatives, it's not only the cost of
23 the alternatives but the project risk associated with
24 alternatives which includes transmission to the extent
25 necessary for those sources, and that just adds
26 another level of potential cost and availability in

1 terms of its comparison with the Waneta two-thirds
2 interest.
3 And the risk of repeating myself, in terms
4 of the comparison between the unit energy cost of
5 Waneta, the two-thirds interest and some alternatives,
6 it should really be borne in mind that most of the
7 financial benefit in terms of the downward pressure on
8 rates of this transaction is the lease payments, and
9 that's not affected by the comparison of the unit
10 energy costs of the different -- of the options of the
11 alternatives.
12 So question 3 is whether the -- if Hydro
13 doesn't acquire the two-thirds interest would these
14 assets be available for domestic consumption in the
15 post-lease period if needed. My submissions on that
16 is that there's no reason to assume that the two-third
17 interest would be either (a) available or (b)
18 available at less cost than under the 2017 Waneta
19 transaction.
20 BC Hydro has no control over whether it
21 would have access to the Waneta two-thirds power if it
22 doesn't complete this transaction, and if it did have
23 access, at what price? And on that point I would add
24 that the more BC Hydro needed the two-thirds interest
25 power at the time, the more desperate Hydro needed
26 that power, the higher the price would be, and again,

1 this comes back to the value of the certainty of the
2 cost of the Waneta two-thirds interest.
3 Question 4 is whether, if another party
4 were to acquire the two-thirds interest would the
5 energy be available to B.C. customers at a comparable
6 cost should demand materialize. In my submission the
7 answer is certainly not. That is there is no
8 assurance that would be available at all. Or again,
9 if it was available, at what price?
10 Question 5, assuming that the energy is
11 required in the post-lease period to meet demand,
12 should today's ratepayers assume the risk of the
13 investment and pay the depreciation of the assets for
14 the duration of the lease period? My response to that
15 is, yes, the ratepayers should, quite properly, bear
16 both the benefits and the costs of the transaction,
17 and that applies both before and after the lease
18 period. That is the ratepayers are receiving tangible
19 benefits year by year from the lease payments during
20 the lease period. So -- and in fact, the longer the
21 lease period continues, the more they get the benefit
22 of that downward pressure on rates.
23 So in my submission, it's a component of
24 the transaction itself, but it's also a matter of the
25 way that Hydro is financed, that if the transaction is
26 accepted -- if the expenditures for the transaction is

1 accepted, then the ratepayers, that is BC Hydro would
2 take both the benefits and the costs, and that is
3 appropriate.
4 **Proceeding Time: 1:33 p.m. T50**
5 Question 6 asks about whether BCUC should
6 approve an expense under Section 44.2 for assets not
7 used to provide a regulated service. My response to
8 that is, yes, and in part because the asset will be
9 used to provide a regulated service in the post-lease
10 period, whether that occurs in 5, 10 or 15 years or 20
11 years or 30 years. Sooner or later one of the major
12 positive features of the transaction is that BC Hydro
13 will own not only the one-third but then the two-
14 thirds interest in the Waneta generating asset, and at
15 that point it would be used to provide regulated
16 service.
17 As to kind of the legal question of whether
18 there's a component of that -- whether if Hydro never
19 utilized the generation, I won't comment because in my
20 submission that would be moot because in fact Hydro
21 will eventually utilize this asset.
22 And looking at it from the legal point of
23 view, the question is one of the interpretation of
24 Section 44.2 within the context of the *Utilities*
25 *Commission Act,* and in my submission, the overall
26 context is that the legislature intended that the

1 Commission would be making a decision on whether this
2 is an expenditure by BC Hydro that meets the tests
3 that are set out in the *Act*. That's the role of the
4 Commission, that's been the role of this proceeding
5 and that's entirely appropriate.
6 The second question discussed the
7 appropriateness of ratepayers bearing the risks and
8 receiving the benefits during the lease period when
9 the assets won't be used for regulated activities
10 during the lease period. I've partially already
11 answered that. Yes, in my submission that is
12 appropriate. The ratepayers will receive the benefit
13 on a reduced revenue requirement basis, and at the end
14 of the lease period, whenever that happens, BC Hydro
15 will have an asset.
16 In terms of Question 7, whether it's in the
17 public interest for BC Hydro to issue the $1.2 billion
18 additional debt, the question before the Commission is
19 really whether the Waneta 2017 transaction,
20 considering not just the cost, but the benefits, meets
21 the applicable tests, and not to belabour the point,
22 the applicable test is primarily the ratepayer impact
23 -- the impact on rates and the B.C. energy objectives.
24 In terms of the effect of $1.2 billion
25 borrowing event on BC Hydro and the government, there
26 is evidence to the effect that the incremental debt

1 associated with the transaction is not a problem for
2 BC Hydro or the government. That is essentially from
3 both Hydro and from the government and then bolstered
4 by the evidence from Moody's, and in my submission
5 that's a factor that the Commission has a limited
6 scope to pursue in terms of the merits of whether to
7 accept the capital expenditure.
8 In terms of the bigger picture, one way to
9 look at this is is $1.2 billion the right price? Is
10 it a good price? And in my submission, the key factor
11 there is that was the price determined as a result of
12 an open competition. That is the evidence. That at
13 the time that Teck and Fortis entered into the Fortis
14 transaction, that was a competitive price for the
15 asset.
16 Now, one could ask whether there have been
17 any changes between that time and now. In my
18 submission, my clients haven't seen any evidence that
19 would cause someone to believe that there's been a
20 material change, and so it remains, in my submission,
21 that the price is based on an open competitive
22 competition.
23 **Proceeding Time 1:38 p.m. T51**
24 I think on this topic it is quite
25 significant that FortisBC, the regulated electric
26 utility, supports acceptance of the transaction on the

1 basis that it's likely to reduce BC Hydro rates, which
2 is relevant to FortisBC through its role as a customer
3 of BC Hydro.
4 So in a sense coming back to Commissioner
5 Fung's question about the factors to consider and the
6 judgment that the Commission panel will be exercising,
7 in my submission a cautious approach by the Commission
8 supports acceptance of the expenditures on the
9 transaction. The circumstances in which the financial
10 analysis produces negative values for the transaction,
11 in my submission, are very specific outcomes in the
12 midst of high degrees of uncertainly. These are
13 things like if Teck defaults before 20 years, if BC
14 Hydro doesn’t end up serving the smelter load, if BC
15 Hydro needs no new generation for 40 years, if the
16 cost of alternative generation technologies is
17 extremely low, all of these things are events and
18 possibilities that push downward on the value of the
19 transaction, but they are all subject to enormous
20 uncertainty. So in my submission a cautious approach,
21 meaning not relying on definitive predictions about
22 future events, favours acceptance.
23 So subject to questions, those are my
24 submissions.
25 COMMISSIONER MASON: Mr. Andrews, just one question.
26 Early on you were referring to what you thought might

be potential benefits to Teck for this transaction. I believe you had an analogy of trains leaving stations. I wonder if you could perhaps clarify what your position is, what your argument is ins this regard and whether you believe that the transaction is -- were you arguing that the transaction is actually good for Teck? I was a little unclear on that.

MR. ANDREWS: I wasn't trying to address whether it was good or not for Teck on that specific point. We can presume that Teck considered a sale on these terms to be advantageous to Teck because it entered the Fortis transaction, knowing that Hydro has a right on first offer.

What I was getting at is the extent to which some of the participants in the Trail session where, as I interpreted it, and this was my interpretation rather than what they were necessarily explicitly saying, that the Commission should consider -- well, I'll put it -- to put it affirmatively -- and these are not the words that were said by the people in the meeting, but the interpretation could I think be given to it, is that if that the Commission should not approve the transaction because it's better for the long-term life of the smelter, that Teck continued to own the low cost generation source to serve the smelter.

1 And my concern with that argument is that
2 logically once Teck had decided to sell the low-cost
3 source of power for the smelter, it had made a
4 corporate decision that it wasn't going to be relying
5 on that source of power, that the smelter was going to
6 have to make it on the basis of power provided either
7 under a lease or from the market in which, in either
8 case being basically market determined cost of power.
9 And that the Commission's decision whether or not to
10 accept this particular transaction doesn't impact,
11 doesn't have an impact positive or negative on Teck's
12 decision to change its model of providing energy for
13 the use of the smelter.
14 COMMISSIONER MASON: Thank you.
15 **Proceeding Time: 1:43 p.m. T52**
16 COMMISSIONER FUNG: I do have one question, Mr.
17 Andrews, and maybe I missed it, but do you have any
18 submissions on our Question number 8 with respect to
19 scenarios and NPVs?
20 MR. ANDREWS: You didn't miss it, I missed it. I think
21 my submissions are in a sense largely repetitive; that
22 is I've addressed them already. But to say it again,
23 where the question is worded "Which scenarios are the
24 most and least likely to happen," my response is that
25 the question the Commission should be looking at is
26 not which are most likely to happen, but which are

1 reasonable sensitivities, reasonable worst case
2 sensitivities for the purpose of analyzing the
3 transaction.
4 So in this case one doesn't need to look at
5 the scenarios that involve enhanced value to the
6 transaction, the Commission would need to look at the
7 scenarios that involve less value in the transaction,
8 and so that would be the marketplace valuation, as an
9 example, and that's where my submission was. That the
10 Commission doesn't have to decide whether it's
11 actually likely that Hydro would not need the power
12 for domestic load, because it can be assumed for the
13 purpose of analysis that it's not using the power for
14 domestic load, it would be selling it on the market.
15 And we have the numbers, and those were the numbers
16 referred to in BCUC 83.3 that are among the 490 odd
17 scenarios. You know, those are the kinds of numbers
18 that the Commission should be looking at.
19 So the choices that the Commission needs to
20 make are what are the reasonable sensitivity scenarios
21 and then to look at the numbers.
22 In terms of question (b), which I interpret
23 as a question as to the quantitative analysis of
24 materiality, I know Mr. Christian provided a
25 submission on that. I don't have any submission on
26 what would be a suitable quantitative measure of

1 materiality in my submission. In any event, the issue
2 for the panel is really one of judgment, based on
3 weighing these various uncertainties and the
4 information that the panel has on the value of the
5 transaction, particularly relating to the downward
6 pressure on BC Hydro rates.
7 COMMISSIONER FUNG: Okay, thank you.
8 THE CHAIRPERSON: Thank you, sir.
9 MR. ANDREWS: Thank you.
10 **Proceeding Time 1:46 p.m. T53**
11 **ARGUMENT BY MR. AUSTIN:**
12 MR. AUSTIN: Jim is CEABC's financial consultant and Jim
13 will also be controlling the slides. The slides you
14 have a copy of, so there is nothing different.
15 The slide presentation should be marked
16 Exhibit C6-8.
17 (CEABC SLIDE PRESENTATION MARKED EXHIBIT C6-8)
18 MR. AUSTIN: To start this presentation off, or the oral
19 argument off, you have to think of what is it that BC
20 Hydro is proposing to buy? And it's a hydroelectric
21 asset. And when you're buying a hydroelectric asset,
22 you have a couple of things you have to keep in mind.
23 One of the things is, what's the profile of
24 the generation? And in relation to Waneta, we also
25 have to remember that the generation or electrical
26 output is going to be provided by an old dam and an

1 old generating station that's going to require a lot
2 of capital to keep it going over time.
3 And in a high-tech world, there are various
4 ways to say, for example, look at this graph, and I'm
5 going to use a very low-tech way of trying to show
6 what the electrical output of Waneta looks like. So
7 what you do is, you take a piece of paper and you take
8 that graph and you put the piece of paper like this,
9 so you can see the dark part of the graph.
10 That is the beer. Then what you do is, you
11 take the piece of paper and you flip it around so that
12 it covers the dark part. And that's the foam. The
13 value is in the beer. So this is not a high value
14 hydroelectric project from the concept of firm energy
15 and also it shows that a lot of the energy that's
16 produced by Waneta occurs during the spring freshet.
17 And that's not a high value time of year for
18 electricity production.
19 Now, on this graph, you can see the red
20 part, and that is the generation from Waneta
21 expansion. So it somewhat confounds the visual impact
22 or the message you get from the graph, but the point
23 is, if you go into previous years, that's the type of
24 electrical production that BC Hydro is going to be
25 getting when it will own all of Waneta. It already
26 has one-third, so the additional two-thirds means it's

1 going to get the blue part.
2 THE CHAIRPERSON: Excuse me, Mr. Austin.
3 MR. AUSTIN: Yes?
4 THE CHAIRPERSON: Is this graph in evidence?
5 MR. AUSTIN: Yes, it is. It's later on in the back of
6 the material.
7 THE CHAIRPERSON: Okay, thanks.
8 MR. AUSTIN: And I'm going to refer to it again, so --
9 THE CHAIRPERSON: Right.
10 MR. AUSTIN: It's in evidence. But that's what BC Hydro
11 is buying.
12 With respect to some additional points on
13 the generation profile, the stream flow data, which by
14 the way is also included from 1938 to I think it's
15 1988 as an appendix to the Canal Plan Agreement, shows
16 how peaky the annual flows are. In other words,
17 there's a lot of variation. And what the graph shows
18 is the generation is dominated by the freshet season.
19 There is no storage to mitigate the yearly variations
20 or the annual generations in relation to the spring
21 freshet.
22 And the reason that I'm bringing this to
23 your attention is, BC Hydro has said that it has a
24 spring freshet problem. In other words, it has more
25 freshet electricity than it has customers within
26 British Columbia.

1 **Proceeding Time 1:38 p.m. T51**
2 So you would think that if it has a freshet
3 problem it wouldn't be terribly interested in
4 acquiring the remaining two-thirds of a project that
5 does produce a lot of energy during the freshet
6 period. You've approved, meaning the Commission has
7 approved, a spring freshet pilot program to try and
8 ameliorate some of that problem.
9 What Waneta is, is a net consumer of BC
10 Hydro's shaping resources. In other words, to turn
11 some of the foam into beer it needs the assistance of
12 BC Hydro's remaining storage assets. Generally the
13 large ones of the Peace, the large generating plants
14 on the Peace and Columbia.
15 With respect to the Waneta transaction,
16 Clean Energy Association of B.C. has two primary
17 concerns. There is an excessively low cost of capital
18 that fails to recognize an appropriate return on
19 equity. And from time to time I'll mention that this
20 is something that was examined during the Site C
21 proceedings, and that wasn’t that long ago. So none
22 of this is new. I'm not trying to repeat what went on
23 with respect to Site C, but I am pointing out that
24 there are similarities and we've gone through this
25 before.
26 There's also an excessively high long-run

1 marginal cost with respect to the alternatives,
2 meaning assets, generating assets such as wind, solar,
3 battery technology, that has to be realigned with
4 current market prices.
5 Since Site C, the Site C inquiry is
6 finished, we have market data from Alberta. What's
7 really interesting about that is a lot of people don't
8 want to believe the market data, they would prefer to
9 believe the stacks of consultant's reports that try
10 and predict what the prices ought to be. The Alberta
11 data is market data. And as also in evidence during
12 the Site C proceedings, it's a worldwide phenomenon.
13 Alberta just proved that it applies to the Canadian
14 situation and it applies to the situation in Western
15 Canada.
16 There's a number of secondary issues that
17 we'll touch on in this presentation. The first is
18 we're trying to forecast what is going to happen
19 between now and 40 years from now. Which respect to
20 the first 20 years we have the certainty of the Teck
21 lease and the Teck lease payments. Beyond that we
22 don't have much in the way of certainly. We've got
23 next to nothing in the way of certainty.
24 If we go back to the Site C proceedings, we
25 were looking at a period of eight years prior to the
26 time that Site C comes onto commercial operation, and

1 then we were trying to figure out whether the demand
2 for that project would be there around 2024. In this
3 particular instance we're having to sort out what the
4 demand might be 20 or 30 years from now. The accuracy
5 with which we can do that is very, very low.
6 We could have a huge increase in demand
7 between now and 2038, which is the first potential
8 termination date under the lease. But when we get to
9 2038 there might not be any new demand for another 10,
10 15, or 20 years. So that's the uncertainly we're
11 dealing with and that's why this business case is so
12 difficult to deal with because we've got certainty for
13 20 years, and then literally complete uncertainty for
14 the next 40 years -- or 20 years after that.
15 We also in this particular case, since this
16 is an old dam, old generating facilities, we have to
17 look at the amount of money BC Hydro will have to
18 invest in it in terms of sustaining capital. It is
19 sharing capital investments with Teck during the 20-
20 year lease period, but not completely. Then this is
21 an issue that is not being given a lot of notice, is
22 the dam spillway can't pass the probable maximum
23 flood. Well, we now have the Waneta expansion
24 powerhouse downstream and if the dam is overtopped,
25 then BC Hydro as owner will have liability with
26 respect to overtopping the dam.

1 So, consideration has to be given to that
2 particular event.
3 **Proceeding Time 1:57 p.m. T55**
4 In relation to the reservoir itself, and we
5 went through this in great detail in 2010, meaning the
6 Clean Energy Association of B.C., there's toxic
7 sediments in the reservoir. And the toxic sediments
8 are a potential problem in relation to any future
9 decommissioning of the dam, or any disturbance of
10 those sediments.
11 With respect to our primary issues, the
12 present value analysis uses an excessively low
13 discount rate. The PV analysis assumes 4 percent
14 interest for 40 years. It blends a 4 percent interest
15 with an after-tax equity rate of 8.75 percent. But BC
16 Hydro's not taxable. So for as long as I can
17 remember, we've been grossing Fortis's allowed rate of
18 return to reflect the fact that BC Hydro is not
19 taxable and we should be using a pre-tax equity rate
20 of 11.84 percent.
21 In relation to the rate impact analysis, it
22 assumes zero return on equity. In other words, no
23 payments to the shareholder for 40 years and 100
24 percent debt at 3.4 percent for the same period.
25 This is something that has come out of the
26 ten-year rate plan, and I want to emphasize the word

1 "ten" years. The government has decided that there
2 will be a net income of roughly $700 million per year
3 to move BC Hydro's debt to equity ratio to 60 to 40.
4 After that, one would assume that the shareholder will
5 want a return on its equity. By then the equity will
6 be in the order of $12 million -- $12 billion. So, is
7 the shareholder who said, "Leave your net income in
8 the company to build up your equity" then going to
9 say, "We don't want a return on that equity." That
10 does not make any sense in any context, especially the
11 historical context.
12 This is an extract from the Commission's
13 revenue requirement decision, and what it says is,
14 "Exhibit B-15, BCSEA IR 2.6.4, outlines the
15 statutory framework underlying the 2013 ten-
16 year rate plan…
17 So we've got the ten-year rate plan.
18 "…which includes various government
19 directions and Orders in Council concerning,
20 among other matters, BC Hydro's rate
21 increases and dividend payments to the
22 province."
23 This is the ten-year plan. It's not the 40-year plan,
24 but the 10-year plan is now being forced, literally,
25 into the economic analysis of a business case for 40
26 years for Waneta.

1 The panel also said it's concerned that if
2 BC Hydro does not stay on track in terms of clearing
3 the RRSA by 2024, ratepayers will see higher rate
4 increases than is anticipated in the 10-year plan, and
5 reasonable returns -- the Commission itself is
6 envisaging a situation where the government will want
7 reasonable returns -- to the shareholder may not be
8 possible.
9 Well, when you go back to why is the
10 government leading its -- the net income into the
11 company, it's building up the equity. The government,
12 as a shareholder, will want a return on equity.
13 **Proceeding Time 2:02 p.m. T56**
14 And in that extract from the Commission's decision
15 there's the reference to the BCSEA IR 2.64.1. It's
16 there in full just to make sure that everybody has got
17 the context.
18 BC Hydro's response to the information
19 request was,
20 "The 2010 year rates plan…"
21 Again it's the 10 year rates plan.
22 "… includes actions by both government and
23 BC Hydro and is described in Section 1.4.2
24 of the Application. The implementation of
25 the 2010-2013 10-Year Rates Plan…"
26 So we're back to the 10 year rates plan. It's a 10

1 Year Plan. It's not a 40 year plan.
2 Moving on to the next topic, it's the
3 impact of the discount rate on the present value
4 analysis. Using the proper pre-tax rate for equity
5 yields a 7 percent discount rate, not a 6 percent
6 rate. When BC Hydro recalculated the PVs, present
7 values, in table 8, which we'll get to in the next
8 slide, and the long run marginal cost of the clean
9 present value fell by 464 million, so you can see how
10 sensitive it is to a 1 percent shift in the discount
11 rate.
12 The long run marginal cost clean plus gas
13 fell by 391. The present values of all the other four
14 scenarios became negative, and these tables just show
15 what the impacts are. The top one is the original one
16 and the bottom revised table shows the difference of a
17 1 percent change in the discount rate.
18 This slide is about the impact of the
19 higher cost of the weighted average cost of capital on
20 the rate impact analysis. Incremental rate impacts
21 shifts above zero. In other words, the ratepayers are
22 now having to incur a cost in relation to the Waneta
23 project. They're not getting a benefit.
24 Using the proper pre-tax return on equity,
25 the transaction now shows a rate increase in the early
26 years rather than a rate reduction. The apparent rate

1 reduction in the post-lease period is entirely due to
2 the excessively high long-run marginal cost of the
3 alternatives.
4 So there's two concepts in here and I'll
5 try and explain that when we go to the next slide.
6 What we had BC Hydro do was run this graph for the
7 purposes of figuring out the impact on rates. So now
8 that the line is above zero, that means there's a --
9 BC Hydro's customers are going to be paying higher
10 rates in relation to Waneta. What we didn't do was --
11 this is with respect to point number 2, was we didn't
12 have BC Hydro run this graph on the basis of the
13 change in the long-run marginal cost that should be
14 occurring as a result of the -- the results of Alberta
15 bidding process.
16 So in this particular graph, to try and
17 explain this is, when BC Hydro uses a very high long-
18 run marginal cost for alternative resources it shows
19 that the benefits to BC Hydro ratepayers are non-
20 existent. In other words, the long-run marginal cost
21 of the alternatives is so much higher than the long-
22 run marginal cost of or the unit energy cost of Waneta
23 that there's no way that anybody should ever be even
24 thinking about these alternatives because they're too
25 high priced.
26 **Proceeding Time 2:07 p.m. T57**

1 If you rerun the graph using the results
2 from the Alberta process, the area where you can see
3 the line that goes straight down, the big decline, now
4 closes. It comes back up. So in other words, when
5 you're using too high a price than what the market
6 price actually is for the alternatives, you're not
7 analyzing the real world as it should be in relation
8 to the Waneta business case.
9 And this is more detailed in terms of what
10 happens when you use the long-run marginal cost that
11 is based on current market prices. So our view is,
12 you should be using a $45 per megawatt hour energy
13 long-run marginal cost on the basis of the recent
14 market prices from Alberta. And when you do that, you
15 can see that it's not expensive -- it's not as
16 expensive as BC Hydro is suggesting in relation to
17 bringing on alternatives should there be a demand
18 after the lease expires. That's basically it in a
19 nutshell. So after the lease expires, if you use BC
20 Hydro's very high long-run marginal cost for the
21 alternatives, you wouldn't even consider those
22 alternatives as compared to its calculations for the
23 long-run -- the unit energy cost of Waneta. And
24 clearly, we disagree with the $48 per megawatt hour
25 for the UEC calculation of Waneta, because it has all
26 sorts of built-in biases into it.

1 And the next slide just shows some of the
2 changes that result when you look at the market-price-
3 based long-run marginal cost of the alternative. What
4 formerly looked horrible in relation to the
5 alternatives doesn't look that way any more, when you
6 use the market-based prices.
7 Now, I'm going to go off script, meaning
8 off the slides, for just one second. And this is in
9 relation to this 40-year economic life of the Waneta
10 project, meaning the generating station, and the dam,
11 and challenge why 40 years was chosen. You've heard
12 from a number of people saying that's the economic
13 life of the project. But is that the economic life of
14 the project in a world where the technology with
15 respect to electricity generation is changing rapidly?
16 And I'll use the same analogy that I did in relation
17 to Site C. For Site C, they were using a 70-year
18 amortization period. And in my oral presentation with
19 respect to Site C, I invited you to take the device
20 which is in your pocket for communications, and ask
21 yourself, would you enter into a contract for that
22 device for 70 years? Because the technology is
23 changing. But we have on the generation side and the
24 storage side is we have declining prices, not
25 increasing prices.
26 So the same thing with respect to Waneta

1 should be done. Would you enter into a contract for
2 40 years for Waneta, because that's essentially what
3 BC Hydro is doing, amortize the principal over 40
4 years, given all the technological changes and all the
5 impacts it's going to have on the utility business,
6 meaning the centralized utility business, in the next
7 40 years.
8 Where that leads to is a potential stranded
9 asset problem. Waneta could easily become a stranded
10 asset in relation to the price that it cost to produce
11 electricity from Waneta over the next 40 years.
12 **Proceeding Time: 2:11 p.m. T58**
13 That's a point that most people, again, are
14 overlooking. There's a changing world out there.
15 It's really changing quickly.
16 I'd like to move onto the secondary issue.
17 Secondary issues. The key point there is, the 40-year
18 structure is making you to make impossible forecasts.
19 Once you get beyond the 20-year lease period, can you
20 assume that interest rates are going to be at 3.4
21 percent for the next 40 years and zero return on
22 equity for 40 years? The zero return on equity, I've
23 covered. In relation to the interest rates, remember
24 BC Hydro is going to have to put more capital into
25 Waneta. What's the interest rate that's going to be
26 charged for that capital? BC Hydro has said we've got

1 the $1.2 billion initial investment covered, but what
2 about all the other capital investments that it will
3 have to put into and that Teck's not going to pay for?
4 We can't assume that it's going to be 3.4
5 percent interest, because historically 3.4 percent
6 interest is an incredibly low rate of interest. We're
7 taking today and we're projecting it out over the next
8 40 years.
9 In terms of the load forecasts, I mentioned
10 that briefly before. We can have a massive run up in
11 load, but by the time we get to the end of the lease,
12 it may dissipate.
13 What BC Hydro is asking you to do is
14 consider this transaction as if you would look at a
15 twenty or thirty year prebuild. You're acquiring this
16 asset 20 to 30 years in advance of the load. As I
17 previously mentioned, when we were analyzing Site C,
18 we were having a great deal of difficulty wrapping our
19 minds around an eight year pre-build. Well, this
20 takes this to a new level of uncertainty in terms of
21 trying to match the generation with the load.
22 The alternatives allow flexibility in terms
23 of matching generation with the load. You can bring
24 on solar, you can bring on wind as the load climbs.
25 You don't have to make decisions 20 or 30 years in
26 advance to be able to match any increase in the load.

1 In terms of the market prices, you've heard
2 about, well, if it's not needed for domestic
3 consumption we'll be able to sell it into the export
4 market. Nobody can forecast the prices in the export
5 market with any degree of accuracy 20 or 30 years
6 hence. It's not possible.
7 And here is what's affectionately referred
8 to as the spaghetti graph. And this is BC Hydro
9 various load forecasts, and there is a much more
10 extensive spaghetti graph in the Site C record, but
11 what it shows is how BC Hydro has done in relation to
12 forecasting future demand. Well, it's been under-
13 forecasting the amount of electricity. It's been
14 over-forecasting the amount of electricity required.
15 Does that mean that there won't be increases in demand
16 next year or the year after? No. All this graph
17 demonstrates is how difficult it is to try and
18 forecast future demand.
19 In this instance you're being asked to rely
20 on a forecast that doesn't come into effect in
21 relation to Waneta until the end of the lease period.
22 That's a very very difficult, if not impossible task.
23 And the reason you're being asked to do that is
24 because BC Hydro wants to purchase this asset now in
25 anticipation of load that may or may not occur 20 or
26 30 years from now.

1 **Proceeding Time 2:16 p.m. T59**
2 A more sensible way to do it would have --
3 bring on alternatives to match the load should it
4 increase in years 20 or year 30 or thereafter. This
5 just demonstrates how much uncertainty there can be in
6 relation to load.
7 In terms of the next slide, all this is
8 here for is to show how BC Hydro calculates the
9 interest rate that will be applicable to capital
10 expenditures 20 or 30 years out, or even 10 years out.
11 We accept that BC Hydro has hedged for the 2.1
12 billion, but beyond that what interest rate are you
13 going to apply or what interest rate should you apply?
14 Well we certainly don't think it's 3.4 percent.
15 In relation to capital expenditures in the
16 future, some are to be shared with Teck and some
17 aren't. Exactly what the ones that aren't supposed to
18 be or won't be shared with Teck, there's significant
19 uncertainty. Teck is not going to pay for any capital
20 cost that goes beyond good utility practice. Yet BC
21 Hydro wants to spend money in terms of the life
22 extending leading utility practice. So those are
23 going to be for the account of BC Hydro and we can see
24 a massive fight between Teck and BC Hydro over time as
25 to who should pay for what. Teck will be saying we
26 don't want to pay for anything that extends the life

1 of the project beyond 20 years and BC Hydro will be
2 saying, "Yes, but if we don't do that that's not good
3 utility practice, it will be a safety problem." And
4 away they'll go.
5 The point is, is anything beyond good
6 utility practice is absolutely going to be for the
7 account of BC Hydro.
8 In terms of the spillway not being able to
9 pass a probable maximum flood, the dam can be
10 overtopped. I've discussed the concept of downstream
11 liability, and the potential, from the record, in
12 terms of cost would be about $200 million give or take
13 a hundred million dollars to improve the spillway so
14 it can pass a probably maximum flood. There is a very
15 large potential capital expenditure. Is it likely
16 that Teck would want to pay for any of that? The
17 answer is no.
18 There's the toxic sediment problem in the
19 reservoir. We went through this extensively in terms
20 of the Clean Energy Association of BC's final argument
21 in 2010 proceedings. That information is all there.
22 Where the sediments are coming from is from mine
23 tailings. It's run-off, because there was a lot of
24 mining in the area. Seven Mile's got the same
25 problem. Well, under the covenant that BC Hydro has
26 with Teck, Teck's not taking liability for that

because Teck's view is they're not our sediments.

THE CHAIRPERSON: Mr. Austin, is that in the contract that BC Hydro's taking responsibility for?

MR. AUSTIN: It's in the IR response, Exhibit B-1-5, page 3.

THE CHAIRPERSON: Okay, I can look that up, thanks.

MR. AUSTIN: There's not much point in spending too much time on this, but in relation to the generation profile of Waneta meeting the peakiness in the freshet and the variations in terms of year-to-year inflows, Waneta is going to be consuming BC Hydro shaping services, not adding to them.

Proceeding Time 2:21 p.m. T60

I was asked by Commissioner Fung -- or I think it was Commissioner Morton, where that graph came from. Here is where it comes from. It comes from the Clean Energy Association of BC Information Request 2.26.1, and that's Exhibit B-20.

If you look under the graph, you'll see that it says, in part, "with a peak capacity typically occurring in the spring and summer due to spring run-off and the" -- I'm having trouble reading it myself. "Average generation." So you can see that it is a problem -- not so much a problem, it's just with the profile of the generation, the project is. It can't be changed. The reality is, there's not a lot of

1 storage on the Pend d'Oreille. Whether in the United
2 States or Canada.
3 And then if you look at BC Hydro's
4 response, it says,
5 "The wide variation in the physical
6 generation arises from the coordinated
7 dispatch of Waneta and Waneta expansion
8 project."
9 So, the Waneta expansion project was
10 essentially an attempt to capture even more of the
11 spring freshet run-off. Because it was just going
12 over the spillway.
13 "They are greatly reduced from Teck's load
14 perspective by the terms of the Canal Plant
15 Agreement."
16 And this requires a bit of an explanation. The Teck
17 smelter requirement is going to be pretty constant
18 year-round, and we'll show you that in a second.
19 While the generation from Waneta jumps around all over
20 the place, with the emphasis on the spring freshet.
21 So under the Canal Plant agreement, BC
22 Hydro essentially became responsible for shaping the
23 Waneta generation to turn a lot more of the foam into
24 beer, and Teck needed the beer and still needs the
25 beer to run the smelter.
26 The point here being is, the Canal Plant

1 Agreement doesn't go on forever. So, when you're
2 analyzing Waneta, you take out the Canal Plant
3 Agreement shaping services, although they're supplied
4 by BC Hydro, and look at this project on a stand-alone
5 basis. And then sort out whether it's the deal that
6 BC Hydro says it is. Because it requires a lot of
7 shaping to turn that spring freshet energy into firm
8 energy.
9 The next table just shows the type of
10 entitlement energy that Teck will be getting under the
11 lease. So you can see the pretty much constant nature
12 of that. And it carries on for 30 years, if that's
13 what the term of the lease is. And from that, you can
14 see how much shaping is required.
15 Now, there is one item, and it's a question
16 of due diligence, that we weren't able to answer -- is
17 how long is Teck entitled to the shaping services
18 under the second amended and restated 2005 Canal Plant
19 Agreement? And that's Exhibit B-8-5.
20 In the preamble, and this is paragraph (g),
21 it says:
22 "The province entered into an agreement with
23 Teck made as of May 16th, 1994, the benefit
24 extension agreement, whereby the province
25 agreed that Teck would continue to receive
26 the benefits of the original Canal Plant

1 Agreement until December 31st, 2035."
2 So that's the shaping services it was entitled to
3 under the Canal Plant Agreement. And try as we might,
4 we couldn't sort out whether Teck's entitlement to
5 shaping services under the Canal Plant Agreement
6 expires in 2035 or not. In the Canal Plant Agreement,
7 and this is Section 5, "Computation of Teck's
8 entitlement", there are references to 2035.
9 **Proceeding Time 2:26 p.m. T61**
10 So we couldn't figure out -- and we looked
11 at a lot of documents to see whether Teck's
12 entitlement expires at 2035 or not. Our guess, and
13 it's only our guess, is it probably doesn't because BC
14 Hydro's calculations all seem to be based on the
15 access to shaping services going beyond 2035. But we
16 couldn't quite figure out how that was done. So it's
17 a point that the Commission itself might want look at
18 in terms of due diligence.
19 Now I'd like to move on to the -- answering
20 -- move on to trying to answer the B.C. Utilities
21 Commission's questions. And the first one is in
22 relation to, will BC Hydro need the additional energy
23 in the post-lease period? The CEABC's view is we
24 don't know, but a better way of approaching any need
25 is to not pre-acquire assets 20 or 30 years in advance
26 to provide the required electricity, and that means

1 Waneta. You're far better off leaving that decision
2 until much closer to the time that you can prove your
3 load. To repeat myself, this is essentially a 20 to
4 30 year prebuild.
5 In terms of the accuracy of the load
6 forecast, we don't -- shouldn't be trying to determine
7 the accuracy of the load forecast. There's a better
8 way to do this, which is look at the alternatives and
9 bring on the alternatives closer to the time when
10 there's load.
11 In BC Hydro's presentation the business
12 case was presented as something you could take to the
13 bank. Without the province's guarantee on BC Hydro's
14 debt, you could not take a 40-year business case,
15 which is this 40-year business case, to the bank.
16 There's too much uncertainty after year 20. It would
17 be analyzed on the basis of a 20-year timeframe. If
18 I'm looking at a 20-year timeframe, then I'm looking
19 at a 20-year amortization period, in which case there
20 is no business case.
21 With respect to Commission's question
22 number 2, is Waneta the most cost effective to meet
23 domestic load? The answer to that is no. The cost of
24 the alternatives is and will continue to decline. It
25 will flatten out. But in relation to the $48 a
26 megawatt hour that BC hydro is saying is unit energy

1 cost of Site C, it depends on the assumptions. If
2 you're assuming, for example, no dividend payment to
3 the shareholder for 40 years, that unit energy cost is
4 accurate. If you're assuming that in that 40-year
5 period that the shareholder will demand or request a
6 dividend, then the $48 a megawatt hour price is too
7 low. That's just one of the assumptions that you can
8 point to that will push that $48 a megawatt price
9 around.
10 In relation to Site C, the unit energy cost
11 was said to be $60 a megawatt hour. Unit energy cost
12 of Site C was never -- is not $60 a megawatt hour.
13 And same problem we have in relation to Waneta. It
14 depends what your assumptions are.
15 The second big assumption relation to that
16 $48 price is, well, BC Hydro has assumed the
17 alternatives are going to be around, in rough terms,
18 $100 a megawatt hour. Well, that's not accurate.
19 Question number 3, if BC Hydro doesn't
20 acquire the asset will it be available for domestic
21 consumption in the post-lease period? It doesn't
22 matter. There are other alternatives to BC Hydro's
23 acquisition of Waneta that are lower priced than
24 Waneta when you properly calculate Waneta's unit
25 energy cost.
26 Question number 4, if another party were to

1 acquire Waneta, would it be available for B.C.
2 consumption? The answer to that is it doesn't matter.
3 There are other alternatives for generation. Waneta
4 is an old dam that will need a lot of capital spent on
5 it and it doesn't have a particularly outstanding
6 energy delivery profile.
7 **Proceeding Time: 2:32 p.m. T62**
8 Should today's ratepayers take the risk
9 related with Waneta? The answer to that is no.
10 There's no need to. Why should they be taking on the
11 risk of a twenty or thirty year prebuild? There's no
12 particular advantage to it. And if change some of the
13 assumptions like the weighted average cost of capital,
14 you can see that Waneta is not going to be attractive
15 to today's ratepayers. They're going to have to pay
16 money with respect to it.
17 Question number 6, should the BCUC approve
18 this as an expense under Section 44.2 of the *Utilities*
19 *Commission Act?* What should have happened in relation
20 to this transaction is that if the shareholder and BC
21 Hydro thought that Waneta was such a great deal, they
22 could have incorporated a subsidiary or a new company
23 like Columbia Power, and use that vehicle to spend
24 $1.2 billion to -- and that would be the vehicle --
25 scared me too!
26 That would be the vehicle to have the risk

1 of Waneta on the shareholder, meaning the government
2 of B.C. If, in 320 years, or 20 years, that asset was
3 required to meet BC Hydro's load, then it could be
4 sold, in which case then BC Hydro's ratepayers would
5 have the risk of that project. Right now BC Hydro's
6 ratepayers are taking that risk of that project 20 to
7 30 years in advance of any requirement for that
8 project to meet their load.
9 Could the BCUC approve the expense under
10 44.2? Probably it could, but it also has to look at,
11 when it's doing that, where the risk is being
12 apportioned. And by approving it, you're saying that
13 the risks associated with Waneta are on the
14 ratepayers, not the shareholder.
15 Question 7, should BC Hydro be incurring
16 another $1.2 billion in debt? The answer to that is
17 because of Site C, the answer is clearly no. That is
18 going to be a 10.7 billion, if we are lucky, increase
19 in BC Hydro's debt. And to now come out and say that
20 we should be adding another $1.2 billion on the basis
21 of a business case that's very similar to Site C,
22 meaning no return on equity in this case for 40 years
23 and not 70 years as it is with respect to Site C,
24 doesn't make any sense.
25 BC Hydro has got debt piling up on its
26 balance sheet because of Site C and also the fact it's

1 spending about $1.7 billion a year literally to stand
2 still in relation to its system.
3 BC Hydro, because of technological change,
4 has to start paying a lot more attention to a
5 potential stranded asset problem, and that's in
6 relation to, as the rates goes up, its customers
7 voting with their feet and self-generating or
8 acquiring generation or electricity supplies from
9 somebody other than BC Hydro.
10 In terms of the scenarios, or the case runs
11 that the CEABC thinks are most relevant, it's the case
12 runs that show the weighted average cost of capital
13 and the discount rate at 7 percent, and the cost of
14 alternatives being market-based not consultant-based.
15 **Proceeding Time 2:37 p.m. T63**
16 And when you make those adjustments, then
17 the Waneta business case does not exist. There has
18 been no run that I'm aware of a 20-year amortization
19 period, but that 20 year amortization period would
20 show there's no business case either because
21 essentially what you're doing is recovering 1.2
22 billion in capital over a 20 year period and not a 40
23 year period.
24 Now I could be wrong on that, but I'm not
25 aware of any run with a 20-year business case, and as
26 previously stated the 20-year business case is based

1 on the fact that technological change is so rapid that
2 your economic life business case is not the astute way
3 to proceed in today's market.
4 A couple final points before closing up.
5 What Fortis was willing to pay for Waneta or how it
6 structured the transaction is irrelevant. Fortis is
7 an income tax paying entity and BC Hydro is not. So
8 there may be reasons why Fortis was willing to pay
9 what it did because of some tax planning. We don't
10 know the answer to that. And so what I'm saying is
11 you can't draw an inference that because Fortis was
12 willing to pay 1.2 billion it's a good deal for BC
13 Hydro because we don't know the answer to that
14 question. In other words, no inference should be
15 drawn. This is a clean slate analysis. The only
16 thing that matters is whether BC Hydro can prove it's
17 a good deal for its ratepayers. And our view is that
18 it can't.
19 In terms of this other third party-type
20 analysis of what Moody's did or didn't say, we don't
21 know what material BC Hydro and the B.C. government
22 presented to Moody's. We don't know what type of in-
23 depth analysis that Moody's did or didn't do. It may
24 have just looked at the $1.2 billion debt in terms of
25 the overall provincial debt picture and it's not a
26 vote for Waneta. It's also not a vote against Waneta.

1 It just doesn't mean anything whatsoever in terms of
2 your analysis of BC Hydro's business case for Waneta.
3 And the final point is in terms of the unit
4 energy costs of Waneta as calculated by BC Hydro,
5 please remember it depends on the assumptions. You
6 change a few assumptions and that unit energy cost can
7 go upwards. In the case of Site C, by having no
8 return on equity for 70 years, the unit energy cost of
9 Site C moved from $80 to $60 a megawatt hour. That
10 was just by a stroke of a pen. So it's the
11 assumptions that are absolutely critical to your
12 analysis of the business case.
13 And subject to your questions I have no
14 further comments.
15 COMMISSIONER FUNG: Yes, Mr. Austin, I just want to
16 explore your suggestion in response to our question
17 number 6, that if BC Hydro wants to do this
18 transaction what they really ought to do is
19 incorporate a new company, a new subsidiary and pay
20 the 1.203 billion and then have the risk fall on the
21 shareholders. I think that's what you said.
22 MR. AUSTIN: That's correct, and that subsidiary would be
23 unregulated.
24 COMMISSIONER FUNG: Right.
25 MR. AUSTIN: In other words the shareholder wants to have
26 BC Hydro invest 1.2 billion in Waneta, go ahead.

1 COMMISSIONER FUNG: So how do you reconcile that
2 recommendation with what happened with the purchase of
3 the previous one-third interest in Waneta and how do
4 you see the two working together, because, you know --
5 MR. AUSTIN: When the previous one-third was purchased,
6 BC Hydro was able to demonstrate the demand was there.
7 If the demand's there and its imminent or reasonably
8 imminent, go ahead. That is an asset that you're
9 purchasing to meet potential reasonable demand.
10 In this particular case we're being asked
11 to sort out what the demand -- or not us, but you are
12 being asked to sort what the demand will be in 20 or
13 30 years from now. And what we're saying is that's an
14 impossible task. That's in addition to the, not
15 concerns, the objections we have to how the business
16 case has been analyzed in relation to the price of the
17 alternatives, plus the discount rate, plus the
18 amortization period. And then at the secondary level
19 all the other risks associated with this project.
20 That's the difference between the two.
21 **Proceeding Time: 2:43 p.m. T64**
22 And back in 2010 BC Hydro purchased its
23 one-third interest at what was then the market rate,
24 and that included the cost of the alternative. So
25 we've had some huge changes since 2010 because all you
26 have to do is look at the price. I've got one-third

1 for $800 million. Now I'm getting the remaining two-
2 thirds for 1.2 billion. So that just shows you where
3 the market's moved in terms of the downward prices.
4 Any more questions?
5 COMMISSIONER FUNG: No, thank you.
6 THE CHAIRPERSON: Thank you, Mr. Austin.
7 MR. AUSTIN: That's no fun.
8 THE CHAIRPERSON: Sorry.
9 MR. AUSTIN: I spend all this time prepping for the --
10 THE CHAIRPERSON: I asked you some as you were talking.
11 MR. AUSTIN: That's okay, thank you.
12 THE CHAIRPERSON: I think we should just take a short
13 break before we finish up. Come back at five to,
14 thanks.
15 **(PROCEEDINGS ADJOURNED AT 2:44 P.M.)**
16 **(PROCEEDINGS RESUMED AT 2:54 P.M.)** **T65/66**
17 THE CHAIRPERSON: Please be seated. Thank you.
18 Mr. Bussoli, I understand that there's some
19 renumbering of exhibits, or moving of exhibits. Is
20 that correct?
21 MR. BUSSOLI: Yes, Mr. Chair. Just a note that the
22 exhibits that were previously marked, I think we had
23 them marked as evidence. For the purposes of this
24 procedure, move those exhibits to the argument section
25 of the Commission's --
26 THE CHAIRPERSON: Okay, that's fine. Thank you.

1 Mr. Christian?
2 MR. CHRISTIAN: That's fine with us.
3 THE CHAIRPERSON: Oh, okay. Good. Thanks.
4 Mr. Both? Are you next? You look like
5 you're next, Mr. Both, is that right? Yes, you are.
6 Yes.
7 MR. BOTH: My apologies, Mr. Chairman. Teck won't have
8 any submissions today.
9 THE CHAIRPERSON: Okay.
10 MR. BOTH: Thank you.
11 THE CHAIRPERSON: Thank you, sir. Ms. Bradley?
12 **ARGUMENT BY MS. BRADLEY:**
13 MS. BRADLEY: Good afternoon.
14 THE CHAIRPERSON: Good afternoon.
15 MS. BRADLEY: I will be quite brief.
16 THE CHAIRPERSON: Okay.
17 MS. BRADLEY: Hopefully under five minutes.
18 THE CHAIRPERSON: Okay.
19 MS. BRADLEY: So, on behalf of the City of Trail, Trail
20 is participating in this proceeding to, (1) express
21 its concerns that may not be the main focus of what a
22 a lot of the discussion is around this transaction,
23 and (2) to also hear the various submissions of the
24 parties. So, in that context, it's to have a voice
25 for the local interest in that area.
26 As Mr. Christian's already noted, Waneta

1 Dam was constructed in the 1950s, and it was
2 constructed to generate power for the Trail smelter.
3 That was its purpose. And so there is a definite link
4 between the smelter and the dam. And that's evidenced
5 by many historical documents.
6 And just to give you a flavour of that,
7 with these exemption orders that have been discussed,
8 for example 1982, Teck's predecessor Cominco, they
9 made an application for an order -- to the B.C.
10 Utilities Commission to exempt Cominco from the
11 application of the *Act* on the basis that regulation
12 would hamper its industrial operation and lead to
13 erosion on its low-cost power resources.
14 So that's what its focus was at the time.
15 And the Commission acknowledged that the public
16 interest in 1982 requires that the continuation of the
17 Cominco industrial operation, to the extent that it is
18 dependent upon a long-term source of inexpensive
19 electricity, should not be impaired.
20 And so leading from that history, and then
21 into 1996, exemption order -- it continues to link the
22 smelter with rights granted to Teck, including that if
23 Teck were to shut down in Trail, then that exemption
24 order could be amended or rescinded.
25 So in that context, the City is a bit
26 stuck, as Mr. Andrews noted. Maybe the train has

1 already left the station. And so -- well, back in
2 2010, when the third interest in Waneta was being
3 sold, the city did take the position they opposed the
4 sale, because it didn't take into account -- it didn't
5 safeguard the industrial base, the purpose of what the
6 dam was produced for, and it didn't address the
7 region's concerns.
8 At that time, the Commission did consider
9 that local community concerns are relevant, and that's
10 noted at page 25 of the decision back in 2010. And
11 obviously noted that it's natural for there to be some
12 apprehension from residents in the area about when
13 there is a big transaction like this.
14 In the end, the Commission did find that BC
15 Hydro's purchase was in the public interest,
16 considering cost-effectiveness, due diligence, and
17 local impact.
18 **Proceeding Time: 2:58 p.m. T67**
19 So, some of these same concerns were
20 repeated back then, but now, as I said, the city isn't
21 taking a strong position at this point in respect of
22 this transaction, and I'll explain why in a second.
23 Obviously the Trail smelter is the
24 principal industry and employer in the city. Without
25 it, there may not be much of a city, as many small
26 communities have experienced in B.C. Approximately

1 about 1500 individuals do rely directly on the Trail
2 operation for employment, and several thousands more
3 rely indirectly on the smelter operations.
4 And so in that context, of course, the City
5 is concerned about the future of the smelter and the
6 impacts it would have on the city and the region as a
7 whole if it were to close down. So any decision that
8 does ultimately affect the smelter could affect the
9 economic health of the city and the region and as well
10 as municipal services without a tax base for the city.
11 So ideally, obviously, the city supports
12 Teck retaining the two-thirds interest in the Waneta
13 Dam. And they've made that clear back in 2010 as well
14 as now. But as has been mentioned, perhaps the train
15 has already left the station in that if Teck has this
16 business model of wanting to sell the remaining
17 portion of the dam, then in that context the City
18 considers it's likely in the public interest that at
19 the very least Waneta be under the control of a Crown
20 entity rather than a private non-utility entity.
21 And the reason being, in that context is,
22 the City appreciate that public ownership of Waneta
23 won't guarantee the viability of the smelter, but it
24 could assist in ensuring the long-term economic
25 viability of the smelter in the region as a whole.
26 And at the very least, the sale of Waneta to BC Hydro

1 would include these broader public interest
2 considerations and any decisions being made about the
3 future operations of Waneta, that hopefully will
4 include the City's concerns as well. And the City
5 certainly has written and expressed its concerns to
6 the provincial government as well in the context of
7 its interests.
8 And so at this time, as I mentioned, the
9 City isn't taking a particular position. Now, I'm
10 going to say as some of the other parties have said, I
11 reserve the right to, perhaps in our written argument,
12 take a final position on this, but at this point my
13 instructions are to just monitor the proceeding, hear
14 the evidence and submissions of the parties and just
15 express the City's concerns more broadly.
16 So in that context, I appreciate the
17 Commission has asked several questions for the parties
18 to address, but most of these questions largely relate
19 to the business case of the Waneta transaction and not
20 really the broader concerns being expressed by the
21 City, and so with respect to most of these, the City
22 doesn't take a position on these particular questions.
23 I think the one comment that the City would
24 make, and it's perhaps mostly aimed at question 3
25 which asked about whether if BC Hydro does not acquire
26 the two-thirds interest now, will it be available

later. It was in the context obviously of for domestic consumption, as well as the question of, you know, should the Commission approve an expense for an asset which is not going to be used to provide a regulated service.

And in that context the City says that if BC Hydro does not acquire the Waneta Dam now, it appears that perhaps the writing is on the wall that Teck is prepared to sell this asset and that could very well be to a private non-utility entity, and if that's the case, the future of the Waneta Dam as well as the smelter operations is far less clear, and in that context public interest considerations may not be being taken into account.

And so that's just a general comment that the City would say in respect of those particular questions and with respect to the remaining, the City takes no position.

Subject to any questions, that's the City's submissions.

Proceeding Time 3:04 p.m. T68

THE CHAIRPERSON: No, thank you very much. Thank you.

Mr. Quail?

ARGUMENT BY QUAIL:

MR. QUAIL: And I will, I believe, be mercifully brief. I don't mean that as sort of self criticism in terms

1 of the --
2 THE CHAIRPERSON: It wasn't taken that way.
3 MR. QUAIL: --scintillating -- but one thing about being
4 last on the list, you spend a lot of time crossing off
5 all this carefully molded -- but you also tend to
6 scribble other things on the paper, so we'll see what
7 the trade-off here.
8 As I indicated at the procedural conference
9 our client, MoveUP, does have some concerns about
10 risks in relation to this transaction but will argue
11 that in the balance it should be supported. And we
12 are in broad agreement with the submissions made on
13 behalf of BC Hydro this morning by Mr. Christian and
14 I'm not going to go through and list, you know, I
15 agree with so and so. You know, a lot's been said on
16 many of these points by a number of parties.
17 Regarding the first question -- I'll
18 confine my comments to the questions posed by the
19 Commission. In the context of Hydro's record of load
20 forecasting and whether or not Hydro will need the
21 additional energy, and capacity is also relevant for
22 domestic consumption.
23 First of all I want to say this is one
24 point where we agree to some extent with some of the
25 comments that Mr. Austin made about the inherent
26 frailty of long-term forecasting. However, it's

1 important the utility -- energy utilities and the
2 regulators do formulate periodic long-term load
3 forecasts and that these are based on the best
4 empirical data and objective analysis possible.
5 But we shouldn't lose sight of the fact
6 that these remain efforts to predict what is
7 intrinsically an unknowable future. Somewhat akin to
8 long-range weather forecasting. It's useful and
9 important, helps to guide farmers in knowing when to
10 plant their corn, but we have to bear in mind we're
11 attempting to forecast something which is inherently
12 resistant to forecasting.
13 So there's been some pillaring of BC Hydro
14 in this and other proceedings over their load
15 forecast. Blaming someone for not being able to
16 predict into the deep future is sort of a cheap shot,
17 in my submission.
18 And we also agree with the comment, though,
19 that this is mitigated somewhat through sensitivity
20 analysis, but essentially where that leaves us is
21 acknowledging that the nice little lines on graphs are
22 properly regarded more as smudges and not much more
23 than that in terms of reliance upon them. But this
24 cannot mean that we cannot process any decisions about
25 long-term infrastructure investment. We have to deal
26 with these issues and as a number of people have said,

1 the Commission will have to exercise its judgment the
2 best it can. That's just the nature of the beast.
3 That's at the core of the regulatory dilemma.
4 And I say that in particular reliance on
5 the recent past record, it's a bit like the
6 disclaimers in investments. The past performance is
7 not a predictor of future projections. This is
8 particularly the case in the context of energy
9 planning at a time of exceptional transition and many
10 people have made that point. But I'll only say we're
11 facing a societal imperative transition from fossil
12 fuels to clean electricity and this clearly will
13 change everything.
14 So for example, the electrification of the
15 fleet of private automobiles out there, in that area
16 the manufacturers are staking their future on a far
17 more rapid transition than the general public
18 appreciates. And this assures a very significant
19 increase in the demand, this and other measures and
20 other progress in dealing with the climate crisis,
21 assures, in my submission, a significant increase in
22 the demand for non-GHG emitting energy and capacity
23 generation resources.
24 Forecasting that assumes continuity and
25 discounts a major transition from fossil fuels to
26 clean energy is not a neutral analysis, though it

1 might have that appearance. It's based on an implicit
2 assumption that we will fail to meet the challenges
3 that are facing us and that failure inevitably would
4 have enormous human cost.
5 **Proceeding Time: 3:08 p.m. T69**
6 I submit that energy infrastructure
7 planning should be premised on the assumption that we
8 will significantly modify our practices, and failure
9 to plan on that basis tends to be self-fulfilling. If
10 we don't build out the system, the infrastructures, in
11 order to make it possible to wean ourselves off fossil
12 fuels, that may seal our fate.
13 On question 2 -- so my point is that
14 directionally we should assume that there will be a
15 significant qualitative change in energy use and the
16 demand for electricity, and the comments of Mr.
17 Andrews went in greater detail into some of those
18 considerations.
19 And I'll avoid engaging in responding to
20 other party's submissions.
21 On the second issues, having to do, first
22 of all with whether or not Waneta is the most clear
23 source, with respect to my submission, that is really
24 not the relevant question. It's there. It's
25 operating and will continue to operate. What's at
26 issue before the Commission is the change in

1 ownership, and I cannot imagine any circumstance where
2 this transaction has any impact one way or another on
3 the impact of that operating facility on the
4 environment. So in my submission, that really is not
5 a factor in this proceeding at all, except to note to
6 BC Hydro's credit, that is is proposing to acquire a
7 clean and renewable resource.
8 A number of comments have been made on cost
9 effectiveness. I simply adopt comments made on behalf
10 of the Commercial Energy Consumers and BC Hydro on
11 point.
12 I am going to essentially duck, as I think
13 others have, in effect, questions 3 and 4 dealing with
14 those together, which is attempting to understand what
15 the scenario might be if the transaction is not
16 approved and another party were to acquire the
17 interest. In my submission that's simply unknowable,
18 and the only reasonable assumption, as others have
19 indicated, is that if this deal is foregone, so is the
20 use of this resource for BC Hydro and its ratepayers.
21 On the question of number 5, should today's
22 ratepayers assume the risk of the investment, I would
23 submit that, as in fact noted again by Mr. Austin, if
24 anything, the financial benefit to today's ratepayers
25 is more assured than that of future ratepayers. That
26 in fact the scenario through the lease period is quite

1 well-known and quantified. And so the risk to today's
2 ratepayers is relatively known and manageable. And
3 meanwhile, they do receive the benefit of the stream
4 of income from the lease revenues. The real issues
5 about risk have to do with what happens beyond the
6 operation of the lease.
7 I'll comment briefly on — I'm flying
8 through these pretty quickly — through question 6,
9 having to do with whether the Commission should
10 approve the expense under the *Utilities Commission*
11 *Act.* My main comment there will be responding to the
12 query from the Chair, whether it could be that a CPCN
13 would be required on the expiry of the lease. And I
14 might add logically the question "upon default upon
15 the lease" the same issue would arise.
16 In my submission, that question is answered
17 effectively by the wording of section 45 of the
18 *Utilities Commission Act* first of all, that says that
19 a person must not begin construction or operation of a
20 public utility plan or system unless approved. It
21 carries on from there.
22 The scenario upon either default or the
23 termination of the lease is not beginning construction
24 or operation. This is an owned, operated, ongoing
25 facility that's been there. In my submission there's
26 nothing that would trigger the requirement for a CPCN

1 or a Section 45. And in any event, if one
2 contemplates, what really would be at stake there.
3 The lease expires or is defaulted upon, what happens
4 if the Commission decides not to grant the CPCN? BC
5 Hydro owns the facility, assuming it's been approved
6 now. What is the scenario, if we were to ask
7 ourselves should it be -- in effect the relationship
8 with the dam be approved beyond that time, this time
9 under Section 45. Is it required to sell the
10 facility, is required to absorb it into some non-
11 regulated entity? I don't know, but in my submission
12 in any event, Section 45 does not really have
13 application.
14 I would point out that this proceeding does
15 point a finger at what I see as a drafting flaw, or
16 weakness, in the *Utilities Commission Act*, when one
17 looks at Section 45 side by side with Section 44.2.
18 Because 44.2 approves an expenditure, not really the
19 acquisition or construction of an asset. So really
20 there's a bit of an apple-versus-orange. So what is
21 the status? And I beieve that might be what underlies
22 the question from the Chair. We have a status based
23 on a particular expenditure. Now we have something
24 that is coming into service as a utility asset. How
25 do we deal with those -- the interface between those
26 two sections is very unclear, in my submission. But

1 the answer, in my submission, is not found in the
2 wording of Section 45. At that point, if it's
3 approved, BC Hydro will be the owner and become the
4 operator of a facility to make use of it for its
5 domestic load or, as it does with other resources, for
6 export or other uses.
7 Whether it's in the public interest,
8 question 7, for BC Hydro to issue the $1.203 billion
9 in additional debt -- and of course that's really the
10 government issuing the debt. In my submission, with
11 all respect, the question of management of the
12 provincial government's public debt, to the extent
13 that's the real question, is not a subject matter
14 within the jurisdiction of this Commission. You're
15 not here to oversee the government's decisions about
16 debt management.
17 And I would echo Mr. Weafer's observation
18 that it's safe to assume that Hydro's shareholder has
19 approved the application, or it certainly wouldn't be
20 here before you now.
21 But I would comment that access to that
22 financing structure to inexpensive capital borrowed by
23 the government is one of the most important public
24 benefits to the public of having a Crown utility. And
25 it might be that, for example -- I think I'll take a
26 slightly cheap shot -- IVPs might like to wish that

1 inherent advantage that Hydro has away. But it's
2 there and it's a very important advantage to
3 ratepayers.
4 And I will similarly, as other people have
5 done, avoid trying to offer any advice on which of the
6 490, or whatever it is, scenarios -- I was imagining
7 us constructing a wheel with 490 numbers on it, and
8 spinning it, and deciding, okay. it's number 217.
9 That would be about as useful as any input that I
10 could provide.
11 So subject to any questions you might have,
12 those are my submissions.
13 THE CHAIRPERSON: Thank you, Mr. Quail.
14 That brings us to the end of our
15 submissions. Mr. Bussoli, is there anything else that
16 we should be looking at?
17 MR. BUSSOLI: Not that I'm aware of, Mr. Chair.
18 THE CHAIRPERSON: Okay. I'd like to thank everyone for
19 your thoughtful submissions today. They were very
20 interesting for the panel. And we certainly look
21 forward to further submissions from you. And we'd
22 like to think a little bit about what we've heard
23 today, and we may come back with some further
24 direction or questions about today, about what we've
25 heard today, and ask that you respond to those in your
26 written submissions.

But at this point, we have no further questions. So I wish you all a good afternoon, safe drive home. Thank you.

(PROCEEDINGS ADJOURNED AT 3:16 P.M.)

I HEREBY CERTIFY THAT THE FORGOING is a true and accurate transcript of the recording provided to me, to the best of my skill and ability.

A.B. Lanigan, Transcriber

April 19th, 2018