

MAINE PUBLIC UTILITIES COMMISSION
AUGUSTA, MAINE

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IN RE:)
) Docket No. 2017-232
CENTRAL MAINE POWER COMPANY) December 19, 2018
)

Request for approval of CPCN for the New England Clean Energy
Connect Construction of 1,200 MW HVDC Transmission Line from
Québec-Maine Border to Lewiston (NECEC)

APPEARANCES:

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- CHRISTOPHER SIMPSON, Hearing Examiner
- RANDALL DAVIS, Maine Public Utilities Commission
- DENIS BERGERON, Maine Public Utilities Commission
- FAITH HUNTINGTON, Maine Public Utilities Commission
- CHRISTINE COOK, Maine Public Utilities Commission
- JULIA FRAYER, London Economics, MPUC
- GABRIEL ROUMY, London Economics, MPUC
- RYAN HAKIM, London Economics, MPUC
- EVA WANG, London Economics, MPUC
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- ERIC STINNEFORD, Central Maine Power Company
- DAN PEACO, Daymark Energy Advisors, Central Maine Power
- JEFF BOWER, Daymark Energy Advisors, Central Maine Power
- DOUG SMITH, Daymark Energy Advisors, Central Maine Power
- JOHN SHOPE, Foley Hoag, Calpine Corp., Vistra Energy, Bucksport
- JOHN FLUMERFELT, Calpine Corporation
- TANYA BODELL, Energyzt, Calpine Corp., Vistra Energy, Bucksport
- ANDREW LANDRY, Preti Flaherty, Industrial Energy Consumer Group
- SUE ELY, Natural Resources Council of Maine
- PHELPS TURNER, Conservation Law Foundation
- AMY OLFENE, Drummond Woodsum, NextEra Energy Resources
- CHRISTOPHER RUSSO, NextEra Energy Resources
- BEN SMITH, Soltan Bass Smith, Western Maine Mountains & Rivers
- DOT KELLY

1 CONFERENCE COMMENCED (December 19, 2018, 9:04 a.m.)

2 MR. SIMPSON: Good morning, everyone. This is a
3 technical conference in docket number 2017-00232 which is
4 Central Maine Power Company's request for approval of a CPCN
5 for the New England Clean Energy Connect project. The purpose
6 of today's conference is to allow parties to question witnesses
7 who filed supplemental testimony or analysis based on ODR-014-
8 004 issues. Notice of today's conference was provided by a
9 series of Procedural Orders dated November 2nd and December
10 11th and 14th. Let's take appearances right now, starting with
11 the Public Advocate, please.

12 MS. WYMAN: This is Liz Wyman with the Office of the
13 Public Advocate.

14 MR. BRYANT: Eric Bryant with the Public Advocate.

15 MR. SHOPE: And this is John Shope. Could whoever
16 just spoke please speak into the microphone a little bit more
17 clearly. I wasn't able to hear the name.

18 MR. SIMPSON: Eric, would you --

19 MR. BRYANT: Eric Bryant, Public Advocate.

20 MR. HOBBS: Good morning. Barry Hobbs, Public
21 Advocate.

22 MR. TURNER: Phelps Turner, Conservation Law
23 Foundation.

24 D. SMITH: Doug Smith, Daymark Energy Advisors on
25 behalf of Central Maine Power.

1 MR. STINNEFORD: Eric Stinneford, Central Maine
2 Power.

3 MR. DES ROSIERS: And Jared des Rosiers from Pierce
4 Atwood on behalf of Central Maine Power Company.

5 MS. OLFENE: Amy --

6 MS. KELLY: Dot -- sorry.

7 MS. OLFENE: Go ahead, Dot.

8 MS. KELLY: Dot Kelly, Phippsburg, Maine.

9 MS. OLFENE: Amy Olfene of Drummond Woodsum on behalf
10 of NextEra Energy Resources.

11 MR. SIMPSON: Thanks, that takes care of the people
12 in the room. Let's go to the people on the --

13 MR. RUSSO: There's one more as well. This is Chris
14 Russo on behalf of NextEra Energy Resources.

15 MR. SIMPSON: Okay, Chris. I need -- I know we've
16 already done it, but I need the people on the phone to identify
17 themselves. We're now on the record. So, John, could you
18 start, John Shope?

19 MR. SHOPE: Sure, I'm trying a different phone. John
20 Shope for Calpine Corporation, Vistra Energy Corporation, and
21 Bucksport Generation, LLC which are the generator interveners.
22 And is that clear --

23 MR. SIMPSON: Yes, John, thank you for changing
24 phones. You're coming through much more loudly and clearly.
25 Dan Peaco, can we go to you, please, and then continuing.

1 MR. PEACO: Sure. Dan Peaco, Daymark Energy Advisors
2 on behalf of Central Maine Power.

3 MR. SIMPSON: Sarah?

4 MR. BOWER: Jeff Bower --

5 MS. TRACY: Sarah Tracy --

6 MR. BOWER: Sorry, Sarah.

7 MS. TRACY: Sorry, Jeff. Go.

8 MR. BOWER: Jeff Bower, Daymark Energy Advisors on
9 behalf of Central Maine Power.

10 MS. TRACY: Sarah Tracy with Pierce Atwood on behalf
11 of Central Maine Power Company.

12 MR. SIMPSON: Sue?

13 MS. ELY: Sue Ely, Natural Resources Council of
14 Maine.

15 MR. SIMPSON: Tanya?

16 MS. BODELL: Tanya Bodell with Energyzt on behalf of
17 the generator interveners.

18 MR. SIMPSON: John Flumerfelt.

19 MR. FLUMERFELT: John Flumerfelt, Calpine
20 Corporation.

21 MR. SIMPSON: Julia?

22 MS. FRAYER: Julia Frayer with London Economics
23 International, LLC.

24 MR. SIMPSON: Thanks. Gabriel?

25 MR. ROUMY: Gabriel Roumy with London Economics

1 International, LLC.

2 MR. SIMPSON: Eva?

3 MS. WANG: Eva Wang with London Economics

4 International, LLC.

5 MR. SIMPSON: Ben?

6 B. SMITH: Ben Smith on behalf of Western Mountains &
7 Rivers Corporation.

8 MR. SIMPSON: All right, and we got Chris to begin
9 with. Is there anyone else on the phone that hasn't identified
10 themselves? Great. Okay, again, as a reminder, and I'll
11 probably say this a few times, because we have so many on the
12 phone, please identify yourself when you're speaking if you're
13 on the phone, and everybody just slow down a bit to help make
14 sure that the people on the phone can follow what's going on.
15 I want to start this morning with questions for the LEI panel.
16 And, John, I think it makes sense to let the generator
17 interveners go first. So, John, would you like to begin?

18 MR. SHOPE: Yes, we would, Chris. Now we had
19 submitted, as you know, a number of written questions last
20 week, and I understood the order to say that London would be
21 providing oral responses to those written questions today. So
22 what we could -- my thought would be that we could go to the
23 written questions and then if we have any follow ups on the
24 response, then we could do that and then we could just go
25 through the questions, the written questions, one by one in

1 that fashion if that is acceptable to everyone.

2 MR. SIMPSON: That's -- go ahead.

3 MR. SHOPE: And then the other thing is that because
4 this is a technical conference, we would be having Ms. Bodell
5 ask at least a number of the follow ups. And then I guess the
6 only other question is some of the questions that were posed,
7 including the first ones, were subject to protective order. So
8 I guess that raises the question whether we need to go into
9 confidential session and then use a pass code and so on.

10 MR. SIMPSON: Yes, I think I want to start out with
11 all public questions first. and then we will go into
12 confidential session and I'll send out a four-digit PIN for
13 people to call back in on. And again, I -- there's inevitably
14 going to be some awkwardness about this so let's just everybody
15 be patient. Any questions --

16 MS. FRAYER: My --

17 MR. SIMPSON: Go ahead, Julia.

18 MS. FRAYER: This is Julia Frayer. I would suggest
19 that Mr. Shope, you can ask the questions that were marked
20 confidential and we will try to answer them publicly because
21 I'm not sure the question itself, if we're careful about the
22 numbers and don't disclose those, or the answer needs to
23 necessarily involve, at this juncture, a lot of confidential
24 discussion.

25 MR. SHOPE: So that's perfectly fine by me. The one

1 thing that I will say is that we had asked questions that
2 related to a specified -- a hypothetical specified number of
3 megawatts. That number had come out of -- well, we had asked
4 questions that were based on a specified number of megawatts.
5 There was some email correspondence with Sarah Tracy at CMP
6 that had requested that some of our hypothetical questions
7 about number of megawatts be classified as confidential. So
8 I'm not sure that that was necessarily appropriate. I'm
9 willing to proceed under a basis of a hypothetical number of
10 megawatts, but I just do want to point that the issue was
11 raised.

12 MS. FRAYER: Yes, and our understanding is some
13 certain numbers are part of a protective order, at least that's
14 our non-legal understanding. So we will be very careful not to
15 refer to specific numbers.

16 MR. SIMPSON: I think that --

17 MS. FRAYER: So that we don't -- so -- but I think
18 that a lot of the questions may be more broader than a specific
19 number so maybe what -- we will try to answer it that way.

20 MR. SIMPSON: I think everybody in the room has had
21 access to that number and all know what that number is. This
22 may seem unusual, but why don't we just ask the questions and
23 use some indicator for that number, perhaps even calling it
24 "that number."

25 MR. SHOPE: I think what we'll -- let me refer to it

1 as -- I'll refer to it as the Hydro-Quebec maximum number, and
2 that will be the number of megawatts that's referred to in, for
3 instance, the question number two that was filed by us last
4 week directed to London Economics. And then if we can use that
5 terminology, then that way I think that will allow us to
6 continue more appropriately in public session.

7 MR. DES ROSIERS: I will state my objection to that
8 suggestion. And I'm happy with "that number," I'm happy with
9 X, but I am not happy with the characterization of the number.

10 MR. SIMPSON: Yeah, I think there's some sensitivity
11 around the source of the number as well. So I would suggest we
12 use some other indicator for that number. Can't we just call
13 it -- let's call it X. Okay? And if it turns out that we do
14 need to go into confidential session to drill down, we will
15 certainly do that. I would be surprised if we don't have to.
16 So, John, if you're not able to get what you need doing that,
17 then just hold off on that question and we can get to it when
18 we go into confidential session.

19 MR. SHOPE: Okay, all right. So I think what we'll
20 do is we'll start off -- I'll -- why don't I read aloud -- so
21 our question number one was a request for workpapers and such.
22 So that's going to be, you know, provided, I presume, in
23 written form. So I assume that with regard to our question
24 number one, there is no oral response.

25 MR. SIMPSON: Yes. John --

1 MR. SHOPE: Unless I hear anything different with
2 respect to question number one, I'll move on to question number
3 two --

4 MR. SIMPSON: John, before you do that -- John,
5 excuse me just a second. Just so that the record's clear, I
6 would propose we take that as an oral data request. And the
7 number for that oral data request is ODR-33 -- I'm sorry, 033-
8 001. So that ODR will be the generator interveners' first data
9 request. Go ahead --

10 MR. SHOPE: Okay. And I don't need to re-read it now
11 because it was filed in written form last week, I take it.

12 MR. SIMPSON: Correct.

13 MS. FRAYER: Yes, that's fine ...

14 MR. SHOPE: Yeah, okay, all right, all right. So I'm
15 now going to read question -- our question number two. The X
16 to which I refer will -- or X megawatts as stated in my
17 question will be a reference to the number of megawatts that is
18 in the question number two that was filed last week subject to
19 protective order. We'll get an answer from London Economics,
20 and then Ms. Bodell, and possibly I, but Ms. Bodell may have
21 follow ups. So re-stating the question which will be, I guess,
22 ODR-033 dash -- oh, no, this is not an ODR. I apologize. So
23 re-stating the question, it is referring to the supplemental
24 report of London Economics filed December 11, 2018. In the
25 recalculation of the capacity market benefits with X megawatts

1 of capacity sold by NECEC, A, how much capacity did London
2 Economics assume would be offered as import resources into the
3 FCM, the forward capacity market, over each tie line into New
4 England? And why don't we just stop right there and then we
5 can get the question from -- get the answer from London.

6 MS. FRAYER: I can start answering the question, and
7 Eva might actually want to jump in with specifics. But in
8 answering the question, I just want to confirm, when you say
9 over each tie line, I think you're referring to over each
10 existing tie line into New England. So not including the new
11 tie line that's -- that would be associated with NECEC. So
12 that would be the existing New York AC tie lines, the New
13 Brunswick tie lines, and the Hydro-Quebec existing system tie
14 lines which would be High Gate and Phase One and Phase Two. Is
15 that a correct understanding of the question?

16 MR. SHOPE: Tanya, do you want to clarify that?

17 MS. BODELL: Yes, Julia, does your model -- in order
18 to clarify that, I have to ask a question. Julia, does your
19 model differentiate between those existing tie lines that you
20 named?

21 MS. FRAYER: Yes, we are looking at it tie by tie.

22 MS. BODELL: Okay. Then, yes, we would like to know,
23 assuming those are all of the tie lines into New England in
24 your model, what you were assuming would be imported in total
25 and also from Hydro-Quebec specifically.

1 MS. FRAYER: So we are essentially, in this analysis
2 that was represented in the December 10th memo, submission,
3 doing the same thing that we did back in our original report
4 from May 21, the twenty-first of May 2018, which is we're
5 relying on information from forward capacity auction 12 on CSOs
6 awarded on those very tie lines and analyzing them on a go-
7 forward basis. But that is the starting point. And, Eva, if
8 you can jump in, I'm not sure, again just for the record, if
9 we've already provided this information then in prior DRs or
10 ODRs, if that could be useful for Tanya so she can look up the
11 numbers. If not, we can provide it in writing as the specific
12 numbers for you with an ODR.

13 MS. WANG: So this is Eva Wang from London Economics.
14 I don't think we provided a list (indiscernible) from a prior
15 DR, but this is essentially the capacity supply obligation from
16 FCA 12 as to (indiscernible). So, Ms. Tanya, do you want us to
17 provide (indiscernible) the number or (indiscernible)? Because
18 that's exactly the number from the ISO New England website.

19 MS. BODELL: And do you assume that number for every
20 year going forward for the 20-year life of the contracts -- or
21 the 40-year life of the contracts?

22 MS. FRAYER: We're not analyzing 40 years in our
23 modeling. We are analyzing a very specific timeframe in our
24 modeling and analysis. So over the modeling timeframe we used,
25 that number does not change, but we do evaluate whether it

1 should change with respect to, for example, New York market
2 conditions. But the result of that analysis is that it's the
3 same CSO going forward.

4 MS. BODELL: Okay, so just to be --

5 MS. FRAYER: -- imports going forward.

6 MS. BODELL: So I think just to be safe for everybody
7 who might be interested who doesn't necessarily know how to
8 access FCA numbers, we would like to convert that into an oral
9 data request in order to get the exact numbers that you used
10 for each year per tie line.

11 MR. SIMPSON: Tanya, could you state that oral data
12 request so we can write it down?

13 MS. BODELL: Yes. How much -- sorry. So in the
14 calculation of the capacity market benefits with X megawatts of
15 capacity sold via NECEC, how much capacity did London Economics
16 assume would be offered as import resources into the FCM over
17 each tie line into New England. And then part B --

18 MS. FRAYER: But other than NECEC just to clarify,
19 right?

20 MS. BODELL: Yes, because I think it's clear what
21 you've assumed for NECEC in your two separate runs. Right?

22 MS. FRAYER: Yeah.

23 MS. BODELL: X in the most recent case.

24 MS. FRAYER: Yeah.

25 MS. BODELL: Okay. And then if there's a

1 distinction, what portion is assumed to come from Quebec.

2 MS. FRAYER: We can provide that as well in an ODR.

3 MS. BODELL: Okay --

4 MS. FRAYER: (Indiscernible).

5 MS. BODELL: Good, I'll make that part B of the ODR.
6 Perfect.

7 MR. SIMPSON: Okay, and for the record, that is ODR-
8 033-002. Thank you.

9 MR. SHOPE: So, Tanya, do you have the questions that
10 we posed in writing last week? Do you have those in front of
11 you?

12 MS. BODELL: I have in front of me a draft. I just
13 asked Steve to send me the final confidential version that was
14 filed.

15 MR. SHOPE: Okay, great.

16 MS. BODELL: If you don't mind, John, going through
17 the questions.

18 MR. SHOPE: Okay, well, I'll try to earn my keep by
19 just reading the questions here. So the -- I guess have we
20 already taken care of the question of what amount of capacity
21 did London Economics assume would be offered by Hydro-Quebec
22 into New England other than through NECEC? I think we've just
23 taken care of that, right?

24 MS. BODELL: That is correct.

25 MR. SHOPE: So -- yeah, so I'll move on then to

1 question C that was posed in writing last week which is how do
2 these figures compare to the original analysis performed by
3 London Economics?

4 MS. FRAYER: I just answered that as well. We made
5 the same assumption, starting assumption, and our modeling
6 suggested the results would be the same between our original
7 modeling in May, that was presented in the May report, and this
8 analysis that was presented on December 10th.

9 MR. SHOPE: Yes, correct, you did say that. All
10 right, let me move on then to the next question. This was our
11 question number three posed last week in writing. Again,
12 referring to the supplemental report of London Economics filed
13 December 11, 2018, did London Economics run any scenarios in
14 which, A, less than X megawatts, X megawatts being a reference
15 to the number that's in the confidential form of the question,
16 less than X megawatts would be qualified for purposes of
17 calculated a M O P R, a MOPR?

18 MS. FRAYER: No.

19 MR. SHOPE: Okay. And then the next -- with the same
20 preface, question subpart B is did London Economics run any
21 scenarios in which less than X megawatts would be offered into
22 the forward capacity market by NECEC?

23 MS. FRAYER: No.

24 MR. SHOPE: Okay. All right. And I think that moots
25 the question C that we had posed. Question subpart D, is there

1 a minimum amount of capacity that Hydro-Quebec must qualify
2 under the London Economics assumptions for capacity sold by
3 NECEC to be able to clear under the London Economics forward
4 capacity market price projections?

5 MS. FRAYER: This question, actually, I wanted to
6 make sure I understood correctly. Is this question -- and
7 maybe this is unfortunately a question back to Tanya. Is this
8 question specifically asking about -- when you say must
9 qualify, is it in the context of the MOPR calculation that
10 you're asking this?

11 MS. BODELL: Yes, exactly.

12 MS. FRAYER: Okay. And when you're saying about --
13 well, let me start off with an answer, and maybe, Gabriel, if
14 you think you need to add anything else, you can jump in. We
15 did not run various scenarios where we looked at ranges of
16 hypothetical amounts of qualified capacity that would be put
17 into the MOPR. We specifically only studied X as we've defined
18 it today and the original CSO that we had in our report which,
19 at least our original report, I think said it was subject to
20 confidentiality, so I don't want to name the number now. So
21 those were the two sets of assumptions we looked at. And so I
22 don't know, Gabriel, if you want to jump in to talk a little
23 bit about, given the analysis on X, how to interpret this
24 because I don't think -- in the presentation of our results, I
25 think under one of our scenarios, the X does not in any way

1 bind how much NECEC can clear.

2 MR. ROUMY: Yes, so this is Gabriel from LEI. So we
3 modeled two scenarios which we referred to as the low-end
4 scenario and the high-end scenario with the difference between
5 under the magnitude of opportunity costs for Hydro-Quebec in
6 the MOPR workbook. So under the low-end scenario, our finding
7 is that the project where Hydro-Quebec does not need any
8 revenues from the FCM in order to recover their costs so that
9 the amount of capacity as they qualify does not have an impact
10 on the MOPR. So basically what that means is that the amount
11 of capacity that they qualify in the FCM does not matter
12 basically because they would be able to clear in the capacity
13 market, the MOPR being zero.

14 In the high-end scenario, where we assume a higher
15 (indiscernible) cost for energy, then all of the capacity ends
16 up clearing over time in the FCA. Even if it does not entirely
17 clear in the initial auction, (indiscernible) capacity ends up
18 clearing over time. However, we did not perform sort of a
19 skeleton optimization to determine what's the exact quantity
20 that the seller or Hydro-Quebec would need to qualify in order
21 for the MOPR to be exactly at the clearing price. I think
22 that's what you were asking.

23 MS. BODELL: Yeah, can I --

24 MR. SHOPE: Yeah, so the short answer to the question
25 is because you didn't run the numbers, you don't know the

1 answer.

2 MR. ROUMY: That's --

3 MS. FRAYER: Yes. That could be correct, yes.

4 MS. BODELL: Okay, so I have a couple follow-up
5 questions. The first is just the confirmation that in order to
6 recalculate the MOPR using X in your model, your worksheet, all
7 you have to do is change one cell in the project input sheet
8 and that would be cell B11. Is that correct?

9 MR. ROUMY: That's correct.

10 MS. BODELL: All right, and if that changes, I
11 noticed that the total transmission costs on the DCF sheet,
12 that's row 19, does not change.

13 MR. ROUMY: I would have to go back, but cell row 19,
14 that's the -- basically the TSA tariff. Is that correct?

15 MS. BODELL: Yes, multiplied by the nameplate
16 capacity that I believe is B9.

17 MR. ROUMY: Yes, that's correct. Yes.

18 MS. BODELL: And so just a question on that. Why are
19 you using the nameplate capacity number that you use there?
20 Does that change to X or should that be 1,200 megawatts to
21 calculate the total cost of the transmission line?

22 MR. ROUMY: So the TSA is not pegged to the amount of
23 capacity that would be qualified in the FCA.

24 MS. BODELL: Okay, but the total cost of transmission
25 would be based on 1,200 megawatts, correct?

1 MR. ROUMY: The total cost for capacity is based on
2 the amount that's in the TSA. I would have to double check
3 what the exact -- yeah.

4 MS. BODELL: Right. But that should include the 110
5 stub number or extra number outside of the Massachusetts
6 contracts. True?

7 MS. FRAYER: I think we would want to go back to the
8 TSA and confirm what the TSA says about the tariff. So if
9 you'd like, we can take it as an ODR.

10 MS. BODELL: All right, let's do an ODR.

11 MR. SIMPSON: Could you please re-state it, Tanya?

12 MS. BODELL: Absolutely. Please identify the amount
13 of the nameplate capacity identified in B9 that should be used
14 to calculate total transmission costs and production for
15 purposes of the MOPR.

16 MR. SIMPSON: Okay, that is ODR-033-003.

17 MS. BODELL: Great. And then another follow-up
18 question on the previous set of answers when it was said that,
19 under the low end, the project does not need any capacity
20 market revenues to cover costs. Is that what you had said?

21 MR. ROUMY: Yes, so under the low-end scenario, our
22 MOPR is -- reflects that, yeah.

23 MS. BODELL: And that's because the cost differential
24 or the price differential between the off-peak Ontario prices
25 and the all-hour prices in Maine that Hydro-Quebec could obtain

1 through a transmission line into Maine is, under your
2 assumptions, high enough to cover the total costs of the
3 project. Is that right?

4 MR. ROUMY: Well, so referring to the ISO New England
5 workbook, using all of our assumptions for revenues versus all
6 of our assumptions for costs and using the calculations
7 embedded in the workbook, that is the answer that is, you know,
8 created.

9 MS. BODELL: So based on that MOPR workbook result,
10 is it true, under that low-end scenario, that it would be
11 economic for Hydro-Quebec to build this transmission line
12 without contracts with Massachusetts?

13 MS. FRAYER: I'm not sure I agree with that because
14 of the way that the question is phrased, Tanya. I think that
15 the -- one part of the answer is that it does suggest that
16 there is a positive financial opportunity, but whether it's
17 economic and feasible without contracts is a different type of
18 economic question. So I'm not -- it depends on how we define
19 economic I guess. The numbers do suggest that the -- over the
20 forecast timeframe that we looked at within the MOPR workbook,
21 that the projected revenues remunerate and recoup the projected
22 costs. But whether it's economic from a project finance or
23 practical perspective to complete this project without a
24 contract might be a different situation, and that's not
25 reflected in the -- or studied in the MOPR calculation.

1 MS. BODELL: I understand. But the MOPR calculation
2 provides a positive net present value for this project based on
3 the arbitrage opportunity of Hydro-Quebec shifting from Ontario
4 off-peak to New England hours. Is that right, it's a positive
5 NPV?

6 MS. FRAYER: I agree that that mathematically -- that
7 is what the MOPR workbook is showing mathematically with our
8 assumptions under the low-end scenario.

9 MS. BODELL: Okay.

10 MR. SHOPE: Tanya, any more follow ups on three or
11 should we move on to number four?

12 MS. BODELL: No, you can move on to number four.

13 MR. SHOPE: Okay.

14 MS. BODELL: Thank you.

15 MR. SHOPE: So referring to the statement in the
16 introduction to the supplemental report that was filed on
17 December 11, 2018 that, quote, "Capacity market benefits
18 increase by nine percent to \$3.2 billion on an NPV basis, net
19 present value basis, over the 2023 to 2037 timeframe under the
20 low-end scenario for the revised MOPR estimate," close quote.
21 Question subpart A: please explain why capacity market benefits
22 would increase when the MOPR remains unchanged.

23 MS. FRAYER: So the MOPR is a binding condition how a
24 resource participates in the primary auction and the forward
25 capacity auction. It may or may not bind how much of a new

1 resource's capacity ends up clearing, but that's only one
2 element of the determination of the capacity benefit. The
3 capacity market benefit, if you want to -- just as a refresher
4 to think about it, it's the difference in the capacity market
5 clearing prices under our baseline without the project and with
6 the project. Once we introduce the project which is affected
7 by its MOPR, there is also consideration of other investors'
8 response to that supply. And if the dynamic -- the combined
9 dynamic of the new supply and how much megawatts it can clear
10 given this MOPR with also investors' response to that new
11 supply, the effective new supply clearing, that, in general,
12 creates the capacity market price outcome which then drives the
13 capacity market benefit. All in all, under the new project
14 case with the low-end scenario for the revised MOPR estimate,
15 we have shown capacity prices that are essentially very similar
16 to the original project case, and that's because of the
17 lumpiness of some of the investor response that goes into it.
18 And that creates essentially, as you can see from one of the
19 figures on the report, the same price, but there are small
20 differences. We're generally talking cents, not dollars, in
21 the capacity price, and that creates that higher number. I
22 believe our original report -- if I open that up, and we talk
23 about it in our December 10th memo as well -- was forecasting
24 capacity market benefits of 2.9 billion, I believe, in net
25 present value terms over the forecast timeframe. The forecast

1 timeframe has stayed the same. The benefits have gone up
2 somewhat to 3.2 billion, but that's because of the changing
3 investor response to the new circumstances in our updated
4 analysis where there is a different X offer from the project
5 sponsors on NECEC into the capacity auction.

6 MS. BODELL: And, Julia, does that three point --
7 this is Tanya. Does that \$3.2 billion in benefit versus the
8 2.9 billion, is that only the capacity market benefits or does
9 that also incorporate the economic benefits?

10 MS. FRAYER: What do you mean, Tanya, by economics?

11 MS. BODELL: The REMI modeling.

12 MS. FRAYER: No. There was no analysis done for this
13 December 10th work that involves the REMI modeling. This is --
14 we're speaking to the wholesale capacity market impact in our
15 December 10th analysis.

16 MS. BODELL: Okay, thank you.

17 MR. SHOPE: And just -- so just to be -- I think this
18 is probably obvious to everyone, but just to be clear, Julia,
19 you're saying that the way you ran the number -- the way the
20 numbers ran -- or when you re-ran them with the -- with X
21 megawatts, X megawatts as previously defined, the capacity
22 market price suppression was actually greater than the
23 suppression that you observed when you ran the 1,090-megawatt
24 scenario. Is that correct?

25 MS. FRAYER: It was slightly, really small, changes

1 greater because of the investor response to that X.

2 MR. SHOPE: Okay. And when you talk about investor
3 response, you're talking about other people pulling out of the
4 market or not?

5 MS. FRAYER: Yes, I am speaking to delisting.

6 MR. SHOPE: All right. Tanya, should we -- any
7 follow ups on that or should we move on to subsection B?

8 MS. BODELL: Nope, we can move on.

9 MR. SHOPE: Okay. So question 4B was explain what
10 happens to capacity market benefits under the high-end scenario
11 and why.

12 MS. FRAYER: So under the high-end scenario -- and
13 it's probably a little bit easier if I go and just also have
14 the pages open. I think it's helpful. The high-end scenario
15 is discussed below Figure 2 on page five of our December 10th
16 submission. And when we have the X megawatts CSO in
17 combination with our high-end estimate from the MOPR workbook,
18 we have -- we start off in the first capacity auction for this
19 project, FCA 14, with a MOPR value under this range that is
20 higher, slightly higher, than what we would have gotten as a
21 capacity price if the entire volume of X cleared. So that
22 implies that the MOPR would be binding. So we then thought
23 about the implications of that and presented alternatives of
24 what could happen. So one alternative that we discussed is
25 that the NECEC capacity offer would be designated as rationable

1 which would mean that the capacity supplier would agree for the
2 ISO to not clear the entire amount of X, to clear some amount
3 above a certain threshold as designated by the capacity
4 supplier as flexible. So it may or may not clear depending on
5 the auction algorithm.

6 MR. SHOPE: So this is --

7 MS. FRAYER: -- yeah?

8 MR. SHOPE: So Julia, if I could interrupt. I
9 apologize. John Shope. Just because it's -- I think the
10 terminology has been a little different in prior discussions.
11 Could you -- when you say the MOPR could be binding, could you
12 explain what you mean by that?

13 MS. FRAYER: So what I would mean by that is that the
14 MOPR price would represent the lowest-possible offer, would end
15 up being higher than the clearing price if all of the capacity
16 of X were to clear.

17 MR. SHOPE: So, I'm sorry, when you say it would be
18 binding, meaning it would be -- the MOPR would come in at a
19 price that was higher than the clearing price. Is that what
20 you mean when you say --

21 MS. FRAYER: If all of X were offered and cleared.
22 The MOPR is the minimum offer --

23 MR. SHOPE: Oh, yeah, okay, I think I follow what
24 you're saying, yes. I apologize for the interruption. I just
25 wanted to get that clarification on the nomenclature.

1 MS. FRAYER: So we thought -- we considered through
2 the modeling what would happen if -- as we described in the
3 submission, if the X offer of -- X quantity offer was
4 rationable and if Hydro-Quebec, as the capacity supplier, would
5 decide to allow it to be rationable, how much would then clear,
6 given the MOPR, and how much would not clear and what the price
7 outcomes would be, and that created -- that alternative created
8 another capacity market benefit estimate. That estimate is
9 described on page six, and that would be a situation where not
10 the full amount would clear in FCA 14 but a large portion of x.
11 And then incremental amounts would clear in subsequent capacity
12 auctions and, by FCA 16, the entire X amount would have cleared
13 with the high-end MOPR intact. The capacity market benefits
14 over the same timeframe, in net present value terms, would then
15 be three billion. Another alternative that we considered as
16 possible would be --

17 MS. BODELL: Actually, Julia, before you start that,
18 can I -- some follow-up questions on the rationable. So the
19 market rules reference you cited describes the ability of a
20 specific generating resource to provide up to five price points
21 for its offer. In your calculation, are you assuming that this
22 is backed by the external network or that there's a specific
23 generator that is being offered to be able to provide more than
24 one bid?

25 MS. FRAYER: I think our analysis has always been

1 that this would be an offer that is control area backed. And,
2 Gabriel, correct me. I sometimes get the terminology confused
3 -- the exact words that the ISO would use to talk about the
4 capacity -- the designation of the capacity behind the
5 transmission line.

6 MR. ROUMY: This is Gabriel. So this is correct. We
7 assume that there is not a single resource behind the offer for
8 capacity. It is backed by the -- what ISO New England refers
9 as control area backed.

10 MS. BODELL: Okay. And then how would you
11 distinguish between the MOPR for the entire capacity versus a
12 rationable amount to be able to clear a lower amount in the FCM
13 if it's backed by an external control area?

14 MS. FRAYER: So our understanding -- and again,
15 Gabriel, feel free to jump in, but our understanding of the
16 MOPR calculation is that even if there is a portfolio of
17 resources that are behind a particular CSO, there is -- and
18 this would similarly apply to rationability. They don't take
19 that into account. It is basically going to be based on kind
20 of a singular consideration of opportunity costs. The -- and
21 it's constraining or binding as a floor. It doesn't constrain
22 a resource from putting in a higher bid for part of the
23 capacity. And, Gabriel, do you want to jump in on that?

24 MR. ROUMY: No, I think you said it correctly in the
25 sense that the MOPR calculation is based on the amount of

1 capacity that the supplier seeks to qualify.

2 MS. BODELL: So -- this is a follow up. So if that's
3 the case and the MOPR for X megawatts is above the market
4 clearing price, how does making it rationable allow a portion
5 of that X megawatts to clear?

6 MS. FRAYER: I think maybe if I can step in right now
7 to answer the question, the dynamic is that the capacity price
8 with more megawatts is actually lower. So by making it
9 rationable and basically indicating a willingness to sell less
10 than X, the capacity price itself is dynamic in the model. It
11 doesn't necessarily go down as well so the MOPR is no longer
12 preventing at least part of X from clearing.

13 MR. SHOPE: And I have a follow up. Given the fact
14 that the rule, as Tanya mentioned, that you cited refers to a
15 specific resource, you are, on the other hand, assuming that
16 the capacity that is going to be bid is going to be backed by
17 the entire external control area, the Quebec control area. So
18 just to be clear, you're not aware of any specific ISO rule
19 that says that the rationability approach can be undertaken
20 with regard to an external control area as opposed to a
21 specific generating resource.

22 MS. FRAYER: I can't recall anything off of the top
23 of my head, but I can go back and take a look at the rules
24 again one more time. But we were comfortable that there is an
25 opportunity for a new resource like NECEC to be rationable if

1 they're directed to do so.

2 MR. SHOPE: All right, so I'd like to ask an ODR on
3 this one. And the ODR would be please cite the specific ISO
4 New England rule that would allow capacity backed by an entire
5 external control area to be bid on a rationable basis. And I
6 -- Chris, let me see, I'm notoriously bad at keeping track of
7 the ODR numbers.

8 MR. SIMPSON: John, this is ODR-033-004, but I didn't
9 get all of it. Could you please repeat it?

10 MR. SHOPE: Yes, yes. So the ODR is please cite the
11 specific ISO New England rules that would allow capacity backed
12 by an external control area, as opposed to a specific
13 generating resource, to be bid on a rationable basis --
14 rationable basis.

15 MR. SIMPSON: Thank you. And again, that's ODR-033-
16 004.

17 MS. BODELL: One more follow up on this line of
18 questioning, Julia. The MOPR workbook that you provide
19 calculates a MOPR for 2023 or FCA 14. Correct?

20 MS. FRAYER: Yes, the calculation was done assuming
21 an FCA 14 participation.

22 MS. BODELL: And if you wanted -- yeah. And if you
23 wanted to calculate or determine whether or not the capacity
24 being sold via NECEC would clear in future FCAs, you would have
25 to perform a new workbook calculation, correct?

1 MS. FRAYER: Actually, I need to go back to the
2 record rules and check that. I think I vaguely recall that
3 there's a carry-forward provision if you did attempt to
4 qualify, have a MOPR calculation, already filed with IMM. But
5 I would need to go in and understand if that -- if my memory's
6 correct on that or not.

7 MR. SHOPE: Tanya, did you want an ODR on that?

8 MS. BODELL: Yes.

9 MS. FRAYER: -- qualifies for FCA 14 (indiscernible)
10 decided not to make any sales for future years. So if you
11 didn't go through the process of putting in a MOPR at all
12 initially, I do agree with you that you would then look -- you
13 would assume that the MOPR calculation would be done when you
14 first did your submission for a future year.

15 MS. BODELL: But the qualification and the MOPR
16 calculation would have to be done the next year assuming only
17 one year of capacity was sold or bid, correct? There would
18 have to be a new qualification and a new MOPR calculation
19 associated with that qualification the following year.

20 MS. FRAYER: So to continue what I was trying to say
21 is that if a project never submits anything for FCA
22 (indiscernible) hypothetically and decides that they will
23 submit for FCA 16 or 17, yes, they need to do the MOPR
24 calculation as of their date of submission for FCA 16 and 17.
25 But where my memory is failing me right now is if they actually

1 went through and made a MOPR submission, they qualified and
2 made a MOPR submission that was then approved by the IMM for
3 FCA 14, I would need to check what the obligations are for
4 following years under various circumstances. I don't remember
5 and I don't have the rules in front of me to confirm what that
6 is.

7 MS. BODELL: All right. So then we would like to do
8 an ODR, and I believe this is ODR-033-005. Please cite the
9 specific ISO New England market rule regarding how capacity
10 from a new import resource being bid through an ETU would have
11 to qualify in subsequent years and the MOPR calculation that
12 would have to be performed.

13 MS. FRAYER: So you're interested in both the
14 qualifications as a new resource and the MOPR -- those are two
15 different processes. So you want to know about both?

16 MS. BODELL: Yes.

17 MR. SIMPSON: Tanya, sorry, we didn't get all of it.
18 Could you try it again, please?

19 MS. BODELL: Yes. Please cite the specific ISO New
20 England market rule regarding how capacity from a new import
21 resource being bid through an ETU would have to, A, qualify
22 and, B, calculate a MOPR in the years following the first year
23 of operation.

24 MR. TANNENBAUM: Tanya, this is Mitch. That's
25 assuming that, in a previous year, the project MOPR was

1 calculated?

2 MS. BODELL: Correct.

3 MR. SHOPE: And, Mitch, if you could speak up a
4 little bit? I had trouble hearing that last clarification.
5 Tanya apparently did so you don't need to restate it, but just
6 going forward, I'm having a little trouble hearing you.

7 MR. TANNENBAUM: Okay.

8 MR. SIMPSON: For the record again, Tanya, you were
9 correct, that's ODR-033-005.

10 MS. BODELL: And, Julia, in your calculations -- I
11 should say Ms. Frayer, sorry. In your calculates, are you
12 assuming that the bid is for one year only or for a multiple-
13 year period?

14 MS. FRAYER: In our calculations of the capacity
15 market outcome, we did not assume that the NECEC project would
16 try to do a multi-year lock in. I think that's the question
17 you're asking.

18 MS. BODELL: Yes. So you are assuming a one-year CSO
19 bid.

20 MS. FRAYER: Yes.

21 MS. BODELL: Okay, thank you.

22 MS. FRAYER: A rolling (indiscernible) one year at a
23 time, yes.

24 MR. SHOPE: Okay. So, Tanya, are we done with follow
25 ups on that set of questions and should we next move on to what

1 was the previously-submitted question five?

2 MS. BODELL: Yes.

3 MR. SHOPE: Okay. So the first -- so question five
4 is refer to the statement in the introduction to the
5 supplemental report filed December 11, 2018 that, quote, "If
6 the MOPR is binding on clearing the entire X megawatts" -- X
7 megawatts being as previously defined -- "in the first expected
8 capacity auction for NECEC" -- that's forward capacity auction
9 number 14 -- "then the net present value of wholesale capacity
10 market benefits would be lower, ranging from \$2.0 billion to
11 \$3.0 billion in LEI's estimations of varying potential offer
12 strategies," close quote. Now, subsection A was what does it
13 mean for the MOPR to be binding on clearing the entire X
14 megawatts. I think that you already have answered that. I'm
15 assuming that the answer is the same in this context as it was
16 as previously described. Is that fair?

17 MS. FRAYER: Yes.

18 MR. SHOPE: Okay. So then subsection B was which
19 scenarios did London Economics run that result in, quote, "the
20 MOPR binding on clearing the entire X megawatts"? You may have
21 answered that but maybe if you could just briefly restate it
22 again.

23 MS. FRAYER: This would happen, as stated in our
24 December 10th submission, under the high-end scenario estimate
25 for the MOPR that we (indiscernible) with an assumption of X

1 megawatts of CSO.

2 MR. SHOPE: Okay. Subsection C, what set of
3 assumptions and results support the \$2.0 billion value? And I
4 guess, Tanya, do we think that this is something that should be
5 -- that is appropriately answered orally or is that something
6 that we really need to have as a written response.

7 MS. BODELL: So I think that the underlying
8 calculations will be provided, but I think we want an oral
9 response, under confidentiality I expect, regarding what the
10 assumed amount of megawatts that was rationed that's associated
11 with that \$2 billion value. So we might want to save that for
12 the confidential session.

13 MR. SHOPE: Okay, all right. And then I'm going to -
14 - I'm sorry, go ahead.

15 MS. FRAYER: I would say that, in terms of the
16 megawatts that would be rationed, I don't have those workpapers
17 in front of me, and unfortunately Ryan isn't -- Ryan Hakim who
18 worked on that isn't here. So we would prefer to take that as
19 an ODR. So even if we saved it to the confidential session,
20 (indiscernible) be able to give the exact megawatts.

21 MR. SHOPE: So, I'm sorry, are we saying we should do
22 it as -- if it's just an ODR, I suppose I could just go ahead
23 and do it right now, but I think what you're saying is you
24 might be able to give a partial answer in confidential session
25 even without Ryan Hakim?

1 MS. FRAYER: No, I'm saying if I understood what
2 Tanya was looking for, I don't think I have the information on
3 hand right now to answer. So it would have to be a written
4 ODR.

5 MR. SHOPE: Okay, well, then why don't we just go
6 ahead and do that right now since my general philosophy in life
7 is that there's no time like the present. So this would be
8 ODR-033-006, and it would be what assumptions and results
9 support the \$2.0 billion value. A --

10 MS. FRAYER: A question, though? Because I think she
11 had something specific in mind. That's why I interjected. She
12 was saying she wanted something very specific, more than what's
13 written on the page here.

14 MS. BODELL: So I would say --

15 MR. SHOPE: Tanya --

16 MS. BODELL: Yeah, I'll answer this. Let's keep the
17 ODR broad as John stated it, and then I'd imagine, Julia, Ms.
18 Frayer, that much of this would be able to be referenced to
19 your -- in your response to the first ODR. And then
20 specifically, if you want to make our lives easier, you can
21 identify the megawatts that is assumed to clear in the rationed
22 assumptions.

23 MS. FRAYER: Okay, yeah.

24 MR. SHOPE: Yeah, I would --

25 MS. FRAYER: I just --

1 MR. SHOPE: And I'm going to strike the condition
2 that you want to make our lives easier. I would like to have
3 you do it regardless of your desire about making our lives
4 easier. That was a poor attempt at humor. Okay. So -- and
5 then that would be ODR-033-6A. And then B, what assumptions
6 and results support the \$3.0 billion value.

7 MS. FRAYER: Yeah. Why don't we also take that as
8 part of the same ODR so that we put it down in writing. I
9 think some information is already captured in the submission
10 from December 10th. We do talk about generally the difference
11 between these two scenarios, but we hadn't included the
12 specific megawatts being rationed or clear and -- or the
13 specific clearing prices resulting from those different
14 alternatives. So we will be providing that, as you suggested,
15 in the first ODR of the day, ODR-003-001 (sic), but we can be
16 more specific and cross reference here too.

17 MR. SHOPE: Yes, and -- yes, that would be helpful.
18 And then the next question, and I'm not sure whether this is
19 something that needs to be in an ODR, but -- or whether it
20 would be Mr. Hakim, but the question is -- as originally posed
21 is 5E, over what years under each of these scenarios do the
22 forward capacity market prices with NECEC diverge from the base
23 case?

24 MS. FRAYER: So when you -- when we're talking about
25 FCM prices with NECEC, that is a reference to our project case.

1 And just to be clear, when you're using the term base case,
2 that's consistent with London Economics' definition of a base
3 case? So, for example, the outcome without -- the base case
4 without the project or are you referring to the base case as
5 our original analysis? I just want to make sure I understand
6 correctly the question.

7 MR. SHOPE: Sure. I believe the intent of the
8 question was the base case without the project. Is that
9 correct? Is that your understanding -- was that your intent as
10 well, Tanya?

11 MS. BODELL: Yes.

12 MR. SHOPE: Yeah.

13 MS. BODELL: But this raises the question, Ms.
14 Frayer. Is there a difference between your original base case
15 and any of the base case assumptions you are using with X
16 megawatts?

17 MS. FRAYER: No, there is no difference. I can
18 answer that. The base case without the project in the December
19 10th submission was the same as the base case in our May 2018
20 report.

21 MS. BODELL: Okay.

22 MR. SHOPE: All right. So -- but we still need to
23 have answered -- do we need it as an ODR or are you -- I think
24 the question essentially -- Tanya, correct me if I'm wrong, but
25 I think the question essentially is when does the market

1 equilibrate and so -- is that what we're trying to get at here,
2 Tanya?

3 MS. BODELL: That's exactly right.

4 MR. SHOPE: Yeah. So the question, I guess, is maybe
5 London can give that answer right now. If you can't, then I'll
6 -- we'll ask it as an ODR.

7 MS. FRAYER: So when does the market equilibrate with
8 X megawatts of capacity being offered by NECEC? That I think
9 is reasonably answered, although the figure itself is
10 confidential, with Figure 2 on page five of our December 10th
11 submission.

12 MR. SHOPE: Tanya, could you just look at that
13 quickly and make sure that that gives you what you need?

14 MS. BODELL: Yes. Is the year confidential? Is that
15 why you're not saying the year?

16 MS. FRAYER: The capacity -- we believe the capacity
17 prices are confidential. So I guess that would imply the year
18 as well, but the capacity prices is what we're sensitive about.

19 MS. BODELL: Okay.

20 MS. FRAYER: And we're happy to provide this in
21 tabular form as part of our -- we will be providing it in
22 tabular form as part of our ODR-003-001 answer. So you'll have
23 the numbers too, not just the chart.

24 MS. BODELL: And that will fine.

25 MS. FRAYER: Confidential.

1 MR. SHOPE: Okay.

2 MR. SIMPSON: Okay. So this --

3 MR. SHOPE: So in other words, anyone who looks at
4 this will be able to determine your position as to when the
5 market equilibrates.

6 MS. FRAYER: With NECEC as -- yes.

7 MR. SHOPE: Okay. That's good. In that case, I
8 think we don't need to ask an ODR. Or another ODR. All right,
9 so if there are no follow ups on that, then I'll move on to
10 what was our original -- what was posed last week as question
11 number six. Under the alternative scenarios described in the
12 supplemental report filed December 11, 2018, including the
13 scenarios where the MOPR is binding, what would be the
14 approximate reduction in economic benefits associated with each
15 scenario?

16 MS. FRAYER: I'd like to ask a question on the
17 question. I just want to make sure I'm interpreting the words
18 "economic benefits" correctly. I think those may be referring
19 to -- given our earlier discussion, to the -- what we call the
20 macroeconomic benefits, the GDP impact and the employment
21 impact. Is that a correct interpretation?

22 MR. SHOPE: Tanya, were you looking for the REMI here
23 or was this just the capacity market suppression benefit?

24 MS. BODELL: I think the REMI --

25 MS. FRAYER: So --

1 MS. BODELL: -- economic analysis which you may have
2 already answered that you did not analyze that.

3 MS. FRAYER: We did not analyze that in conjunction
4 with our submission in December.

5 MR. SHOPE: Okay, great. In that event, I'll move on
6 to question -- what was posed as question number seven last
7 week. Please provide the alternative MOPR calculations
8 performance by London Economics for any capacity assumptions
9 other than 1,090 megawatts that were made for purposes of the
10 supplemental report filed September (sic) 11, 2018 in the same
11 format provided as Exhibit Number 3 to the London Economics
12 MOPR memo that was provided as a handout on September 19, 2018
13 and provide the associated ISO New England MOPR workbook
14 calculations in support of those values.

15 MS. FRAYER: So I believe we're going to be providing
16 -- our intent is to be providing already the MOPR workbook and
17 calculations under your original -- the first data request of
18 the day, the ODR-003-001 (sic).

19 MR. SHOPE: Great.

20 MS. FRAYER: So that should be covered.

21 MR. SHOPE: Great. I'll move on then to what was
22 posed as question number eight last week. With respect to the
23 supplemental testimony filed December 11, 2018, refer to that
24 statement on page two of -- or supplemental report I should say
25 -- supplemental report filed December 11, 2018, refer to that

1 statement on page two that the results do not change, quote,
2 "due to expectations of market response in FCA number 14 that
3 is projected in both LEI's and Daymark's analysis," close
4 quote. And then the follow-on question is please provide all
5 supporting documentation of what the, quote, "market response"
6 would be in each year under the assumptions of, A, 1,090
7 megawatts, B, X megawatts as previously defined, and C,
8 rationing.

9 MS. FRAYER: So I just want to clarify C, rationing.
10 I think it's supposed to be X megawatts with rationing to be
11 clear, right? We -- in other words, we studied rationing only
12 in the context of X megawatts in our December 10th submission.

13 MR. SHOPE: Yeah, I guess the idea was to -- with --
14 the assumption would be that there might have been an analysis
15 on the bid of X megawatts and then there might have been an
16 analysis of a bid of X megawatts with -- you know, with a
17 rationable bid.

18 MS. FRAYER: Yes, exactly. So I understood your C
19 correctly then. I think this is all going to be covered under,
20 again, ODR-001-003 (sic).

21 MR. SHOPE: Okay, great. So moving on then to what
22 was posed as question number nine last week. Refer to the
23 statement on page four of the supplemental report of London
24 Economics filed December 11, 2018 that, quote, "In the project
25 case for FCA number 14, net incremental capacity totaled" --

1 oh, you know what, there are some numbers here, and I'm just
2 not one hundred percent sure -- there are a couple of numbers
3 here that are not X megawatts as previously defined, and I'm
4 not sure whether or not these numbers are confidential or not.

5 MS. BODELL: John Shope, this is Tanya. Perhaps the
6 best thing on this one would be to simply make it an ODR and
7 obtain a written response.

8 MR. SHOPE: Okay, so that being so, am I -- but I
9 guess what I'm wondering is -- what I just need to check -- I
10 think I recall that just about all of the LEI report was under
11 -- let me just check whether the statement on page four was
12 under protective order.

13 MS. FRAYER: What we want to make sure is if we start
14 reading these numbers out loud is that the numbers won't allow
15 somebody to guess -- backwards guess at what is X because we're
16 very concerned that we don't want to unintentionally reveal X.

17 MR. SHOPE: I agree. And I agree, and I think that
18 one of those numbers would do that. So -- well, let me say
19 this. The parties, you know, who are subject to protective
20 order already have access to our written submission of last
21 week. So what I would propose is that we -- unless Chris or
22 Mitch have any objection, what I would suggest is that I pose,
23 as ODR number 033-007 the request that is previously filed last
24 week as our question number nine.

25 MS. FRAYER: That's fine with us, with LEI.

1 MR. SIMPSON: That's fine with me too.

2 MS. KELLY: Point of information, it looks like that
3 was deleted on the CMS, question eight and nine.

4 MR. SIMPSON: Yeah, that's correct, Dot. That was
5 originally filed as a public response, and we subsequently
6 determined that there were sensitive numbers in there. So we
7 deleted that response, and the generator interveners either
8 already have and I haven't seen it or are going to file it as a
9 separate data request subject to Protective Order Numbers 2 and
10 8.

11 MS. KELLY: Thank you.

12 MR. SHOPE: Yeah. I believe they were -- well, maybe
13 I'm just assuming that what I said should be done was done
14 which is always dangerous, but my hope is that that was already
15 done.

16 MR. SIMPSON: Yeah, I've been working with Steve on
17 that, and I think we're okay with it.

18 MR. SHOPE: Yeah, okay, great, thanks. Oh, yeah,
19 there might have been -- I think it was submitted
20 (indiscernible) policy or there may have been some technical
21 issues. Okay, moving on then to question number ten. This is
22 probably -- this is just really going to be an ODR because it's
23 a request for determination which is refer to the supplemental
24 report of London Economics filed December 11, 2010, provide the
25 underlying spreadsheet calculation in support for Figure 2 on

1 page two. So that, I guess, would be ODR-033-008?

2 MS. FRAYER: Yes --

3 MR. ROUMY: This is Gabriel. I just want to --

4 MR. DES ROSIERS: -- covered by the first one.

5 MR. ROUMY: -- confirm are you referring to Figure 2
6 on page five? Because there's no Figure 2 on page two.

7 MR. SHOPE: Oh, quite probably. Tanya, does that
8 make sense to --

9 MS. BODELL: Yes, page five.

10 MR. SHOPE: Yeah, yes. I apologize, typographical
11 error. Let me just correct my notes on that. Okay --

12 MR. SIMPSON: John, before you move on, I just want
13 to clarify what's just happened. So we have as ODR-033-008 a
14 request for the information that the generator interveners had
15 previously requested in their data request 003-010 with the
16 correction that it's Figure 2 on page five.

17 MR. SHOPE: Correct. Thank you very much, Chris.

18 MR. SIMPSON: Okay, so hold on just one sec. I have
19 another question I need to ask and answer.

20 MR. DES ROSIERS: And if I may, I believe Ms. Frayer
21 has already indicated that the support for Figure 2 is going to
22 be part of the workpapers which are going to be produced in
23 response to 003-001 (sic). So I think we've already covered
24 this so if you want to avoid an extra ODR or one that's going
25 to refer back to the first, I don't know if we need this one,

1 but I defer to Ms. Frayer.

2 MR. SIMPSON: Thanks for that head's up. Julia, if
3 the answer is we've already answered this, let's go ahead and
4 do that rather than try to undo the ODR that I've already
5 identified on the record. So, John, go ahead. Julia, go
6 ahead.

7 MS. FRAYER: Yes, we will provide a description of
8 the prices and how they were established in Figure 2 as part of
9 our ODR-001-00 -- sorry, ODR-003-001 (sic).

10 MR. SHOPE: Yeah. That's fine. And then the
11 response to ODR 008 can just be see the response to 001. So
12 that's fine. All right, moving on then to what was previously
13 posed as question number 11 last week. Refer to page three of
14 the supplemental report filed December 11, 2018. Please
15 elaborate on the process by which, quote, "HQ could offer and
16 clear some capacity in the primary auction in FCA number 14 (by
17 making its X megawatt offer rationable as permitted by ISO New
18 England market rules)." Actually we've covered a lot of that
19 ground so I'm going to interrupt myself and say, Tanya, was
20 there any particular aspect of this subject that we need to ask
21 about that wasn't covered by the prior discussion with London?

22 MS. BODELL: I think the prior -- this is Tanya
23 Bodell. I think the prior discussion addressed this and the
24 reference to the market rules and explanation associated with
25 how that would apply to an external control area will elaborate

1 on it as required. So I think we have this one covered.

2 MR. SHOPE: Okay. Now the -- okay, I think, though,
3 that there's questions in what was previously posed in number
4 12 that we haven't covered. So let's go to that. So referring
5 to what was previously posed as question number 12 last week,
6 refer to the supplemental report of London Economics filed
7 December 11, 2018. In the scenario where London Economics
8 assumes that Hydro-Quebec makes its X megawatt -- X as previous
9 defined -- X megawatt offer rationable, A, what are the
10 business -- excuse me, what are the economic, business, and
11 commercial operation factors that Hydro-Quebec would have to
12 consider in order to develop a rationing strategy? So why
13 don't we get the answer to that.

14 MS. FRAYER: Well, I'll jump in first, and maybe
15 Gabriel, you can add more detail. I do think -- and just to
16 make sure for the clarity of the record, we cannot opine or
17 represent Hydro-Quebec's exact strategy. We're not privy to
18 any information that would put us in that type of position with
19 respect to knowledge. However, we've applied -- in thinking
20 about this question, we've applied kind of common sense and
21 rationale, and I do think that the factors that would be
22 considered really boil down to kind of opportunity costs for
23 that capacity and whether it's significant or not for the
24 capacity provider. I don't know if, Gabriel, you want to jump
25 in with some additional information.

1 MR. ROUMY: Yeah, so this is Gabriel. I just want to
2 add that again, we don't want to speak for Hydro-Quebec's exact
3 strategy, but, you know, typically rationing elections are made
4 by new generation resources to account for some costs
5 associated with offering a block of capacity so that only if --
6 so that if only part of the offer were to be accepted, then,
7 you know, the project would not be economic. But that would
8 not be the case with Hydro-Quebec since, in this case, they
9 would be relying on existing assets. So it's -- and it would
10 be in their interest to allow rationing so that they could
11 clear the maximum amount of capacity that -- you know, that
12 would clear under the auction.

13 MS. BODELL: This is Tanya. A follow up. Julia, you
14 talked about one of their considerations, one of Hydro-Quebec's
15 considerations, would be opportunity cost for capacity and
16 whether it is significant or not for the capacity provider.
17 And by opportunity cost for capacity, is that different than
18 the opportunity cost for energy that you are measuring and
19 including in the MOPR?

20 MS. FRAYER: Opportunity cost of capacity is
21 different from opportunity cost of energy in my mind and also
22 in our MOPR analysis. Our original analysis that we presented
23 -- and I don't have the exact date in front of me, but earlier
24 this fall when we did our initial MOPR calculation, we talked
25 about this.

1 MS. BODELL: Are you still assuming that the
2 opportunity cost for capacity for Hydro-Quebec in the X
3 megawatt case is zero?

4 MS. FRAYER: Yes, we believe that the opportunity
5 costs of capacity sales are very, very small, essentially zero.

6 MS. BODELL: And if the opportunity cost for capacity
7 was a positive value, would that have to be incorporated into
8 your MOPR worksheet?

9 MS. FRAYER: Hypothetically, if the opportunity cost
10 -- if there was evidence to identify that the opportunity cost
11 would be significant, it would need to be reflected, just as
12 opportunity cost of energy given the (indiscernible) control
13 backed nature and the functions about what is the underlying
14 source for the sale.

15 MR. SHOPE: So Julia, you just said if it were,
16 quote, significant. I mean, there's no asterisk in the MOPR
17 worksheet of ISO New England that sort of says -- leaves it to
18 the subjective of the applicant as to whether or not the
19 opportunity cost is, quote, significant or not. If there is an
20 opportunity cost for capacity, it has to be included in the
21 worksheet, right?

22 MS. FRAYER: Yeah, I think the significance I was
23 trying to do is to make sure that the evidence suggesting that
24 there is value be there.

25 MR. SHOPE: All right. If there aren't any follow

1 ups on that, then we'll move on to what was previously posed as
2 question 12B last week. Would capacity sold via NECEC ever be
3 setting the market clearing price under this hypothetical or
4 any of the other London Economics scenarios?

5 MS. FRAYER: I think we're talking about the forward
6 capacity auction clearing price in this question, and, you
7 know, to my knowledge, I don't believe there's any market rule
8 that would prevent a resource from setting price.

9 MR. SHOPE: But I guess -- I think the question is
10 whether, in your modeling, was the capacity that was being sold
11 by NECEC, was that setting the clearing price?

12 MS. FRAYER: I'd have to go back and take a look at
13 the specifics.

14 MR. SHOPE: So, Tanya, should we pose an ODR on that
15 one? Maybe you could phrase the ODR.

16 MS. BODELL: Yes.

17 MR. SHOPE: Yeah.

18 MS. BODELL: So the ODR --

19 MS. FRAYER: -- would possibly -- and just in case --
20 so I do think that we could also incorporate this by reference
21 as part of ODR-003-001 (sic) if you'd like. Because, again,
22 that asks for essentially a description of how we get to our
23 market clearing prices.

24 MR. SHOPE: I guess what I'd like to have, though, is
25 I would like to have a specific answer that says whether it was

1 and when it was and when it wasn't. So if we could just have
2 it as a separate question so it'll be clear to anybody's who's
3 looking at it.

4 MS. BODELL: Yeah. This is Tanya. I'm happy to make
5 the question.

6 MR. SHOPE: Yeah, please pose the question so that we
7 have a very clear answer so that the people who aren't
8 necessarily steeped in the numbers will nonetheless be able to
9 read the answer and understand what it is.

10 MS. BODELL: All right, so ODR-033-009?

11 MR. SIMPSON: Correct.

12 MS. BODELL: In the London Economics MOPR
13 calculations and model runs submitted as part of the
14 supplemental testimony, are there any cases, or years, when an
15 NECEC capacity bid sets the market price?

16 MR. SHOPE: And if so, which years and which prices?

17 MR. SIMPSON: Okay, that is ODR-003-009. And, John,
18 before you go on, I'm mindful of the clock and our hearing
19 reporter, and I'm inclined to take a break right now. Is that
20 all right with you, John?

21 MR. SHOPE: Sure, that's fine. How long of a break
22 --

23 MR. SIMPSON: I want to take a break, a 15-minute
24 break. And during the break, I want to distribute the PIN that
25 we will use for the confidential portion of this cross

1 examination. Jared, I'm going to give you a copy of it if you
2 would send it to your people.

3 MR. DES ROSIERS: Sure.

4 MR. SIMPSON: Amy, I'll give you a copy of it. And,
5 John, I'll send it to you by email. Sue, I'll send it to you
6 by email. And, Ben, I'll send it to you by email. LEI already
7 has it. So, if my notes are correct, that will get the number
8 out to everybody that needs it. So let's take a break and come
9 back at five minutes to 11:00.

10 MS. FRAYER: Chris --

11 MR. FLUMERFELT: -- with a question.

12 MR. SIMPSON: Go ahead, Julia.

13 MS. FRAYER: Are we going then into confidential --

14 MR. SIMPSON: I'm sorry --

15 MS. FRAYER: I'm sorry, I must have -- are we going
16 into confidential session when we come back or not yet?

17 MR. SIMPSON: Not yet. And I'm sorry, I was just
18 thinking ahead. We've still got public questions from the
19 generator interveners and I assume some public questions from
20 some of the other parties. After we've answered all of those,
21 then we'll go into confidential session using the PIN that will
22 be distributed over break. Thank you for that clarification.
23 Okay.

24 MS. FRAYER: Great.

25 MR. FLUMERFELT: Hey, Chris, it's John. Sorry if I

1 missed this, but are you going beyond Protective Order 2? If
2 so, I will need the PIN, but if you are just doing Protective
3 order 2, I would like to be included.

4 MR. SIMPSON: Okay, it the session will be under
5 Protective Orders 2 and 8.

6 MR. FLUMERFELT: In that case, I'll -- John Shope, I
7 think I do have eight. Can you confirm for me?

8 MR. SHOPE: Yeah, let me --

9 MR. FLUMERFELT: -- email offline.

10 MR. SHOPE: Yeah, let me confirm with -- let's
11 confirm with Steve because I have trouble keeping the numbers
12 in my head. So -- all right, great, thanks.

13 MR. SIMPSON: So let's go off the record.

14 CONFERENCE RECESSED (December 19, 2018, 10:42 a.m.)

15 CONFERENCE RESUMED (December 19, 2018, 10:57 a.m.)

16 MR. SHOPE: Hi, this is John Shope. When is the
17 occasion for me to punch in the PIN?

18 MR. SIMPSON: So don't do that yet. We're going to
19 finish with your public questions. Then we're going to --

20 MR. SHOPE: Oh, yes, of course.

21 MR. SIMPSON: Then we're going to allow the other
22 parties to ask their public questions. And then we'll announce
23 when we're going into confidential session. So, Toby, let's go
24 back on the record.

25 MR. SHOPE: That's all rather obvious, and I

1 apologize.

2 MR. SIMPSON: No problem, no problem. And John, I
3 don't know if you heard. I did check, John Flumerfelt is
4 authorized to participate in the confidential session when it
5 happens. So it's okay for you to email the PIN to him.

6 MR. SHOPE: Thanks, I -- that was reported to me, and
7 I did forward it on to him.

8 MR. SIMPSON: Okay, very good. Anything else before
9 we resume the questioning? LEI, are you on the phone?

10 MR. ROUMY: Yes, this is Gabriel.

11 MR. SIMPSON: Okay --

12 MS. FRAYER: Yes, Julia.

13 MR. SIMPSON: Great. Okay, good.

14 MS. WANG: This is Eva.

15 MR. SIMPSON: Thank you. John, you may continue.

16 MR. SHOPE: Thank you. So referring to what was
17 previously posed as question 12-C -- well, actually maybe I'll
18 just put the context. In 12-C, on page five of the report, it
19 says, below Figure 2, HQ could offer and clear some capacity in
20 the primary auction in FCA Number 14 by making its X megawatt
21 offer rationable as permitted by ISO New England market rules.
22 And then HQ would need to decide whether to offer the rest of
23 its uncleared capacity, A, in the substitution auction and pay
24 a potential premium to gain access to future capacity sales, or
25 B, wait for a subsequent primary auction and clear the

1 remaining capacity supply auction -- capacity supply obligation
2 in a future year. So I guess the question is -- that's
3 referenced in 12-C of the questions posed last week is what
4 potential premium would Hydro-Quebec pay to clear the NECEC in
5 the secondary auction or what we've otherwise referred to as
6 the CASPR process?

7 MS. FRAYER: Gabriel, do you want to jump in? Maybe
8 Gabriel's offline or maybe I can start the answer.

9 MR. SHOPE: Sure.

10 MS. FRAYER: We're talking -- when we're talking
11 about the premium, we are referring to colloquially has been
12 referred to by ISO as a severance payment that would have to be
13 -- well, that would essentially be paid to existing generators
14 who are seeking to essentially shed their CSO and retire. The
15 market rules for the substitution auction which have been
16 developed, posted, there's lots of information from ISO New
17 England on it, basically allow for a substitution auction
18 clearing price to accommodate such -- they called it a premium.
19 That's just -- that's not a technical word. But it's
20 essentially accommodate a payment that exceeds the capacity
21 price of the associated primary auction.

22 MR. SHOPE: So I guess, well, I guess the question
23 was what -- why would Hydro-Quebec pay that premium? And if
24 so, is there any thought about how much it might be?

25 MR. ROUMY: Hi, so this is Gabriel. Sorry I dropped

1 off earlier. So our understanding of the substitution auction
2 is that a resource that cleared in the primary auction might
3 want to submit the demand bid in the substitution auction and,
4 if their bid clears, then they would retire. So basically if
5 HQ were willing to submit an offer in the substitution auction,
6 which could even be in negative so basically they would be
7 paying to acquire a CSO, then one of the existing resources
8 might retire their resource, and thus allowing, you know, HQ to
9 clear more capacity in subsequent primary auctions.

10 MR. SHOPE: So I guess the question -- well, maybe I
11 can rephrase the question. Because I'm looking on page five of
12 the report, and it says -- at the end of that paragraph that
13 talks about this possibility, it says, "Ultimately the decision
14 will be based on an assessment of all options and economic
15 opportunities for Hydro-Quebec." And so I guess the question
16 is what are those options and economic opportunities that would
17 cause Hydro-Quebec to make that -- to agree to make that
18 severance payment to a retiring generator?

19 MS. FRAYER: Well, maybe I could start with a
20 hypothetical. If Hydro-Quebec, for a variety of other reasons,
21 thought that it was very unlikely for it to be able to clear in
22 future primary auctions for many years, it would be willing to
23 essentially pay a premium or severance that would be otherwise
24 relatively larger in order to acquire the CSO in the
25 substitution auction. Because once the CSO is acquired in the

1 substitution auction, it doesn't have any MOPR constraints in
2 future primary auctions.

3 MR. SHOPE: Okay. All right.

4 MS. FRAYER: So there are circumstances you could
5 think of that would create that. And -- I'm sorry, I cut you
6 off, John. Please go ahead.

7 MR. SHOPE: No, go ahead. No, go ahead. So you were
8 saying -- I don't know, I'm just trying to figure out what
9 would be the options and economic opportunities. So I think
10 what I'm hearing is, well, one thing to consider is if they
11 don't think they're going to, you know, clear any time soon,
12 then they make this one-time severance payment but then they
13 have a future stream of capacity payments that they're going to
14 receive. Is that --

15 MS. FRAYER: That's a great description. Yes, that's
16 a description. And what they're considering in terms of their
17 options is, well, what is my probability to access those future
18 revenue streams if I don't pay that severance which would mean
19 what is the likelihood I will clear in the primary auction in
20 future years. So there is that trade-off that they would need
21 to think about as they consider the substitution auction.

22 MR. SHOPE: And they would also have to look at the
23 possibility of whether they might be able to sell the capacity
24 somewhere else or something like that?

25 MS. FRAYER: If that was an option, yes, that could

1 be part of the various economic opportunities that they would
2 be assessing.

3 MR. SHOPE: Okay. And just to be clear, you haven't
4 done any kind of a calculation or an estimate of what kind of a
5 premium Hydro-Quebec might be willing to pay in order to make
6 that severance payment.

7 MS. FRAYER: No, we haven't. But the circumstances
8 that we did model with X megawatts being offered does present
9 -- and that's why we set this up -- a situation where, on a
10 relative scale, HQ should not be willing to offer any
11 significant premium because if it has properly evaluated all
12 its options, it would realize that it should be able to fairly
13 quickly clear the rest of its X megawatts in the primary
14 auction through the primary auction and, therefore, not need to
15 have to pursue the substitution auction.

16 MR. SHOPE: Okay. Now, if Hydro-Quebec is bidding
17 the capacity in each year -- and this actually was previously
18 posed as question 12-D last week. If Hydro-Quebec is bidding
19 its capacity in each year, why would it wait for a subsequent
20 primary capacity -- excuse me, a subsequent primary auction to
21 clear all of its capacity? In other words, if it could get
22 some through rationing, why would it -- why wouldn't it do
23 that? Why would it just sort of hold back and wait until it
24 can clear everything?

25 MS. FRAYER: I think you're asking about the

1 alternative that we present where it decides to wait and not
2 clear, decides to not be rationable in FCA 14 and 15 and wait
3 until it could clear its entire X which happens to occur in our
4 analysis in FCA 16. I think that could happen. If there are
5 other business reasons for it to want not -- or if it hasn't
6 made the election to -- if it's made the -- actually you would
7 have to make the election to not be rationable. So if it
8 decides that it wants to make the election not to be
9 rationable, then it's bound by that. And that essentially
10 results in that alternative being an outcome.

11 MR. SHOPE: So I guess the question is I'm just
12 trying to get at why would they -- why wouldn't they just
13 always want to be rationable since it's better to get something
14 rather than nothing? I'm just trying to understand why they
15 wouldn't -- if they have that option, why wouldn't they choose
16 it?

17 MS. FRAYER: We actually do also believe that they
18 would, at a high level without having any access to
19 commercially-sensitive information on what HQ's specific
20 strategy is likely to be, that it should make sense with all
21 the other assumptions and information we have on hand to
22 develop those assumptions that they -- under the conditions we
23 modeled, that they would lean towards being rationable.

24 MR. SHOPE: But I think you said that there were --
25 there might be business reasons for them not to. And so

1 that's, I guess, the question I'm trying to get at which is
2 what are the business reasons for them not to be rationable.
3 Or not to submit a rationable bid I should say.

4 MS. FRAYER: I'm not sure I have any specific
5 considerations in mind. As we had worded it in our December
6 10th submission, we basically said it as an alternative for
7 consideration. I don't think that we had a very specific fact
8 pattern that we suggested. I don't know, Gabriel, if you have
9 anything else, but I really thought that, in terms of a
10 presentation, this was going to be yet another alternative that
11 could happen.

12 MR. ROUMY: No, exactly. So I don't think we have
13 specific conditions that would lead HQ to perform such a -- to
14 make such a decision, but we just wanted to present a what-if
15 scenario, so what would happen if they did elect because it is
16 an option that they have.

17 MR. SHOPE: Oka. So I think that moots what we had
18 previously posed as a written question in 12-E. So I'm going
19 to move on to the question that we had posed as number 13
20 recently, obviously last week, which was, in the supplemental
21 testimony of December 11th, did the MOPR calculations assume a
22 cost of NECEC of -- I'm pretty sure that this number is not --
23 there was no objection about filing this as a public question.
24 So did it assume the cost of NECEC of \$950 million and, if not,
25 what number did it assume?

1 MR. ROUMY: So this is Gabriel. In our revised MOPR
2 calculation in support of the December 11th, 2018 filing we
3 used the exact same assumptions as we used in our original
4 September 10th calculations. We did not use the capital
5 investment related to the NECEC project. Rather, we used the
6 transition tariff which incorporates all of the O&M and
7 financing costs that CMP would incur and, as such, we used,
8 again, the same number as we used in the initial September 10th
9 calculation.

10 MR. SHOPE: Okay.

11 MS. BODELL: But -- this is Tanya. Did you assume
12 that's the same price in dollars per kilowatt month for the
13 portion of the line that is purchased by Hydro-Quebec from CMP,
14 the 110 megawatts?

15 MR. ROUMY: I think as we mentioned earlier we used
16 the same dollar -- the same amount in dollars per kilowatt
17 month, but that also works out to be the same amount in dollars
18 as we used in the September 10th calculation.

19 MS. BODELL: Which is based on the TSA capacity of
20 the Massachusetts distribution companies only, correct?

21 MR. ROUMY: In the MOPR workbook, we used the value
22 of ten -- 1,090 megawatts.

23 MS. BODELL: And so in this case with X megawatts, as
24 well as the original case, you are not including the costs to
25 build the 110-megawatt portion of the line. Is that correct?

1 MS. FRAYER: I'm not sure I would say that that's
2 correct. I think what we're saying is here is our calculation.
3 We're using the TSA rate and the capacity of 1,090 megawatts.

4 MS. BODELL: Why don't you change the 1,090 megawatts
5 to X?

6 MR. SIMPSON: Please be careful not to use that
7 number publicly.

8 MS. BODELL: Oh, I'm sorry, I'm sorry. Strike that.
9 Of X megawatts.

10 MS. FRAYER: I think as we said, we are using the TSA
11 agreement, and I think there was an earlier DR you asked us to
12 check because I couldn't personally remember what was in the
13 TSA agreement. So we were going to go back and look at that
14 and explain the calculations in our written ODR. I think it's
15 ODR-033-003.

16 MS. BODELL: Okay, thank you.

17 MR. SHOPE: So, I'm sorry, did we get a question as
18 to why not -- why it wouldn't be changed from 1,090 to X?

19 MS. FRAYER: I think our answer to that is that we
20 feel that the right number for the transmission -- for this
21 component of the workbook, this estimation of the transmission
22 cost, should be based on the TSA and not necessarily based on
23 the megawatts that the shipper intends to qualify.

24 MR. SHOPE: But I think that from the point of view
25 of ISO New England, ISO New England would be saying, okay, what

1 was the cost to build the line that enabled the -- what was the
2 cost to build the line that enabled the delivery of this
3 capacity, and it doesn't really matter if you're not using all
4 of the line for that capacity. The point is that that line had
5 to be constructed in order to permit the delivery of the
6 capacity. And so if that's so, it seems to me that you would
7 want to use the full 1,200 megawatts, wouldn't you?

8 MS. FRAYER: Well, I think we are reflecting a
9 similar view as you may be implying, that the amount of CSO has
10 no bearing on what the associated cost should be. But in our
11 cost calculation, we're using 1,090, and we are not varying
12 this between our original estimate done earlier this fall and
13 that done in our submission dated December 10th.

14 MR. SHOPE: And then just to be clear, if you were to
15 use a figure that was based on the full capacity of the line,
16 the full 1,200 megawatts of the line, that would increase the
17 MOPR price, correct?

18 MR. ROUMY: Not necessarily because you -- you have
19 to consider revenues associated with that increased -- you
20 know, (indiscernible) increased sales.

21 MR. SHOPE: Revenues meaning potential energy
22 revenues of spot sales.

23 MR. ROUMY: Correct.

24 MR. SHOPE: Tanya, do you have any follow ups on
25 that?

1 MS. BODELL: No.

2 MR. SHOPE: Okay. Tanya, any follow ups on anything
3 else that was -- to the -- for public questioning?

4 MS. BODELL: I was a little bit late coming on so you
5 may have asked this, John. Did you ask if they ran a CASPR
6 calculation?

7 MR. SHOPE: Oh, yes. I'm sorry, so the -- did you
8 calculate any market effect of Hydro-Quebec having elected to
9 use the substitution auction?

10 MS. FRAYER: No.

11 MR. SHOPE: Yeah, okay. And we did discuss already,
12 Tanya, that they had not calculated any kind of a price for the
13 severance payment.

14 MS. BODELL: Yes, I remember that.

15 MR. SHOPE: Or a premium. Okay, all right. Unless
16 Tanya has anything else, I think we're -- that would be it for
17 the generator interveners for the public session.

18 MR. SIMPSON: Okay, thank you. CMP, do you have any
19 public questions for the witnesses?

20 MR. DES ROSIERS: I do.

21 MR. SIMPSON: Please.

22 MR. DES ROSIERS: Ms. Frayer and Mr. Roumy and Ms.
23 Wang, this is Jared des Rosiers from Pierce Atwood on behalf of
24 Central Maine Power. For your supplemental analysis, you
25 assumed, for purposes of analysis, that HQ would be able to

1 offer X megawatts of capacity. Have you done any assessment or
2 any consideration of whether HQ would, in fact, have in your
3 judgment, that capacity available in order to offer into an
4 auction beginning with FCA 14?

5 MS. FRAYER: As part of the December 10th submission,
6 we did not complete such an analysis.

7 MR. DES ROSIERS: And based on your prior work and
8 consideration of the capacity of HQ, do you have any question
9 or concern of HQ's ability to deliver capacity in that amount,
10 starting with FCA 14?

11 MS. FRAYER: Based on our prior analysis and
12 professional experience not necessarily limited to this case,
13 we have not identified anything that would make us concerned.

14 MR. DES ROSIERS: And if there's a suggestion that HQ
15 -- and I guess backing up. The capacity -- am I understanding
16 that it's your assumption that the capacity that would be
17 provided over the NECEC would come from HQ production? Is that
18 correct?

19 MS. FRAYER: From the -- yes, we are treating it as a
20 control system-backed capacity sale in New England.

21 MR. DES ROSIERS: And under -- as a capacity-backed
22 resource, do you have an understanding of how ISO New England
23 will make the determination as to whether Hydro-Quebec
24 Production has sufficient capacity in order to offer into the
25 ISO New England market?

1 MR. SHOPE: Jared, I think you said a capacity-backed
2 resource. Did you mean to say as a control system-backed
3 resource? I think any capacity has to be backed by capacity.

4 MR. DES ROSIERS: Sure. Let me be clear. Ms.
5 Frayer, is it LEI's assumption that Hydro-Quebec Production
6 would supply capacity to ISO New England as a new import
7 capacity resource backed by external control area?

8 MS. FRAYER: Yes. I think that's what I just said.
9 I'm just worried that --

10 MR. DES ROSIERS: That's what I understood. I may
11 have used the wrong word so I just want to make a clear record.
12 So --

13 MS. FRAYER: Okay, yes. I got worried that I
14 misunderstood --

15 MR. DES ROSIERS: No, I --

16 MS. FRAYER: -- before or didn't listen carefully
17 enough.

18 MR. DES ROSIERS: And under that -- as that type of
19 capacity resource, for that type, do you have an understanding
20 of how ISO New England will make a determination of whether
21 Hydro-Quebec Production has sufficient capacity under that
22 standard in order to qualify to submit a bid into a future
23 forward capacity auction?

24 MS. FRAYER: Yes, we understand the rules for the
25 qualification process.

1 MR. DES ROSIERS: And with -- based on your
2 understanding of the rules, does London have any concern that,
3 under this -- that standard, that ISO New England will
4 determine will determine that Hydro-Quebec Production has no
5 capacity or very little capacity to offer over the NECEC?

6 MS. FRAYER: I don't think we've come across any
7 information that would change our opinion on that, that that --
8 or give rise to significant concern.

9 MR. DES ROSIERS: Now on page four of your December
10 report, there's a discussion and there was prior questioning
11 with respect to why it was in your modeling that clearing of X
12 megawatts of capacity could actually result in comparable, if
13 not more, capacity benefits than the clearing of the higher
14 amount that you originally modeled that corresponds to the
15 energy -- the total capacity of energy that will be sold to
16 Massachusetts. And I just want to understand that, explore
17 that a little bit as -- and this is my understanding. I just
18 want to make sure I've got it straight, which is as some
19 quantity of capacity is offered into the market, in the
20 capacity market, that will have an impact on other market
21 participants' behaviors, such as whether they submit a delist
22 bid or not and that, to determine the capacity benefits, you're
23 really doing it on a net basis. You have to look at what's the
24 total new capacity being offered that clears which reflects the
25 offers net of any delist. Is that the -- am I understanding

1 your point correctly?

2 MS. FRAYER: Methodologically, yes, you've got it
3 right, that it's a question of the combined assessed of not
4 just the offer of the new supply resource but also existing
5 resources and other supply -- potentially other new supply
6 resources' response.

7 MR. DES ROSIERS: So -- and with that market dynamic,
8 if, for example, HQ were to offer some number of -- amount of
9 capacity less than X, that is not necessarily -- does not
10 necessarily mean that the capacity benefits would be less or
11 significantly less. It would -- you'd have to run the model to
12 see what that offer was and that quantity of offer and how that
13 would change the delist behavior and seeing whether -- and
14 looking where the net comes out for new capacity added to the
15 market.

16 MS. FRAYER: That's correct that we would want to do
17 an empirical analysis of it in order to understand the
18 comprehensive dynamic in the market because we recognize that
19 supply is lumpy and that a different new supply resource offer
20 creates a different set of going-forward conditions for
21 existing suppliers that they need to respond to. And that
22 needs to be considered in the analysis.

23 MR. DES ROSIERS: I'd like to then turn to your
24 calculation of the MOPR set forth in your December report which
25 is summarized in Figure 1. And now it's my understanding that

1 the only thing -- am I right that the only thing that changed
2 was the -- or I guess let me ask it this way. Of the factors
3 that go into determining the MOPR that include the transmission
4 cost in the U.S., the transmission cost in Quebec, opportunity
5 costs, etc., which changed as part of the calculation when you
6 used a qualified capacity of X rather than the value used in
7 your original analysis?

8 MS. FRAYER: I think Gabriel had referred to this
9 earlier from a question from I believe Ms. Bodell this morning.
10 We changed the cell that refers to how much capacity was being
11 sought for qualification. We did not change any other input in
12 that MOPR workbook.

13 MR. DES ROSIERS: Okay. Now, you were asked
14 questions with respect to the input for the U.S. transmission
15 costs, and it's my understanding that you used, for purposes of
16 your original MOPR calculation and your supplemental MOPR
17 calculation, the value that is derived or is set forth in the
18 TSAs at \$9.16 a kilowatt month. Is that correct?

19 MS. FRAYER: Yes.

20 MR. DES ROSIERS: And in looking at that value and
21 assessing it, did you review the materials including the
22 revenue requirement model that was provided in discovery by
23 Central Maine Power that supports the prices that are set forth
24 in the TSA?

25 MS. FRAYER: Personally, I would have to say that I

1 don't believe I've gone through and reviewed that revenue
2 requirement model. I don't know if, Gabriel, you did at some
3 juncture earlier this year.

4 MR. ROUMY: No, I did not.

5 MR. DES ROSIERS: So then I take it you don't know
6 whether that revenue requirement model includes the value for
7 AFUDC on top of the capital cost of 950 million.

8 MS. FRAYER: No, we don't know right now off the -- I
9 don't know off the top of my head.

10 MR. DES ROSIERS: Okay.

11 MS. FRAYER: -- speak for everybody else.

12 MR. DES ROSIERS: Okay. And --

13 MS. FRAYER: Gabriel, do you?

14 MR. ROUMY: No, again, we assumed that the value set
15 forth in the TSA was sufficient for CMP to recover their costs,
16 and so we did not review the model itself.

17 MR. DES ROSIERS: And do you know whether that value
18 set forth in the TSAs was calculated based on a -- the entire
19 capacity of 1,200 megawatts or whether it was calculated on
20 something less, for example, 1,090 megawatts?

21 MS. FRAYER: No, I don't know.

22 MR. DES ROSIERS: Okay. Now, then going back to the
23 MOPR calculation, and based on your prior answer of the only
24 change you made, then I assume you did not make any change with
25 respect to how the transmission cost in Quebec is calculated

1 for purposes of the MOPR calculation. Is that correct?

2 MS. FRAYER: That is correct.

3 MR. DES ROSIERS: And as I understood your
4 methodology for the Quebec portion of the transmission cost,
5 that you used the tariff rate that Hydro-Quebec Production
6 would pay to Hydro-Quebec TransÉnergie for the point-to-point
7 service on the NECEC line in Quebec. Is that correct?

8 MS. FRAYER: Yes, that's correct.

9 MR. DES ROSIERS: Now, there's been concerns raised
10 that that's not the right approach and that, instead, you
11 should consider the capital cost of the Quebec portion and
12 determine the rate -- or determine the charge and cost based on
13 the actual capital costs. Why -- based on those concerns that
14 have been raised, why didn't London change its approach when
15 recalculating its MOPR for its supplemental testimony?

16 MS. FRAYER: First and foremost, the purpose of
17 recalculation of our MOPR was very narrowly and specifically
18 focused on a what-if analysis around the X megawatts of CSO
19 offer and specifically in response to some documents and emails
20 that were discussed at a tech session in November. So in order
21 to test that X megawatts, which we were requested to do, we
22 focused on where the MOPR calculation would need to change for
23 the X megawatts. All other assumptions and inputs were kept
24 the same.

25 MR. DES ROSIERS: If you were to adopt, for your

1 analysis, the use of the capital cost approach and you plugged
2 in some capital cost value into your MOPR model to produce a
3 result, would you also continue to include in the calculation
4 the tariff charge?

5 MS. FRAYER: No, I think that would be duplicative
6 of. So you would -- if one were to do a bottom-up calculation,
7 let's say, then one wouldn't want to also penalize the revenue
8 side assessment with an additional charge. I don't know if --
9 Gabriel, if I've -- if you have any other clarifying comments
10 on that, feel free to jump in.

11 MR. ROUMY: No, that's correct. So basically
12 assuming that -- or considering in the MOPR calculation both
13 the capital cost of the project and HQP paying the HQ
14 TransÉnergie tariff would be double counting the cost of
15 transmission from the Quebec side.

16 MR. DES ROSIERS: And, Ms. Frayer, you said there
17 would be a need to -- I understand the double counting. Then
18 you also said something about the need to penalize on the
19 revenue side. What does that -- please explain that point.

20 MS. FRAYER: The way that we had reflected the --
21 mechanically the Hydro-Quebec TransÉnergie transmission tariff
22 was through the rows in the MOPR worksheet that calculate up
23 the opportunity cost and revenues. So in my answer, when I was
24 thinking about the double counting, I was trying to run through
25 the mechanics of where, in our MOPR workbook, the transmission

1 -- the HQT, Hydro-Quebec TransÉnergie, transmission tariff was
2 actually accounted for.

3 MR. DES ROSIERS: Thank you.

4 MS. FRAYER: So there wouldn't be both double
5 counting and the penalty. I'm just saying the double counting
6 would show up through an unnecessary penalty if we're going to
7 account for the Hydro-Quebec TransÉnergie as a capital cost
8 line item.

9 MR. DES ROSIERS: And then you -- for purposes of
10 your MOPR calculation, you continued to use the assumption that
11 it's appropriate to do an opportunity cost calculation with
12 respect to Hydro-Quebec's opportunity for sales of energy in
13 the case without the NECEC and comparing that to the revenues
14 that it could receive for sales of energy in New England with
15 the NECEC. There has -- in the case, there's been recent
16 information provided in response to data request Kelly 04-001
17 in which Hydro-Quebec indicated that it has, since 2017, been
18 spilling water because it has insufficient transmission
19 capacity to get energy to market economically and that HQ
20 expects that spillage to continue in the future under
21 comparable market and operating conditions. And the letter
22 indicates with respect to 2018 itself, that spillage totaled
23 10.4 terawatts. And my question with respect to your
24 methodology for calculating the opportunity cost, and I
25 recognize you didn't have that information at the time you did

1 your December report, but if you considered it, do you have a
2 sense of what that would do to your calculation of the
3 opportunity cost for purposes of the MOPR calculation?

4 MS. FRAYER: Perhaps I can start the answer and
5 Gabriel can jump in. Generically speaking or broadly speaking,
6 when a hydroelectric power plant is forced to spill water, it's
7 essentially going to be able to -- it's not going to be able to
8 recognize any market value with that foregone product,
9 foregone, energy. So holding all else constant, the
10 opportunity cost of spilled water would be zero. Now, I'm not
11 as familiar, again, with the information that was provided that
12 we hadn't reviewed regarding spillage. I don't know if that --
13 I won't be able to speak as to how that would more specifically
14 factor into the opportunity cost analysis that we did in the
15 MOPR. But I am comfortable saying that the opportunity cost of
16 spilled water has a zero or very low capacity value. I'm
17 sorry, energy value. Well, and for that matter, capacity value
18 too unless the spillage could be coordinated on a time basis
19 with system need.

20 MR. DES ROSIERS: Okay, and then, Mr. Roumy, do you
21 have anything to add or are you all set? I didn't mean to
22 interrupt.

23 MR. ROUMY: No, I agree with what Ms. Frayer said as
24 to the value of spilled water. And of course, there's no way,
25 considering the future hydrological conditions in Quebec, to

1 predict how much water would be spilled each and every year,
2 which is why I think at this point we're still comfortable with
3 our assumptions that, you know, energy would generally be
4 redirected from other markets to NECEC if it were built.

5 MR. DES ROSIERS: I have nothing further.

6 MR. SIMPSON: Thank you. Jared, do you anticipate
7 any confidential questions for this panel?

8 MR. DES ROSIERS: I do not anticipate any
9 confidential questions.

10 MR. SIMPSON: Okay. Does NRCM have any public
11 questions for this panel?

12 MS. ELY: No, thank you.

13 MR. SIMPSON: And, Sue, do you anticipate any
14 confidential questions for this panel?

15 MS. ELY: I do not.

16 MR. SIMPSON: Thank you. Dot, do you have any public
17 questions for this panel?

18 MS. KELLY: I do.

19 MR. SIMPSON: Okay, go ahead.

20 MS. KELLY: Thank you. My questions relate to the
21 line of questioning that Jared was just looking at, and I
22 appreciate Mr. des Rosiers' teeing up of the issue. Ms.
23 Frayer, to go back one step, though, the TSA that you've
24 referred to previously, and it was in response to Mr. des
25 Rosiers' earlier question where you say the TSA was sufficient

1 and that was based on a 1,200-megawatt assumption, was that the
2 Canadian TSA or something different?

3 MS. FRAYER: Well, I'm a little bit confused. I
4 think the TSA we were discussing with Mr. des Rosiers is the
5 one that came out of the Massachusetts solicitation. So it's
6 the TSA that is enforced for the Massachusetts contract with
7 the EDCs. But to correct -- to correct the statement, we did
8 not use 1,200 megawatts in our MOPR calculation when we applied
9 the TSA rates.

10 MS. KELLY: Okay. And ignoring the 1,200 megawatts,
11 you've used two transmission rates, from my understanding, in
12 your MOPR calculations then. Is that true?

13 MS. FRAYER: We used the TSA transmission tariff to
14 estimate the transmission cost of the U.S. portion of the
15 project. And then as part of our calculation, we also relied
16 on the Hydro-Quebec TransÉnergie point-to-point transmission
17 tariff to estimate charges that would be payable for
18 transmission service in Quebec.

19 MS. KELLY: I'm certainly no expert in this. Was
20 there a reason for the U.S. portion that you used the
21 transmission tariff as opposed to the capital costs?

22 MS. FRAYER: I can start, and Gabriel, feel free to
23 jump in, but the use of a number that's already been calculated
24 by the transmission to ensure recovery of capital costs and
25 operating costs is basically providing us with what I would

1 call a more straightforward and easier approach to do the MOPR
2 calculation. If we didn't have that -- which is actually a big
3 (indiscernible) for us originally because we didn't -- the TSA
4 was not yet public -- was not executed and, therefore, the rate
5 wasn't known publicly. If we didn't have that, we would have
6 to create a calculation ourselves to estimate both the capital
7 costs and the operating expenses for the MOPR calculation to
8 work, and there are a lot of assumptions that would need to go
9 into that that we didn't have access to.

10 MS. KELLY: So if a transmission schedule for a
11 certain number of years was set and the generator who was
12 applying for a MOPR calculation was looking to finagle the
13 system, what prevents that generator from charging an amount
14 based on modeling that would allow him to clear in the MOPR
15 and, therefore, maximize his profits?

16 MS. FRAYER: Ms. Kelly, I'm sorry, I'm not sure I
17 understand your question.

18 MS. KELLY: Well, I'm trying to understand if there's
19 an ability to trick the system. It seems there's a tremendous
20 amount of money available if you can clear in the capacity
21 market which is a relatively, you know, newly-created, manmade
22 market with rules, and this MOPR calculation defines whether or
23 not you're going to be able to clear. So if someone has a
24 transmission project and they definitely want to clear the MOPR
25 and the MOPR is going to be based on a TSA, not real costs, I'm

1 -- with your expertise, I'm asking can that TSA be manipulated
2 so that the company can clear the MOPR.

3 MR. DES ROSIERS: I will state an objection to the
4 extent it assumes facts in evidence that the TSA is not based
5 on cost. That --

6 MR. TANNENBAUM: Yeah, Julia, why don't you just go
7 ahead and answer that if you can.

8 MS. FRAYER: So I think I don't know where to begin.
9 So --

10 MR. TANNENBAUM: All right, let --

11 MS. KELLY: Okay, let's not do that question.

12 MS. FRAYER: The TSA --

13 MR. TANNENBAUM: Okay, Julia, I think the question's
14 been withdrawn.

15 MS. KELLY: Okay, the question's been withdrawn.
16 This goes to your testimony previously.

17 MR. SIMPSON: So Dot, the purpose of this technical
18 conference is to focus on ODR 14-4 issues and not go back to
19 previous documents. So could you ask questions about what LEI
20 filed on December 11th, please?

21 MS. KELLY: They did file a calculation which I
22 assume is supposed to be in their best professional judgment, a
23 MOPR analysis.

24 MR. SIMPSON: Are you talking about the one filed in
25 December?

1 MS. KELLY: December 10th, absolutely. And I would
2 like to ask Ms. Frayer, in putting together that MOPR analysis,
3 whether she had any conversations about -- with people about
4 her comment that it should be a very narrow analysis.

5 MS. FRAYER: The analysis was -- we were -- London
6 Economics was specifically asked by the Commission staff to
7 investigate the implications of the information that was
8 discussed specifically with respect to the X megawatts that was
9 presented in some documents very recently in this case and the
10 implications of those X megawatts on our estimate of the MOPR
11 and the capacity market benefits. And that's what we did and
12 reflected in our December 10th submission.

13 MS. KELLY: And did you have specific conversations,
14 given previous testimony, whether you should use a different
15 approach for the Canadian transmission line?

16 MS. FRAYER: No, that was never discussed -- asked of
17 us or discussed or considered.

18 MS. KELLY: Is it appropriate for me to ask an ODR
19 where they would do that calculation using a transmission line
20 cost as opposed to the assumption?

21 MR. DES ROSIERS: I guess I would typically object if
22 it's my consultant being asked to do analysis beyond that which
23 they've already performed, but I guess it's not my consultant
24 so --

25 MR. SIMPSON: I just saw your body language

1 indicating --

2 MR. DES ROSIERS: -- those words, I immediately --

3 MR. SIMPSON: Yeah, I got it. Yeah, so this does go
4 beyond proper discovery, and I'm not going to allow the posing
5 of that ODR at this time. Do you have any additional public
6 questions, Dot?

7 MS. KELLY: Let me just take one moment to review?

8 MR. SIMPSON: Sure.

9 MS. KELLY: Thank you. Yes, I would like to spend a
10 moment on the Kelly response 04-001 that Mr. des Rosiers
11 highlighted. That's the spilling of water. In your opinion,
12 doing an analysis with spilling of water, are there information
13 about that spilling of water that you would need to know to
14 determine its impact on whether it was a zero value item?

15 MS. FRAYER: I think the more important question for
16 our analysis, Ms. Kelly, is not what happened and what was or
17 wasn't the lost market revenues, opportunity costs, from that
18 spillage historically. As Mr. Roumy suggested, our analysis is
19 forward looking, so we would want to understand the likelihood
20 and probability of spillage of water going forward over the
21 relevant timeframe. So we did not consider spillage of water
22 in our going-forward analysis.

23 MS. KELLY: And what would you want to know about the
24 spillage of water? Would it have to be time dependent over the
25 year within your analysis to be an accurate effect of a lost

1 revenue?

2 MS. FRAYER: I think there's almost a more
3 fundamental question of whether they expect to be spilling
4 water or not --

5 MS. KELLY: Right, they did maintain that they do
6 expect that on an ongoing basis. They would expect it.

7 MS. FRAYER: So we would want to understand how much
8 and when and whether that was varying over years in time. But
9 again, I don't think we have taken that into account in our
10 modeling. If we did directionally, though, it would mean that
11 the opportunity cost of energy sold that we've currently relied
12 on would need to be reduced.

13 MS. KELLY: Thank you.

14 MS. FRAYER: And that, directionally, should make for
15 a lower MOPR value.

16 MS. KELLY: That's all my questions for LEI.

17 MR. SIMPSON: Thanks. Do you anticipate having any
18 confidential questions for this panel?

19 MS. KELLY: I do not.

20 MR. SIMPSON: Okay. Does anyone else have any public
21 questions for this panel?

22 MR. SHOPE: So this is John Shope. Just to follow up
23 with Mr. Roumy on his prior answer on the spillage question.
24 Just to be clear, my understanding is that, Mr. Roumy, you
25 previously worked for Hydro-Quebec until fairly recently.

1 Isn't that fair?

2 MR. ROUMY: I did work for Hydro-Quebec previously,
3 yes.

4 MR. SHOPE: Yes. And so when you did the analysis
5 for the MOPR, I believe you indicated that one reason you
6 didn't include any kind of spillage analysis is that how much
7 water has been spilled in one particular year is no indication
8 of how much may be spilled in future years. Is that -- did I
9 hear you correctly?

10 MR. ROUMY: That's correct, and I believe that's also
11 what Ms. Frayer was saying earlier, yeah.

12 MR. SHOPE: Yes. And so -- and when you did your
13 analysis, you essentially assumed that all of the power was
14 going to be diverted from other markets. In other words, you
15 didn't include any spillage in your analysis.

16 MR. ROUMY: That was the premise for our opportunity
17 cost calculation.

18 MR. SHOPE: Thank you.

19 MR. SIMPSON: I think we're done with the public
20 questions. John, do you have a time estimate for your
21 confidential questioning?

22 MR. SHOPE: Actually, Ms. Bodell can speak up, but I
23 wasn't currently asking -- or planning on asking confidential
24 questions.

25 MR. SIMPSON: Tanya, do you have an estimate? Or,

1 first of all, let me ask you --

2 MS. BODELL: No confidential questions for me.

3 MR. SIMPSON: Okay, so there are no confidential
4 questions for this panel? Okay. Okay, I want to thank this
5 panel. We appreciate your testimony. We are done with this
6 panel. I'd like to move on now to questioning for the
7 generator interveners' witness Tanya Bodell, and I would note
8 that by earlier Procedural Order, we indicated that any
9 questions for Mr. Fowler would be done in writing. So LEI,
10 thank you very much, and let's go to Tanya now. NRCM, you had
11 the highest estimate so I'm going to allow you to begin with
12 your questions.

13 MR. SHOPE: And actually, Chris, we did have -- Ms.
14 Bodell realized last night that there was a correction that
15 needed to be made to her testimony. So we can present that
16 whenever you like. Perhaps it would be fair to everyone to
17 have her present it first.

18 MR. SIMPSON: That's a great idea. Let -- I'm sorry
19 to cut you off. Let's do that now.

20 MR. SHOPE: Sure.

21 MS. BODELL: Yes, so in doing a deeper review of the
22 FERC filing, we realized that there are actual costs estimated
23 by CMP as to what NECEC would cost that we don't have to rely
24 on the TSA number of nine point -- I don't think it's
25 confidential, but we don't have to rely on the TSA number. We

1 can actually go straight to the total costs as estimated
2 through the revenues which cover the costs associated with the
3 project. And so the adjustment that would be made would simply
4 take the cost from the FERC filing to incorporate that into the
5 MOPR worksheet.

6 MR. SHOPE: And I guess would it make sense for us to
7 file a corrected version that does that?

8 MR. SIMPSON: Yes, please.

9 MR. SHOPE: I think that's something we could do.
10 Tanya, how much time do you need to do that?

11 MS. BODELL: We could probably file it, you know,
12 within a couple days or by tomorrow. We have the analysis.
13 It's a question of just putting it through and checking the
14 numbers.

15 MR. SIMPSON: Okay. Yeah, that's sufficient, thank
16 you. Okay, does NRCM have public questions for Ms. Bodell?

17 MS. ELY: I do.

18 MR. SIMPSON: Okay, proceed.

19 MS. ELY: Ms. Bodell, earlier you were asking London
20 Economics, excuse me, questions about -- apologies, capacity
21 backed by an external control area versus a specific capacity
22 resource. And I wasn't understanding the distinction between
23 the two, and I was wondering if you could explain that. And
24 then I have a follow-up question I think.

25 MS. BODELL: Yes. So in the market rules, there's a

1 distinction between a new capacity import resource that is
2 provided based on a specified generating unit or units versus a
3 capacity offer that is backed by an external control area. So
4 for example, if you go to the capacity supply obligations that
5 are reported by ISO New England, you can see that there are
6 some bids from New Brunswick that are backed by the New
7 Brunswick system, and an external control area resource through
8 NECEC would be backed by the Quebec system as a whole. It would
9 not focus on any one company's set of generation capacity.
10 That would be specified resources. An external control area
11 resource would be backed by the entire Quebec system.

12 MS. ELY: Does the -- is that intention to bid it in
13 in one way or another have to be made anywhere or is it just
14 something that happens when the -- you try to bid into the
15 market that you're trying to sell the capacity?

16 MS. BODELL: The determination or the type of
17 resource that's being bid in as an import capacity resource
18 into ISO New England would have to identify, as part of the
19 qualification process, which type of resource it is. And then
20 as part of the qualification process, depending on which type
21 of backing there is, you have to show different things. So,
22 for example, if you're being backed by a single generator, the
23 potential bidder would have to show that they have access --
24 own access to that capacity and that it is not otherwise
25 obligated to anybody else. In the case of the external control

1 area, there has to be a showing that the external control area
2 has surplus capacity or enough excess capacity to back the
3 amount that's being attempted to be qualified.

4 MS. ELY: In -- is this -- how does this relate to
5 the minimum offer price rule?

6 MS. BODELL: So the minimum offer price rule
7 calculation through -- when an import capacity resource is
8 being offered through an ETU, an elective transmission offering
9 such as NECEC, there would have to be a designation of what
10 type of resource this is. And as part of the generation costs
11 that go into the MOPR calculation, the generation costs that
12 are associated with that capacity would have to be calculated
13 and provided in the MOPR workbook. So I'll give an example.
14 The same example is if you're attaching a single -- it's not
15 the case here, but if the ETU were delivering capacity directly
16 from a specified resource, hydroelectric generation station,
17 then the MOPR workbook would have to include the cost of that
18 generation resource. If it's newly built, you would look at
19 what the costs of building it are, and the market rules also
20 account for existing resources that already have been built.
21 And in that case -- we reference this in my supplemental
22 testimony with Mr. Fowler. In that case the costs that ISO New
23 England identifies as being the generation costs are the
24 original costs undepreciated, increased for inflation. In the
25 case of the external control area, it's the testimony of Mr.

1 Fowler and myself that you would have to look at what the
2 surplus capacity is on the entire system, what the source of
3 the capacity is that would be flowing through NECEC, and in the
4 case of Quebec, it's very clear that they are building
5 capacity, that they are buying capacity, and that the costs
6 associated with acquiring that excess capacity, the generation
7 costs associated with acquiring that capacity, would have to be
8 incorporated into a MOPR calculation.

9 MS. ELY: Would those costs not be reflected in the
10 tariff rates then?

11 MS. BODELL: The tariff rates that are reflected in
12 the LEI analysis are for transmission. The generation costs
13 would be separate. And in the MOPR calculation, you're looking
14 at a world where there is no contract, there is no contract
15 with Massachusetts utilities. So you would not take the price
16 that's in that contract. You would take the competitive price
17 of what that capacity would be worth or would cost and put that
18 into the MOPR calculation.

19 MS. ELY: Okay. And then when doing the MOPR
20 calculation, Ms. Frayer testified that they assumed a one-year
21 CSO bid that was rolling. And I was wondering is it possible
22 to bid the MOPR for multiple years or does it have to be bid
23 every year?

24 MS. BODELL: So I think this is a good question for
25 Mr. Fowler. Ms. Frayer is looking at it. But the -- most

1 certainly the capacity would have to qualify every year, and
2 implied in that would be a MOPR calculation that looks at what
3 the costs are. There are conditions under a multi-year bid
4 where that might not be the case, but, again, I think this is a
5 good ODR for Mr. Fowler.

6 MS. ELY: Okay, so I'd like to make an ODR if
7 possible.

8 MR. SIMPSON: So I alluded to this earlier. Rather
9 than an oral data request, questions for Mr. Fowler would just
10 be in the nature of written data requests. They're due today
11 close of business -- or not close of business but by the end of
12 the day, and responses are due on January 4th.

13 MS. ELY: Okay. I will submit that then after this
14 technical conference. Ms. Bodell, I want to switch gears to
15 another component of your additional testimony related to
16 spillage. This has become a recently interesting topic, and
17 I'm -- I guess what information would you need in order to make
18 a sort of final determination, or if you need any additional
19 information to make a final determination, about what --
20 whether spillage is likely to continue to be an ongoing concern
21 for Hydro-Quebec? And then a secondary question is whether or
22 not that spillage is wasted in the sense that it just can never
23 be turned into capacity or energy or whether it's being -- it's
24 spilling because of a lack of ability to bring that energy to
25 market?

1 MS. BODELL: Yes. So after we filed our testimony, a
2 letter to CMP provided in response to Dot Kelly's discovery
3 request was provided. And I think what's interesting about
4 that is it identifies seven reasons why you could have
5 spillage. And of those seven reasons, it includes, for
6 example, your reservoirs are already full, you have a lot of
7 runoff rainwater coming in at the same time, you don't have
8 enough generation capacity to process it, or you anticipate
9 that that's going to be the case. That's an example where the
10 spillage has to occur because of the reservoir levels and the
11 run off and it has nothing to do with whether or not there's
12 unused transmission capability from Quebec into other markets
13 during economic times. So in the testimony that we provide,
14 the supplemental testimony, we actually looked at 2017 when
15 there had been some spillage, and I believe that happened in
16 the fall. And that's an expected time for spillage to happen
17 because the reservoirs are filling up. Quebec has to maximize
18 their water in the reservoirs for the winter season where they
19 get very low runoff. So there's a big draw down projected by
20 Hydro-Quebec of around 60 terawatt hours. And there was
21 spillage during that time, but we looked at 2017 to see was
22 there available transmission capability throughout the year
23 that could have been used. And we found that there was. There
24 was at least six terawatt hours, if not more, that could have
25 been sold into Ontario and other markets at a price above U.S.

1 \$10 per megawatt hour. And, therefore, our conclusion is that
2 there was transmission availability that could have been used
3 but wasn't. Therefore, spillage that was occurring was due to
4 some of those other reasons that were expressed in the Hydro-
5 Quebec letter to CMP.

6 Now, if we were to do a comprehensive analysis, we
7 were focused on whether or not the lack of transmission into
8 other markets was the reason for spillage as has been implied,
9 but it's a very detailed analysis that would have to be looked
10 at. You'd need to understand where is the spillage happening.
11 It's not happening across the whole system. It's happening at
12 specific hydroelectric plants. They tend to be further away
13 from the transmission line. They are -- maybe they have a
14 different type of reservoir system. They're being managed
15 however they're being managed by Hydro-Quebec who knows how to
16 manage their system and clearly wants to minimize spillage
17 unless it allows them to maximize the reservoirs for higher
18 prices elsewhere. So there's a lot of economic aspects of the
19 decisions as well, but I think a key thing we'd want to look at
20 would be each one of the examples of spillage that had occurred
21 in 2017 and 2018, where it occurred, and, looking at those
22 seven reasons, why it occurred.

23 MR. TANNENBAUM: Sue, this is Mitch. I'd just like a
24 -- I have a clarifying question. Tanya, so when you were
25 talking about 2017, you had a number --

1 MR. SHOPE: Mitch, could you speak up? I'm really
2 not able to hear you.

3 MR. TANNENBAUM: I'm sorry, is this better?

4 MR. SHOPE: Much better, yes.

5 MR. TANNENBAUM: Okay. I think you had a number of
6 terawatt hours that were spilled and a number of terawatt hours
7 that were available for transmission. Can you repeat what
8 those numbers were?

9 MS. BODELL: Oh, sure. I talked about what we had
10 looked at. We found that there was at least -- and I say at
11 least because we drew the line at \$10 U.S. per megawatt hour.
12 There could be more, but there was at least six terawatt hours
13 that could have been sold above that price. And I believe in
14 2017 there was 4.5 terawatt hours that were spilled as -- I
15 think that was reported in the Hydro-Quebec letter. Now
16 interestingly, there's -- there are warnings. Hydro-Quebec has
17 to warn, give 30-day notice to the surrounding areas that they
18 need to spill, and they need to explain why. But that one was
19 particularly bothersome to some of the people around the
20 reservoir because it was happening in the fall and there had
21 been warnings to Hydro-Quebec in the summer that the reservoirs
22 were filling up very quickly. And what happened in the fall,
23 there's just a lot of rainfall so the water couldn't get out.
24 They were ramping up for the winter season, and the water
25 couldn't be converted in energy fast enough.

1 MR. TANNENBAUM: Okay, so based on 2017, it's your
2 understanding that none of the spillage occurred because of
3 transmission constraints.

4 MS. BODELL: You know, unfortunately because I don't
5 have the full set of information, I can't be that definitive.
6 What I can say is there was enough transmission capability
7 that, if different decisions had been made, water could have
8 been sold into those other markets. But Hydro-Quebec made the
9 decisions they made, and obviously I'm not privy to why they
10 made those decisions, but it could be a number of issues. The
11 system, as big as it is and as much as you have reservoirs, it
12 does have some very real constraints that require management of
13 the system and the reservoirs to make sure that the load is
14 able to be supplied with energy and capacity when it's needed,
15 as well as to try to maximize prices in the export markets.

16 MR. TANNENBAUM: Okay, thank you.

17 MR. SHOPE: Just -- when you say constraints, are you
18 -- this is John Shope speaking. Are you talking about
19 constraints in transmission to the U.S. market or are you
20 talking about internal constraints within Quebec?

21 MS. BODELL: Oh, sorry, thank you for the
22 clarification. No, I'm talking about the internal constraints
23 within Hydro-Quebec. And as I said, the letter -- I've been
24 trying to pull it up so I could read it into the record, but it
25 speaks for itself. The letter from Hydro-Quebec to CMP lists,

1 like I said, seven constraints, of which only two, possibly,
2 would be relieved by building a new transmission line into New
3 England. But there are a lot of other constraints tied to the
4 system and the way it operates. The rainfall, when load
5 occurs. Part of the problem with these large Hydro-Electric
6 systems is the water comes into the systems, into the
7 reservoirs, in the late spring and summer months, but that's
8 not when Quebec peaks. So managing the reservoirs requires
9 making sure you have enough water when you're going into the
10 winter season to be able to meet your peak capacity. And this
11 is one of the reasons why we found there's a shortage of
12 capacity is because of this -- these constraints on the system
13 tied to being able to meet the peak load of Hydro-Quebec
14 distribution.

15 MS. ELY: Thank you. I was going to ask the same
16 question about what do you mean by an internal constraint. So
17 that was helpful. I think that's all the questions that I have
18 for right now.

19 MR. SIMPSON: Thank you. CLF?

20 MR. TURNER: Good afternoon, Ms. Bodell. Phelps
21 Turner, Conservation Law Foundation. I want to turn your
22 attention to your supplemental testimony, Section 10 which Ms.
23 Ely was just examining you about. It's titled Spillage is
24 Avoidable, but let me know when you're there.

25 MS. BODELL: Yeah, one moment. Okay, and I'm sorry,

1 what page?

2 MR. TURNER: It starts on page 44. I have a few
3 questions about page 45. So if you just go to the top of page
4 45, here you're answering a question about Mr. Dickinson's
5 assumptions in modeling about exports and spillage. In lines
6 two through four you state that his model improperly assumes a
7 combination of high output levels based on the 2017 output
8 which follow the multi-year run of above-average runoff and
9 continuing exports at levels below what Hydro-Quebec said to
10 assume could occur. Do you see that?

11 MS. BODELL: Yes.

12 MR. SHOPE: And, Phelps, could you try to speak a
13 little closer to the microphone? I heard you but just barely.

14 MR. TURNER: Sure. When you say above-average runoff
15 here in your testimony, are you referring to runoff from
16 rainfall or snowfall or both or something else?

17 MS. BODELL: Yes, so that would be both. The
18 snowpack, I think, is the largest supply of water into the
19 reservoirs, but the rain obviously also contributes as well.
20 And it partially just depends on the season and when the
21 reservoirs are filling. But my reference to above-average
22 runoff is based on statements that were made by Hydro-Quebec in
23 each of their annual reports starting in 2013. And so in 2012
24 -- 2013 they say we had, you know, less runoff than we had the
25 year before which was a high runoff year, 2012. And then the

1 same statements were being made, and those are referenced in
2 one of my footnotes specifically by page number so you can get
3 an annual report and review those. But each of the -- six of
4 the seven years, and possibly this year as well, there's been a
5 lot of rainfall, snowpack, runoff, and, therefore, the
6 reservoirs have been filled with water. And Hydro-Quebec has
7 been managing that to balance their need for load, their desire
8 to make money in the export market, the necessity of storing
9 water in the reservoirs for the winter season, as well as the
10 constraints of their system, transmission and generation. So
11 the reference to the high runoff in six of the last seven
12 years, which was referring to 2012 to '17, is -- can be found
13 in the annual reports that Hydro-Quebec issues.

14 MR. TURNER: In preparing your testimony, did you
15 review any information or documents about snowfall or rainfall
16 and related runoff in Quebec during the terms of the PPAs and
17 TSAs for NECEC which would be 2023 through 2042?

18 MS. BODELL: I did not do any analysis of what the
19 water conditions or weather conditions would be during the term
20 of the TSAs. I did do, in the report we issued which I think
21 is in the record as an exhibit, the report that we wrote on
22 behalf of NRCM and others, we do have a chart in there that
23 looks at historical water flows at Quebec City. That's a place
24 where you can get the longest run of information, and that
25 shows the heavy runoff in 2017 for that location. But again,

1 it's a very large system, and so there's publicly-available
2 information out there that looks at different things, but I did
3 not do any analysis of what would be projected for the 2023
4 period and beyond.

5 MR. TURNER: So going back to your statement about
6 the model that you're testifying about here, is it fair to say
7 that it's difficult for you, without having done that analysis,
8 to say how the future output levels in Quebec should be
9 modeled?

10 MS. BODELL: Well, most certainly, that model's a
11 very simplistic model, and it puts in a starting generation
12 number that's based on historical. And I know that that
13 historical number is based on high runoff years. So that alone
14 would raise warning signals because it is such a key
15 assumption. So that would be the basis for me saying it is
16 based on high runoff conditions combined with a low export
17 assumption, and there are reasons why Mr. Dickinson did those
18 low export assumptions. But the combination of the two ends up
19 in a significant amount of spillage in the first five years
20 which as -- you know, as Gabriel Roumy said, it's very
21 difficult to project, but it's just that combination of the low
22 exports and the high historical runoff on which his number's
23 based that gives me concern.

24 MR. TURNER: Right, so you just testified that it's
25 difficult to project. And you didn't project, correct?

1 MS. BODELL: I did not.

2 MR. TURNER: So there's been a little bit of
3 discussion about the document that was produced on December
4 14th -- sorry, yeah, December 14th, 2018 by CMP. It's actually
5 a letter from Hydro-Quebec to CMP, and for the record, it's
6 Attachment 1 to data request Kelly 004-001. I'm not -- it
7 sounds like you've had a chance to review it. Do you have it
8 in front of you, Ms. Bodell?

9 MS. BODELL: Let me pull it in front of me. One
10 moment. So is that 1-01, 001? No?

11 MR. TURNER: Yeah, 004-001, Attachment 1.

12 MS. BODELL: I apologize. I did not download it --

13 MR. TURNER: That's okay. I think I can ask my
14 questions without it, but if at any point, you think you need
15 the document, then just let me know.

16 MS. BODELL: Sure.

17 MR. TURNER: In the document, Hydro-Quebec states, in
18 part, quote, "For the 2050 horizon, independent meteorological
19 studies indicate that average flows in northern Quebec are
20 expected to increase by approximately 12 percent," unquote. Do
21 you have any reason to dispute this statement?

22 MS. BODELL: I do not, but I think that's through
23 2050. Is that correct?

24 MR. TURNER: That's right, through 2050.

25 MS. BODELL: Yeah, so I don't have any reason to

1 dispute it, but I also don't have any familiarity with when the
2 anticipated increases in water flow are expected to occur, if
3 they're near term, medium term, or long term.

4 MR. TURNER: And also in this document --

5 MR. SHOPE: Again, Phelps, could you please speak
6 closer to the microphone? I'm really having trouble hearing
7 you.

8 MR. TURNER: Okay. Further up in the document,
9 Hydro-Quebec states, quote, "In 2017, Hydro-Quebec spilled
10 water due to a lack of economic transmission," unquote. Do you
11 have any reason to dispute this statement, Ms. Bodell?

12 MS. BODELL: Not based on any analysis that's in my
13 supplemental testimony.

14 MR. TURNER: Do you have any reason to believe that
15 Hydro-Quebec would be operating non-economically?

16 MS. BODELL: Yes.

17 MR. TURNER: Can you explain why?

18 MS. BODELL: Yes. As we talked about in the Dot
19 Kelly response, there are a number of constraints on the system
20 other than transmission availability from Quebec into other
21 markets. And so there could be transmission constraints on
22 their own system that prevent them from bringing water in from
23 the far reaches of their hydroelectric reservoirs and system.
24 There are generation capacity constraints that also could limit
25 them. There are reservoir management decisions that are being

1 made that could result in spillage in one area but not in
2 others. So these constraints are reasons why the Hydro-Quebec
3 system cannot operate what you would term economically. They
4 have to operate consistent with the constraints of their own
5 load, their own system, and the runoff and rainfall. So those
6 would be the reasons why I would say I would expect that they
7 can't always operate economically. I think they do their best
8 to do so within the constraints of their system, but there are
9 reasons why they make decisions not to sell into export markets
10 when they could at a profit. And it's for their own reasons,
11 and they make those decisions as part of their reservoir
12 management, not necessarily because there's lack of
13 transmission availability.

14 MR. TURNER: In your testimony in Section 10 about --
15 which is titled Spillage is Avoidable, there are some -- a
16 couple references, and I can point you to them if you want,
17 about the time period 2018 through 2022. Does your testimony
18 about spillage relate to that time period only or to the period
19 of the -- that period and the period of the PPAs, 2023 through
20 2042, or some other period?

21 MS. BODELL: Right, so that particular period through
22 2022 is referenced based on a Hydro-Quebec document that was
23 filed with the RGGI. Every -- within the year and at the end
24 of the year as well as within the year, Hydro-Quebec Power has
25 to file a report to the RGGI to show that it has enough energy

1 to meet its heritage pool obligations as well as to show that
2 it has enough capacity to meet its heritage pool obligations.
3 And similarly, Hydro-Quebec distribution has to show that it
4 has enough capacity to meet it's peak load. And so I looked at
5 those documents and was very interested in the projection by
6 Hydro-Quebec Production of how much energy it would have
7 projected going forward through 2022 over the four-year period.
8 And this is tied to what's been referenced in its annual
9 reports that Mr. Dickinson keyed upon which is the minimum
10 reservoir levels, can they manage their system over a two-year
11 period without falling below a certain level, can they manage
12 it over a four-year period without falling below a certain
13 level. And the period of 2018 to 2022 is specifically
14 referencing that filing that shows Hydro-Quebec Production's
15 projection under normal water conditions about what they would
16 have in their reservoirs on a monthly basis going forward. So
17 I did not do the analysis on my own, but I thought that was an
18 interesting document and looked at that. And under normal
19 water conditions, maintaining exports at between 34 and 35
20 terawatt hours per year, Hydro-Quebec Production was projecting
21 that they would, in total, be below their maximum reservoir
22 levels.

23 MR. TURNER: Yeah, and --

24 MS. BODELL: And unfortunately it doesn't go into
25 detail about the specifics.

1 MR. TURNER: Okay, yeah. And I saw your references
2 there. I'm -- let me ask it a little bit differently. Do you
3 -- do any of the assertions you made in your testimony apply
4 beyond the year 2022?

5 MS. BODELL: You'd have to point me to the assertion
6 so that I can answer directly.

7 MR. TURNER: Well, I'll start with the assertion that
8 spillage is avoidable.

9 MS. BODELL: Okay. That is a general conclusion.
10 And again, this is based on the knowledge I have of how
11 hydroelectric systems can be managed -- based on work that I
12 previously did that these systems can be managed to avoid
13 spillage and, generally, they are managed to avoid spillage.
14 There obviously are conditions under which spillage can occur,
15 despite best efforts, but as, you know, I showed with the
16 analysis of the available transmission capability in 2017, it
17 seemed like if different decisions had been made, then Hydro-
18 Quebec would not -- it wasn't because of transmission
19 capability that was causing the spillage. Now, again, these
20 are very complicated systems that have to be managed and there
21 are a lot of constraints as indicated by Hydro-Quebec, but I
22 was specifically focusing on transmission and looking at 2017.

23 MR. SIMPSON: Phelps, excuse the interruption.

24 MR. TURNER: Sure.

25 MR. SIMPSON: I'm mindful of the clock and Toby. Can

1 you give me an estimate for how much more you've got?

2 MR. TURNER: Just a couple minutes.

3 MR. SIMPSON: Toby, are you good to go for a couple
4 more minutes? All right, proceed.

5 MR. TURNER: Yeah, and in fact, I -- so let me ask a
6 follow-up question. You said 2017, and I don't think you
7 answered -- my original was does that -- does your assertion
8 apply beyond the year 2022? And if you need a time range, one
9 would be the terms of the PPAs and the TSAs, 2023 through 2042.

10 MS. BODELL: Yeah, I have not done an analysis of
11 that. I think Gabriel Roumy, you know, basically described it,
12 there's a lot that would have to go into that analysis. We did
13 not do that analysis.

14 MR. TURNER: Okay, thank you very much, Ms. Bodell.
15 I have a couple questions for the confidential session, but
16 that's it for public.

17 MR. SIMPSON: Are there any other public questions
18 for this witness?

19 MR. DES ROSIERS: We have no questions.

20 MR. SIMPSON: Okay. Anyone else?

21 MR. SHOPE: This is John Shope. I just have a
22 clarifying question. I think Mr. Turner had asked you about
23 whether you could dispute the claim of Hydro-Quebec that it had
24 a transmission constraint that caused spillage. And I think
25 you had said that you hadn't done the specific analysis for

1 your testimony. Just more generally, do you have any reason to
2 doubt that the transmission line -- that the proposed NECEC
3 transmission line would somehow prevent spillage that otherwise
4 would occur?

5 MS. BODELL: You know, again, I looked at 2017 when,
6 at the time we were at the testimony, we knew spillage had
7 occurred and there was available transmission capability in
8 amounts high enough -- more than the amount that was spilled.
9 We looked at the amount -- what was spilled and when and the
10 conditions under which it was spilled, and it did not look to
11 us like that was associated with lack of transmission
12 capability across the Quebec lines into other markets because
13 there was a lot of rainfall and it looked like there was
14 generation constraints. So I have no reason to believe, based
15 on the 2017 analysis that we did, that in 2017, NECEC would
16 have added to -- needed to be added to the transmission
17 capability that was already available.

18 MR. SHOPE: In other words, if the -- you have no
19 reason to believe that if the NECEC line had been in place in
20 2017, that there somehow would have been less spillage as a
21 result of that?

22 MS. BODELL: That's correct. I have no reason to
23 believe that NECEC would have reduced the spillage based on
24 what I've reviewed in the publicly-available information that I
25 was able to look at and research. But, again, it's a very

1 detailed analysis. You'd have to look at it on an hour-by-hour
2 basis and understand why was the system being managed the way
3 it was that caused the spillage, what was anticipated, and, you
4 know, there are many reasons why the spillage could be
5 occurring.

6 MR. SHOPE: And you referred to management decisions
7 having been made. Could you just refer -- could you put that
8 in plain English? What kind of decisions might have been made
9 differently and why would Hydro-Quebec have made the decisions
10 that it did make for economic reasons?

11 MS. BODELL: Sure. So when Hydro-Quebec is venting
12 its system, it doesn't know what the future weather conditions
13 are going to be and whether it's going to be have a wet fall or
14 a dry fall. What it does know is it has to have a certain
15 amount of storage, certain amount of water in its reservoirs,
16 by November 1st or the November period is, according to their
17 projections, when they target, to have the maximum amount of
18 reservoir storage. And that's because between November 1st and
19 May 1st, based on Hydro-Quebec's own projections under normal
20 conditions, they need to draw down 60 terawatt hours from the
21 reservoirs, and that's because the snow pack is not
22 contributing to the water in the reservoirs. So there's a
23 storage that is necessitated by the timing of the runoff. And
24 therefore, if you look at that, Hydro-Quebec might make a
25 decision in the summer which says, look, I need to start

1 filling up my reservoirs, I'm not going to sell as much in the
2 export market, I still need to make my load, but I'm not going
3 to sell as much into the export market because I need to start
4 filling the reservoirs. And that would be, for example, a
5 reason why, even though it might be economic to sell that
6 energy into an export market, even though there might be
7 available transmission, Hydro-Quebec chooses not to make that
8 sale because they're intent on meeting the reservoir levels for
9 the winter.

10 MR. SHOPE: And can they sometimes choose not to run
11 water through the dam because they think they may get a higher
12 price at some later point?

13 MS. BODELL: They definitely can do that, and I think
14 Mr. Dickinson -- his model sort of implies that that's what
15 they do in his scenario where they sell less -- or they sell at
16 historical levels, less than they did in 2017, the 34.4. Less
17 than what they're projected to sell in 2018. Already through
18 October we could see these flows. There was 1.2 terawatt hours
19 more flows in 2018 through October than for the same period in
20 2017. So this is going to be, I think, another record year for
21 sales into the export markets for Hydro-Quebec. But that said,
22 they may choose to hold it in the reservoirs, and, you know,
23 unfortunately, in Quebec there are some people around the
24 reservoirs who feel like that's exactly what Hydro-Quebec
25 decided to do because these reservoirs, you have to understand,

1 aren't nicely walled-off pools. They're big, natural areas of
2 land, sometimes the size of Rhode Island or even bigger. And
3 so people in the area have built cabins, and, unfortunately,
4 those cabins can get flooded as the reservoir levels go to
5 higher levels and as spillage occurs into the rivers. So there
6 have been, in Quebec, some suppositions stated in the press
7 that Hydro-Quebec is reserving the water at higher levels to be
8 able to sell at a higher price going forward, specifically into
9 the U.S. markets. Again, I haven't done the analysis so I
10 don't know if those are -- that has basis or not basis, but
11 there would be an economic reason to maintain reservoir levels
12 at high levels if you can sell at twice the market price at a
13 point in the future.

14 MR. TANNENBAUM: This is Mitch, I have a quick follow
15 up. I understand why Hydro-Quebec might not sell energy that
16 it has available through water in its dams. But what would be
17 the reason, other than -- what would be the reason for spilling
18 other than transmission or generation constraints? Is there
19 any other reason they would spill water?

20 MS. BODELL: Yes. And if I could find this darn
21 document that was issued in response to Dot Kelly's request --
22 and I apologize --

23 MR. TANNENBAUM: That's okay --

24 MS. BODELL: -- just came out four -- five days ago,
25 but it identifies -- give me just 30 seconds.

1 MR. TANNENBAUM: No, that's okay. I can go review
2 the document if it's in there.

3 MS. BODELL: Yeah, but basically, I talked about the
4 generation constraint, talked about the runoff maybe reaching
5 such a high level. There may be maintenance. I know this
6 happened at Churchill Falls. There -- the spillway is what
7 used to be a very beautiful waterfall in that area, and it's
8 now diverted to produce energy. But there was a maintenance
9 issue where the turbines had to be down and the water was
10 coming in and it was at levels that they decided to spill. And
11 so that was for purposes of maintenance of the turbines. They
12 weren't going to be able to generate enough. There's also a
13 planning process. So, for example, in 2018 some of the
14 presentations that were made by Hydro-Quebec said that they
15 were anticipating they were going to need to have more area in
16 the reservoirs for the fall. So they were going to proactively
17 spill in the summer. And this was interesting because there
18 was availability on the lines into the other markets at high
19 prices during peak hours during the summer, including
20 potentially selling into Maine through New Brunswick, that was
21 not taken. And instead, there was -- I don't know if they
22 ultimately spilled, but there were presentations indicating
23 that they were planning on spilling in the summer during high-
24 price periods in anticipation of potential rainfall coming in
25 the fall so they didn't have to do a forced spillage. It's

1 better to do controlled spillages if you can to manage the
2 system.

3 MR. TANNENBAUM: Okay. Thank you.

4 MS. BODELL: But again, I'll refer you to response to
5 Dot Kelly because that identifies seven -- Hydro-Quebec
6 identified seven reasons why they would have to spill, five of
7 which were because of constraints on their own system that had
8 nothing to do with external markets or transmission into those
9 markets.

10 MR. TURNER: Just to clarify for the record, the
11 seven items that Ms. Bodell is identifying were described as
12 factors to determine maximum export capability. I just want
13 the record to show it's not necessarily respecting whether to
14 spill or not to spill but determining maximum export
15 capability.

16 MR. SIMPSON: Thank you. Dot, did you have a
17 question or -- before you --

18 MS. KELLY: Very short.

19 MR. SIMPSON: Okay, great. Because, again, I'm not
20 trying to cut you off. It's just I'm concerned about our
21 reporter. She's been going for almost two hours now. So go
22 ahead, Dot.

23 MS. KELLY: Thank you, Ms. Bodell. Good to hear you
24 on the phone. My question is related to two numbers that is in
25 the response to the document we were just discussing from

1 Hydro-Quebec to Mr. Dickinson. The number was, for 2017, 4.5
2 terawatt hours, and that was defined as being the quantity of
3 spilled water in 2017 due to a lack of economic transmission.
4 It seems, from your research, that you couldn't answer whether
5 that was also the total amount of spilled water by Hydro-Quebec
6 in 2017 or was there a larger total amount?

7 MS. BODELL: Yeah, unfortunately we tried to -- as
8 part of the supplemental testimony, tried to get some hard
9 numbers through filings, and maybe they're out there. I'm sure
10 maybe they're out there. We just -- the spillage issue, as you
11 know, became a recent issue. So we haven't had the time to
12 thoroughly look at that or examine whether that 4.5 terawatt
13 hours is due to an economic transmission into other markets.
14 But what we can say is there was available transmission
15 throughout the course of the year that could have been used to
16 sell at prices that would have covered the transmission costs
17 in Quebec, and they did not avail themselves of those
18 opportunities. So, again, I'm not saying they did anything
19 wrong. I'm just saying there was availability. Whatever the
20 decisions were is what they were. So I have no basis for being
21 able to tell you whether or not there was more spillage in 2017
22 or less or even what the basis for the statement related to 4.5
23 terawatt hours in 2017 --

24 MS. KELLY: Thank you very much.

25 MS. BODELL: -- occurred where.

1 MS. KELLY: That was all my questions.

2 MR. SIMPSON: Thank you. Any other public questions?

3 All right, let's go off the record.

4 CONFERENCE RECESSED (December 19, 2018, 12:48 p.m.)

5 CONFERENCE RESUMED (December 19, 2018, 1:02 p.m.)

6 MR. SIMPSON: All right, let's go back on the record.

7 And pursuant to a conversation we just had, Ms. Bodell has some
8 clarification that she wants to provide. So go ahead, Tanya.

9 MS. BODELL: Ah, yes, thank you. So I have found the
10 letter, and I have it. You know, if you look at the words --
11 not to parse it out, but there's some very careful wording in
12 this letter, and I just want to point it out. The first is, in
13 the years 2012 to 2017, there was a request for how much
14 spillage there's been, and the only year reported is 2017. Now
15 that would make sense because in 2013 there -- as we indicated
16 in the testimony, there was some dry conditions and there was
17 not a lot of draw down on the reservoirs and not a lot of
18 energy, and that's why there was only less than 200 megawatts
19 bid into the ISO New England market from Quebec. There just
20 wasn't a lot of water. They were, in fact, below the minimum
21 levels that Mr. Dickinson indicated. So, you know, the
22 combination, what's going on here where they're only reporting
23 spillage for 2017, when you had six of seven very wet years,
24 versus how a small shift can, just a few years earlier, result
25 in a dearth of energy I think is very important, the volatility

1 of the system tied to the commission.

2 The other thing is when they talk about the 10.4
3 terawatt hours worth of energy projected going forward, they
4 say "under comparable market and operational conditions," and I
5 think that's very important. You know, the operational
6 conditions implies that they're making the same kind of
7 decision, whatever those decisions may be, but the comparable
8 market conditions is interesting because, under Daymark's
9 projection, there would not be comparable market conditions.
10 Under Daymark's projections, the off-peak average price for
11 energy in Ontario is \$42 a megawatt hour which means that
12 there'd be economic sales opportunities into that export
13 market. So, again, I think we have to be very careful in
14 looking at what this letter says. And the fact that it doesn't
15 have analysis behind it that can be tested and vetted, you
16 know, means you can take it for what it says.

17 The last thing is the factors that determine the
18 maximum export capability which I was referring to as also
19 being factors that can determine how much spillage you have,
20 that is still the case. These are seven indicators of what
21 could contribute to spillage, two of which could maybe be
22 relieved by NECEC. But again, it depends on the timing and it
23 would depend on when the spillage is occurring.

24 MR. SIMPSON: Thank you. Any follow up on that?
25 Okay. Thanks. I would like now to turn to questions for Mr.

1 Russo. Mr. Russo, are you on the phone?

2 MR. RUSSO: Indeed I am. Good afternoon.

3 MR. SIMPSON: Great. Good afternoon. I'm sorry for
4 the flipping back and forth in the order here. I appreciate
5 your flexibility. So let's begin --

6 MR. RUSSO: No trouble at all --

7 MR. SIMPSON: Okay, great. Let's begin with IECG.
8 Drew?

9 MR. LANDRY: Hi. Thanks, Chris. My name is Andrew
10 Landry, attorney for Industrial Energy Consumer Group in this
11 proceeding. Now, I'm going to ask some questions that will
12 relate to documents which have been marked confidential, but
13 I'm not going to reveal any of the confidential information. I
14 don't believe it's necessary for you to reveal any of the
15 confidential information in order to answer the questions, but
16 if you find that it is, you know, let us know. My first couple
17 of questions relates to your Attachment CR-A-1. Do you have
18 that?

19 MR. RUSSO: Let me put it right in front of me.

20 MR. LANDRY: Yeah.

21 MR. RUSSO: And that is the email which, in my
22 understanding, has been marked confidential in this proceeding.

23 MR. LANDRY: Correct. Now, referencing the
24 information presented there which includes information
25 regarding base period exports and which relates to post-2023

1 exports from Hydro-Quebec, I was wondering if those assumptions
2 or those numbers appeared anywhere else in the documents that
3 were provided in the response to ODR 14-4 that you're aware of.

4 MR. RUSSO: I don't recall offhand those particular
5 numbers appearing elsewhere in the record or the documents we
6 reviewed. I can't definitively rule it out, but I can say that
7 I don't recall them appearing anywhere else.

8 MR. LANDRY: Okay, and that would include responses
9 to other discovery requests, not just --

10 MR. RUSSO: That is correct.

11 MR. LANDRY: Okay. And have you seen those numbers
12 presented by Hydro-Quebec or by CMP anywhere in a public
13 document?

14 MR. RUSSO: No, actually, none in this confidential
15 email.

16 MR. LANDRY: Great, thank you. Now at the bottom of
17 page two of your testimony, you state that Hydro-Quebec
18 evaluates its exports to different markets in a commercial
19 context. Are you familiar with that testimony?

20 MR. RUSSO: I see where you're reading from.

21 MR. LANDRY: Yeah. Just sort of as a, I guess,
22 logical matter, is there any reason why the -- all the
23 generation which might be sold under the contract with the
24 Massachusetts utilities couldn't come from incremental
25 renewable energy resources simultaneously with Hydro-Quebec

1 evaluating its exports in a commercial context? Are those
2 logically different things that can't both exist?

3 MR. RUSSO: I'm sorry. I'm not sure I fully heard
4 the last part of your question after could the incremental
5 energy come from Hydro-Quebec, and I'm not sure I understood
6 precisely the (indiscernible). If you could rephrase it.

7 MR. LANDRY: Yeah, sure. Just wondering whether the
8 fact that Hydro-Quebec evaluates exports in a commercial
9 context precludes the possibility that the exports could all be
10 incremental renewable energy.

11 MR. RUSSO: I don't think those two facts are
12 exclusive, but as I set forth in my testimony and is further
13 reinforced by the information reviewed in this particular
14 additional testimony, I don't (indiscernible) to be the case or
15 to be a reasonable assumption or conclusion.

16 MR. LANDRY: Okay. Well, thank you. Yeah, and
17 finally, I guess, let's say hypothetically that only 50 percent
18 of the generation delivered under contract to the Massachusetts
19 utilities was from incremental renewable generation. Do you
20 think that this Commission should ignore the environmental
21 benefits of 50 percent could be multiple terawatt hours of
22 renewable energy coming into New England in evaluating this
23 case?

24 MR. RUSSO: In order to properly answer your
25 question, I think it is necessary to define what precisely is

1 meant by the term incremental. And I suspect that I may have a
2 different definition of incremental than some other parties in
3 the proceeding. But to -- even without a proper and agreed-
4 upon universal definition of that term, I cannot speak for the
5 Commission, and they can judge the benefits of additional
6 resources to the state of Maine. The judgment of that is
7 totally within their purview. I would say, however, that the
8 review of projects always incorporates some elements of costs
9 and benefits, and to the extent that, in your hypothetical, the
10 amount of incremental energy being supplied is roughly 50
11 percent of what has been contemplated, thus indicating that the
12 effective price will be twice that contemplated, I would
13 imagine that would be a relevant fact for the Commission in
14 Maine to consider in its evaluation.

15 MR. LANDRY: Thank you, that's all I had.

16 MR. SIMPSON: NRCM, do you have questions for this
17 witness?

18 MS. ELY: I do. Mr. Russo, this is Sue Ely on behalf
19 of the Natural Resources Council of Maine. In your testimony,
20 you -- sorry, on page two going into page three of the
21 testimony, you write that the email that we've been
22 referencing, the number in the email that we've been
23 referencing, that we're not going to say the numbers because
24 it's confidential, but the email supports your conclusion that
25 there's no guarantee that flows over the NECEC would continue

1 once any contractual obligation in the 83D RFP power purchase
2 agreement expire 20 years from now. Can you explain what,
3 without talking about the -- without mentioning the
4 confidential information, what about that is reinforcing of
5 your position?

6 MR. RUSSO: Certainly. For context, as I set forth
7 in my original testimony, my understanding of the operational
8 electricity markets of the northeast and of Hydro-Quebec's
9 operations indicates to me that they make decisions on a
10 commercial basis. I believe I may have used the term a three-
11 way spread trade which is a convenient way of understanding
12 their operations. The -- I reached the conclusion that Hydro-
13 Quebec might not necessarily decide to continue after the
14 expiration of the PPA independently of any information that I
15 considered in preparing this additional testimony. But the
16 confidential information I've seen further reinforces by
17 conclusion by confirming what I think fairly conclusively is
18 Hydro-Quebec's thinking about the way they operate their
19 system. And without knowing what market conditions may be in
20 20 years, it's difficult to make the case that they would with
21 certainty continue to export power were it not in their
22 economic self-interest to do so.

23 MS. ELY: What implication does that have for the
24 second 20-year contract? My understanding is that there's two
25 20-year contracts back to back. And so I didn't understand,

1 are you anticipating that they wouldn't honor the second
2 contract?

3 MR. RUSSO: My understanding of the contracts is that
4 the first 20 years commits Hydro-Quebec to deliver energy, the
5 quantity of which is somewhat in dispute, over that line. The
6 second 20 years, in my understanding, is a period during which
7 Hydro-Quebec has transmission rights across that line, but it's
8 not under obligation to deliver energy. And therefore, they
9 may well own the transmission rights but not choose to deliver
10 energy across NECEC during that second 20-year period. And
11 there are, indeed, many instances of parties, not necessarily
12 Hydro-Quebec but including Hydro-Quebec, which own transmission
13 rights, which choose not to exercise those rights to transmit
14 energy. So to be clear, the distinction I'm drawing here is
15 the shipment of energy from Quebec into New England versus the
16 ability to shift power from Quebec to New England.

17 MS. ELY: Okay, thank you for that clarification.
18 That's all the questions that I had.

19 MR. SIMPSON: Are there any other questions for this
20 witness? Mr. Russo, thank you for your testimony. What we're
21 going to do -- oh, sorry, go ahead.

22 MR. RUSSO: Thank you.

23 MR. SIMPSON: Okay, thanks. We are now going to hang
24 up the phone, but don't do it yet. We're going to use that
25 four-digit PIN that has been distributed earlier in the day. I

1 want to check with the people on the phone to make sure that
2 everybody who needs to call back has that PIN. Is there
3 anybody on the phone that does not have the PIN? Okay. So
4 hang up now. Wait for two or three minutes so that we can get
5 the phone reconfigured, and then please call back in, at which
6 time we'll allow CLF to ask confidential questions of Ms.
7 Bodell. Thank you.

8 MS. BODELL: Just a clarification. Are we using the
9 same phone number and then there'll be a prompt for a PIN? Is
10 that --

11 MR. SIMPSON: That's exactly right, yeah.

12 MS. BODELL: Okay.

13 MR. SHOPE: So Chris, just to be really clear, so do
14 we use the same phone number and the same pass code and then
15 the PIN or is it just the same phone number without a pass code
16 but then the PIN?

17 MR. SIMPSON: It's all of the digits that you used to
18 dial in for the public section, and then you'll get a prompt
19 that says please add a four-digit PIN and at that point you add
20 the four digits.

21 MR. SHOPE: Okay, all right, so it does include the
22 pass code that looks like -- starts with 207 I think.

23 MR. SIMPSON: No, you do have to do that as well.

24 MR. SHOPE: Yeah, okay, great. Thanks.

25 CONFERENCE IN CAMERA/PROTECTIVE ORDER NUMBER 2

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(December 19, 2018, 1:21 p.m.)

CONFERENCE ADJOURNED (December 19, 2018, 1:26 p.m.)

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I hereby certify that this is a true and accurate transcript of the proceedings which have been electronically recorded in this matter on the aforementioned hearing date.

D. Noelle Forrest
D. Noelle Forrest, Transcriber