

In The Matter Of:
STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Docket No. 470B
April 18, 2019

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STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Docket No. 470B

Motion to Reopen an Application from NTE Connecticut,
LLC, for a Certificate of Environmental Compatibility
and Public Need for the Construction, Maintenance, and
Operation of a 550-Megawatt Dual-Fuel Combined Cycle
Electric Generating Facility and Associated Electrical
Interconnection Switchyard Located at 180 and 189 Lake
Road, Killingly, Connecticut

Regular Hearing held at the Connecticut
Siting Council, 10 Franklin Square, New Britain,
Connecticut, Thursday, April 18, 2019, beginning at
11:00 a.m.

H e l d B e f o r e :

ROBERT SILVESTRI, The Hearing Officer

1 A p p e a r a n c e s :

2 C o u n c i l M e m b e r s :

3

4 R O B E R T H A N N O N ,
5 D E E P D e s i g n e e

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7 L A R R Y L E V E S Q U E ,
8 P U R A D e s i g n e e

9

10 D A N I E L P . L Y N C H , J R .

11 M I C H A E L H A R D E R

12 E D W A R D E D E L S O N

13

14 C o u n c i l S t a f f :

15 M E L A N I E B A C H M A N , E S Q . ,
16 E x e c u t i v e D i r e c t o r a n d S t a f f A t t o r n e y

17

18 M I C H A E L P E R R O N E ,
19 S i t i n g A n a l y s t

20

21 L I S A F O N T A I N E ,
22 F i s c a l A d m i n i s t r a t i v e O f f i c e r

23

24

25

1 A p p e a r a n c e s:(cont'd)

2 For NTE Connecticut, LLC:

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1 A p p e a r a n c e s:(cont'd)

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1 THE HEARING OFFICER: Good morning,
2 ladies and gentlemen. This hearing is called to
3 order this Thursday, April 18, 2019, at 11 a.m.
4 My name is Robert Silvestri, member and Presiding
5 Officer of the Connecticut Siting Council.

6 This evidentiary session is a
7 continuation of the public hearing held on
8 April 4, 2019, at the town hall meeting room in
9 Killingly. It is held pursuant to the provisions
10 of Title 16 of the Connecticut General Statutes
11 and of the Uniform Administrative Procedure Act
12 upon a motion to reopen an application from NTE,
13 Connecticut LLC for a certificate of environmental
14 compatibility and public need for the
15 construction, maintenance and operation of a
16 550-megawatt dual-fuel combined cycle electric
17 generating facility, and associated electric
18 interconnection switchyard located at 180 and 189
19 Lake Road in Killingly, Connecticut.

20 On February 14, 2019, the Council,
21 pursuant to a request filed by NTE Connecticut,
22 LLC, and the provisions of Connecticut General
23 Statutes Section 4-181AB reopened the May 11,
24 2017, final decision rendered in this matter.

25 A verbatim transcript will be made of

1 this hearing and deposited with the town clerks'
2 offices in Killingly, Putnam and Pomfret for the
3 convenience of the public.

4 And we will proceed in accordance with
5 the prepared agenda, copies of which are available
6 near the side door. We will proceed with the
7 appearance of the party, the Town of Killingly.

8 Attorney Bachman, could you please begin
9 by swearing in the witnesses?

10 M A R Y C A L O R I O,

11 C A R L S T O P P E R,

12 called as witnesses, being first duly sworn
13 by the Executive Director, were examined and
14 testified on their oaths as follows:

15

16 THE HEARING OFFICER: Ms. Calorio and
17 Mr. Stopper, you have offered the exhibit listed
18 under the hearing program as Roman numeral 5B1.

19 For identification purposes, this is the
20 prefiled testimony dated April 11, 2019.

21 Is there any objection to marking this
22 exhibit for identification purposes only at this
23 time?

24 MR. BALDWIN: No objection.

25 THE HEARING OFFICER: Thank you.

1 Ms. Calorio and Mr. Stopper, did you
2 prepare or assist in the preparation of Exhibit
3 Roman numeral 5B1?

4 THE WITNESS (Calorio): Yes, we did.

5 THE WITNESS (Stopper): Yeah.

6 THE HEARING OFFICER: Thank you.

7 Do you have any additions,
8 clarifications, deletions or modifications to this
9 document?

10 THE WITNESS (Stopper): No.

11 THE HEARING OFFICER: Thank you. Is
12 this exhibit true and accurate to the best of your
13 knowledge?

14 THE WITNESS (Stopper): Yes, it is.

15 THE HEARING OFFICER: Thank you. And do
16 you offer this exhibit as your testimony here
17 today?

18 THE WITNESS (Stopper): Yes, we do.

19 THE HEARING OFFICER: And do you offer
20 this as a full Exhibit?

21 THE WITNESS (Calorio): Yes, we do.

22 THE WITNESS (Stopper): Yes.

23 THE HEARING OFFICER: Thank you.

24 Does any party object to the admission
25 of the Town of Killingly's exhibit?

1 MR. BALDWIN: No objection.

2 MS. CSANK: No objection.

3 THE HEARING OFFICER: Thank you.

4 Hearing none, we will begin with cross-examination
5 of the Town of Killingly by staff.

6 Mr. Perrone?

7 MR. PERRONE: Thank you, Mr. Silvestri.

8 Turning to the Town's April 11th prefile
9 on page 5, in the center of the page there's
10 discussion about slopes. And in NTE's response in
11 the middle of the paragraph it says, the only
12 location where a one-to-one slope is required is a
13 2500 square-foot area adjacent to wetland X.

14 At the last hearing I had asked NTE
15 about that, and Ms. Gresock testified that one
16 change that we made is incorporating two-to-one
17 slopes all around the perimeter of the property,
18 whereas before we had a retaining wall near
19 wetland X.

20 So my question is, with that
21 clarification from NTE with the two-to-one slopes
22 all the way around is it still correct to say that
23 the Town accepts the changes made by NTE and no
24 further action is required?

25 THE WITNESS (Stopper): Yes.

1 MR. PERRONE: Okay. Moving onto page 17
2 and 18 of the Town's prefile, at the bottom of
3 page 17, order number 20 where the Town requires
4 the road widening of Lake Road prior to
5 commencement of construction. And at the
6 beginning of page 18 in NTE's response NTE gets
7 into how it doesn't necessarily need to occur that
8 way, and they would do the widening prior to
9 commencement.

10 But anyway, the Town of Killingly does
11 not accept that response and will require that
12 road widening be implemented prior to
13 construction. My question is, would it be
14 problematic if NTE did some limited site work,
15 say, clearing prior to the widening of Lake Road?

16 THE WITNESS (Stopper): I think this
17 response is predicated on the equipment, and the
18 amount of use of -- of the road there would be
19 prior to making changes.

20 So I think it's a question of whether
21 those activities would result in some, you know,
22 detriment to the other, you know, to the
23 residents' use of the road and safety, you know,
24 associated with the -- with the roadway and the --
25 and the project.

1 That's -- that's the concern.

2 THE WITNESS (Calorio): Yeah, and the
3 Town has -- we have a meeting scheduled with NTE
4 next week to further go through some of those,
5 some of those concerns.

6 So we recognize that construction can
7 happen in phases, and so there's timing around
8 that. And so we want to better understand what
9 limited site work might be done prior to that road
10 widening so then we can, you know, coordinate
11 better. So that meeting will be happening next
12 week.

13 MR. PERRONE: Okay. And moving to the
14 last page of the prefile, the additional orders of
15 regulation and restriction. Towards the end,
16 structural plans for the noise barrier will need
17 to be submitted to the Town as well.

18 By that do you mean, drawings stamped by
19 a PE taking into account the wind load?

20 THE WITNESS (Stopper): I think it's a
21 combination of the actual engineering drawings in
22 addition to knowing what the type of construction
23 that the wall is -- is being proposed will be, or
24 walls if they're going to vary along the length of
25 the property on the west side.

1 And these were items that were not
2 previously identified in the earlier submissions
3 and apparently was a result of a modification to
4 the planned design. It caused, you know, the need
5 for the sound barrier.

6 So the Town would like to receive
7 additional information to review and, you know,
8 understand what is being proposed.

9 MR. PERRONE: Thank you. That's all I
10 have.

11 THE HEARING OFFICER: Mr. Stopper, I
12 just wanted to make sure the green light is on, on
13 the microphone?

14 THE WITNESS (Stopper): It is.

15 THE HEARING OFFICER: Okay. Great. I
16 had a little trouble hearing you. All right.

17 I'm going to continue with
18 cross-examination with councilmembers, starting
19 with Mr. Hannon.

20 MR. HANNON: Thank you.

21 On the document that was submitted on
22 April 11, 2019, I have sort of a general question,
23 and some of those have been answered. On number
24 seven where the Town comments on plans for the
25 installation, sewer, water main and gas pipelines

1 on Lake Road, including detailed plans for
2 maintenance and the protection of traffic shall
3 require a submission of the Town for review and
4 approval before any site work shall commence.
5 This I think is a little different tack than I
6 think some of other comments that are made.

7 So in this respect I just want to make
8 sure I understand what you're saying is you would
9 like to see the plans so you can review them and
10 approve them, but that approval and completion of
11 construction of those utility upgrades is not
12 going to prevent the project going forward from
13 construction, because I think there are a couple
14 of other comments that have made in here where
15 you're saying if, for example, the gas line --
16 that should be approved and installed prior to
17 starting construction here, and the same thing
18 with the water connection.

19 And I'm just having a hard time, one,
20 figuring out when you are saying you have to have
21 that stuff reviewed and built before starting
22 construction, versus this where I think you're
23 just saying, on this one we want to see it before
24 you start.

25 THE WITNESS (Stopper): In which? Could

1 you clarify for me what page that's on?

2 MR. HANNON: Eight of 34. It's at the
3 bottom of 8 of 34, and NTE came back with this
4 response.

5 And the Town's response was, given the
6 critical nature of these approvals and the
7 operation of the plant, the Town of Killingly does
8 not accept NTE's appeal to waive any conditions
9 required to comply with the municipal orders to
10 regulate and restrict.

11 So I just want to make sure. So for the
12 work in this case that is related to improvements
13 to the roadway, your goal is to see the plans to
14 make sure they're consistent with what the Town
15 wants. So that does not in any way tie into the
16 construction of the facility?

17 THE WITNESS (Calorio): Correct. We
18 wanted to -- we want to make sure that we see the
19 full plans and the full -- the stamped plan so we
20 understand what the proposal is. It doesn't
21 necessarily need to be fully constructed prior to.

22 MR. HANNON: Okay. And of course, right
23 now I think it's been highlighted -- I thought
24 that there were two other components. One was
25 dealing with the gas line upgrade and the water

1 system upgrade.

2 The comments from the Town was that it
3 was the Town's position that those needed to be
4 approved and constructed prior to any construction
5 taking place at the site.

6 Is that the Town's position?

7 THE WITNESS (Stopper): I believe the
8 intent is that there would be approval of those
9 additions that are necessary to serve the
10 facility, and that all of the approvals necessary
11 to -- to construct those, the gas main and the
12 water main extensions or expansions would be in
13 hand before actual physical construction could
14 begin.

15 So that, understand that there are no
16 other hinderances, you know, that would impede the
17 project from moving forward if there was some
18 later change in the permitting or the approvals
19 necessary to construct those things that are vital
20 to the plant's operation.

21 MR. HANNON: Because I think one of the
22 issues that I have with that position is -- at
23 least it's my recollection at the local level,
24 like for example, planning and zoning would not be
25 allowed to condition approvals based on other

1 entities that planning and zoning does not have
2 any control over.

3 So this is where I'm just having a hard
4 time squaring away this in my head, is because I
5 think you're asking for some approvals and some of
6 the construction to be done through the Department
7 of Public Health, the Department of Energy and
8 Environmental Protection, which really don't
9 reflect on the Council or the locals.

10 So that's where I'm having a little bit
11 of difficulty, sort of, reconciling those two
12 different positions.

13 THE WITNESS (Calorio): And that's part
14 of what our meeting with NTE is going to be next
15 week, is really kind of stepping through what
16 construction components they're looking at moving
17 forward on that may -- we need to iron out that
18 conflict to make sure that we fully understand
19 that the approval processes are being maintained
20 and finalized appropriately at all the levels.

21 MR. HANNON: And then I believe also in
22 here there's some language about NTE having agreed
23 to put up a bond for decommissioning.

24 Is that your recollection also?

25 THE WITNESS (Stopper): Yes.

1 THE WITNESS (Calorio): Yes.

2 MR. HANNON: And at what stage of the
3 process do you anticipate that bond being posted?
4 Prior to start of construction? After completion
5 of construction? Any idea on that?

6 THE WITNESS (Stopper): Prior to start
7 of construction.

8 MR. HANNON: Okay. So then taking that
9 a little bit forward.

10 If for example the project were approved
11 by the Siting Council, but something came
12 up either with the Department of Energy and
13 Environmental Protection as it relates to the gas
14 line, or if it was something to do with the water
15 system through public health, if one of those
16 entities did not authorize that construction which
17 may prohibit the plant from getting up and
18 operational, is the bond that would be in place
19 for decommissioning -- if they can't get up and
20 running because they can't get the components that
21 they need, I mean, is that something that offers a
22 little bit of flexibility with the Town rather
23 than having some of those components built and
24 operational before the Town signs off?

25 THE WITNESS (Calorio): Sure. That

1 could afford some flexibility on the Town.

2 THE HEARING OFFICER: Thank you,
3 Mr. Hannon.

4 We'll continue with Mr. Harder.

5 MR. HARDER: No questions. Thank you.

6 THE HEARING OFFICER: Mr. Levesque?

7 MR. LEVESQUE: As maybe it hasn't
8 happened yet, but has the Town reviewed the weight
9 limits of the Town's own bridges compared to some
10 of the heavy equipment components that they have
11 to bring in?

12 THE WITNESS (Calorio): Not that I'm
13 aware of at this point.

14 MR. LEVESQUE: Is that something that
15 they usually consult you with? That say, you know
16 their heaviest overweight trailers, whether
17 there's a safe and adequate route to get there?

18 THE WITNESS (Calorio): That's usually
19 managed through the transit -- or the -- the
20 transportation.

21 MR. LEVESQUE: The DOT heavy hauler?

22 THE WITNESS (Calorio): The DOT heavy
23 hauler. So they would have all of those rates,
24 and then for a large piece of equipment like that
25 or a very heavy load they have to get the

1 preauthorization to -- to go travel certain
2 roadways and -- and certain bridges. So all of
3 that is usually mapped out through DOT.

4 MR. LEVESQUE: Have you ever done a
5 major project, consulted with them to, you know, a
6 current registration of bridges you own if there's
7 any on your route throughout their --

8 THE WITNESS (Calorio): I don't know
9 specifically which route and which bridges would
10 necessarily be impacted, but we do have -- we do
11 have the ratings of all of the bridges. So we are
12 aware of which ones might be a concern.

13 THE HEARING OFFICER: Your town engineer
14 would be the best one for them to consult with?

15 THE WITNESS (Calorio): Correct.

16 Exactly.

17 MR. LEVESQUE: Thank you very much.

18 THE HEARING OFFICER: Thank you.

19 I have a quick question for you --
20 actually two parts. I believe it was on
21 March 22nd that Killingly High School had to close
22 due to some type of a water problem?

23 THE WITNESS (Calorio): So the Killingly
24 High School is a well system. They are not
25 connected to a public water system, or the

1 Connecticut Water system. It's a well system.

2 There they tested high on -- on a
3 bacterial component part of their treatment
4 facility. They had to run a separate chlorination
5 process in order to be able to reopen school. So
6 that independent -- they're a separate independent
7 water treatment facility.

8 THE HEARING OFFICER: You actually
9 answered the second part of the question which is,
10 is it the same water source as --

11 THE WITNESS (Calorio): It's not.

12 THE HEARING OFFICER: Okay. Thank you
13 very much.

14 THE WITNESS (Calorio): Separate water
15 source.

16 THE HEARING OFFICER: Does any other
17 Councilmembers or staff have any other questions
18 before we move on?

19

20 (No response.)

21

22 THE HEARING OFFICER: Okay. Attorney
23 Baldwin?

24 MR. BALDWIN: Thank you, Mr. Silvestri.

25 Just a clarification. Is the Town

1 familiar with the Siting Council's development and
2 management plan process?

3 THE WITNESS (Stopper): Yes, I'm aware
4 of it.

5 MR. BALDWIN: So you're aware that
6 after, assuming the Siting Council approves the
7 application and the applicant would be pulling
8 together essentially construction plans for the
9 facility, and that those plans would be delivered
10 to the Town for additional review and comment
11 prior to their final approval by the Siting
12 Council?

13 THE WITNESS (Stopper): Yes.

14 MR. BALDWIN: Thank you.

15 THE HEARING OFFICER: Thank you,
16 Attorney Baldwin.

17 Group parties, I have Not Another
18 Powerplant, the Sierra Club, and Wyndham Land
19 trust. Do you have any questions for the Town of
20 Killingly?

21 MS. MILLER: Wyndham Land Trust and Not
22 Another Powerplant does not have any questions for
23 the Town.

24 THE HEARING OFFICER: Thank you.

25 The Sierra Club?

1 MS. CSANK: Your Honor, just one
2 question if I may?

3 THE HEARING OFFICER: Come forward,
4 please.

5 MS. CSANK: Good morning. Do you recall
6 discussing a wall that is part of the project a
7 little bit earlier?

8 THE WITNESS (Calorio): Which wall?

9 MS. CSANK: The noise barrier wall.

10 THE WITNESS (Calorio): The sound
11 barrier, yes.

12 MS. CSANK: Does that wall serve any
13 other purpose besides the sound barrier that you
14 know of?

15 THE WITNESS (Calorio): Not that we're
16 aware of. We just noticed them on the plans, and
17 that's why we're asking NTE for further
18 information on it.

19 MS. CSANK: So it doesn't serve any
20 safety function, for example, that you know of?

21 THE WITNESS (Calorio): None that we're
22 aware of.

23 MS. CSANK: And it wasn't analyzed for
24 safety implications by the Town?

25 THE WITNESS (Calorio): No. Again, this

1 was something that we noticed on the more recent
2 submission.

3 MS. CSANK: And in terms of the safety
4 of the pipeline, the gas line, has that been
5 analyzed by the Town?

6 THE WITNESS (Stopper): No.

7 MS. CSANK: Thank you.

8 No further questions.

9 THE HEARING OFFICER: Thank you.

10 And also Connecticut Fund for the
11 Environment, do you have any questions for the
12 Town of Killingly?

13 MS. FIEDLER: No questions.

14 THE HEARING OFFICER: Very good. Thank
15 you.

16 We will continue with the appearance of
17 the applicant. And Attorney Baldwin, we'll give
18 you a few minutes to get organized.

19 MR. BALDWIN: Thank you.

20

21 (Pause.)

22

23 THE HEARING OFFICER: Yes, Attorney
24 Baldwin?

25 MR. BALDWIN: Mr. Silvestri, I would

1 just point out for the purposes of the record that
2 our witness panel remains the same. I would
3 remind our witnesses that they are sworn in, in
4 this docket. So they're still under oath.

5 T I M E V E S,
6 C H R I S R E G A,
7 L Y N N G R E S O C K,
8 P A U L J. H I B B A R D,
9 N O R M T H I B E A U L T,
10 S C O T T H E S K E T H,

11 recalled as witnesses, being previously sworn
12 by the Executive Director, were examined and
13 testified under oath as follows:

14
15 MR. BALDWIN: We have two additional
16 exhibits that were submitted on April 11th that
17 we'd like to get at least a portion of our witness
18 panel to verify today.

19 They include the slide presentation that
20 Ms. Gresock used at the start of the public
21 session back in Killingly on the 4th of April.
22 And the second are responses to the Siting
23 Council's late-file exhibit request that were made
24 in a combination during the hearing and then
25 immediately following the hearing. Those were

1 also dated April 11th, and we offer those for
2 identification purposes subject to verification.

3 THE HEARING OFFICER: And these are
4 exhibits marked as Roman numeral two, item B,
5 numbers ten and eleven on the hearing program.
6 Correct?

7 MR. BALDWIN: Yes, sir.

8 THE HEARING OFFICER: Thank you.

9 MR. BALDWIN: If I could ask at least a
10 portion of our witness panel, did you prepare or
11 assist in the preparation of those items listed in
12 the hearing program under Roman 2B, items 10 and
13 11? Mr. Rega?

14 THE WITNESS (Rega): Yes, I did.

15 MR. BALDWIN: Ms. Gresock?

16 THE WITNESS (Gresock): Yes.

17 MR. BALDWIN: Mr. Eves?

18 THE WITNESS (Eves): Yes?

19 MR. BALDWIN: Mr. Hesketh?

20 THE WITNESS (Hesketh): Yes.

21 MR. BALDWIN: And do you have any
22 corrections, modifications or amendments to offer
23 to any of those exhibits? Mr. Rega?

24 THE WITNESS (Rega): I do not.

25 MR. BALDWIN: Ms. Gresock?

1 THE WITNESS (Gresock): No.

2 MR. BALDWIN: Mr. Eves?

3 THE WITNESS (Eves): No.

4 MR. BALDWIN: Mr. Hesketh?

5 THE WITNESS (Hesketh): No.

6 MR. BALDWIN: And is the information
7 contained in those two new exhibits true and
8 accurate to the best of your knowledge? Mr. Rega?

9 THE WITNESS (Rega): Yes, it is.

10 MR. BALDWIN: Ms. Gresock?

11 THE WITNESS (Gresock): Yes.

12 MR. BALDWIN: Mr. Eves?

13 THE WITNESS (Eves): Yes.

14 MR. BALDWIN: Mr. Hesketh.

15 THE WITNESS (Hesketh): Yes.

16 MR. BALDWIN: And do you adopt the
17 information in those exhibits as your testimony in
18 this proceeding, Mr. Rega?

19 THE WITNESS (Rega): I do.

20 MR. BALDWIN: Ms. Gresock?

21 THE WITNESS (Gresock): I do.

22 MR. BALDWIN: Mr. Eves?

23 THE WITNESS (Eves): Yes.

24 MR. BALDWIN: And Mr. Hesketh?

25 THE WITNESS (Hesketh): Yes.

1 MR. BALDWIN: I offer them as full
2 exhibits.

3 THE HEARING OFFICER: Does any party
4 object to the admission of the applicant's new
5 exhibits?

6 MS. FIEDLER: No objection.

7 THE HEARING OFFICER: Hearing none, the
8 exhibits are admitted.

9 We'll continue with cross-examination of
10 the applicant by Mr. Perrone.

11 MR. PERRONE: Thank you, Mr. Silvestri.

12 Turning to the late-file exhibits, I'll
13 start with number one. In the response NTE notes
14 that they have their April 8th letter to DPH and
15 DPH and mentioned they would communicate directly
16 with the Council.

17 My question is, have you heard anything
18 else from DPH since that filing of the April 8th
19 letter?

20 THE WITNESS (Eves): No.

21 MR. PERRONE: Late-file Exhibit Number 4
22 where we have the capacity factor of the duct
23 burner. My question on that, can the duct burner
24 itself ramp, or is it basically full on or full
25 off?

1 THE WITNESS (Rega): The burner can
2 ramp.

3 MR. PERRONE: Okay. Next, a public
4 benefit-type question. I'm going to refer to a
5 section of the 2019 regional electricity outlook.

6 MR. BALDWIN: Excuse me, Mr. Perrone?
7 Is that one of the -- just to clarify -- the
8 administrative notice items?

9 I just want to make sure the witnesses
10 have it in front of them before we -- if you have
11 a copy we'll take that, but otherwise, we can pull
12 it up.

13 MR. PERRONE: I do have a copy.

14 Okay. On page 32 -- I'll read the
15 section. New England has adequate capacity
16 resources to meet the projected demand, however as
17 more limited energy resources are developed and
18 traditional generation resources retire the grid
19 may not be able to supply enough energy to meet
20 electric demand.

21 The ISO first identified this issue as a
22 wintertime fuel security problem, but the broader
23 issue of a year-round energy security will need to
24 be addressed as the operational dynamics of the
25 hybrid grid take hold.

1 So my question is, given the concerns
2 about energy rather than capacity, how could KEC
3 fit into this and potentially address that issue?

4 THE WITNESS (Hibbard): The -- the
5 section that you're referring to, I think it's
6 important first to notice that it's focused on the
7 energy security problem.

8 And the reason ISO here refers to the
9 fact that it has sufficient capacity is because in
10 each subsequent forward capacity market event, or
11 each forward capacity year they have obtained
12 sufficient resources to meet the capacity -- the
13 resource adequacy requirement. So that's in
14 effect the first thing they're saying here is, we
15 have sufficient capacity resources.

16 The focus of the document itself is --
17 or the content you're referring to is on
18 specifically the energy security problem. So on
19 the first part KEC does contribute to meeting the
20 capacity requirement, the resource adequacy
21 requirement, because it has been granted a
22 capacity supply obligation.

23 On energy security, in my testimony I
24 try to identify several ways in which I believe
25 KEC will help address the energy security problem

1 for the region primarily being a resource that has
2 fuel security through a long-term firm
3 transportation contract for natural gas as well as
4 dual-fuel capability. And that's the sort of fuel
5 security that ISO is referring to as being what
6 the region needs to meet that, that need.

7 MR. PERRONE: So I understand that
8 addresses the wintertime part, but they also
9 mention a broader issue of year-round energy
10 security. Would it contribute to energy security
11 on a year-round basis?

12 THE WITNESS (Hibbard): The -- it's not
13 particularly clear exactly what they mean by a
14 year-round energy security issue. I think what --
15 what they are probably referring to here is
16 essentially the same issue, but it being a
17 year-round issue as opposed to just a wintertime
18 issue and the need for having sufficient resources
19 that can generate energy in all months of the
20 year.

21 In the past ISO has referred, certainly
22 not as much as they have to the winter security
23 issue, but to the potential for gas-related
24 contingencies.

25 For example, the loss of the pipeline or

1 maintenance of a major pipeline in the summer
2 potentially raising the same sort of fuel
3 secure -- energy security issues that they worry
4 about with respect to the winter. And so that may
5 be specifically what they're referring to here.

6 MR. PERRONE: Okay.

7 THE WITNESS (Hibbard): And the same --
8 the same thing holds, Mr. Perrone, that -- that
9 ultimately KEC's firm transportation contract is a
10 365-day per year firm contract. And the dual-fuel
11 capability including storage capacity, as well as
12 replenishment capacity would still be there and be
13 able to make those contributions.

14 MR. BALDWIN: For my own selfish
15 purposes, I just want to confirm that we're
16 talking about administrative notice item number
17 45?

18 MR. PERRONE: Absolutely. Yes.

19 Moving onto page 38 of that document --

20 THE WITNESS (Hibbard): Mr. Perrone, I
21 apologize. May I just supplement what I said
22 before?

23 MR. PERRONE: Sure.

24 THE WITNESS (Hibbard): The one thing I
25 didn't mention is what -- one of the things that

1 ISO is also referring to here is the integration
2 of variable resources whereas that happens over
3 time as the system is decarbonized that vast
4 amount of variable resources -- and in here
5 they're looking out in the future -- are not as --
6 and they can be as sure. It's the same sort of
7 fuel security issue that they're concerned about
8 with resources that rely upon fuel being delivered
9 just in time.

10 So to the extent that the level of
11 variable resources integration happens that could
12 present fuel security. That could also contribute
13 to fuel security issues throughout the year
14 without having sufficient resources available that
15 do have fuel security in place through all months
16 of the year.

17 THE HEARING OFFICER: Mr. Hibbard, could
18 you explain briefly decarbonized?

19 THE WITNESS (Hibbard): I -- I think
20 there's -- there's certainly a recognition in this
21 document, and I think a general recognition
22 throughout the New England states at least at the
23 regional level that the energy systems we rely on
24 will be decarbonizing over the next several
25 decades, and that it's that transition.

1 How that transition happens is
2 critically important both to meet the various
3 states' goals of reducing carbon emissions from
4 all energy sectors by, for example, by 80 percent
5 by 2050. And it's that -- how that transition
6 happens out over the next several decades will be
7 extremely important for consumers and for
8 reliability.

9 But I -- I do think that there's a
10 common understanding at this point that that is
11 the path that we're on.

12 THE HEARING OFFICER: So could I say
13 that decarbonized would contain or include both --
14 coal, oil and natural gas?

15 THE WITNESS (Hibbard): Well, I -- I
16 would actually take a step back. I think in order
17 to meet the specific policies and goals that the
18 states are promulgating, and will continue to
19 promulgate, in my opinion, going forward -- really
20 the most -- there are -- I think of it as three
21 major steps.

22 One is, we have to electrify
23 transportation. We have to electrify buildings,
24 the building sector, heating. So that's -- we
25 won't meet -- the New England states will not meet

1 their -- their decarbonization goals without doing
2 that. And that is sort of -- step number one can
3 achieve major amounts of carbon reductions.

4 Step two is that obviously massively
5 increases demand on the electric system, and so
6 critically important in continuing that phase of
7 decarbonization is, number one, integrating a lot
8 more renewables than are even currently planned as
9 is discussed here in this document, but also
10 decreasing the carbon intensity of the fossil fuel
11 generation that will have to remain in place for
12 at least some number of decades to support that
13 level of integration, but also to reach the goals
14 out in 2050.

15 It's not, you know, in my view de --
16 reducing the carbon intensity of the generation
17 that we need to have in place includes -- will
18 eventually lead to the retirement of all the coal
19 and oil resources, but also will include
20 increasing the efficiency of generating
21 electricity with natural gas.

22 I think all of those are going to be
23 critical elements of meeting the various states'
24 decarbonization goals over the next several
25 decades.

1 THE HEARING OFFICER: Thank you.

2 Mr. Perrone, please continue?

3 MR. PERRONE: Sure.

4 Turning to page 36, it notes that the
5 Mystic generation station units, they'll be
6 retained. Other resources seeking to retire will
7 be evaluated under new provisions to determine
8 whether a fuel security reliability need exists.

9 But the last part, the ISO's ability to
10 retain resources for fuel security will expire
11 after the 2024/2025 period. And with the
12 expiration of that and the inability to retain
13 resources for fuel security could KEC help address
14 that issue?

15 THE WITNESS (Hibbard): I absolutely
16 believe KEC helps address this issue.

17 The -- the expiration at -- in '24 and
18 '25 is, I believe, here specifically referencing
19 the fact that FERC's approval of the Mystic
20 decision and ISO's fuel security analysis is
21 predicated on them shifting to making wholesale
22 market changes that would accomplish the same
23 objective without, you know, without having to
24 force ratepayers to pay cost of service contracts
25 for existing units, and as in this case keeping

1 uneconomic units in operation beyond their point
2 of economic retirement.

3 So that was FERC's requirement for
4 approving -- not requirement. That was a
5 provision that FERC expects of ISO New England in
6 order to allow for this retention of these units
7 to be in place and to be temporary.

8 The goal there is to develop
9 market-based mechanisms that will provide that
10 same level of fuel security. Those mechanisms are
11 essentially the mechanisms that will provide
12 additional revenue for units that can contribute
13 to maintaining that fuel security.

14 And in all of these market mechanisms
15 that ISO New England is working on KEC would
16 qualify to earn revenues under them because they
17 have a firm transportation contract for natural
18 gas. That is what is specifically different from
19 all of the other gas-fired generators that
20 wouldn't necessarily qualify unless they entered
21 into a similar firm transportation contract.

22 So KEC with the combination of the
23 dual-fuel capability as well, I think with those
24 two facets they will absolutely be able to
25 contribute to maintaining this level of fuel

1 security.

2 MR. PERRONE: Now I would like to get
3 into the potential plant retirements. Is it
4 correct to say that Millstone and Seabrook Nuclear
5 Powerplants recently received long-term contracts
6 to sell their output to local utilities?

7 THE WITNESS (Hibbard): I am aware of
8 Millstone, yeah -- yes, at least some portion of
9 their capacity. My understanding, it has recently
10 been locked up for a long-term period through
11 state-based contracts.

12 MR. PERRONE: In your opinion, as a
13 result of those contracts would that keep both
14 those plants operational for the foreseeable
15 future?

16 THE WITNESS (Hibbard): For at least the
17 term of those contracts, that would be my
18 expectation.

19 I -- I should say, Mr. Perrone, I'm
20 not -- I believe that to be true for Millstone. I
21 don't personally know the size of the -- of what
22 was signed up for Seabrook. So I -- and that
23 would be -- that would be an important thing for
24 me to come to that conclusion.

25 But obviously if they've entered into a

1 commitment for even a small portion of their
2 capacity, their expectation would be that
3 they'll -- they'll be in operation for the term of
4 that contract.

5 MR. PERRONE: Next I would like to get
6 into what ISO lists as the at-risk units, and on
7 page 18 it has approximately 5,000 megawatts.

8 And going back to page 32 there's a
9 table in the center of that page, protected
10 changes in key New England power resources and
11 energy efficiency. And each fuel source has two
12 scenarios, the through 2018 and 2027. And in it,
13 in these scenarios it's showing retired and
14 at-risk by 2027.

15 In your opinion, or based on any
16 analyses that you have seen do you agree with 2027
17 as an estimated date by which the at-risk and
18 retired units would be offline?

19 THE WITNESS (Hibbard): I -- I would
20 want to look at this to see what's behind each of
21 the numbers in each of these fuel categories.
22 Obviously having -- having said that, I think I
23 probably would not give a very specific answer
24 about exactly which units in what portion of oil,
25 coal and natural gas units will retire by 2027.

1 That's something that certainly could be estimated
2 and modeled.

3 I think of it a little more generically.
4 I think the whole purpose of the wholesale markets
5 is to lead to that transition. And you know,
6 particularly with respect to the oil and coal
7 units, they're not economic now and it's hard to
8 imagine they can continue to operate going forward
9 for very long.

10 There is obviously some option value
11 with keeping them around and operating them when
12 prices are high. But you know, if you think of
13 it, as soon as they have to spend, make a
14 significant capital investment for a boiler tube
15 replacement, or for anything then it becomes
16 increasingly difficult to support continuing to
17 take on a capacity supply obligation, because just
18 the revenues aren't there to support it.

19 So you know, my view is that we don't
20 know if it's next year or the year after, or five
21 years from now, but virtually all of the coal and
22 oil units will retire because they're simply
23 uneconomic.

24 I also believe that these forces and the
25 progress that's been made in generation efficiency

1 for natural gas-fired units -- and the same
2 challenges economically mean there will be a fair
3 amount of gas-fired generation that exists on the
4 system now that will retire as well that's older
5 and less efficient.

6 So ISO's focus here -- because the
7 question is on fuel security -- is on oil and
8 coal, but I think from a market perspective I
9 wouldn't stop there. I think at least at some
10 point over the next ten years it won't just be oil
11 and coal. It will be the more efficient -- older
12 and dirtier gas-fired units will begin to retire
13 as well.

14 MR. PERRONE: You mean, some of the
15 older steam units?

16 THE WITNESS (Hibbard): Yeah.

17 MR. PERRONE: And a couple other
18 questions on plant operation. Is it correct to
19 say that KEC can only burn ULSD when gas is not
20 available?

21 In other words, you don't have the
22 option to run on ULSD purely for economics. Is
23 that right?

24 THE WITNESS (Eves): Yes, that's
25 correct. That's a condition of our air permit.

1 MR. PERRONE: And if the gas side of the
2 plant was shut down for maintenance purposes could
3 you run on ULSD?

4 THE WITNESS (Eves): No.

5 MR. PERRONE: All set on that topic.
6 I'm going to go back to the municipal regulate and
7 restrict topic we were discussing earlier.

8 Turning to page 9 of the Town's prefile.
9 And that is IWWC number seven.

10 NTE notes that it would obtain all
11 necessary permitting for water, sewer, natural
12 gas, but the permitting would run concurrently
13 with the construction.

14 My question is, hypothetically, if NTE
15 were required to secure those permits before
16 commencement of construction of KEC how would that
17 impact your construction schedule?

18 THE WITNESS (Eves): And I believe the
19 permits you're talking about here are the Yankee
20 Gas permits and the water company?

21 MR. PERRONE: Yes.

22 THE WITNESS (Eves): Yeah. Okay. So
23 the water company already has their diversion
24 permit. They still have to do a little additional
25 work on where they're going to lay the pipes.

1 But you know, as we responded to the DPH
2 concerns the construction will be done in, you
3 know, in a phased process. Our expectation is
4 that we're going to be in a position to start
5 construction with the approval here early this
6 fall.

7 With any kind of restriction that would
8 force that construction to start later -- would be
9 an impact on our ability to get online to meet
10 that, our capacity supply obligation.

11 MR. PERRONE: Turning to page 12, this
12 is more a potential clarification of the NTE
13 response. Number twelve of the Town's prefile,
14 PZC number seven, water supply improvements shall
15 receive the permitting before commencement of
16 construction, and water mains shall also receive
17 their permitting prior to commencement of
18 construction of construction.

19 But in NTE's response, NTE says NTE does
20 not believe that the water system improvements
21 need to be completed before commencement. Does
22 NTE have any potential changes to that response?

23 My reading of it, the Town was asking
24 about permitting before construction, and the
25 response seems to point more towards completion

1 before construction?

2 THE WITNESS (Eves): Yes, I would say in
3 rereading that it appears that the planning and
4 zoning comment number seven is referring to
5 permitting. And -- and we're clearly saying that
6 we don't believe the improvements need to be done
7 before we start construction.

8 But when I look at the Connecticut Water
9 Company and Yankee Gas, I mean, we -- we're merely
10 customers of theirs. I mean, we're going to be
11 big customers. They've got -- they've got an
12 obligation to serve us and we have contracts.

13 We can, you know, we can be -- we can
14 monitor and see what they're doing, but as
15 their -- as their permitting goes, we don't really
16 have, you know, authority or -- over their
17 permitting. I think it could be -- it could be
18 problematic for us -- for us to have an
19 obligation that our suppliers have their permits
20 in place before we start construction.

21 We've got no control over that process,
22 but we do have -- in the agreements that we've
23 signed with Connecticut Water and with Yankee Gas
24 we have dates that they are obligated to have
25 that, that those systems are online to support

1 our -- support our project.

2 THE HEARING OFFICER: Mr. Eves, I have a
3 followup on that.

4 What's the default if they don't satisfy
5 those dates?

6 THE WITNESS (Eves): I would have to
7 look at those, back again at those contracts, but
8 we do have default provisions in both contracts.

9 MR. PERRONE: Moving onto the end of the
10 Town prefile at the very last page, 34, there's
11 additional orders of regulation and restriction.

12 Could NTE respond to the Town's
13 additional orders of regulation and restriction?

14 THE WITNESS (Eves): And you're talking
15 about number one here on the last page?

16 MR. PERRONE: Absolutely.

17 THE WITNESS (Eves): Right. Yes, and I
18 would say looking at that, as the town manager
19 mentioned, we do have a meeting set up to sit down
20 and actually go through all of these.

21 And -- and as we have already had a
22 preliminary review we don't see any -- any issue
23 on any of these that we don't believe that we can
24 resolve together. So we're going to be getting
25 started on that on Wednesday, or I would say

1 getting into detail on Wednesday on that.

2 As far as this order here, you know,
3 they ask us -- part of this is to say, do some
4 alternative noise analysis and that is no problem
5 for us. I mean, we will be doing that regardless,
6 but we're good with that.

7 And did you want to answer?

8 THE WITNESS (Gresock): Yeah, I just
9 wanted to say that the sound barrier that's
10 reflected in the application are one solution, and
11 it's always a standard practice for the design
12 engineers in final design to optimize. The sound
13 walls may ultimately be proposed or not proposed,
14 may have slightly different dimensions.

15 There is a lot of flexibility to be able
16 to design them in a way that meets local
17 preferences, and we would expect that that
18 information would be provided as part of a D and M
19 filing such that that information would be --
20 would be shared prior to construction.

21 MR. PERRONE: So these dimensions we
22 have here are preliminary?

23 THE WITNESS (Gresock): These dimensions
24 are reflecting the compliance assessment in this
25 analysis and report, and any tweak to the design

1 will be required to continue to meet those
2 compliance levels, but may result in some slightly
3 different mitigation solutions.

4 MR. PERRONE: And just adding onto what
5 you had mentioned, if in the end the alternative
6 ends up being the noise barrier, could you include
7 the final structural plans stamped by a PE and
8 certifying code compliance, and include that in
9 the D and P plan if this project is approved?

10 THE WITNESS (Rega): Yes, we should
11 certainly be able to do that.

12 MR. PERRONE: One second.

13 This is regarding the backup generator.
14 I understand the emergency generator engine is
15 1380 kW, and finding of fact 262 said that the
16 generator is 1500 kW, presumably the electrical
17 output.

18 Would that number need to be revised?
19 If the engine is 1380 would the electrical output
20 be somewhat less than that?

21 THE WITNESS (Rega): I don't have the
22 reference in front of me, but certainly if the
23 mechanical horsepower was for this 1380, then the
24 electrical would be somewhat less than that based
25 on the generator efficiency.

1 MR. BALDWIN: Mr. Perrone, I'm sorry.
2 What finding of fact number were you referring to?

3 MR. PERRONE: 262.

4 MR. BALDWIN: Thank you.

5 MR. PERRONE: At the last hearing I had
6 asked about the gray water alternative, and I
7 understand the testimony was, you know, going
8 forward with the potable water is the plan.

9 In the findings of fact 492 to 494
10 originally there were listed some drawbacks or
11 disadvantages to the gray water alternative. Do
12 those drawbacks still stand?

13 THE WITNESS (Eves): Yes. Yes.

14 MR. PERRONE: Next, I would like to get
15 into ULSD deliveries. I know we've covered part
16 of that in the late file, but looking at figure
17 two, in the EOSP CC, right next to the oil tank
18 are their -- basically three stations where you
19 can unload ULSD.

20 THE WITNESS (Rega): That's correct.

21 MR. PERRONE: Okay. And I understand
22 based on the calculations it was approximately
23 three trucks per hour. Can an individual truck
24 unload in an hour's time?

25 THE WITNESS (Rega): An individual truck

1 can unload in less than one hour. I don't have
2 the exact number here, but -- but it's certainly
3 less than an hour. So it was -- it was
4 approximately 40 minutes, I believe.

5 MR. PERRONE: Okay. That's fine.

6 Turning to response to Council
7 interrogatory number 45, set 2, that was the
8 investigation into farmland soils. I understand
9 NTE's soil scientist investigated the area where
10 the proposed project overlaps with mapped
11 agricultural soils, and they found that the soils
12 are not typical of those.

13 Based on such results would the proposed
14 project affect prime farmland soils or important
15 agricultural soils?

16 THE WITNESS (Gresock): It would not.

17 MR. PERRONE: All right. I just have a
18 few other clarifications.

19 Mr. Rega, at the last hearing I asked
20 you a few questions on hydrogen storage and
21 replenishment of hydrogen, and you had mentioned
22 the hydrogen needs to be replenished because
23 there's some small leakages from the seals, and
24 you also mentioned during outages.

25 My question is, how would outages affect

1 hydrogen loss?

2 THE WITNESS (Rega): It -- it wouldn't
3 be every outage, but if there were an outage
4 having to do with maintenance on a particular
5 generator -- obviously that generator, in order to
6 be made safe the hydrogen would have to be
7 evacuated out of that generator.

8 But again, that that's only for a
9 generator outage -- the generator maintenance.
10 I'm sorry.

11 MR. PERRONE: Moving onto ammonia. I
12 understand ammonia would be used for emissions
13 control. Would you have to use the ammonia during
14 only ULSD operations, or also natural gas?

15 THE WITNESS (Rega): Natural gas as
16 well.

17 MR. PERRONE: Okay. Roughly how often
18 would you need deliveries of ammonia?

19 THE WITNESS (Rega): I don't have that
20 number. I would expect it to be approximately --
21 well, I'd rather not give you an approximate
22 number. If I could get back to you with that
23 number?

24 MR. PERRONE: That's okay. That's fine.
25 And lastly, at the last hearing there

1 was discussion about reducing greenhouse gas
2 emissions, namely CO2. And there was testimony
3 that there's some technology changes in terms of
4 treatment of emissions and in the combustion
5 process itself that are very close in the market.

6 My question is, could you tell us
7 about -- tell us more about which technologies
8 could potentially reduce CO2 emissions without
9 using carbon capture?

10 THE WITNESS (Eves): The -- the ones
11 that are the closest are -- is in the combustion
12 technology and the combustion turbines. And what
13 the manufacturers continue to work on is how to
14 control the flame in the combustor to keep the
15 temperature at -- at a level that does not
16 produce -- produce those gases.

17 So as you know, working with the
18 Mitsubishi machines here, as they come up with the
19 new technology to control those emissions we'll
20 implement those.

21 MR. PERRONE: So your Mitsubishi CTG
22 could potentially be upgraded later to include
23 those features?

24 THE WITNESS (Eves): Yes. Yes. I mean,
25 of course, depending on what the -- if they -- if

1 they have an upgrade for this class of machine,
2 which is very likely that they will, we can
3 implement that.

4 MR. PERRONE: Thank you. That's all I
5 have.

6 THE HEARING OFFICER: Thank you,
7 Mr. Perrone.

8 Mr. Eves, I just wanted to stay on that
9 question for a second. Back in my old chemistry
10 days I would remember complete combustion would go
11 to CO₂. And if you're not going to CO₂ it would
12 probably go to CO, carbon monoxide.

13 Is that kind of the trend, to go away
14 from CO₂ to CO, and then try to capture the CO?

15 THE WITNESS (Rega): Yeah -- I'm
16 certainly not aware of that trend. We obviously
17 do have an oxidation catalyst included which
18 reduces CO in the unit, but I'm not aware of a
19 trend to go from CO₂ to CO. Certainly any -- any
20 improvements in efficiency would reduce
21 CO₂ efficiency of the unit.

22 THE HEARING OFFICER: Okay. And Mr.
23 Rega, I want to stay with you for one minute or
24 so.

25 You mentioned before 40 minutes to

1 unload one truck. Does that include safety
2 checks, chocking, paperwork, the whole bit?

3 THE WITNESS (Rega): Yes, it does.

4 THE HEARING OFFICER: In addition to
5 offloading the truck?

6 THE WITNESS (Rega): That's correct.

7 THE HEARING OFFICER: Thank you. I'd
8 like now to turn now to Councilmember Mr. Harder
9 for continued questions.

10 MR. HARDER: Thank you, Mr. Silvestri.

11 I just have a followup on one issue.
12 Actually Mr. Perrone's last question deals with it
13 and that's the issue of the greenhouse gas
14 emissions.

15 The conversation we had -- and I think
16 in the back and forth a minute ago you alluded to
17 a pretty strong commitment the company made this
18 session in Killingly to completely eliminate
19 emissions by 2050, I guess it is. And you had
20 indicated it would be through a combination of
21 treatment and -- of the emissions and the
22 combustion process.

23 And I guess beyond what you just
24 indicated, especially as it relates to treatment,
25 but anything you may not have mentioned a minute

1 about new technology coming into the market as new
2 technology comes in, no matter what the technology
3 is, the older technology runs fewer hours.

4 So as we look at the capacity factor of
5 this machine, you know, when we get out 15, 20
6 years, our capacity factor will start decreasing
7 as well. So as our capacity factor decreases we
8 will also emit less, less carbon.

9 MR. HARDER: You mean, it will be just
10 be running less?

11 THE WITNESS (Eves): Exactly.

12 MR. HARDER: And does what you just said
13 apply equally to treatment technologies? Not the
14 capacity factor point, but you know, the other
15 technologies that are coming in the future that
16 may be in the very near future?

17 THE WITNESS (Eves): Would we -- is your
18 question if a treatment technology comes along
19 will we -- will we apply that to our unit,
20 implement that at our facility?

21 MR. HARDER: Yes, that's one question.

22 THE WITNESS (Eves): And again, it -- it
23 depends what the technology is. Theoretically,
24 carbon capture, it's somewhat available today, but
25 it's outrageously expensive. It's not proven.

1 I would say when commercial technologies
2 become available we will absolutely apply those.

3 MR. HARDER: I think -- at least the
4 impression I had was when you made the comment out
5 it Killingly, I have the impression that there are
6 a lot of technologies I think that -- and I wrote
7 it down -- the words you used were, all kinds of
8 technologies that are very close in the market.

9 You know, and I thought by that you
10 meant both treatment and, you know, combustion
11 technologies. So that, that's why I'm wondering,
12 are there any that are in the very near future? I
13 think you had said before that as those
14 technologies become available, your commitment to
15 implement them, which I assume means you're not
16 going to wait until, you know, 20 years down the
17 road.

18 But you know, that's what I'm getting
19 at.

20 THE WITNESS (Eves): Correct. And yes,
21 as they become available we will implement them.
22 Mitsubishi has ongoing developments right now that
23 they've made. They haven't made firm commitments,
24 but they've told us they have a combustion turbine
25 that will -- will -- that we'll be able to apply

1 to these units -- to this unit that will reduce
2 the carbon.

3 I can't explain what that change is that
4 they're working on, but they've got active
5 programs in development and in testing to achieve
6 these objectives.

7 MR. HARDER: Okay. This is the last
8 question I have.

9 Based on what you know about those
10 technologies that are coming down the road, is
11 there anything about the site, any limitations on
12 the site in terms of the size of the site, or
13 trucks submitting to sensitive receptors, you
14 know, residential situations or anything that
15 would make it more difficult to implement those
16 technologies?

17 Would you need three more acres to put
18 in, you know, a treatment facility, something like
19 that?

20 THE WITNESS (Eves): When I answered the
21 question -- you said there's technologies coming,
22 I was thinking primarily about that commitments
23 that Mitsubishi has made. And there's no
24 limitations. That -- that site provides no
25 limitations that would impede us from adding those

1 different 20 years down the road. It's going to
2 be different than it is today, and they're going
3 to be better.

4 And as those more efficient machines
5 come online it will provide a lower energy cost to
6 the ratepayers and as that -- over time as that
7 happens our machine would run less.

8 THE HEARING OFFICER: Any anticipation
9 as to when you might be on the downside?

10 THE WITNESS (Eves): I mean, that's a
11 tough question, but I would say 20 -- 20 years is
12 probably, you know, a pretty good number.
13 Somewhere in the, you know, I don't know. Ten to
14 20 years maybe it starts dropping off.

15 THE HEARING OFFICER: Thank you.

16 I want to turn now to Mr. Levesque.

17 MR. LEVESQUE: As the solar panels
18 become more efficient you might have some unused
19 non-wetland, especially like south of Lake Road.

20 Would you consider using that area for
21 some solar installation, or even if you didn't do
22 it yourself, lease it to another operator?

23 THE WITNESS (Eves): So our site is
24 roughly 75 acres; 65 acres on the north side of
25 Lake Road, 10 acres on the south side. A third of

1 our site, of the facility site is basically low.
2 It has wetlands and some other habitat in there
3 that we are going to turn into a perpetual
4 conservation easement. So we really couldn't put
5 anything there.

6 When you look at -- at the ten-acre site
7 on the south side of Lake Road, Eversource, to put
8 their substation in is going to substantially take
9 up that piece of land. And again, you know, the
10 rule of thumb right now for solar is you need -- I
11 think the number is ten acres for a megawatt. So
12 we don't really have --

13 MR. LEVESQUE: I meant, a very small
14 amount.

15 THE WITNESS (Eves): Okay.

16 MR. LEVESQUE: And because it's next to
17 the road where this, the electric lines, are
18 any -- a little here and a little there adds up?

19 THE WITNESS (Eves): If it makes sense
20 to put a little in for, whatever reason, whether
21 it's working with the local schools or -- or
22 whatever, that would be something we definitely
23 would be -- would be open to.

24 But there's not really a whole lot of
25 room there, but I mean, if we're talking a few

1 kilowatts I think we could probably do something.

2 MR. LEVESQUE: Yeah. I figure it's
3 better than a couple rooftops.

4 Thank you very much. That's all.

5 THE HEARING OFFICER: Thank you.

6 Mr. Hannon?

7 MR. HANNON: Thank you.

8 I want to go back and clarify something
9 that was put in the record back on April 4th, on
10 page 69 of the transcripts I was asking about the
11 concrete Stormceptors that were in the design and
12 how many were going to be located on the site.

13 And the response, and I -- pardon me if
14 I mispronounce the name -- is Mr. Thibeault?

15 THE WITNESS (Thibeault): Thibeault.

16 MR. HANNON: Thibeault. You said, one?

17 THE WITNESS (Thibeault): Correct.

18 MR. HANNON: Based on the response that
19 your organization provided to the Town -- you're
20 stating -- and this is on page 7 of 34, the top of
21 the page, the drainage design revised -- the
22 stormwater pollution prevention plan has been
23 modified to create three separate discharge points
24 with hydrodynamic separators at each discharge.

25 So I just want to make sure that that is

1 in fact the accurate answer, and what was provided
2 as part of the testimony the last time was
3 inaccurate?

4 THE WITNESS (Thibeault): Right. We --
5 we did discuss the -- the possibility for adding
6 those additional hydrodynamic separators through
7 the other two discharge points. Yes, so that that
8 would be an accurate statement.

9 MR. HANNON: Thank you.

10 A couple of questions I have are going
11 to be difficult if not impossible to answer, but I
12 would just like to get your opinion if I can.

13 For dealing with the water connection,
14 what do you anticipate the timing for is obtaining
15 the permitting, and how long it would take to
16 actually construct? And I know you're not doing
17 it, so that's why I think it's a difficult
18 question to answer.

19 THE WITNESS (Eves): The -- the
20 discussions that we've had with the Connecticut
21 Water Company, the agreements we have is that they
22 will have the local connection which is, I think,
23 about a thousand feet down Lake Road. They will
24 have done after 90 days after notice to proceed,
25 and we would expect to give them notice to proceed

1 when we achieve financial closing.

2 And to do the interconnection between
3 the Crystal and Plainfield systems, their contract
4 has them completing that within 16 months after
5 notice to proceed, which is well within the time
6 that we would need the full quantity of water for
7 startup activities.

8 MR. HANNON: Okay. And then the same
9 basic question as it relates to the upgrading of
10 the natural gas pipeline?

11 THE WITNESS (Eves): We are still
12 working on the -- the contract with -- with
13 Yankee. They're going to put -- replace an
14 existing line which is either 4 or 6 inches, with
15 a 16-inch line through an existing right-of-way.

16 And we are looking on -- at a schedule
17 with them/for them to have that line complete.
18 And I'd have to go back and look at the schedule,
19 but it's -- it's three to six months before we
20 would need gas to really get into the startup
21 activities.

22 Do -- do you remember the dates, Chris?

23 THE WITNESS (Rega): I don't have them
24 here. I can find them.

25 THE WITNESS (Eves): We can get the --

1 we can get the dates, but we -- the agreement that
2 we have that we're working on with Yankee, the
3 discussions we've had, that we've got the
4 engineering agreements in place, that they're
5 doing the design work.

6 So under that we're working on a
7 schedule that we'll have that, that completed in
8 time to support it with a margin of a few months
9 to support our startup activities.

10 MR. HANNON: And then one of the issues
11 which -- and I don't know how this will play into
12 the permitting end of things, but if I remember
13 correctly I believe somewhere in the documents the
14 gas line -- I think it's a six-inch pipe right
15 now -- was put in, I want to say, in the 1960s.
16 And the only reason I'm saying that is because
17 that predates EPA and it predates DEP. So
18 although Eversource may have a right-of-way there,
19 it's still fairly virgin territory.

20 So I'm not sure what you may or may not
21 run into, unlike some other areas where there has
22 been work conducted in a right-of-way. There may
23 be something more recent as to what you might find
24 out there.

25 So a couple other questions. Following

1 up on a question that was asked earlier, again on
2 page 12 of 34. This is PZC number 7.

3 I guess, you know, again the question I
4 have is in dealing with any type of delays. So
5 that I believe if this plant goes forward I think
6 you have a 2022 deadline in which you're supposed
7 to be up and operational?

8 THE WITNESS (Eves): Yes, under the CSO
9 we're required to be ready to go June 1, 2022.

10 MR. HANNON: So if some of these issues
11 where permits are needed before actually doing
12 site work and things of that nature, I can only
13 assume that that would delay construction.

14 What is the impact if you are not able
15 to start up the production on June of 2022?

16 THE WITNESS (Eves): Under the capacity
17 supply obligation we have -- we have an obligation
18 to provide power. So if there was -- an
19 obligation to provide energy.

20 So if there was an energy emergency, an
21 energy shortage and we had a CSO and we were
22 unable to provide that energy we would pay a hefty
23 penalty. So if it's -- yeah, if we're not ready
24 to go there we'll have to be -- we'll have to make
25 some other arrangements to find some unsold

1 capacity or whatever to back up, back up our
2 commitments here.

3 MR. HANNON: On page 17 of 34, PZC
4 number 19, the Town is talking about maintaining
5 the authority to direct the owner applicant to
6 cure any deficiencies in workmanship, which I
7 don't have an issue with that. But then they go
8 on to say, noncompliance will result in road
9 construction project shutdown until measures to
10 correct the issue to the Town of Killingly's
11 satisfaction.

12 So I guess, what is the company's take
13 on the Town having authorization whether it's for
14 the road construction or other things on site to
15 have the authority to issue, in essence, a
16 cease-and-desist order?

17 THE WITNESS (Eves): And that is one of
18 the issues that we've been talking to the Town
19 about, because that's problematic for us. What we
20 have been discussing is to come up with a
21 procedure that if there's an issue, that we work
22 through the issue.

23 We resolve the issue, and if it turns
24 out that there's a problem that is a safety issue
25 for the citizens, that they would have -- if we

1 don't resolve it in a timely manner, which is a
2 procedure that we will work with the Town on, they
3 will have the right to, for that portion of the
4 project that is unsafe like the road, have the
5 right to shut that down.

6 MR. BALDWIN: Mr. Hannon, if I could?
7 Just because it kind of delves into the legalities
8 here for the moment.

9 One of the other concerns I think we
10 have is whether the Town, in fact, has the
11 authority to do anything to shut down the project
12 on the site. That authority, as far as I'm
13 concerned, legally sits with this Council.

14 Now if they're talking about road
15 improvements, town road improvements, that's a
16 different issue and that's, I think, the issue
17 that we're trying to resolve with the Town in our
18 meetings next week.

19 Certainly if they are town road
20 improvements that need to be we have to deal with
21 certain issues that have arisen. That's something
22 we will deal with the Town with, but I don't
23 believe the Town has any authority to shut down
24 any operations at the facility. That is something
25 the Siting Council would only have the authority

1 to do.

2 MR. HANNON: I guess one of the concerns
3 I would have, just in general -- and I don't mean
4 any offense to any of the attorneys sitting in
5 this building, but you can put a couple of them or
6 more than that in a room and bring up a subject
7 matter, and you're going to have that many
8 different opinions.

9 Because part of the reason I'm worrying
10 about this is because you have a third-party, an
11 independent third-party reviewing things. People
12 don't always see eye to eye to get to the same
13 point.

14 So I'm just trying to figure out how
15 that type of an issue gets resolved so that people
16 are actually able to sit down, communicate, and
17 figure out how to deal with a particular problem.
18 I've just seen too many differences of opinions.
19 So --

20 MR. BALDWIN: And I think we agree with
21 that, which is why we're starting to think about
22 establishing with the Town support a procedure in
23 dealing with those issues so that we know going
24 in, and that the Town knows going in what the
25 steps will be going in.

1 If there's a problem we know how we're
2 going to handle it so that's it resolves quickly.
3 It's not to NTE's best interests or the Town's
4 best interests to not deal with problems as they
5 arise during construction. We can't eliminate all
6 problems, but we can certainly dedicate ourselves
7 to dealing with them in an efficient and
8 appropriate manner.

9 THE HEARING OFFICER: Attorney Baldwin,
10 would that also be part of your discussions next
11 week?

12 MR. BALDWIN: It will be.

13 THE HEARING OFFICER: Thank you.

14 MR. HANNON: And then the other -- I
15 guess the last question I have is on page 20 of 34
16 dealing with PZC number 27. And part of it goes
17 along with the idea of requiring daily
18 inspections. And I guess NTE's position is that
19 daily meetings may not be required, or necessary.

20 So is that also one of those issues that
21 you're going to try to work to a resolution with
22 the Town?

23 MR. BALDWIN: It is. I would also point
24 out that the Siting Council in my experience has,
25 and has exercised the authority to require

1 inspectors for various things related to
2 construction projects for all sorts of things,
3 stormwater, environmental inspections, species
4 determinations during construction activity to
5 make sure that the Council's orders are adhered
6 to. We fully expect that those types of
7 conditions would follow suit here in this
8 proceeding.

9 As to how often those inspections need
10 to be, we would do whatever the Council requires
11 us to do. We have to, but we plan on talking to
12 the Town a little bit more about the inspection
13 issue.

14 I think the Town said in their response,
15 sometimes you may not need daily inspections.
16 Sometimes you might, and I think that's something
17 that we will work with them on, we will work with
18 the Council on to make sure that we do what is
19 necessary in order to make this project as
20 successful as possible.

21 MR. HANNON: Thank you.

22 I do not have any other questions.

23 THE HEARING OFFICER: Thank you,
24 Mr. Hannon.

25 I want to turn the clock back two weeks,

1 and I had brought us up to the five o'clock break
2 last time we met, and want to continue with some
3 of the line of questioning that I had from back
4 then. So if it's a little jumpy, bear with me on
5 it.

6 All right. If I go back to the air
7 permit and that 50 percent transient operation
8 restriction that's there, let's envision an
9 electrical demand situation. Demand is down.
10 Prices are down. ISO requests that you ramp down
11 to 30 percent load.

12 Would you have to shut down in a case
13 like that?

14 THE WITNESS (Rega): We would have to
15 shut down. And if we're talking 30 percent of gas
16 turbine load, then certainly. I would have to do
17 the calculations to see.

18 30 percent of plant load, you know,
19 there's some things we can do. If it's sort of an
20 emergency condition we can take some of the load
21 off of the steam turbine through bypassing of
22 steam.

23 It's not how we like to operate. It's
24 not an efficient way to operate, but if it was an
25 emergency condition to operate we could get down

1 there. But yeah, a real air-permit restriction is
2 50 percent of gas turbine load only.

3 THE HEARING OFFICER: Okay. Thank you.

4 And I believe -- Mr. Hibbard, I believe
5 I'm referencing your prefiled testimony starting
6 on page 6. You had mentioned a firm delivered
7 natural gas contract and dual-fuel capability.

8 And then further on, on page 9
9 specifically you stated that KEC would be able to
10 always -- and I'm emphasizing always -- burn
11 natural gas given its long-term firm natural gas
12 transportation supply contract. And that it's
13 stated that it would also provide flexibility to
14 support that delivery of natural gas for heating
15 to critical public institutions, residences,
16 businesses, et cetera.

17 And I think we touched base on that,
18 that you can get a sufficient amount of gas for
19 your purposes and there would still be gas in that
20 pipeline for hospitals, residents, et cetera. Is
21 that correct?

22 THE WITNESS (Hibbard): Yeah. That's --
23 that's correct. The firm transportation contracts
24 that the -- that Killingly has is in addition to
25 and beyond what the local distribution companies

1 have in place to meet all of their demands.

2 THE HEARING OFFICER: Okay. I just
3 wanted to verify that, because we did touch base
4 on that last time.

5 Is the gas contract take for pay?

6 THE WITNESS (Eves): No. No. We -- we
7 pay for what we take.

8 THE HEARING OFFICER: Okay. Thank you.

9 All right. This is going to be rather
10 lengthy, and if you turn to page 15 of the
11 prefiled testimony and you have 2017/2018 winter
12 circumstances. All right?

13 I tend to follow ISO system prices, and
14 I'm going to offer you a snapshot of what occurred
15 on January 6th of 2018, as I lean into my
16 questions. So if you bear with me?

17 5:25 p.m., January 6, 2018. The system
18 was at 20,446 megawatts. I gauged the temperature
19 in Hamden, Connecticut at 10 degrees Fahrenheit
20 and it was minus 2 degrees Fahrenheit in Priscilla
21 Lane.

22 The price was \$221.51 per megawatt hour.
23 Fuel mix had 4 percent coal, 35 percent oil,
24 19 percent nuclear, 23 percent natural gas and
25 then whatever little balance was there was made up

1 of hydros and renewables.

2 Now if I look at that 23 percent natural
3 gas portion it represented 4,262 megawatts versus
4 capacity of what I saw, 18,175 at that time. So
5 basically less than 25 percent of natural gas is
6 being used, and the rest is going someplace other
7 than to powerplants. And again, you have similar
8 data in that footnote number 18 on that page.

9 So leading up to it, the question I have
10 is, if KEC is approved and constructed how would
11 its operation change that fuel mix, either what I
12 just presented to you or what you have in the fuel
13 note, and the percentages under the assumption
14 that coal goes away but oil remains?

15 THE WITNESS (Hibbard): Sure, I think --
16 and setting aside for the minute the coal going
17 away question, I -- what KEC would do to that fuel
18 mix is it would increase natural gas-fired
19 generation by a hundred percent of the capacity of
20 the unit, and it would reduce oil generation, most
21 likely.

22 THE HEARING OFFICER: How about
23 pricewise?

24 THE WITNESS (Hibbard): Pricewise, I
25 don't -- you know, any -- any additional gas

1 coming into the region could have an effect on the
2 overall price of Natural gas.

3 Given the quantity of the gas flowing
4 into the region under those conditions I don't
5 know if it will be a measurable change in the
6 price of natural gas or not.

7 THE HEARING OFFICER: Okay. And you
8 don't foresee any constraints on the Algonquin
9 Pipeline?

10 THE WITNESS (Hibbard): No. They --
11 what makes this -- what makes this complex I think
12 for you all to think through is that the gas
13 that's coming into New England from the West from
14 the shale gas region has to go through New York.

15 And what we know is that the gas that
16 flows through on the coldest winter days is
17 essentially the amount of gas that LDCs and
18 potentially others are purchasing and have firm
19 gas transportation contracts for.

20 And what this does is it increases that
21 quantity of firm transportation of gas on the
22 coldest winter days coming into New England.
23 There's no reason to believe that if that contract
24 is not in place that quantity of gas wouldn't be
25 absorbed in New York.

1 Con Ed has issued a moratorium.
2 National Grid in New York is talking about a
3 moratorium on gas service to their local gas
4 companies and customers. And natural gas power
5 generation in New York also plays an important
6 role in reliability there under winter conditions.

7 So what this incrementally does for the
8 New England region is it just increases the
9 guaranteed amount of gas that's flowing into New
10 England on those coldest winter days.

11 THE HEARING OFFICER: All right. Let me
12 turn to 2019 towards the end of January this year.
13 And I believe it was January 21st that Algonquin
14 experienced some type of problem in Rhode Island.

15 What I have found from a Hearst
16 MediaNews article from January 25th, a spokesman
17 commented -- and I'll quote, in our initial
18 analysis it indicates that the primary causes of
19 the loss of natural gas service were an unusually
20 high demand for natural gas on the Algonquin
21 Pipeline due to cold temperatures that exceeded
22 the system supply capability coupled with an
23 equipment function which temporarily restricted
24 available natural gas supplies, end quote.

25 So the question I have for you, is that

1 the same Algonquin Pipeline that would supply
2 natural gas to KEC?

3 THE WITNESS (Hibbard): That -- my
4 understanding is that's fairly far east from where
5 KEC would be, is the -- is the first part of the
6 answer to that question. Obviously if it's the
7 Algonquin Pipeline it's the same Algonquin
8 Pipeline.

9 But I -- I hesitate to read too much
10 into this at this point in time, because I've
11 heard anecdotally all sorts of things that
12 potentially went on to cause that loss of pressure
13 in their system.

14 And it was a loss of pressure that
15 effective distribution level customers, not -- not
16 interstate pipeline customers at the city gate or
17 at powerplants. So I think -- I think I'd be
18 careful to characterize exactly why that loss of
19 pressure happened on the far eastern end of New
20 England's gas pipeline system.

21 It wasn't necessarily related to a
22 restriction on pipeline capacity flowing from west
23 to east. It could have been something else
24 happening at the east end of the gas pipeline
25 system in New England.

1 THE HEARING OFFICER: When you mentioned
2 distribution, that it could be a distribution
3 issue, would you be getting natural gas from a
4 transmission line as opposed to distribution?

5 THE WITNESS (Hibbard): Yeah.

6 THE WITNESS (Eves): I'll just make a
7 clarification on that. So Algonquin is a
8 transmission line. Yankee is a distribution
9 company.

10 So the two-mile lateral between
11 Algonquin and our facility will be under Yankee's
12 terminology, a distribution line.

13 THE HEARING OFFICER: Understood. Thank
14 you.

15 Now is the Algonquin Pipeline that would
16 supply KEC, is that the same pipeline that
17 supplies the Lake Road generating facility?

18 THE WITNESS (Hibbard): I don't know the
19 answer to that. My guess is yes, but --

20 THE WITNESS (Eves): Yes, and it's the
21 same pipeline.

22 THE HEARING OFFICER: Okay. But Lake
23 Road would probably get it from a different
24 distribution source?

25 THE WITNESS (Eves): That's correct.

1 And I don't -- I don't know for sure, but I think
2 they may take it direct from Yankee -- direct from
3 Algonquin.

4 THE HEARING OFFICER: I'm not sure
5 either, which is why I'm posing the question.
6 What I'm trying to get at though is, is it
7 possible that if something happens to the
8 Algonquin line that curtails the flow of natural
9 gas, that it could affect both KEC and Lake Road?

10 THE WITNESS (Hibbard): There's, you
11 know, this is -- and a lot of effort has been
12 focused in the New England region on trying to
13 figure, think through this difficult challenge
14 that we have with gas supply during the coldest
15 winter days.

16 And that's most of the focus in what you
17 see ISO New England spending their time on in
18 trying to design market rules to address and
19 keeping units up for reliability reasons as a
20 result. They -- they separately have mentioned in
21 the past, although it's not at the forefront of
22 their mind, the possibility that the loss of any
23 one pipeline coming into New England could be
24 catastrophic from the standpoint of having
25 sufficient gas even to run the 4,000 megawatts

1 that you mentioned existed on January 18 2018, I
2 think.

3 So that's -- that's what, you know,
4 that's a gas pipeline contingency that -- that they
5 think about. It's never happened, but it's not --
6 it's one of those situations where in my testimony
7 where I say, even under a gas system emergency KEC
8 would be operating and providing power to keep the
9 lights on, that's when they would click on oil to
10 be operating and to be putting power onto the
11 grid. And that's really the role of the backup
12 oil.

13 Otherwise that it's -- so it's in
14 addition to increasing the amount of gas coming
15 into the region on the coldest winter days. If
16 there were some sort of a disastrous event on one
17 of the pipelines they would be able to continue to
18 provide power.

19 THE HEARING OFFICER: Okay. You gave me
20 a great segue into oil, which is where I was going
21 next. And I'll go back to what was submitted to
22 us recently, that it would be three tanker trucks
23 now per hour.

24 Mr. Rega, if I look at math, again you
25 would agree with me 7,700 gallons per tanker

1 truck. If I do the math on that I come up with
2 23,100 gallons per hour on three trucks, but
3 you're still burning 23,594 gallons. So you still
4 can't keep up?

5 THE WITNESS (Rega): Well, we -- yeah,
6 we can certainly keep up, but the, you know,
7 because the -- well, I think on average we're at
8 about three trucks an hour. There may be some
9 rounding errors in there.

10 I mean, that is an average number that
11 we look at through the course of the day. I mean,
12 it could be 3.1 trucks an hour if we do the math,
13 but you know, it's -- unless I'm not following
14 your -- your question.

15 THE HEARING OFFICER: No. I'm just
16 trying to see if the tank is, again sized well
17 enough or if three trucks are going to do the job.

18 You know, what I kind of get out of
19 that, if you're doing three tankers you might have
20 to cut load little bit and not run a hundred
21 percent on oil.

22 THE WITNESS (Rega): No. We -- we would
23 not have to cut load. We can certainly service
24 with those three stations. Again, it doesn't take
25 a full hour to unload a truck. We have some

1 flexibility there to -- to unload even more than
2 three trucks an hour if we had to.

3 THE HEARING OFFICER: If you go back to
4 your 40 minutes then I'll agree with you. If you
5 stay with the hour, I don't.

6 THE WITNESS (Rega): I'm sorry. It
7 takes approximately 40 minutes. I would have to
8 confirm that number to unload one truck.

9 THE HEARING OFFICER: Yeah. But again,
10 what you sent to us recently was three trucks an
11 hour.

12 THE WITNESS (Rega): Is the average to
13 keep up with consumption.

14 THE HEARING OFFICER: So again, if
15 you're doing three trucks in 40 minutes then I'll
16 agree with you that could maintain sufficient oil,
17 that you can run a hundred percent on oil.

18 THE WITNESS (Rega): That -- that is
19 correct. Yeah. I'm sorry if I wasn't clear in
20 the response. Again, the three trucks an hour is
21 just to keep up with consumption. That's not --
22 we do have more capacity in the unloading stations
23 and because of the 40-minute unload time we could
24 upload more than three trucks per hour if we had
25 to.

1 THE HEARING OFFICER: What do you think
2 of putting a fourth unloading station in?

3 THE WITNESS (Rega): We don't believe we
4 need a fourth one.

5 THE HEARING OFFICER: Okay. Let me go
6 back to the hypothetical natural gas interruption
7 on Algonquin that's going to knock out both KEC
8 and Lake Road.

9 All right. Both are going to fire up on
10 oil. Lake Road has, I believe, an 840,000-gallon
11 tank for ULSD, and they have 5 trucks unloading.
12 All right. So they would need 143 trucks per day
13 to continue their operation.

14 At three trucks per hour, if we stay
15 with the three trucks, I calculate that KEC would
16 need 72 trucks per day to continue operating. All
17 right? If you add that up, I'm coming up with 217
18 trucks per day for two facilities.

19 Could an oil terminal and traffic
20 provide -- to have 215 trucks deliver oil to both
21 facilities? It seems like an awful lot.

22 THE WITNESS (Rega): I -- I don't know
23 at this point whether we'd be sourcing our ULSD
24 from the same, from the same source as Lake Road.
25 I -- I don't know their --

1 THE HEARING OFFICER: Yeah, that was the
2 related question I had. Did you pick an oil
3 terminal yet that would supply ULSD?

4 THE WITNESS (Rega): We have not yet.

5 THE HEARING OFFICER: But again, I
6 always look at contingency planning, and if
7 natural gas is gone, somebody has got to rely on
8 oil. If you've got to rely on oil the numbers I'm
9 seeing are 215 trucks per day for two facilities
10 to keep the lights on, and I don't know if that's
11 feasible.

12 That's why I posed the question.

13 THE WITNESS (Hibbard): If I could jump
14 in, Mr. Silvestri?

15 And this may not directly answer your
16 question, but there are two thoughts I have on
17 this one. One is, you know, obviously this has
18 been a concern of ISO's even without a major
19 pipeline disruption.

20 You know there, there have been --
21 there's some concern that if in a situation where
22 we're constantly relying on replenishment of all
23 the oil tanks in the region and the weather was
24 particularly bad, or for some other reason it made
25 the delivery of fuel oil difficult, that's a

1 reliability risk to the region.

2 And when I think of the firm natural gas
3 contract that Killingly has, that's something that
4 is incredibly important in that context, because
5 when you think of the last cold snap the control
6 room at ISO, New England's biggest concern was
7 they were running out of oil in the region
8 collectively. And so having an additional
9 gas-fired generator that wasn't burning oil and
10 was burning under a firm contract would be
11 incredibly helpful.

12 In the -- I think in the context that
13 you're presenting, loss of a major pipeline and
14 some challenges associated with replenishment of
15 fuel there are going to be a lot of things going
16 on in the region to try to keep the lights on,
17 including emergency government actions and
18 everything else.

19 So you're sort of painting the nightmare
20 scenario for ISO New England and something that
21 has kept them up at night in the past.

22 THE HEARING OFFICER: I've gone through
23 some nightmares in my past history, including
24 bringing back old oil-fired cyclone units to try
25 to make up for when the NRC closed down all the

1 nuclear powerplants. So yeah, that's where I'm
2 coming from. Okay. Let me move on.

3 On March 12th of this year ISO issued a
4 press release about New England's wholesale
5 electricity prices in 2018 being higher than they
6 were in 2017. Are you familiar with that press
7 release?

8 THE WITNESS (Hibbard): I'm familiar
9 with them mentioning -- them describing this, and
10 I don't know what the specific press release is.

11 THE HEARING OFFICER: I'll try to help
12 you a little bit. One comment that ISO made
13 concerned the extreme cold weather, again back in
14 July of 2018. And that demand increased for
15 natural gas for heating leading to spiking prices,
16 both for natural gas and electricity as we kind of
17 discussed earlier.

18 In your response to interrogatory number
19 20 you anticipate an overall reduction of \$215
20 million or perhaps more per year to wholesale
21 electric costs. And if KEC is constructed and
22 operational what might KEC's impact be to
23 wintertime wholesale electricity prices?

24 THE WITNESS (Hibbard): So this is
25 referencing the -- the study that was done

1 previously and the estimates therein. So this
2 wasn't -- this wasn't an estimate for the year
3 that you're questioning, and it wasn't an estimate
4 that I completed.

5 I -- I don't know whether or not KEC's
6 operation will necessarily drag down natural gas
7 prices in the region. I don't -- I don't know
8 that that would be the case. For the reasons we
9 were talking about earlier, the more you have gas
10 coming into the region the more of a price
11 suppression affect it will have in most days of
12 the year.

13 Under these winter conditions obviously
14 the spot price for natural gas gets extremely
15 high, and -- and will continue to do so. And
16 that's really what was driving ISO's press
17 release, that the overall average annual price of
18 electricity went up because of natural gas. But
19 that's really driven by what is the duration of
20 the severe cold events in each year. That's what
21 ultimately drives whether or not the price of
22 electricity is a little bit higher or lower than
23 the previous year.

24 Overall the existence of gas-fired
25 generation in New England has just dramatically

1 plummeted the cost of electricity. And the -- the
2 availability of shale gas has dramatically dropped
3 the price of natural gas and electricity in the
4 region even if during some -- some weeks in the
5 winter months you see these significant spikes in
6 the prices.

7 THE HEARING OFFICER: Yeah, I know. I
8 believe yesterday or the day before prices were,
9 like, 17, 18, 19 dollars.

10 I want to get away from natural gas. I
11 want to get away from oil. All right. I'd like
12 to move to your response to interrogatory number
13 five, and this concerns the sulfur hexafluoride
14 gas, SF6, and also with interrogatory number 35
15 concerning greenhouse gas emissions.

16 We talked about how you're looking at
17 2050 to possibly effectively eliminate GHG
18 emissions, but you plan to employ SF6 in various
19 breakers. Now CO2, carbon dioxide has a global
20 warming potential of 1, but SF6 is up at 23,500.
21 All right. And breakers tend to leak.

22 The question I have for you, have you
23 considered eliminating the use of SF6 in the
24 breakers and opt for an alternative such as
25 dry-air vacuum technology?

1 THE WITNESS (Rega): I would have to
2 check to see whether that alternative was
3 explored. Certainly, SF6 breakers are, you know,
4 the standard. I think both is used by Eversource
5 and in powerplants.

6 I'm not -- I'm not familiar with the
7 technology that you mentioned, and I'm not aware
8 that we have explored that, that alternative,
9 whether it's available for our sized powerplant or
10 not. That's certainly something that -- that I
11 can take a look at and get back to you.

12 THE HEARING OFFICER: For a reference,
13 Mr. Rega, it's actively up and running in Germany,
14 France, Switzerland. There's 550 units in North
15 America since 2007 when they started this.

16 And if you look at the California Air
17 Resource Board, or what they call CARB, there's a
18 lot of phase-out dates that are there to really
19 get rid of the SF6 and go do something else. So
20 to give you a little bit of background.

21 THE WITNESS (Rega): Okay. Thank you.

22 THE HEARING OFFICER: If I have you turn
23 to interrogatory number 32, it states that NTE was
24 able to achieve significant decreases in the
25 levels of wastewater discharge to the town sewer

1 system when running on ULSD.

2 How do you figure that these decreases
3 were accomplished, and what were the proposed and
4 after rates, if you will?

5 THE WITNESS (Rega): So we -- we
6 modified the design somewhat where when we are
7 firing on ULSD, instead of sizing our normal
8 de-min system for the increased usage up to the
9 ULSD, water consumption is a lot higher than on
10 natural gas for water injection reasons. Instead
11 of oversizing our water treatment system, which
12 has a certain amount of waste associated with it
13 as it operates, we went to a design where we would
14 just bring in mobile demineralization trailers.

15 And -- and so therefore those could be
16 used again just for the ULSD firing cases, and
17 they have very little wastewater associated with
18 those trailers.

19 THE HEARING OFFICER: And would you
20 require a discharge permit from Connecticut DEEP?

21 THE WITNESS (Gresock): Yes. Yes,
22 that's currently under review.

23 THE HEARING OFFICER: To go to the
24 Killingly wastewater treatment plant?

25 THE WITNESS (Gresock): Correct.

1 THE HEARING OFFICER: Okay. Staying on
2 the water aspect, my understanding is that there
3 is a powerplant currently under construction in
4 New York state that I think they call the Cricket
5 Valley Energy Center. Ballpark, 1,100 or so
6 megawatts that's coming online.

7 They're incorporating a zero-liquid
8 discharge system and they're incorporating a
9 rooftop rainfall capture system to provide a
10 supplemental supply of water.

11 Why not try and incorporate some of
12 those concepts into KEC?

13 THE WITNESS (Rega): Certainly
14 zero-liquid discharge is something that some
15 plants have had to do under necessity for certain
16 situations.

17 It is -- it's a very expensive
18 technology and there are issues with reliability
19 in a system like that. Those would be really the
20 two primary reasons, not to -- not to include them
21 here.

22 THE HEARING OFFICER: So cost and
23 reliability?

24 THE WITNESS (Rega): I would say
25 primarily, yes. Yes, there may be some space

1 requirements as well that may be problematic.

2 THE HEARING OFFICER: Yeah, that I don't
3 know. I just looked at it and said, wow. That's
4 a really neat thing.

5 All right. Last question I have for you
6 goes back to the hydrogen storage that Mr. Perrone
7 was talking about earlier. Does the amount of
8 hydrogen that you're proposing trigger any, what I
9 call CFAS, which I think is the Chemical Facility
10 Antiterrorism Standards or something like that?
11 Anything there that's required for what you're
12 proposing for hydrogen storage?

13 THE WITNESS (Gresock): We know that the
14 volume is below the risk-management thresholds
15 established by U.S. EPA.

16 THE HEARING OFFICER: So if anything,
17 you probably adhere to OSHA standards for general
18 duty?

19 THE WITNESS (Gresock): That that's
20 correct.

21 THE HEARING OFFICER: Thank you.

22 I think I covered my questions and would
23 like to turn to Mr. Lynch to see if he has any at
24 this point.

25 MR. LYNCH: I do have two follow-up

1 questions from the past, Chairman, but before I
2 know I want to make a comment.

3 We on the Council are not allowed to
4 interact with the public during the public
5 session, and there was a gentleman there -- I
6 think he was a professor at Quinebaug, you know,
7 Community College who referenced this proceeding
8 in terms of Nazi Germany.

9 And I don't know if he was referring to
10 you, the applicant, or us the Council, but I
11 thought the comment was uncalled for and I just
12 wanted to make that statement.

13 If it was reflective on the applicant, I
14 apologize for that. If it was reflective on us,
15 the Council, we can deal with it. But I just
16 wanted to -- that upset me, and we couldn't -- I
17 couldn't say anything that night, but now that I
18 can I will.

19 And just a couple of follow-up
20 questions. Again, a lot of it refers back to some
21 of the comments in the public session. And the
22 union representatives had a couple people out that
23 night and they referred to a few times a PLA, a
24 project labor agreement.

25 Is a project labor agreement in place

1 with your facility?

2 THE WITNESS (Eves): Not -- not today.

3 MR. LYNCH: Is it something you're
4 planning on doing? Yeah -- let me put it this
5 way. Are you negotiating with the unions for
6 that?

7 THE WITNESS (Eves): When we -- when we
8 started this, this process we did put an agreement
9 in place with the unions that said, this would be
10 a union job. So we've made a commitment to the
11 unions that it will be a union job.

12 However, at that point we had not
13 selected our EPC contractor, and different
14 contractors have different ways of -- of working
15 with the unions. And we didn't want to tie the
16 hands of our EP -- potential EPC contractors.

17 We're very close to selecting our EPC
18 contractor. We have -- we would expect that it's
19 going to be a PLA, but they will have to negotiate
20 that with the unions.

21 And another commitment we've made with
22 the unions is once we select that EPC contractor
23 we will bring in the EPC contractor. We will sit
24 down with the EPC contractor and the union folks
25 that we've been working with to get those -- get

1 those discussions started.

2 MR. LYNCH: Thank you. I just wanted to
3 get that on the record, because the union
4 representative inferred that was already in place.

5 The next question I have regards the
6 powerplant that's being proposed in Rhode Island,
7 and I asked if they have been accepted at the
8 auction and you told me that they weren't.

9 My question would be -- the auction
10 comes up again, would they be eligible? And could
11 they submit to the auction for the ISO auction?

12 THE WITNESS (Eves): So that in order to
13 participate in the auction there's -- there's a
14 long period beforehand that new resources have to
15 go through to get approved.

16 And when you go through this process
17 they look at -- they look at all your costs. They
18 look at your revenues. They look at your -- the
19 status of your permits, they look at your
20 construction schedule.

21 And then ISO makes a determination, are
22 you approved? They'll set your minimum offer
23 price and they'll make a decision whether they
24 approve you to participate in the auction based on
25 the likelihood that you could actually get to the

1 finish line, and in the case that we chatted about
2 earlier -- and our case is June 1st of 2022.

3 So the powerplant over in Rhode Island
4 will have to submit to that same process for both
5 units, and they're currently having some issues
6 over there getting -- getting through all of the
7 regulatory processes.

8 And that's why, in my opinion, the Rhode
9 Island review -- I'm sorry. ISO New England
10 pulled back that capacity supply obligation
11 because it looked like they were not going to get
12 to the finish line. They were not going to be
13 able to build this plant and get online by the
14 commitment period.

15 Can the powerplant in Rhode Island apply
16 to ISO New England to get approval for either one
17 or both of those two units? Yeah, sure they can,
18 but what's -- and I'm sure they will at some point
19 in time, but if you look at what's happened over
20 there recently with that facility, I think it's
21 probably unlikely that we'll -- that ISO New
22 England will see them apply to participate in the
23 next auction.

24 MR. LYNCH: Thank you for giving me an
25 insight into how the ISO operates.

1 Thank you.

2

3 (Whereupon, a recess was taken from
4 12:48 p.m. to 1:45 p.m.)

5

6 THE HEARING OFFICER: Good afternoon,
7 ladies and gentlemen. I would like to call the
8 hearing back to order at approximately 1:45 this
9 afternoon. We will continue with
10 cross-examination of the applicant by Connecticut
11 Fund for the Environment, by Attorney Fiedler.

12 MS. FIEDLER: Thank you. My name is
13 Katherine Fiedler. I am an attorney for
14 Connecticut Fund for the Environment. I'm going
15 to start my questioning with the issue of air
16 pollution.

17 My first question is, is it correct that
18 the proposed Mitsubishi model will result in
19 higher annual emissions than the previously
20 proposed Siemens model for several pollutants,
21 including volatile organic compounds, carbon
22 monoxide, lead, sulfuric acid, carbon dioxide and
23 ammonia?

24 THE WITNESS (Gresock): Because of the
25 additional capacity there are several pollutants

1 that have the potential to emit values that are
2 higher, although all of the modeled impacts are
3 lower across the board.

4 MS. FIEDLER: Okay. So I understand
5 that it's due to the higher output on the
6 capacity, but overall the annual emission rates
7 will be higher for these pollutants. Correct?

8 THE WITNESS (Gresock): The additional
9 higher -- the higher firing rates influence that,
10 yes.

11 MS. FIEDLER: Okay. Is it fair to say
12 that these are additional pollutants that will be
13 experienced by neighboring communities on top of
14 their current baseline air quality?

15 THE WITNESS (Gresock): The project will
16 be a new, a new source, yes.

17 MS. FIEDLER: Is it also fair to say
18 that these pollutants would not result in the
19 operation of solar or wind energy facilities if
20 they were sited in the area?

21 THE WITNESS (Gresock): I'm sorry. I
22 don't understand the question.

23 MS. FIEDLER: I guess I'm asking if
24 these pollutants would result from solar or wind
25 if they were put in, in the same region?

1 THE WITNESS (Gresock): So solar and
2 wind do not result in air emissions, yes.

3 MS. FIEDLER: In DEEP's November 7,
4 2016, letter on page 2 -- sorry for going so far
5 back in the record -- DEEP states, quote, a
6 blanket statement asserting improvement in local
7 or regional air quality arising from the operation
8 of the Killingly Energy Center is premature. Do
9 you agree with this statement?

10 MR. LYNCH: Excuse me, Ms. Fiedler?
11 Could speak up? Your voice is fading as you --
12 continue your questioning.

13 MS. FIEDLER: Would you like me to
14 repeat that question?

15 THE HEARING OFFICER: Please.

16 MS. FIEDLER: In DEEP's November 7,
17 2016, letter on page 2 DEEP states, quote, a
18 blanket statement asserting improvement in local
19 or regional air quality arising from the operation
20 of the Killingly Energy Center is premature, end
21 quote.

22 Do you agree with this statement?

23 THE WITNESS (Gresock): I don't have a
24 position on that statement. Since that time DEEP
25 has issued the air permit for the project.

1 MS. FIEDLER: NTE asserts that KEC would
2 facilitate the retirement of older, less clean
3 energy producing facilities, improving local and
4 regional air quality. Correct?

5 THE WITNESS (Hibbard): Yeah, the
6 operation of this facility is likely to put
7 further economic pressure on the less efficient
8 and more expensive units that are operating on the
9 system.

10 MS. FIEDLER: Are you able to identify
11 with certainty the specific facilities that would
12 retire if KEC is granted the certificate?

13 THE WITNESS (Hibbard): I would
14 characterize them as any facility that has higher
15 variable operating costs than KEC, which would be
16 virtually every fossil generating facility on the
17 system.

18 MS. FIEDLER: Will any of these retired
19 or potentially retiring facilities improve the air
20 quality of Killingly itself?

21 THE WITNESS (Hibbard): It's -- it's
22 possible. There are a number of facilities
23 that would be economically at risk that exist in
24 Connecticut. And so part of the airshed affected
25 by emissions from those facilities could include

1 Killingly.

2 MS. FIEDLER: Could you just elaborate
3 on the locations of where those are in
4 Connecticut, potentially the retiring facilities?

5 THE WITNESS (Hibbard): There are -- it
6 would include virtually any coal, oil or gas-fired
7 facility that currently exists in Connecticut. It
8 would be, you know, in my view it would be
9 potentially further at risk by the operation of
10 Killingly.

11 MS. FIEDLER: Has NTE obtained offsets
12 for nitrogen oxides at this point?

13 THE WITNESS (Gresock): Yes.

14 MS. FIEDLER: And what are the sources
15 of these offsets?

16 THE WITNESS (Gresock): It's specified
17 in the air permit. Hold on. I'm just pulling
18 that up.

19 The offset sources are specified as
20 112.64 tons from the Glenwood combustion turbine
21 facility, and 50.36 tons from National Grid for
22 our Rockaway power station.

23 MS. FIEDLER: Can you just tell me where
24 these sources are located?

25 THE WITNESS (Gresock): They're in New

1 York.

2 MS. FIEDLER: Do you know how far away
3 these sources are from Killingly?

4 THE WITNESS (Gresock): I don't have
5 that information.

6 MS. FIEDLER: Okay. The Tetra Tech
7 environmental overview on pages 10 and 11 lists
8 the permit limits for the operation of the
9 Mitsubishi CTG.

10 What are the actual projected emission
11 rates for its operation as compared to these
12 permit limits? In other words, do you project KEC
13 to operate at or near these permit limits, or at a
14 margin lower?

15 THE WITNESS (Gresock): These reflect
16 guaranteed emission rates. Frequently facilities
17 are able to operate at -- at lower levels, but
18 these are the rates that the vendor is
19 guaranteeing.

20 MS. FIEDLER: And there's nothing to
21 stop KEC from operating all the way up to those
22 limits enumerated in the permit. Correct?

23 THE WITNESS (Gresock): And DEEP's
24 evaluation has determined that those are
25 acceptable.

1 MS. FIEDLER: On page 9 of that same
2 Tetra Tech environmental overview it states that
3 the startup VOC and CO emissions for ULSD for the
4 Mitsubishi model are much higher than those for
5 the Siemens CTG. Is this correct?

6 THE WITNESS (Gresock): They are higher.

7 MS. FIEDLER: And Mitsubishi was
8 selected in part for its ability to rapidly switch
9 between natural gas and ULSD. Correct?

10 THE WITNESS (Gresock): That is right.

11 MS. FIEDLER: Understanding that the air
12 permit delineates limited circumstances for which
13 ULSD may be used, how often is it estimated that
14 KEC will switch from natural gas to ULSD?

15 THE WITNESS (Gresock): Well, ULSD is
16 limited in use to 720 hours. We won't know how
17 frequently that will occur in actuality until the
18 need arises, but there are very specific
19 limitations in the permit, as -- as we discussed
20 earlier, that relate to the capability of gas to
21 be available to the site.

22 MS. FIEDLER: Turning to the November
23 15, 2016, transcript on page 372, lines 1 through
24 4. Mr. Bradley testified that ULSD would be
25 needed for only very few hours per year, but you

1 just stated that the limit could be up to 720.
2 Could you explain the discrepancy between those
3 two?

4 THE WITNESS (Gresock): That is the
5 maximum on an annual basis allowed by the air
6 permit, and it is something that could occur. I
7 believe we do not expect that it would occur
8 that -- that often.

9 MS. FIEDLER: Okay. And I have one
10 clarifying question on this topic. I apologize if
11 I missed this clarification before.

12 Comparing table 1 on page 9 of the Tetra
13 Tech environmental overview and the first table on
14 page 6 of permit for the Mitsubishi CTG. For
15 carbon monoxide emissions from the startup of ULSD
16 the Tetra Tech report states 11,004 pounds per
17 hour while the permit states 1,004 pounds per
18 hour. Can you clarify which number is correct?

19 THE WITNESS (Gresock): I'm sorry. What
20 was the second reference?

21 MS. FIEDLER: It is the first table on
22 pages 6 for the permit for the Mitsubishi model.

23 THE WITNESS (Gresock): The 1,004 is the
24 correct number. That's a typo.

25 MS. FIEDLER: Thank you.

1 Are the pollutants that will be emitted
2 by the facility associated with potential health
3 problems in neighboring communities?

4 THE WITNESS (Gresock): The National
5 Ambient Air Quality Standards have been
6 established to protect the public from health
7 problems.

8 MS. FIEDLER: I'd like to turn to that
9 analysis. I believe it's in volume three of the
10 application. It's likely you don't have to pull
11 that up. So if you do, we can get to that.

12 So two pollutants in that analysis,
13 nitrogen dioxide and 24-hour particulate
14 matter ceded significant impact levels and
15 therefore required cumulative impact modeling.

16 Is that correct?

17 THE WITNESS (Gresock): That's correct.

18 MS. FIEDLER: Can you explain how this
19 cumulative impact analysis considers health
20 impacts?

21 THE WITNESS (Gresock): National Ambient
22 Air Quality Standards have been established that
23 protect public health, but the threshold to
24 determine what pollutants should be subject to
25 additional cumulative impact assessment are a

1 very, very small fraction of that, of that
2 National Ambient Air Quality Standard.

3 For projects that exceed the -- the
4 threshold to require that, that cumulative
5 modeling in addition to modeling the source
6 there's a cumulative modeling that takes into
7 account the source, takes into account the ambient
8 background air-quality data, and also specifically
9 takes into account other sources that are located
10 in the area.

11 So even though those other existing
12 sources are already accounted for in the ambient
13 air quality data, it's specifically intended to
14 overstate and be very conservative in terms of how
15 it looks at that cumulative effect.

16 The cumulative modeling is compared to
17 the National Ambient Air Quality Standard, and
18 also compare -- compared to the PSD increments to
19 make sure that air quality is not being adversely
20 affected.

21 MS. FIEDLER: And how are the sources
22 selected for inclusion in the modeling?

23 THE WITNESS (Gresock): The sources were
24 selected in consultation with Connecticut DEEP,
25 and they included sources that were located in

1 Connecticut and Rhode Island, and Massachusetts.
2 And so there was coordination as well with those
3 regulatory bodies.

4 MS. FIEDLER: Was the Frito-Lay facility
5 included in this modeling?

6 THE WITNESS (Gresock): It was not.

7 MS. FIEDLER: Can you explain why this
8 facility was excluded?

9 THE WITNESS (Gresock): It would have
10 been excluded based upon the limited emissions
11 from that source that would have contributed.

12 MS. FIEDLER: Does that source emit
13 nitrogen dioxide and particulate matter?

14 THE WITNESS (Gresock): I -- I have not
15 looked at that source.

16 MS. FIEDLER: Okay. Was this ambient
17 air-quality analysis specific to the Siemens model
18 that was included in the application?

19 THE WITNESS (Gresock): The one you're
20 referencing was specific to Siemens, but
21 subsequent to that time additional modeling has
22 been completed that reflects the current scenario
23 which is the basis of the current permit.

24 MS. FIEDLER: And under the current
25 scenario, under the new model did any other

1 pollutants exceed the significant impact levels
2 and require impact modeling?

3 THE WITNESS (Gresock): They were the
4 same.

5 MS. FIEDLER: Did NTE conduct any other
6 cumulative impact analyses beyond those required
7 to obtain the air permits that assessed the health
8 impacts and additional burden on neighboring
9 communities?

10 THE WITNESS (Gresock): We did not.

11 MS. FIEDLER: I would like to turn to
12 the Town of Killingly's prefiled testimony on
13 page 26. I think it's order number 43.

14 The commissioner requested that the
15 Siting Council review and consider, quote,
16 additional analysis regarding effective emissions
17 on nearby sensitive receptors, end quote,
18 including an evaluation through the Connecticut
19 Department of Health.

20 The commission also noted that the Town
21 is concerned with health impacts on children and
22 the elderly because of schools and eldercare
23 facilities located within a two to three-mile
24 radius of the proposed facility.

25 Can you summarize NTE's response to this

1 order?

2 THE WITNESS (Gresock): We do not
3 believe that additional health studies are
4 warranted in this case. The project has had its
5 emissions thoroughly evaluated by Connecticut DEEP
6 who is responsible for upholding air-quality
7 standards.

8 The impacts of the project as currently
9 proposed are lower than the original Siemens
10 configuration that was approved by Connecticut
11 DEEP. And the impacts that are resulting from the
12 project's maximum impacts are -- are really
13 relatively low. For example, the -- there they're
14 even below that .2 microgram per cubic meter
15 significant impact level thresholds.

16 Those maximum impacts, as you've seen
17 from the isopleth drawing are located very, very
18 close to the facility. The modeled impacts drop
19 off considerably more from that point.

20 And certainly part of what DEEP
21 considers in -- and what the U.S. EPA consider in
22 developing their programs and guidelines is
23 protection of public health. That's -- that's a
24 huge basis and it's pretty clear to see that
25 through implementation of the Clean Air Act over

1 the years air-quality improvements have occurred
2 in this area.

3 MS. FIEDLER: What was the Town's
4 response to your response to that order?

5 THE WITNESS (Gresock): So we have been
6 provided a formal response to that, to that order.

7 MS. FIEDLER: Is this a topic of
8 discussion for your meeting with the Town next
9 week?

10 THE WITNESS (Gresock): I assume it will
11 be discussed, yes.

12 MS. FIEDLER: I'm going to turn to the
13 greenhouse gas reduction program. NTE has
14 developed a greenhouse gas reduction program for
15 KEC that would have the facility eliminate its gas
16 emissions by 2050. Correct?

17 THE WITNESS (Eves): Greenhouse gas,
18 yes.

19 MS. FIEDLER: Can you explain any
20 mileposts or interim deadlines set to ensure
21 progress for achieving this goal?

22 THE WITNESS (Eves): And we talked about
23 this before. So we have made a commitment based
24 actually working with the Sierra Club. We
25 cooperated very tightly with the Sierra Club in

1 coming up with this greenhouse gas reduction
2 program.

3 So we've made a commitment to line up
4 with the State of Connecticut. We understand and
5 support the -- the big carbon reduction goals here
6 in the State. So we've come up with a program
7 that will allow us to reduce those carbon
8 emissions. We're confident that we can do it
9 through technology, but in the event we can't do
10 it through technology we do have the ability to
11 buy carbon offsets.

12 We've put together a plan in the
13 voluntary program working with the Sierra Club
14 that had ten years at the current level and then
15 it began to drop off after that, and then we had a
16 year-by-year goal from there through 2050.

17 MS. FIEDLER: And you stated earlier
18 today that those technologies are close to market,
19 but we do not have those technologies currently
20 available. Correct?

21 THE WITNESS (Eves): That's correct.

22 MS. FIEDLER: And I believe you also
23 stated that it's very likely that these
24 technologies would be available for this class of
25 machine. Is that also correct?

1 THE WITNESS (Eves): Yes.

2 MS. FIEDLER: So it is not certain that
3 those technologies are currently being developed
4 for this?

5 THE WITNESS (Eves): That's correct.

6 MS. FIEDLER: Can these technologies --

7 THE WITNESS (Eves): I'm sorry. Did you
8 say, it's not certain that they will be available?
9 Or it's not certain that they're being developed?

10 They are in development -- they're
11 not -- they are in development, but until they're
12 done being developed it's not sure whether they're
13 going to be actually something that can
14 technologically be added.

15 MS. FIEDLER: And can this technology be
16 used in older gas plants that KEC aims to replace?

17 THE WITNESS (Eves): Typically these
18 combustion technologies applied to very specific
19 classes of machines. Would there be other
20 technologies that could go into older units and
21 reduce their emissions? Potentially.

22 MS. FIEDLER: Does this greenhouse gas
23 emissions reduction program require the reduction
24 of methane leakage from the extraction and
25 delivery of gas used for the operation of KEC?

1 THE WITNESS (Eves): Our greenhouse gas
2 program relates to the emissions from the
3 facility.

4 MS. FIEDLER: Is NTE investing any
5 financial or human capital to the development of
6 these technologies that will be necessary to
7 achieve these goals?

8 THE WITNESS (Eves): We're buying the
9 equipment.

10 MS. FIEDLER: And how is NTE budgeting
11 for the implementation of these technologies?

12 THE WITNESS (Eves): I would -- I would
13 say the same way, you know, we budget for
14 everything looking to the future. That will be
15 taken care of as -- as technologies become
16 available. We will look at -- we'll look at them
17 in the year that they're available and budget for
18 them at that time.

19 MS. FIEDLER: And I understand that
20 these technologies are not on the market, so you
21 might not be able to answer this question. But do
22 you have an understanding of the costs of
23 implementing these technologies?

24 THE WITNESS (Eves): Not today.

25 MS. FIEDLER: In prior testimony -- I'm

1 going back again to 2016. On November 15, 2016,
2 on page 523, lines 1 through 7, Mr. Eves, you
3 testified that the actual life of the facility is
4 around 30 years, yet it could be extended to 50
5 years with appropriate upgrades.

6 Is this correct?

7 THE WITNESS (Eves): Yes.

8 MS. FIEDLER: NTE aims to eliminate
9 greenhouse gas emissions around 30 years into the
10 life of the facility, or around the end of its
11 useful life without better upgrades.

12 Can you explain how this lifespan will
13 not impact the decisions to invest in greenhouse
14 gas reducing technologies when other significant
15 investments will need to be made concurrently to
16 simply keep the facility in operation?

17 THE WITNESS (Eves): As we -- as we run
18 the facility over, you know, the next 30 or 50
19 years we will do maintenance on that facility
20 every year as upgrades are available, put them in
21 during -- during those, those periods.

22 As -- as these upgrades become available
23 and they give us benefits in efficiency and output
24 in emissions, we -- we will implement them through
25 the budgets that we set year by year for the

1 facility.

2 MS. FIEDLER: In response to
3 interrogatory number 35, on page 16 of the Siting
4 Council's interrogatories, step 1, NTE stated that
5 this program is voluntary. Correct?

6 THE WITNESS (Eves): Yes.

7 MS. FIEDLER: Are there any consequences
8 to NTE if it does not achieve this goal?

9 THE WITNESS (Eves): Not under the
10 program that we've put together, however it's a
11 commitment that we've made. I think we're the
12 only one in the industry that has made -- that has
13 made such a commitment. We're going to stand
14 behind this commitment.

15 And I think by not living to this
16 commitment would be, you know, would, you know,
17 it's not something we are considering. You know,
18 we're making a commitment that we are -- we'll
19 abide by.

20 MS. FIEDLER: Is this commitment
21 included in either of the air permits obtained for
22 the facility?

23 THE WITNESS (Eves): No.

24 Do you want to add more to that?

25 We actually -- we talked with DEEP about

1 including it in the air permit, and they said this
2 is -- this is not the kind of program that they
3 would include in the air permit. And actually one
4 of the Sierra Club folks were involved in those
5 conversations as well.

6 MS. FIEDLER: I understand that NTE has
7 several other facilities. Are there similar
8 emissions reduction commitments for those
9 facilities as well?

10 THE WITNESS (Eves): No.

11 MS. FIEDLER: Connecticut General
12 Statutes Section 16-50P, subsection A-1, grants
13 the Siting Council the authority to grant a
14 certificate upon such terms, conditions,
15 limitations or modifications of the construction
16 or operation of the facility as the Council may
17 deem appropriate.

18 Will NTE ask the Siting Council to
19 condition the certificate on compliance with these
20 greenhouse gas reduction goals?

21 THE WITNESS (Eves): Sure. I mean, I'll
22 reiterate my position. Because of Connecticut's
23 program to reduce carbon emissions we have made a
24 voluntary commitment that we fully intend to live
25 by and we would -- we have no objection to that

1 being included as a condition of our certificate.

2 MS. FIEDLER: All right. I'm switching
3 gears now to water. In the diversion permit
4 obtained by Connecticut Water Company attachment
5 one of NTE's responses to interveners
6 interrogatories, on page 5 the permit reads that
7 DEEP has the right to restrict the diversion if
8 the Commissioner determines, quote, a declared
9 local, regional or statewide drought advisory
10 watch, warning or emergency which necessitates
11 curtailment of nonessential water uses, end quote.

12 Can you explain how this would affect
13 the operations of KEC if this diversion were to be
14 restricted?

15 THE WITNESS (Eves): If it happened to
16 be one of those periods of -- of time when we were
17 required to be burning oil, which we think as we
18 previously talked about will be very limited, and
19 they could not provide the quantity of water
20 because of such a curtailment, then it would cause
21 us to reduce load.

22 We do however have plenty of storage
23 on-site of demineralized water. So depending on
24 the duration of the curtailment it may have an
25 impact. It may not. Sure, one-day curtailment

1 would not have an impact on our ability to
2 operate.

3 THE WITNESS (Rega): Water even perhaps
4 up to two days.

5 MS. FIEDLER: Do you have storage on
6 site for two days of water usage?

7 THE WITNESS (Rega): Approximately, yes.

8 MS. FIEDLER: Okay. Thank you.

9 And I understand that the use of the
10 diesel source is most likely to occur during
11 extreme cold weather. Is this correct?

12 THE WITNESS (Eves): I would say yes.

13 MS. FIEDLER: Or it's possible that this
14 fuel source could occur, the need for this fuel
15 source could occur at any time. Correct?

16 THE WITNESS (Eves): That is correct.

17 MS. FIEDLER: Can you explain how
18 Connecticut Water Company's analysis of adequate
19 margin of safety considered concurrent drought and
20 a diesel use, and its corresponding water need?

21 THE WITNESS (Eves): No, I can -- I
22 cannot explain that. I do know that they ran the
23 analyses, but I cannot explain how that was done
24 or what they considered.

25 MS. FIEDLER: Okay. In appendix H-1 on

1 page 1 of the July 29, 2016, correspondence from
2 Connecticut Water company, Mr. Radke writes,
3 quote, because supply availability of any system
4 is finite an annual review of Connecticut Water's
5 ability to serve the project will need to be
6 conducted on the one-year anniversary date of this
7 letter and every year thereafter until the project
8 is complete, end quote.

9 To your knowledge, has this annual
10 review been conducted?

11 THE WITNESS (Eves): I know that they've
12 done a lot of analysis. I'm looking at their
13 system and -- and figuring out how they provide
14 this water to us with the appropriate margin of
15 safety.

16 Specifically that analysis? I can't
17 tell you.

18 MS. FIEDLER: Okay. I was going to ask,
19 who was this provided to and what form it's in,
20 but it sounds like you don't know.

21 Should the annual review in the future
22 determine that Connecticut Water can no longer
23 serve the project, can you explain how that would
24 impact the operation of the facility?

25 THE WITNESS (Eves): I think that that

1 scenario is very unlikely, but if we don't have
2 water we can't operate.

3 THE WITNESS (Gresock): If -- if that
4 was in appendix H-1 of the original application
5 that correspondence would have been prior to the
6 agreements that have been entered into at this
7 point.

8 So I'm sure that the agreements have a
9 term to them, and analysis has been done in order
10 for them to make that commitment.

11 THE HEARING OFFICER: I'm going to
12 interrupt you for one second. Mr. Lynch has a
13 question.

14 MR. LYNCH: I think this came up before,
15 but in the event that Connecticut Water Company is
16 purchased by another water company does your
17 contract still stay in agreement?

18 THE WITNESS (Eves): Yes. Yeah, it --
19 it would transfer to the new owner.

20 MR. LYNCH: So it follows your contract.
21 Thank you.

22 Thank you, Ms. Fiedler.

23 THE WITNESS (Eves): And I would like to
24 add, I mean, Connecticut Water Company has several
25 well fields that are not fully developed. So they

1 have -- they have a significant quantity of water
2 that's still available on permitted well fields
3 that have not yet been developed.

4 MS. FIEDLER: In NTE's Late-File Exhibit
5 Number 2 submitted on April 11, 2019, NTE reports
6 that Connecticut Water Company's updated water
7 supply plan did not include any projections
8 associated with KEC as of May 2018.

9 Is this correct?

10 THE WITNESS (Eves): That is correct,
11 however their calculations were very conservative
12 and I have actually -- I'm sure I have --

13 Do you have that, Chris? The letter
14 from --

15 I know they -- they've done very
16 conservative estimates. I believe it's -- of
17 course, I would have to check to confirm, but I
18 believe that Putnam has, you know, they've got a
19 significant quantity of water allocated to Putnam
20 who does not typically -- I mean, they're taking
21 about 10 percent of that value.

22 So after they've done a very
23 conservative calculation -- and then they look at
24 the other margins in their system. They have
25 confirmed to us in writing that they can provide

1 that water and still achieve the margin of
2 safeties that they're required to provide.

3 MS. FIEDLER: And to confirm, that water
4 supply does cover a five-year planning period?

5 THE WITNESS (Eves): Hang on just a
6 minute. I know I've got it here.

7 So, yes. I -- I am not aware of their
8 planning period, but our -- but our service
9 contract with Connecticut Water covers a 20-year
10 period with extensions.

11 MS. FIEDLER: Okay. I think that's the
12 last question I have.

13 THE HEARING OFFICER: Thank you,
14 Attorney Fiedler.

15 I'd like to have the group parties come
16 up, including Attorney Mintel.

17 MS. CSANK: Your Honor, at the
18 appropriate time I would like to request a very
19 brief break. I think it will help streamline
20 questions based upon the answers just provided to
21 Ms. Fiedler.

22 THE HEARING OFFICER: What would be an
23 appropriate time?

24 MS. CSANK: Well if your Honor wants
25 to -- I wasn't sure if there was any other

1 procedural matters we were about to address, but
2 now would be a good time. And if we may ask for
3 10 minutes, that would be very helpful?

4 THE HEARING OFFICER: How about five?

5 MS. CSANK: Respectfully in order to use
6 the restroom and streamline the questions, ten
7 minutes would be more apt.

8 THE HEARING OFFICER: We'll adjourn for
9 ten minutes.

10 MS. CSANK: Thank you, sir.

11 THE HEARING OFFICER: Thank you.

12

13 (Whereupon, a recess was taken from 2:14
14 p.m. to 2:24 p.m.)

15

16 THE HEARING OFFICER: Attorney Baldwin,
17 is your panel all set?

18 MR. BALDWIN: We are. Thank you.

19 THE HEARING OFFICER: Thank you. All
20 right. We'll call this hearing back to order and
21 we will begin with cross-examination by the group
22 parties.

23 You have one microphone. So depending
24 upon who might be speaking, just orient it in the
25 appropriate manner.

1 MS. CSANK: Yes, sir.

2 This is Diana Csank, spelled C-s-a-n-k,
3 for Sierra Club. Good afternoon. For the clarity
4 of the record I'd like to go over some key terms
5 that I'll be using in my examination.

6 I believe the project has been referred
7 to throughout this proceeding as KEC. Unless I
8 say otherwise I will be referring to KEC when I
9 say the plant, or the project -- if that's clear?

10 And similarly, when I say you, I mean,
11 the company, the applicant.

12 I heard the term "ratepayers" used this
13 afternoon. I prefer to use customers, or the
14 public. So those should be understood to be
15 synonymous.

16 And I also heard the term "natural gas"
17 used throughout this proceeding, and I will not be
18 using that term for the most part. I will be
19 simply saying gas, and as appropriate shale gas
20 and other variations on that.

21 One more request just for expediency of
22 the examination. Many of my questions will call
23 for a yes or no, or I don't know answer. If you
24 would please start with a yes, no, or I don't know
25 before explaining as needed? I think that will

1 expedite the examination.

2 MR. BALDWIN: We will do our best, but a
3 lot of questions that are often posed as yes or no
4 require an explanation. So we'll do our best.

5 MS. CSANK: Thank you. That's all I can
6 ask.

7 So I'd like to begin with a question, or
8 a line rather, for Mr. Hibbard. And please give
9 me the signal if I'm not sufficiently audible. I
10 like to turn to the witness when I ask them
11 questions, but I realize that poses a challenge
12 with this setup.

13 THE REPORTER: I'm not having any
14 difficulty hearing you.

15 MS. CSANK: Great.

16 THE HEARING OFFICER: If you're
17 uncomfortable, if you want to switch and go in the
18 middle then you've got a perfect angle.

19 MS. CSANK: Let me do that.

20 Mr. Hibbard, generally speaking it is
21 your testimony that there is a need for the
22 project. Correct?

23 THE WITNESS (Hibbard): There is a need
24 for the project, yes.

25 MS. CSANK: And is that based on any

1 independent analysis by any agencies below?

2 THE WITNESS (Hibbard): It's based upon
3 extensive analysis by the independent system
4 operator in administration of a forward capacity
5 market that is used to acquire resources needed to
6 maintain the reliability standards.

7 MS. CSANK: Any other agencies besides
8 the ISO?

9 THE WITNESS (Hibbard): I believe most
10 state public utility commissions are pretty
11 actively involved in all of the vetting of the
12 various models and analyses that are used to
13 establish the install capability responsibility,
14 which is ultimately what determines which
15 resources are selected to meet the reliability
16 needs.

17 And I should mention that the
18 reliability needs themselves are an indication of
19 enforceable federal standards that are overseen by
20 FERC and then administered by NERC, and the NPCC
21 and ISO.

22 MS. CSANK: Okay. That was a robust
23 answer. Thank you. I believe that the call of my
24 question was simply whether other agencies were
25 involved in the need determination specifically

1 for this project. And is the answer, yes? No? I
2 don't know?

3 THE WITNESS (Hibbard): Can you just
4 explain what you mean by agencies?

5 MS. CSANK: Government entities, let's
6 say.

7 THE WITNESS (Hibbard): Yeah, so -- and
8 my answer is, at least in my experience as a
9 commissioner in Massachusetts and what I observed
10 of all the states is they are very active
11 participants in all of the various pieces of
12 analyses that lead to ISO, through its own
13 comprehensive modeling, indicating what is needed
14 to meet the federally enforceable reliability
15 standards.

16 So in my -- in my view there are an
17 awful lot of agencies that are part of the process
18 that leads to when the forward capacity market is
19 actually administered. The resources that are
20 obtained are the resources that are needed for
21 reliability.

22 MS. CSANK: Thank you. And we'll get
23 into that process that the ISO uses and what the
24 CSO means -- and I will try to avoid acronyms as
25 much as possible so that we're speaking in English

1 with each other.

2 But in terms of just to clarify for the
3 record what I think we just established is that
4 there is no other process besides this system
5 operator process through which the company has
6 obtained a capacity service obligation that
7 reviews need.

8 Is that correct?

9 THE WITNESS (Hibbard): No. Again --
10 and I'm not trying to be difficult. I actually
11 think that the process that sets the reliability
12 needs which is the basis for securing resources to
13 meet that reliability need is extensively overseen
14 by the federal government, by the FERC, the
15 Federal Energy Regulatory Commission.

16 The level of resources procured to meet
17 reliability needs both stems from required steps
18 that the system operator in New England must take
19 to identify what the quantity of need is, and
20 then -- no. Just let me finish the answer.

21 And then FERC approves that quantity,
22 and then ultimately FERC sanctions the outcome.
23 So I -- I think there's extensive federal
24 oversight of the process that leads to the
25 determination of resources that are needed to meet

1 federal reliability standards.

2 There's no state agency process I'm
3 aware of that ISO needs to go through in order to
4 get approval of those things, but all of the New
5 England states are extremely active in all of the
6 processes. And generally as agencies submit
7 comments to FERC often with respect to whether or
8 not they believe the ICR is the correct number and
9 various things like that.

10 So I -- I just don't want to leave the
11 impression that government agencies are not
12 actively involved in the process that leads to the
13 selection of resources needed for reliability.

14 MS. CSANK: If I may just help us
15 understand, again this -- this detailed recitation
16 by you, what we've established on the record is
17 that there's one complex process whereby you
18 obtained the capacity service obligation for this
19 project. Correct? Yes, no, I don't know?

20 THE WITNESS (Hibbard): There is a
21 process that leads to a determination of what
22 resources need to be available to meet federally
23 enforceable reliability standards. The end result
24 of that are capacity supply obligations.

25 The end result of that whole process is

1 a set of existing and new resources with capacity
2 supply obligations. Those resources need to
3 perform pursuant to those obligations to maintain
4 that level of reliability.

5 MS. CSANK: Sir, forgive me, but I
6 really do think -- maybe it's because I'm not as
7 experienced as you, but it would really help me if
8 you answer the call of my question. You didn't
9 say yes, no, I don't know. You elaborated on this
10 process.

11 And if I would just beg your indulgence
12 and ask the reporter, sir, would you please read
13 back that question?

14 THE HEARING OFFICER: Well, actually let
15 me interject on this one. I think you're going to
16 find as we talk about electricity in general that
17 it's a very, very complex process and some things
18 you're not going to get a straight yes, no or
19 maybe-type of answer without an explanation going
20 forward.

21 So I'm hearing the explanation coming
22 through and I really think it does answer your
23 question, that perhaps you might want to rephrase
24 it slightly to get to what you're looking for.

25 But overall I think you're going to get

1 yes, no, but there's going to be some type of
2 explanation or other words that are going to go
3 along with it to try to explain that answer,
4 because as he stated and the applicant stated, it
5 is complex.

6 MS. CSANK: Granted, Your Honor. What
7 I'm simply trying to establish -- and in my
8 experience, humbly it works rather well is if
9 right after I ask the question if the witness
10 says, yes, no, I don't know, and then explains,
11 the record reads much clearer and everyone can
12 proceed clearly.

13 Otherwise I have to keep tripping over
14 myself to repeatedly go at it in different ways
15 until I get a yes, no, or, I don't know -- because
16 the explanation tends to be rather long.

17 THE HEARING OFFICER: It could be long
18 but I think you're getting your answer -- but
19 let's continue.

20 MS. CSANK: All right.

21 Sir, besides the capacity supply
22 obligation and various processes that you've
23 identified that wind up into it, is there any
24 other need analysis performed by a third-party
25 other than the applicant that's in the record

1 today?

2 THE WITNESS (Hibbard): Not that I have
3 seen. I mean, I -- so with that -- so the
4 answer -- so the answer -- the answer is, no, I
5 have not seen anything in the record other than
6 what the applicant has identified as obtaining a
7 CSO to meet the reliability need in the New
8 England region.

9 I personally testified that there are
10 also other reliability benefits, but in terms of
11 the determination of need that is limited to this
12 process we have been discussing, the applicant
13 obtaining a capacity supply obligation through
14 this process -- that we have discussed.

15 MS. CSANK: What is a reliability supply
16 benefit?

17 THE WITNESS (Hibbard): I am not
18 familiar with the term.

19 MS. CSANK: I believe you just used it,
20 sir.

21 THE WITNESS (Hibbard): There -- I said
22 there are other reliability benefits associated
23 with the facility.

24 MS. CSANK: And how would you define
25 reliability benefits for the record?

1 THE WITNESS (Hibbard): I would define
2 them as characteristics of the operation of the
3 powerplant, of the KEC powerplant that help meet
4 various elements of that related to power system
5 reliability in New England.

6 MS. CSANK: So is there a standard
7 methodology that you're applying that's documented
8 in the record for identifying such benefits?

9 THE WITNESS (Hibbard): There are a
10 number of documents in the record that describe
11 the reliability benefits of various sources of
12 power, and those are what I'm referring to.

13 The provision of ancillary services, the
14 ability to help the system operator meet
15 variations in load on a second-by-second,
16 hour-by-hour, day-by-day basis. You know, the --
17 as we discussed prettily extensively, the ability
18 of the unit to increase the level of fuel security
19 in the region, the -- being a generating resource
20 located close to load helps provide voltage
21 support.

22 These are all things that documents in
23 the record from ISO New England and from NERC, the
24 Northeast Electric Reliability Council identify as
25 reliability benefits of various generating

1 sources.

2 And that's what I'm referring to when I
3 say, reliability benefit. I do want to be clear
4 that when I say, need, it's related to their
5 acquisition of capacity supply obligation through
6 the forward capacity market.

7 MS. CSANK: Please explain that last
8 statement. Why is that significant in this case?

9 THE WITNESS (Hibbard): That's what
10 we've been discussing up to this point, that KEC
11 obtaining a capacity supply obligation means that
12 the unit is needed to meet the power system
13 reliability, and meet reliability in a way that's
14 consistent with what the system operator has done
15 pursuant to federal reliability standards.

16 MS. CSANK: Okay. And when you referred
17 to these various documents in the record that
18 identify all these various reliability benefits,
19 are any of those specifically evaluating the
20 project and its ability to deliver such benefits?

21 THE WITNESS (Hibbard): No. I -- what I
22 said was that the -- those documents identify
23 characteristics of powerplants that are important
24 for maintaining power system reliability, and KEC
25 actually has most of those characteristics.

1 MS. CSANK: And it's not your testimony,
2 but it's the only possible option for Connecticut
3 to achieve such benefits. Correct?

4 THE WITNESS (Hibbard): I don't believe
5 I have claimed that.

6 MS. CSANK: And how would you know if it
7 were the only such option?

8 THE WITNESS (Hibbard): If there wasn't
9 a single other entity on the planet offering to
10 build the powerplants to meet the need that has
11 been identified, than it would be the only one.
12 But that's -- I don't know if that helps answer
13 the question.

14 MS. CSANK: Do you recall a conversation
15 we were having earlier this morning, not me, but
16 others on this panel concerning the possibility of
17 a delay and the implications for the company's
18 capacity supply obligation?

19 Do you recall that conversation?

20 THE WITNESS (Hibbard): I -- I recall a
21 discussion about -- yes. I recall a discussion
22 about -- I don't recall which, but things possibly
23 delaying the operation of the facility.

24 MS. CSANK: And maybe this is the
25 correct time to say it -- and certainly if Mr.

1 Eves would like to address this line, but
2 basically my line is this.

3 If there were such a delay that
4 prevented for whatever reason the applicant from
5 having in service the project by June of 2022, do
6 you have any analysis that indicates there would
7 not be other supply options that could be procured
8 on a short-term basis?

9 THE WITNESS (Hibbard): To the contrary,
10 I believe Killingly has an obligation to make sure
11 that its capacity supply obligation is met. So if
12 for some reason there was a delay they would be
13 obligated to participate in -- in subsequent
14 annual auctions to replace the capacity that it
15 otherwise would provide.

16 MS. CSANK: And as we sit here today the
17 applicant is confident that it can meet that
18 contingency and satisfy that, that obligation that
19 it has?

20 THE WITNESS (Hibbard): Well, they --
21 there is established -- there are established
22 regional market rules that govern how that's done.
23 So they don't have an alternative.

24 They would have to -- if they have a
25 capacity supply obligation, if the plant is not

1 available there are steps that they have to take
2 pursuant to regional market rules to make sure
3 there's -- there are other resources to meet that
4 capacity supply obligation.

5 The second part of the answer is that
6 there's a whole regional market process to make
7 sure that those resources come forward. It's not
8 that Killingly would have to go out and find a
9 specific resource. They would participate in an
10 auction process that would ultimately identify the
11 resource that replaces the CSO.

12 MS. CSANK: So let's say, in a
13 hypothetical case where this project is denied,
14 then it sounds as though you could go to the
15 market and there would be capacity, and there
16 would be resources.

17 And they would be available to meet this
18 identified need, a need identified to be clear,
19 not in this year, but in the past and there's
20 going to be subsequent updates to the analysis
21 that the system operator performed. Correct?

22 THE WITNESS (Hibbard): I'm not quite
23 sure I understand the question. There's a
24 process --

25 MS. CSANK: Let me break it down because

1 that was -- strike that question. That was an
2 unfair question.

3 So you're with me with the predicate
4 here that we have a denial of the project. Yes?

5 THE WITNESS (Hibbard): No, I don't
6 think the Council has ruled yet.

7 MS. CSANK: That's why it's a
8 hypothetical. I believe there's a lot of
9 speculation that we've heard today. So if you
10 would just indulge me in a little bit more
11 speculation.

12 In this scenario where the project were
13 denied there is no analysis in the record that you
14 know of. Correct? That indicates that the
15 company could not go out to the market and find
16 short-term resources to meet that obligation.
17 Correct?

18 THE WITNESS (Hibbard): I haven't -- I'm
19 not aware of anything in the record that suggests
20 that what the outcome would be if the project was
21 denied.

22 MS. CSANK: And for what term? Is there
23 no shortage of other options on the market?

24 THE WITNESS (Hibbard): I'm not sure I
25 understand the question.

1 MS. CSANK: So how long could we go on
2 without the project and still meet the capacity
3 supply obligation that the company has? Do you
4 know?

5 THE WITNESS (Hibbard): I'm sorry.
6 I'm -- and again, I'm not trying to be difficult.
7 I still don't quite understand the question that
8 you're asking.

9 MS. CSANK: So there's a certain supply
10 obligation the company has incurred. Correct?

11 THE WITNESS (Hibbard): It was -- it has
12 a capacity supply obligation because it cleared
13 this capacity market.

14 MS. CSANK: And what that means is
15 whether or not the project is built that
16 obligation has to be fulfilled. Correct?

17 THE WITNESS (Hibbard): They're the only
18 ones with their capacity supply obligation.
19 The -- there is a process that happens annually as
20 part of the regional market to find the resources
21 that are needed to meet the identified reliability
22 need.

23 MS. CSANK: And what's the term? Just
24 please remind us of the obligation that the
25 company currently has?

1 THE WITNESS (Hibbard): They have a
2 capacity supply -- supply obligation.

3 MS. CSANK: Of how many years?

4 THE WITNESS (Hibbard): Oh, seven years.

5 MS. CSANK: Thank you. And so as we sit
6 here today do you know whether it can meet that
7 obligation every year of those seven years without
8 the project?

9 THE WITNESS (Hibbard): I -- are you
10 asking whether or not they could meet that for
11 seven years without the project?

12 MS. CSANK: Yes.

13 THE WITNESS (Hibbard): I would assume
14 so. I would assume that that -- that would be
15 their obligation pursuant to market rules.

16 MS. CSANK: So that's an assumption.
17 You haven't performed any analysis?

18 THE WITNESS (Hibbard): I have not
19 performed any analysis that goes out for the seven
20 years subsequent to '22/'23 to determine what
21 would happen under various scenarios, no.

22 MS. CSANK: The company never asked you
23 to analyze that, in other words?

24 THE WITNESS (Hibbard): That that's
25 not -- they had not asked me to do exactly what I

1 just said, no.

2 MS. CSANK: Thank you. And then an
3 analysis can be done, though. Correct?

4 THE WITNESS (Hibbard): You would have
5 to explain a little bit more exactly what analysis
6 you have in mind, but --

7 MS. CSANK: Sir, you're the expert. So
8 you know, please illuminate us if such analysis is
9 feasible.

10 MR. BALDWIN: I think the appropriate
11 thing, Mr. Chairman, is that she asked the
12 question and we gave the answer.

13 THE HEARING OFFICER: Yeah, and I'm
14 trying to figure out myself what the exact
15 question is that you're trying to pose.

16 It sounds like -- but I don't want to
17 put words in your mouth. It sounds like you're
18 asking them if they're going to fulfill the
19 contract if the Council denies this application.

20 MS. CSANK: Yes, your Honor.

21 THE HEARING OFFICER: Try to phrase it
22 that way and maybe it will make sense.

23 MS. CSANK: Sir, you have a contract to
24 supply a certain amount to the market. Correct?

25 THE WITNESS (Hibbard): As a result of

1 the forward capacity market NTE currently is
2 obligated to meet their capacity supply obligation
3 in 2022/2023.

4 MS. CSANK: And what is the size of that
5 capacity obligation?

6 THE WITNESS (Eves): 631 megawatts in
7 the summertime.

8 MS. CSANK: And so in winter is there a
9 difference?

10 THE WITNESS (Eves): You know, we'll
11 produce more power in the winter. Our commitment
12 is a 631 megawatts.

13 MS. CSANK: Thank you. And so my
14 question is simply, what kind of analysis can be
15 performed to verify whether in each year of the
16 contract the company can fulfill the contract if
17 the Council were to deny the project as proposed?

18 THE WITNESS (Hibbard): The -- the
19 company is obligated to participate in subsequent
20 auctions. If for some reason, if -- if the
21 Council denies the company's application they will
22 have to participate in those subsequent auctions
23 to make sure that the capacity, the full capacity
24 supply obligation is addressed.

25 MS. CSANK: Besides the auction, is

1 there any other analysis that can be performed to
2 verify that the company can fulfill its capacity
3 supply obligation for the term of the obligation?

4 THE WITNESS (Hibbard): Not that I'm
5 aware of.

6 MS. CSANK: And since you're not aware
7 of any such analysis, you certainly didn't perform
8 such analysis. Correct?

9 THE WITNESS (Hibbard): I think as I
10 previously said, I was not asked to perform
11 analysis like that.

12 MS. CSANK: Do you think it's prudent to
13 enter a contract without having analysis performed
14 to reasonably assure the contracting parties that
15 they can fulfill their obligations?

16 MR. BALDWIN: Objection. Mr. Hibbard is
17 not in a position to answer for the company, nor
18 do I think it's an appropriate question.

19 The record is clear in this case,
20 Mr. Silvestri. The CSO has been issued. We can
21 talk speculatively about all these other
22 hypotheticals, but I don't think it's appropriate
23 in these circumstances to be going down those
24 roads. The record is what it is.

25 THE HEARING OFFICER: Yeah, I'll agree

1 that the record is what it is. I'd like to move
2 on, on this one and get onto more concrete if we
3 can.

4 MS. CSANK: Certainly, your Honor.

5 If I may just very briefly address
6 distinguished counsel's comment?

7 The capacity supply obligation is
8 squarely before you in this matter, and me simply
9 probing the implications of that is, I would
10 submit and strenuously maintain is highly relevant
11 to the decision here, and I should be allowed to
12 ask questions.

13 So to the extent that I'm unable to do
14 so further I will at this time launch an
15 objection. However, I will proceed to a slightly
16 different but related line with respect to the
17 various reliability benefits that Mr. Hibbard has
18 identified that, if I'm correct -- understanding
19 correctly are he is distinguished from the
20 capacity supply obligation and the, quote,
21 unquote, need that that represents. Correct?

22 These are different things, the
23 reliability benefits and the capacity supply
24 obligation?

25 THE WITNESS (Hibbard): The -- what I

1 referred to as additional reliability benefits
2 were above and beyond what the capacity supply
3 obligation is, which is essentially meet summer
4 peak demand with 631 megawatts of capacity from
5 the facility.

6 MS. CSANK: And we can agree that other
7 resources, including other gas combined cycle
8 units can provide such benefits. Correct?

9 THE WITNESS (Hibbard): The -- so the
10 one-word answer is yes, but the explanation is
11 that on an annual basis the end result of the
12 forward capacity market process is the
13 identification of the least cost set of resources
14 that in total meet the entire region's installed
15 need, their reliability need, net ICR.

16 And there are many other resources other
17 than this facility that participate in that
18 auction process, and a subset of which is selected
19 to be -- and granted capacity supply obligations
20 in order to meet that need.

21 MS. CSANK: Okay. And just to be clear,
22 if for some reason the conditions imposed upon
23 this project were to reduce its capacity output,
24 it would still be able to provide such benefits.
25 Correct?

1 MR. BALDWIN: Conditions imposed by
2 whom?

3 MS. CSANK: By this Council.

4 MR. BALDWIN: So the question is, if
5 this Council were to impose capacity limits --

6 MS. CSANK: May I clarify? I'll strike
7 my question and go at it another way.

8 If the Council were to condition its
9 approval in such a manner that the capacity output
10 of the project were reduced, would the project
11 still be able to provide these reliability
12 benefits that you have identified, sir?

13 THE WITNESS (Hibbard): If the -- if the
14 unit for one reason or another had available
15 capacity less than the 631 megawatts, number one,
16 the difference would have to be made up. I
17 just -- I want to give a complete answer.

18 The difference for the CSO purpose would
19 have to be made up in the same way we were
20 previously discussing, in the forward capacity
21 market auctions. The remaining portion that the
22 facility is able to operate would still be able to
23 provide all of the reliability benefits that I
24 identified.

25 MS. CSANK: Thank you. And wouldn't the

1 same be true if the conditional approval by the
2 Council were to delay the construction of the
3 project, all else being equal?

4 THE WITNESS (Hibbard): I think as we've
5 discussed, the company's obligation is very
6 explicit. It's in '22/'23. It needs to be -- it
7 has a capacity supply obligation for
8 631 megawatts. If it's not available on June 1,
9 '22/'23 then all of our previous
10 discussion applies.

11 MS. CSANK: So sir, I just think it will
12 be clear for the record -- I'm not asking about
13 the capacity supply obligation. At the beginning
14 of this line we established that the additional
15 reliability benefits are additional above and
16 beyond the cost of supply obligation.

17 So if you would just bear with me and
18 answer the call of the question I think we'll get
19 through it faster.

20 And so my question was simply this. If
21 the conditional approval by this Council were to
22 result in a delay of the in-service date of the
23 project, would the project still be able to
24 deliver reliability benefits to the people of
25 Connecticut?

1 THE WITNESS (Hibbard): At the time it
2 commenced operation, yes, but not in the period of
3 time between when they wish to go online and when
4 they do go online. If it's not operating it can't
5 provide those reliability benefits.

6 MS. CSANK: Thank you, sir.

7 And as we sit here today, nothing in the
8 record says that there is a reliability shortfall
9 in Connecticut. Correct?

10 THE WITNESS (Hibbard): There is nothing
11 in the record that explicitly says there's a
12 reliability shortfall in Connecticut, however the
13 reliability need in Connecticut is a function of
14 what happens in regional market processes, and
15 that's what we've been discussing.

16 MS. CSANK: And so is there anything in
17 the record that says as we sit here today, a
18 reliability shortfall existing or projected in the
19 regional market?

20 THE WITNESS (Hibbard): The --

21 MS. CSANK: Yes? No? I don't know,
22 sir?

23 THE WITNESS (Hibbard): Well, it doesn't
24 lend itself to a yes, no, I don't know answer. I
25 do know I would answer and I -- just for the

1 benefit of the Council I think it's the -- the
2 process that leads to capacity supply obligations
3 being issued for the full range of powerplants in
4 the region that meet that need is the process that
5 determines what resources are going to meet
6 federally enforceable reliability standards three
7 years out.

8 And so you can't point to any particular
9 state within the region and say, there's a need in
10 this state but not a need in another state. That
11 each state relies upon the generating facilities
12 that participate in the forward capacity market
13 throughout the entire region. So reliability in
14 Connecticut is dependent upon generation in
15 Connecticut and throughout the entire region.

16 Similarly generation in Connecticut
17 provides reliability benefits to other states in
18 New England. That's just the structure of our
19 tightly integrated power grid in a tightly
20 integrated power market.

21 So I -- I just want to be clear that
22 when you speak about a reliability need within
23 Connecticut, it's more complex than -- than
24 looking specifically at one state.

25 THE HEARING OFFICER: Mr. Lynch has a

1 follow-up question for you.

2 MR. LYNCH: Mr. Hibbard, following up on
3 what you just said -- all powerplants throughout
4 New England are running, and is there any
5 likelihood that the ISO would call for a dispatch
6 less than 330 -- I mean, 631 megawatts from your
7 powerplant?

8 THE WITNESS (Hibbard): The -- the
9 answer is -- the answer is that, yes, at -- in any
10 given hour throughout the year any powerplant in
11 the region could be operating at full capacity or
12 something less than full capacity.

13 What the ISO calls for is based upon
14 hourly economic dispatch. So it really depends on
15 how do you minimize the hour-to-hour cost to
16 consumers, to ratepayers and to consumers.

17 MR. LYNCH: So peak times you could be
18 running at full capacity, and in less peak times
19 you could be running it less?

20 THE WITNESS (Hibbard): Yeah, and you
21 know, my expectation is this facility being more
22 efficient than most other fossil generating
23 facilities in the region because it will have a
24 really high capacity factor.

25 MR. LYNCH: So that leads me to my next

1 question. Does the ISO provide a priority of
2 dispatch?

3 THE WITNESS (Hibbard): The ISO
4 determines what units operate in each hour based
5 on an increasing variable cost curve.

6 So it's literally based upon how much
7 does it cost to generate a megawatt hour. So
8 yeah, it's an increasing supply curve.

9 MR. LYNCH: Thank you very much.
10 Thank you.

11 THE HEARING OFFICER: Thank you.
12 Please continue.

13 MS. CSANK: Thank you.

14 Since we're talking about dispatch, now
15 is probably a good time to return to a question
16 from this morning about decarbonization and the
17 various methods to achieve decarbonization. And I
18 believe in the context of that conversation
19 certain bolt-on technologies were discussed.

20 Mr. Eves, do you recall that?

21 THE WITNESS (Eves): Yes.

22 MS. CSANK: And for the clarity of the
23 record could you please define bolt-on
24 technologies as you understand them?

25 THE WITNESS (Eves): That would be a

1 technology that can be added to an existing
2 machine without -- that could -- I'll just leave
3 it at that. It's a technology that could be added
4 to an existing machine.

5 MS. CSANK: So it's within the fence
6 line of the facility. It's on the site that we're
7 discussing. Correct?

8 THE WITNESS (Eves): Yes.

9 MS. CSANK: As opposed to measures
10 beyond the fence line that also might also result
11 in emissions reductions. Correct?

12 THE WITNESS (Eves): When I speak of
13 bolt-on, yes, it would be in, inside the fence
14 line.

15 MS. CSANK: And so I'll link this up to
16 dispatch in a moment, but to be clear I think
17 Ms. Gresock identified for us that, for example,
18 resources such as solar and wind, and certainly
19 others do not produce emissions when they are
20 operating and producing power supply.

21 Is that correct?

22 THE WITNESS (Gresock): That's correct.

23 MS. CSANK: And also I think it would be
24 better for the record to just establish that
25 approximately 80 percent of the cost of building

1 and operating a gas plant are fuel costs.

2 Correct?

3 THE WITNESS (Eves): I think that's a
4 difficult question. Building -- yeah, there's no
5 gas cost at all included in building the -- the
6 facility. I would say operating the facility, the
7 gas costs are a significant contribution to the
8 costs.

9 MS. CSANK: Do you have any qualified
10 analysis to present to the Council?

11 THE WITNESS (Eves): Not right now. I
12 don't have that.

13 MS. CSANK: So subject to check, would
14 you accept that in other gas plant matters states
15 have consistently found that about 80 percent of
16 construction and operating costs of such
17 facilities are fuel costs.

18 THE WITNESS (Eves): I'm sorry, but I
19 can't -- I can't -- I mean, I would have to look
20 it up, but I -- I can't.

21 MS. CSANK: You don't know. Is that
22 correct?

23 THE WITNESS (Eves): I don't know.
24 Yeah, there you go. Yeah.

25 THE HEARING OFFICER: If I could

1 interject on that? I believe that Mr. Eves said
2 the gas cost doesn't factor in on construction.

3 MS. CSANK: Right. And so --

4 THE WITNESS (Eves): That's correct.

5 MS. CSANK: -- what I was suggesting was
6 that the denominator would be the construction and
7 operation costs combined. And I was searching for
8 the numerator, if they knew it. And I think the
9 record will show that they do not know it.

10 THE HEARING OFFICER: And we'll leave it
11 at that.

12 MS. CSANK: Thank you, sir.

13 And just to be clear, resources such as
14 renewable resources, solar and wind do not have
15 fuel costs. Correct? Yes, no, don't know?

16 THE WITNESS (Eves): No, they do have
17 fuel costs, because we need power 24 hours a day.
18 And when the -- when the solar is not operating,
19 when there's no wind, when there's no sun that
20 power has got to come from somewhere. And that,
21 that power is going to come from some facility
22 that uses fuel.

23 I would say during the hours of the day
24 that solar is operating there's no fuel associated
25 with it, but if you look at that power over a

1 24-hour period there's going to be fuel required
2 to back up, to provide the power that that solar
3 facility would provide.

4 MS. CSANK: Sir, do you have any written
5 analysis that says -- well, first of all, the call
6 of my question was simply when solar and wind
7 operate do they have a fuel cost? And I believe
8 the answer is, no.

9 Is that correct?

10 THE WITNESS (Eves): I don't think that
11 was your question, but yeah, when sol -- when
12 solar and wind operate there are no fuel costs
13 associated with those resources.

14 MS. CSANK: And what is your basis for
15 suggesting to the Council that fossil-fueled
16 resources must be combined with solar in order to
17 reliably serve customers?

18 THE WITNESS (Eves): Because the sun
19 doesn't shine at night and the wind doesn't blow
20 all the time. I mean, we have to get that power
21 from somewhere.

22 Battery technology is a long way off on
23 the horizon. Someday maybe it will be here, but
24 there, I mean, those variable resources have to be
25 backed up. That's -- and that's, you know, Paul

1 talks about reliability benefits. That's one of
2 the huge reliability benefits of this machine, is
3 its flexibility to be able to provide power when
4 the variable resources are unavailable.

5 MS. CSANK: Sir, are you aware that
6 there are jurisdictions that have completely
7 phased out their fossil fuels and supply their
8 customers with affordable, reliable and adequate
9 energy?

10 MR. BALDWIN: Objection. Relevance? Is
11 there a question.

12 THE HEARING OFFICER: I would stay with
13 the project itself with your questions, please.

14 MS. CSANK: Yes, your Honor. I believe
15 that this line of questioning is highly relevant
16 to the earlier questioning concerning
17 decarbonization and the methods to achieve the
18 State's decarbonization goals.

19 And so I was simply exploring the
20 feasibility of other methods that may be available
21 indeed to this applicant of advancing those policy
22 objectives of the State.

23 THE HEARING OFFICER: I'm not sure where
24 you're going, but please pose your next question.

25 MS. CSANK: If I can have just a tiny

1 bit of latitude to ask a couple more questions and
2 we can move on?

3 So in a dispatch stack isn't it true
4 that renewable energies tend to be dispatched
5 earlier than fossil-fueled energies?

6 THE WITNESS (Hibbard): I think the
7 answer to that is, yes, most renewable resources
8 would be dispatched before gas-fired resources
9 with the potential exception of biomass resources.
10 We consider that renewable.

11 MS. CSANK: I'll put that aside for now
12 as --

13 THE WITNESS (Eves): Maybe I could add
14 something. Renewable resources are not
15 dispatched. I mean, you can't turn a renewable on
16 and off when you want to turn it on and off.
17 Dispatch means that you can turn the power
18 production facility on when you need it.

19 When renewables produce, their power
20 goes to the grid. When renewables don't produce
21 you need to dispatch a unit that you're capable of
22 turning on and off to meet the power needs.

23 MS. CSANK: Sir, I don't think we need
24 to get into the details. But thank you for that,
25 but I don't think we need to get into the details

1 of dispatchability of solar, and solar combined
2 with storage technologies.

3 In any event, the next question that I
4 had was going to tie back to a conversation that
5 we had this morning concerning the feasibility of
6 adding solar to the site.

7 Do you recall that?

8 THE WITNESS (Eves): Yes.

9 MS. CSANK: And so sticking with that
10 scenario, if the company were to discover that
11 some amount of solar could be added to the site,
12 would it not limit in some material way the
13 dispatch of the unit when the solar is supplying
14 grid?

15 THE WITNESS (Hibbard): I think the
16 answer to that question would be no, because what
17 that solar would do is it would limit the
18 operation of some unit, but it would limit the
19 operation of a unit that's out on the margin. So
20 that's not likely to be this facility in many
21 hours of the year.

22 It's more likely to be one of the less
23 efficient older facilities, whether it's
24 gas-fired, oil or otherwise. So it's correct I
25 believe that if solar were added, it would limit

1 the operation of other fossil-fueled resources,
2 but not likely this one.

3 MS. CSANK: So let's just put aside your
4 claim that it wouldn't be the marginal unit and
5 fast-forward to a time when it is, just so that
6 the record is clear about this dynamic. At that
7 time that additional solar would, in fact, curb
8 the emissions from this very project.

9 Correct?

10 THE WITNESS (Hibbard): If this facility
11 were on the margin then every additional megawatt
12 hour of solar would back a megawatt hour off of
13 that facility.

14 MS. CSANK: And so could we call that a
15 beyond the fence line measure for further reducing
16 the emissions of the project?

17 THE WITNESS (Hibbard): I -- any -- any
18 investment that would -- that would cause this
19 project to operate less and allow another resource
20 to operate that didn't produce any emissions would
21 be an example of something that would reduce the
22 emissions associated with the operation of the
23 facility.

24 MS. CSANK: And Mr. Eves, when you were
25 discussing potential future controls -- and I

1 believe you explained that what you were referring
2 to was exclusively the controls, bolt-on controls
3 that are under development by Mitsubishi.

4 Is that correct?

5 THE WITNESS (Eves): Yes.

6 MS. CSANK: And so you haven't analyzed
7 the feasibility at this time or some future time
8 of these other types of emissions reductions
9 methods. Correct? Ms. Gresock?

10 THE WITNESS (Gresock): I think there
11 are a range of options that could be feasible in
12 the future, and they're not simply limited to
13 technology changes at the facility. I think there
14 are a lot of ways for the project to meet its
15 commitment.

16 MS. CSANK: Okay. Well, let's tease
17 that apart a little bit. So I believe in talking
18 to Ms. Fiedler, Mr. Eves, you identified a
19 willingness by the company to make its greenhouse
20 gas commitment binding in some manner.

21 Is that correct?

22 THE WITNESS (Eves): Yes.

23 MS. CSANK: And specifically you
24 identified requesting that that be made a
25 condition of approval. Correct?

1 THE WITNESS (Eves): I didn't request
2 that. I did say we would be perfectly willing to
3 accept that as a condition of our certification.

4 MS. CSANK: Will you go one step further
5 and request that it be a condition of
6 certification?

7 THE WITNESS (Eves): Sure. If you'd
8 like to make that a condition of our certification
9 we will gladly accept.

10 MS. CSANK: And just so that the record
11 is clear, it's the company's position that there
12 are a variety of technologies including some in
13 development that would bolt on or be beyond the
14 fence line that enable it to meet its commitment.

15 Correct?

16 THE WITNESS (Eves): That's correct.

17 MS. CSANK: And the emissions we're
18 really talking about here are exclusively those
19 from the stack of the plant. Correct? Or stacks?

20 THE WITNESS (Eves): Yes, I believe
21 we're talking about CO2.

22 MS. CSANK: Not just CO2. I mean, to be
23 clear this is gas that will be extracted and
24 transported to the site. Correct?

25 THE WITNESS (Gresock): This, this is

1 based upon the project's direct impacts only.

2 MS. CSANK: And so indirect impacts by
3 contrast would be emissions that occur upstream
4 such as at the extraction stage of the gas and the
5 transportation of that gas. Correct?

6 THE HEARING OFFICER: I want to take a
7 step backward.

8 Mr. Eves, just to go back on what you're
9 voluntarily proposing, the voluntary proposal was
10 for carbon dioxide only. Is that correct?

11 THE WITNESS (Eves): Yes.

12 THE HEARING OFFICER: Thank you.

13 Then your continued question was?

14 MS. CSANK: I was simply trying to make
15 clear for the record that there are emissions
16 upstream that are often referred to, by
17 environmental regulators, as indirect impacts.

18 And those include -- and I'm sorry to go
19 on so long -- the emissions from extraction and
20 transportation of gas to the project.

21 THE WITNESS (Gresock): So the -- the
22 commitment is based solely on the carbon dioxide
23 equivalent values that were reflected in the
24 project's air permit.

25 MS. CSANK: And you agree that there are

1 impacts from those extra emissions that I just
2 described. Correct?

3 THE WITNESS (Gresock): I have no
4 position on that.

5 MS. CSANK: You have not performed any
6 analysis on those extra emissions?

7 THE WITNESS (Gresock): I have not.

8 MS. CSANK: Do you know if it's feasible
9 to quantify those extra emissions?

10 THE WITNESS (Gresock): I have not
11 considered it.

12 THE HEARING OFFICER: I'm not sure how
13 you're exactly relevant to what the applicant is
14 proposing to do when this latest line of
15 questioning is for everything that's beyond their
16 control and well offsite.

17 MS. CSANK: Your Honor, the project
18 is the but-for cause of 30 to 50 years of
19 additional gas sufficient to operate the plant.

20 And so you know, if you'll allow me a
21 little bit of leeway I'll get to the potential
22 significance of all of that gas and the emissions
23 that are upstream.

24 THE HEARING OFFICER: Proceed, but with
25 caution.

1 MS. CSANK: Thank you, your Honor.

2 Would you please answer the last
3 question of mine?

4 MR. BALDWIN: Could you repeat that
5 question, please?

6

7 [Reporter reads back question.]

8

9 THE WITNESS (Hibbard): So maybe I can
10 jump in, and I think what you're asking is for
11 every molecule of gas burned at the plant, is
12 there leakage associated with the production and
13 transport? Is there methane leakage associated
14 with the production and transport of the gas
15 that's ultimately consumed at the powerplant? And
16 can that be quantified?

17 And I think, you know, there's
18 widespread literature with estimates of what those
19 potential additional emissions are associated with
20 transport. And I don't think there's agreement
21 yet on how to quantify that, but people have tried
22 to quantify it and have come to different answers.

23 I do think an important point here is,
24 to the extent that this facility burning natural
25 gas displaces generation from other fossil fuel

1 generated facilities, it's also displacing the
2 leakage in upstream emissions associated with the
3 transport of those fuels.

4 So I -- I think that would be an
5 important thing to take into account if that -- if
6 you were trying to estimate that.

7 MS. CSANK: So you yourself have not
8 performed any such analysis. Have you, for the
9 purpose of this matter?

10 THE WITNESS (Hibbard): I have not.

11 MS. CSANK: And subject to check, since
12 you have identified efforts to calculate those
13 upstream emissions, those indirect impacts,
14 subject to check, would you agree that the upper
15 reaches of that range are emissions that are
16 comparable in mass to the emissions from the
17 direct impacts, i.e., the stack emissions?

18 THE WITNESS (Hibbard): That's certainly
19 not my impression.

20 MS. CSANK: Why not?

21 THE WITNESS (Hibbard): I -- I have
22 looked at some of these studies in the past. I
23 couldn't tell you here exactly what I've read, but
24 I'm not under the -- I don't have, sitting here,
25 the impression that the global warming impact of

1 upstream emissions is equal to the stack impacts
2 of CO2.

3 MS. CSANK: Sir, are you an expert in
4 this subject?

5 MR. BALDWIN: Mr. Chairman, he was asked
6 the question.

7 THE HEARING OFFICER: I really think the
8 question was answered before. And, Mr. Hibbard,
9 when you asked him a question did he do any types
10 of studies upstream, his answer was no.

11 So any type of comparison that he can
12 possibly give you out of that wouldn't exist,
13 because he did not do these studies upstream. So
14 with the answer of no, I'd really like to move on.

15 MS. CSANK: Yes, your Honor, but I do
16 think if you'll just -- I beg your indulgence.

17 He then offered this Council and
18 impression and I think it's very important for the
19 record to understand the basis for his impression,
20 and the evidentiary basis for that impression
21 since it is at this point just bald testimony.

22 THE HEARING OFFICER: But I don't see an
23 impression being the study.

24 MS. CSANK: Right, sir. But he did
25 offer a conclusion, a factual conclusion based on

1 that impression. I just want to make it crystal
2 clear where he's getting that impression from so
3 that your Honor can give it its due weight, or
4 otherwise we move to strike it from the record.

5 THE HEARING OFFICER: But again, if he
6 moved to give you an answer out of it, he's giving
7 you an opinion. And if you try to ask him what
8 his background is, or what his authority is to do
9 that I don't see how it relates if he's trying to
10 give you an opinion.

11 I would move on.

12 MS. CSANK: Yes, sir.

13 If I may just ask him for that
14 impression, which I understood to be something
15 slightly different than what he said he didn't do
16 an analysis on.

17 And so I just want to make sure that
18 that impression also is not undergirded by any
19 analysis specific to this project?

20 THE WITNESS (Hibbard): Specific to this
21 project? No.

22 MS. CSANK: Thank you, sir.

23 Before we went down this path together I
24 believe we were talking about -- or you were
25 identifying for us the integrated nature of the

1 market, and how this project is important to
2 understand in the context of that market.

3 Do you recall that?

4 THE WITNESS (Hibbard): I do recall
5 discussing the integrated nature of the power
6 system in New England and the wholesale markets in
7 New England.

8 MS. CSANK: Is the state of New York's
9 energy resources -- those are connected to the New
10 England market. Correct?

11 THE WITNESS (Hibbard): There are
12 limited transmission interconnections between New
13 England and New York over which power flows, and
14 there are also market transactions between the two
15 regions.

16 MS. CSANK: And so New York resources
17 can supply Connecticut customers. Correct?

18 THE WITNESS (Hibbard): To the extent
19 that resources in New York are not needed in New
20 York for power system or policy reasons.

21 And there's a market opportunity to sell
22 those resources into New England, and there's
23 sufficient trend -- transmission capacity to
24 deliver that energy into the region. Then those
25 resources could participate in the New England

1 market, yes.

2 MS. CSANK: So I believe when we were
3 earlier discussing the Algonquin Pipeline one of
4 the claimed benefits of this project is that it
5 increases firm supply to New England as opposed to
6 New York.

7 Do you recall that?

8 THE WITNESS (Hibbard): I do recall.

9 MS. CSANK: So can you please explain to
10 us why that would be an actual benefit to
11 Connecticut?

12 THE WITNESS (Hibbard): Well you know,
13 as we were discussing, Connecticut is part of the
14 New England region. And one of the reliability
15 risks in New England that's been discussed
16 extensively in this docket is the ability to keep
17 the lights on during very cold winter conditions.

18 This facility, through its firm
19 transportation contract, likely increases the flow
20 of gas into New England under the coldest weather
21 conditions in the winter. And as a result of that
22 it helps address the fuel security risks that have
23 been identified by ISO and government agencies,
24 and that have been the subject of the -- of a lot
25 of discussion here in these proceedings.

1 MS. CSANK: Why do you say likely?

2 THE WITNESS (Hibbard): Because it's --
3 it's not something that where you can point to a
4 specific quantity of gas in every hour that flows
5 across the border associated with this contract.
6 It's really a comment on the coldest winter days,
7 how does it potentially affect the flow of gas
8 into New England.

9 MS. CSANK: Have you performed any
10 analysis to quantify the supply risk? In other
11 words, of supply, of gas supply not being
12 available for the plant to operate?

13 THE WITNESS (Hibbard): Yes.

14 MS. CSANK: You've quantified that?

15 THE WITNESS (Hibbard): Yes -- no, I'm
16 sorry. Let me take it back. I have -- I have on
17 several projects evaluated the fuel security risks
18 associated with operation of the power system in
19 New England. I'm also currently undertaking a
20 similar study for the New York ISO.

21 I have not specifically tried to
22 quantify the fuel security and risk in New England
23 as a function of the operation of this project.

24 MS. CSANK: So I believe there was
25 discussion of contingency planning and what would

1 happen if there were a disruption, a pipeline
2 failure. Do you recall that?

3 THE WITNESS (Hibbard): I -- I recall
4 the discussion this morning associated with that
5 hypothetical, yes.

6 MS. CSANK: And in that discussion
7 either you or one of your co-panelists said that
8 the firm gas supply contract was, quote,
9 incredibly important to avoid the, quote,
10 nightmare scenario.

11 Do you recall that?

12 THE WITNESS (Hibbard): I personally
13 believe that the firm supply transportation
14 natural gas supply contract that this facility has
15 included is incredibly important for fuel security
16 here in New England.

17 MS. CSANK: Well, maybe we can better
18 understand. What does this contract do exactly?

19 THE WITNESS (Hibbard): It gives the
20 project the right to the transportation of natural
21 gas 365 days a year.

22 MS. CSANK: And I think we talked about
23 how that gas would come down the Algonquin
24 transmission line across this two-mile ladder.
25 And all that is operated by Vermont Yankee.

1 Correct?

2 THE WITNESS (Hibbard): I don't think
3 the gas system is that -- that easy to -- to make
4 a direct connection of exactly where the molecules
5 are coming from, and where they get delivered to
6 the burner tip.

7 MS. CSANK: So do you have a contract
8 with the entire pipeline system?

9 THE WITNESS (Hibbard): It's a contract
10 with -- with another entity to transport that
11 volume of gas on a daily basis to the powerplant.

12 MS. CSANK: Who's the counterparty?

13 THE WITNESS (Hibbard): I believe in
14 this case it's Emera.

15 MS. CSANK: And Emera, for the benefit
16 of the record, is spelled E-m-e-r-a. It's a
17 Canadian company. Correct?

18 THE WITNESS (Hibbard): Yes. There,
19 they're based in Canada. They have natural gas
20 and electricity, and hedging option trading
21 operations throughout the Northeast.

22 MS. CSANK: Indeed, and they have
23 operations in Barbados where they have -- or
24 they've committed to help that island?

25 THE HEARING OFFICER: I don't see how

1 that's appropriate.

2 MS. CSANK: Your Honor, it simply gets
3 at this decarbonization idea, but I'll strike that
4 question.

5 Sir, do you know where Emera is going to
6 be getting the gas that it will be firmly
7 supplying to the project?

8 THE WITNESS (Hibbard): No.

9 MS. CSANK: Not at all?

10 THE WITNESS (Hibbard): No.

11 MS. CSANK: How would you go about
12 finding out?

13 MR. BALDWIN: Why is it relevant where
14 the gas comes from, Mr. Chairman?

15 THE HEARING OFFICER: Yeah, I don't see
16 how that fits in. If they have a contract to get
17 materials, just like they would go to a gas
18 station to get gas, am I going to ask where that
19 gasoline is coming from? They have a contract to
20 get gas from Emera. They get gas from Emera.

21 MS. CSANK: So given this Council's
22 interest in contingencies, I would submit that
23 understanding the source of the main fuel that the
24 project is supposed to rely on for decades is
25 highly relevant.

1 So if the Council would indulge me just
2 a few questions I promise not to go on for long.

3 MR. BALDWIN: The question then has been
4 answered. He doesn't know.

5 THE HEARING OFFICER: He doesn't know,
6 yeah --

7 MS. CSANK: This is a slightly different
8 question, your Honor -- sorry to interrupt. It's
9 not whether he knows or not. How would he go
10 about finding the answer?

11 THE HEARING OFFICER: Why would he have
12 to find the answer, is the question I would pose
13 to you if he knows it's coming from Emera?

14 MS. CSANK: Well, Emera is a company.
15 It is not a source of gas, a physical source of
16 gas.

17 THE HEARING OFFICER: And his contract
18 is with the company.

19 MS. CSANK: Right, but in order to
20 understand the size of the risk to properly
21 understand whether this project will, in fact, be
22 available to supply Connecticut customers, the
23 Sierra Club maintains it's very important to
24 understand the source of that fuel.

25 MR. BALDWIN: And the witness has

1 answered he doesn't know, Mr. Chairman. I don't
2 know what else to do.

3 THE HEARING OFFICER: I think the answer
4 is there. I really think we need to move on.

5 MS. CSANK: Yes, your Honor.

6 THE HEARING OFFICER: Thank you.

7 MS. CSANK: Sir, you earlier identified
8 shale gas as being a great boon to New England.
9 Do you recall that?

10 THE WITNESS (Hibbard): I don't believe
11 that's what I said.

12 MS. CSANK: What did you say about shale
13 gas, and why is it relevant here?

14 THE WITNESS (Hibbard): I believe at the
15 time we were discussing the impact of natural gas
16 costs on electricity ratepayers, and my point was
17 that because of the shale, what's happened with
18 shale gas it's had a very strong price depression
19 effect that has benefited both natural gas
20 customers and electricity ratepayers here in New
21 England.

22 MS. CSANK: Sir, have you performed any
23 analysis that quantifies the costs associated with
24 the pollution of that gas?

25 THE WITNESS (Hibbard): I have not

1 specifically tried to quantify the risks or
2 damages associated with emissions.

3 MS. CSANK: So can you offer this
4 Council any sort of evidentiary basis for
5 comparing the supposed savings to the public as
6 compared to the costs associated with that gas
7 supply?

8 THE WITNESS (Hibbard): I have not in
9 this proceeding offered any sort of a benefit cost
10 analysis like that, no.

11 MS. CSANK: And for the benefit of the
12 record, what's the difference between shale gas
13 and natural gas?

14 THE WITNESS (Hibbard): I don't believe
15 there's any difference. Shale gas is natural gas.

16 MS. CSANK: And the "shale" modifier
17 refers to the physical formation from which that
18 gas is extracted. Correct?

19 THE WITNESS (Hibbard): Correct.

20 MS. CSANK: And the extraction method
21 includes horizontal drilling and hydraulic
22 fracturing. Correct?

23 MR. BALDWIN: I'm going to object,
24 Mr. Chairman.

25 Again, we're talking about the source of

1 the gas. I'm not sure why that's relevant to the
2 Siting Council's review criteria as it relates to
3 this proceeding.

4 THE HEARING OFFICER: Yeah -- no, I
5 agree. The applicant is not fracking gas out of
6 this. They're getting their gas presumably
7 through Emera. I would like to focus again on the
8 plant, if need be Emera, but really to move on.

9 You know, horizontal drilling I don't
10 think really applies here.

11 MS. CSANK: Sir, for the record, Sierra
12 Club objects to this argument by distinguished
13 counsel for NTE.

14 We strenuously maintain that the source
15 of the gas and the emissions associated with that
16 gas, and all of the other environmental harm
17 associated with that gas, its source, its
18 extraction, its transportation are relevant to
19 this proceeding under broad statutory criteria
20 that investigate the public interest.

21 THE HEARING OFFICER: I'm going to
22 overrule and ask Attorney Bachman to comment on a
23 few things.

24 MS. BACHMAN: Thank you, Mr. Chairman.
25 The Council's review criteria for this

1 application is contained under Connecticut General
2 Statutes Section 16-50P.

3 The analysis for whether or not the
4 project would be approved in accordance with our
5 criteria does not extend to any upstream costs or
6 actions over which the applicant has no control.

7 This is an application for a certificate
8 for an electric generating facility. The standard
9 is a public benefit versus any of the adverse
10 environmental impacts and the costs to the
11 ratepayers. It really does not extend any further
12 than what the applicant has control over, which is
13 the facility.

14 So any upstream costs or fracking or
15 anything related to where they get the gas is
16 really irrelevant to this proceeding. They have a
17 contract for gas.

18 We need to move on, please.

19 MS. CSANK: Thank you.

20 Sir, just for the benefit of the record,
21 the various benefits of this project -- I just
22 want to make sure that the record is clear on the
23 factors that are relevant to the realization of
24 those benefits for the public. So if you would
25 just help me understand?

1 Would regulation of the gas supply
2 potentially -- I mean, is there any evidence in
3 the record of a regulatory risk analysis and its
4 implications for the project?

5 THE WITNESS (Hibbard): Can you clarify
6 what you mean by regulatory risk analysis?

7 MS. CSANK: If there were regulation
8 upstream that this Council is not looking at,
9 could that have implications for the gas supply to
10 the project?

11 MR. BALDWIN: Again, I will object. Now
12 we're back to talking about upstream impacts.

13 THE HEARING OFFICER: Yeah, I agree.
14 We're back to what we just talked about two
15 minutes ago.

16 And I would move on from here, please.

17 MS. CSANK: Sir, what is the term of the
18 firm supply contract?

19 THE WITNESS (Eves): Seven years with a
20 seven-year extension.

21 MS. CSANK: What does that mean,
22 seven-year extension?

23 THE WITNESS (Eves): That means at the
24 end of the first seven years we can extend the
25 contract for another seven years.

1 MS. CSANK: How?

2 THE WITNESS (Eves): By signing an
3 extension. The terms are negotiated.

4 MS. CSANK: So the terms could change?

5 THE WITNESS (Eves): No, the terms --
6 the terms are negotiated. So the terms of the
7 extension are negotiated.

8 MS. CSANK: I see. And so as we sit
9 here today do you have any guarantee of what gas
10 prices will be in seven years?

11 THE WITNESS (Eves): No. We have a
12 guarantee on the transportation costs, but the gas
13 price will be based on market.

14 MS. CSANK: So as we sit here today
15 there's no insurance for the people of Connecticut
16 against swings in gas prices over the 30 to
17 50-year line of this project. Correct?

18 THE WITNESS (Eves): That's correct.
19 We're buying gas from the market, and it's the
20 same gas that anybody else that's burning gas is
21 paying at the same prices that they're paying.

22 Our facility will burn less than
23 competing facilities. So when gas prices are
24 higher on a per megawatt hour basis our
25 electricity will be providing a cost benefit.

1 MS. CSANK: Would you agree with me that
2 the project is a relatively lumpy addition to the
3 grid?

4 THE WITNESS (Hibbard): What do you mean
5 by, lumpy?

6 MS. CSANK: Typically power supply is
7 added incrementally. Correct?

8 THE WITNESS (Hibbard): New capacity is
9 added incrementally.

10 MS. CSANK: And the smaller the
11 increment over time the smoother the additions
12 are. Correct?

13 THE WITNESS (Hibbard): I'm not sure I'm
14 quite -- could you restate it, please?

15 MS. CSANK: Sure. So let's take a
16 resource like energy efficiency. Just bear with
17 me. This will be brief.

18 You can add energy efficiency in very
19 small increments to the grid. Correct?

20 THE WITNESS (Hibbard): You can reduce
21 demand through energy efficiency in very small
22 increments.

23 MS. CSANK: And you can also reduce it
24 in very large increments. Correct?

25 THE WITNESS (Hibbard): Not all at the

1 same time. I think it takes some time to
2 implement the measures that actually lead to
3 energy efficiency savings.

4 MS. CSANK: Okay. Whereas these vendors
5 Siemens, Mitsubishi, they provide combustion
6 turbine generators in certain preset sizes.
7 Correct?

8 THE WITNESS (Hibbard): That's generally
9 my understanding for -- for a gas-fired generator
10 like this. There are relatively standard sizes.

11 MS. CSANK: And there's economies of
12 scale. So these things tend to be rather large.
13 Correct?

14 THE WITNESS (Hibbard): I would expect
15 that.

16 MS. CSANK: And in this instance, in
17 this very case the company is proposing a 650
18 megawatt nameplate capacity project. Correct?

19 THE WITNESS (Eves): That's correct.

20 MS. CSANK: And that's a rather large
21 lump to be adding all at once to the grid.
22 Correct?

23 THE WITNESS (Hibbard): I wouldn't
24 character -- characterize it that way. I, you
25 know, that's sort of a qualitative -- it's not as

1 large as Millstone or Seabrook, or some other
2 fossil generating facilities that have been added
3 to the grid, but it's not as small as incremental
4 energy efficiency investments.

5 MS. CSANK: Has the company considered
6 different sizes and whether they would better
7 calibrate to customer needs?

8 THE WITNESS (Gresock): The original
9 application did include an alternatives analysis
10 that addressed a range of technologies. This
11 technology and this size for the current project
12 has been selected as the most appropriate.

13 MS. CSANK: And sir, you would agree
14 that the energy market has been changing at a
15 dramatic pace. Correct?

16 THE WITNESS (Hibbard): Could -- could
17 you just -- I'm not trying to be difficult, but
18 what part of the energy market?

19 MS. CSANK: Let's talk about the
20 technology. So the technology changes, the
21 technical changes of the resources available to
22 customers has changed dramatically especially, I'd
23 say, in the last decade.

24 THE WITNESS (Hibbard): I wouldn't limit
25 it to that. I think for the past century there

1 have been periods of significant changes in the
2 technologies that are making up the grid and
3 contributing to meeting power system needs.

4 MS. CSANK: But let's talk specifically
5 about certain resources, solar and energy storage.
6 Those you would agree have experienced dramatic
7 performance and price improvements over the past
8 decade. Correct?

9 THE WITNESS (Hibbard): I would say the
10 cost decline in solar and wind resources has been
11 significant, and has led to significant expansion
12 of those resources in New England and beyond New
13 England.

14 Storage, I don't think there's any
15 reliable evidence that storage is getting close to
16 being economic or otherwise will play a
17 significant role in the grid.

18 MS. CSANK: Besides that testimony, do
19 you have any analysis in the record concerning the
20 economics of storage as applicable here?

21 THE WITNESS (Hibbard): In this record I
22 have not seen any economic analysis of storage.

23 MS. CSANK: But you did see the
24 testimony submitted by Sierra Club last week.
25 Correct?

1 THE WITNESS (Hibbard): I read The
2 testimony by Mr. Fagan and Ms. --

3 MS. CSANK: Glick?

4 THE WITNESS (Hibbard): Glick, yes.

5 MS. CSANK: Did you disagree with their
6 characterizations of those technologies?

7 THE WITNESS (Hibbard): Of storage, yes.

8 THE HEARING OFFICER: If I could
9 interrupt? That's not in evidence at this point.
10 I can't reference that.

11 MS. CSANK: Yes, your Honor.

12 THE HEARING OFFICER: Perhaps on May 2nd
13 we could revisit it if need be, but not today.

14 MS. CSANK: I will relent on that line
15 of questioning.

16 Sir, what about the specific technology
17 that's being proposed by the applicant here? Has
18 it experienced any performance improvements in the
19 past decade?

20 THE WITNESS (Hibbard): In my experience
21 I believe we have seen continuous improvement in
22 the performance, and in particular the heat rates
23 of -- of generating plants like the one that's
24 proposed in this facility.

25 MS. CSANK: And heat rate is a measure

1 of efficiency. Correct?

2 THE WITNESS (Hibbard): Yes.

3 MS. CSANK: So the lower the heat rate
4 the higher the efficiency of a generator?

5 THE WITNESS (Hibbard): The lower the
6 heat rate the less fuel it takes to generate a
7 megawatt hour, yes.

8 MS. CSANK: And also the less emissions
9 that result. Correct?

10 THE WITNESS (Hibbard): Agreed, per
11 megawatt hour generated.

12 MS. CSANK: So efficiency is a great
13 thing. Correct?

14 THE WITNESS (Hibbard): Efficiency is a
15 great thing.

16 MS. CSANK: And you can achieve
17 efficiency both on the demand side and the supply
18 side. Correct?

19 THE WITNESS (Hibbard): Agreed.

20 MS. CSANK: And you have no reason to --
21 you haven't identified any constraints on further
22 efficiency improvements on the demand side to
23 serve the needs of Connecticut customers.
24 Correct?

25 THE WITNESS (Hibbard): I'd -- I would

1 say no to that question. I -- as chairman of the
2 Massachusetts commission I spent three years
3 developing a rapid expansion of energy efficiency
4 within that State, and then overseeing the utility
5 plans to administer.

6 And I think there are some significant
7 impediments to expanding energy efficiency mostly
8 associated with the various parties that have
9 different positions on the ratepayer impacts
10 associated with doing so.

11 Having said that, the -- the level of
12 growth and efficiency spending has been
13 significant, and it could be larger.

14 MS. CSANK: So just to make sure that
15 I'm following what you said, and I appreciate your
16 experience in Massachusetts, that efficiency can
17 be rapidly added to the system. Correct? On the
18 demand side?

19 THE WITNESS (Hibbard): Again, it's the
20 word "rapidly" I'm having trouble with. I think
21 there's a process in order for efficiency to
22 happen, ratepayer funded efficiency to happen
23 there's a process by which the proposed
24 investments need to be reviewed and approved.

25 And then once those have been approved

1 it actually takes some time to mobilize
2 contractors to actually make the efficiency
3 improvements.

4 So the word "rapidly" I'm having trouble
5 with, but that doesn't mean there hasn't been
6 significant -- and -- and fairly significant
7 growth on the impact of energy efficiency on the
8 grid.

9 MS. CSANK: When Ms. Gresock referred to
10 an alternatives analysis that was previously
11 performed, have you updated that for the purposes
12 of this refiling?

13 THE WITNESS (Eves): I would say, no.

14 MS. CSANK: Is it your position that the
15 company has maximized the supply side efficiency
16 that is achievable through this project?

17 THE WITNESS (Hibbard): I -- I
18 personally, you know, I don't consider myself a
19 power technology engineer. So I -- I have no
20 basis to answer that question.

21 MS. CSANK: Does anyone else on the
22 panel?

23 THE WITNESS (Rega): Could -- could you
24 restate the question? I'm trying to understand
25 what you're getting at here.

1 MS. CSANK: Right. And I can reiterate,
2 and please correct me if I'm wrong, but the
3 predicate here was we just established that
4 efficiency is a great thing. And efficiency can
5 be achieved both on the supply side and the demand
6 side.

7 And I was simply asking if it's the
8 company's position that this project maximizes
9 supply side efficiency?

10 THE WITNESS (Rega): Of course, you
11 know, we certainly look at efficiency as a part of
12 the project. And we believe that the technology
13 that we've selected here is among the highest
14 efficient units available.

15 MS. CSANK: Is there documentary
16 evidence to show the alternatives that were
17 considered in this latest iteration of review by
18 the company to reassure the Council that it is, in
19 fact, the most efficient unit possible?

20 THE WITNESS (Gresock): The original
21 alternatives analysis had focused on selecting the
22 Siemens equipment, and we have provided
23 information about the efficiency of the now
24 selected Mitsubishi machine demonstrating that
25 there are greater efficiencies.

1 MS. CSANK: But Mr. Hibbard also told us
2 that there's an expectation of continuous
3 technological improvement for this type of
4 technology. Correct?

5 THE WITNESS (Hibbard): I believe what I
6 said is that in my observation the efficiency of
7 generating technologies has continuously improved
8 over time.

9 MS. CSANK: And do you have any reason
10 to doubt that that trend would continue into the
11 future?

12 THE WITNESS (Hibbard): I have no reason
13 to doubt it, or confirm it.

14 MS. CSANK: So if that's true then
15 wouldn't a same project two years from now,
16 procured in two years, wouldn't that potentially
17 be more efficient than one that's procured now?

18 THE WITNESS (Hibbard): I don't know the
19 answer to that question.

20 MS. CSANK: You don't know because that
21 you didn't perform any analysis on that issue.
22 Correct?

23 THE WITNESS (Hibbard): I have not
24 performed an analysis on the future efficiencies
25 of -- the efficiencies of future generating

1 technologies, or the pace at which efficiencies
2 will increase over time.

3 MS. CSANK: Nor did the company analyze
4 whether greater efficiencies could be achieved by
5 simply building this project out incrementally,
6 but not all at once. Correct?

7 THE WITNESS (Eves): What we did
8 evaluate over the last year -- which put us in a
9 position to be very competitive in this, in this
10 most recent forward capacity auction -- was an
11 efficiency improvement that Mitsubishi had -- had
12 developed for this machine.

13 So with the efficiency improvement it
14 gave us a better heat rate and more output, and
15 put us in a much more competitive position for
16 this, for this last auction. So we did take
17 advantage of those improvements as -- as they came
18 about, which were technically proven within the
19 last year.

20 MS. CSANK: Sir, would you mind
21 answering the call of my question, which was
22 whether the company performed any analysis of
23 whether even greater efficiencies could be
24 achieved via simply delaying -- or sorry, via
25 incrementally building out the project?

1 THE WITNESS (Eves): This machine has
2 only -- I mean, this facility is 630 megawatts,
3 650 megawatts. There's no way to build this
4 incrementally. So we didn't -- we didn't look at
5 building this specific facility in increments.

6 MS. CSANK: But other resources can be
7 built out incrementally. Correct?

8 THE WITNESS (Eves): I -- I don't know.
9 I don't know what resources you're talking about.
10 This resource that we're talking about here, it
11 cannot be built incrementally.

12 MS. CSANK: Nor did you analyze a
13 one-year delay as compared to the projected
14 in-service date. Correct? And the efficiency
15 implications of that?

16 THE WITNESS (Eves): No.

17 MS. CSANK: Or the emissions
18 implications of that?

19 THE WITNESS (Eves): No, we -- we
20 didn't -- we have not evaluated that, what would
21 happen if we got delayed another year?

22 MS. CSANK: But if the Council's
23 objective were to adhere to state policy, to
24 minimize environmental impact and specifically to
25 decarbonize on this ambitious slope, wouldn't it

1 want to have evidence concerning whether greater
2 emissions reductions could be achieved simply by
3 delaying this project?

4 THE WITNESS (Hibbard): I'm not sure you
5 can come to that conclusion. At least it's not my
6 impression you can come to that conclusion.

7 I think that from the moment this plant
8 operates it will be delivering carbon reduction
9 benefits by displacing less efficient higher
10 emitting, on a per megawatt hour basis, generating
11 facilities.

12 MS. CSANK: Has the company performed
13 benchmarking relative to other powerplants that
14 are being proposed at this time, and their
15 efficiency?

16 THE WITNESS (Gresock): I'm not sure
17 what you mean by benchmarking.

18 MS. CSANK: Simply comparing. Let's
19 say, has it compared its plan to other companies'
20 plans to build similar technology?

21 THE WITNESS (Gresock): So certainly as
22 a part of the air-permit review process we
23 underwent several times a stringent review of the
24 project, the project's emissions levels. And DEEP
25 coordinated with U.S. EPA in terms of assuring

1 themselves that the lowest levels of the criteria
2 pollutants possible are established here.

3 And so certainly that kind of
4 benchmarking did occur, and the project was held
5 to very stringent standards as a result.

6 MS. CSANK: And that's the extent of the
7 analysis that the company is relying on here.
8 Correct? For this issue?

9 THE WITNESS (Gresock): That -- that is
10 the procedure for our air-permit review, yes.

11 MS. CSANK: And the air permit, just so
12 that the record is clear, is really concerned with
13 the emissions rate of the facility. Correct?

14 THE WITNESS (Gresock): There are
15 emission rates evaluated. There is a cap on tons
16 per year in terms of potential to emit, and also
17 impact is evaluated for a range of pollutants as
18 well.

19 And I think it's important -- I think
20 there are -- are no other projects that I have
21 worked on that have made the kind of commitment to
22 reduction of greenhouse gases that this project is
23 making. So I think from a benchmarking
24 perspective that's an incredible benefit.

25 MS. CSANK: Just to be clear, when you

1 say that no other project has made such a
2 commitment, you're talking about all sorts of
3 projects. Correct?

4 THE WITNESS (Gresock): Well, none of
5 the wind or solar projects I have worked on have
6 made that kind of commitment either, but -- but
7 yes, I'm referring to the fossil projects I have
8 worked on. Yes.

9 MS. CSANK: And was there any sort of
10 analysis performed of the cumulative impacts of
11 the greenhouse gases that result from the 30 to
12 50-year operation of this project?

13 THE WITNESS (Gresock): No.

14 MS. CSANK: Do you know whether such
15 analysis is feasible?

16 THE WITNESS (Gresock): I don't know.

17 MS. CSANK: You have never performed
18 such analysis?

19 THE WITNESS (Gresock): I have not.

20 MS. CSANK: You have no reason to
21 dispute that other states review such analysis?

22 MR. BALDWIN: Relevance. Chairman,
23 other states' reviews?

24 THE HEARING OFFICER: Again, it has
25 nothing to do with the applicant if you're talking

1 about a state. So I would move on from there.

2 MS. CSANK: Yes, your Honor.

3 THE HEARING OFFICER: Thank you.

4 MS. CSANK: I'm not sure who to direct
5 this next question to, but going to the ambition
6 of the applicant's greenhouse gas commitment. My
7 question is whether that has been in any
8 documented manner benchmarked against other
9 utilities' greenhouse gas commitments in the U.S.?

10 THE WITNESS (Eves): Not that I'm aware
11 of.

12 MS. CSANK: And I think Sierra Club's
13 involvement in this earlier commitment was
14 mentioned this morning.

15 To be clear, in the context of this
16 proceeding, the Sierra Club has not conceded in
17 any way that that commitment is sufficient for the
18 purposes of the Council's review under the
19 statutory mandate. Correct?

20 THE WITNESS (Eves): I don't understand
21 that question.

22 MS. CSANK: That's all right. I'll
23 strike it.

24 Sir, do you know if other utilities that
25 own and operate fossil powerplants have committed

1 to also reduce the upstream emissions associated
2 with their powerplants?

3 THE HEARING OFFICER: I'm going to
4 interject on this one.

5 You go upstream -- I think it goes back
6 to what we talked about before, and not being part
7 of the application or what the applicant is
8 proposing to do.

9 MS. CSANK: Sir, respectfully the
10 company has now repeatedly asserted that it is
11 unique in its level of commitment. And so I would
12 submit that they have opened the door for me to
13 probe about just how unique they are.

14 THE HEARING OFFICER: Your word
15 "upstream" is the one that I caught. Upstream
16 means beyond what the powerplant facility might
17 be, and I'm relating that to what we were talking
18 about before with fracking and that type of thing,
19 which are totally not relevant to what's going on
20 and are out of the applicant's control.

21 So if you want to define what you mean
22 by upstream, maybe I'll allow it.

23 MS. CSANK: Thank you, your Honor.
24 Maybe I can go about it this way very briefly.

25 Are you aware that Dominion Energy owns

1 and operates gas plants?

2 THE WITNESS (Eves): Yes, I know that
3 Dominion Energy owns and operates gas plants.

4 MS. CSANK: Subject to check, do you
5 also know that Dominion Energy committed this year
6 to reduce its methane emissions from gas
7 infrastructure by 50 percent over the next decade?

8 THE WITNESS (Eves): No.

9 MS. CSANK: Do you have any reason to
10 dispute that Dominion has made such a commitment?

11 THE WITNESS (Eves): No.

12 MS. CSANK: Sir, earlier we were
13 discussing at-risk units. Do you recall that
14 conversation, Mr. Hibbard?

15 THE WITNESS (Hibbard): Yes.

16 MS. CSANK: And you testified that you
17 cannot identify which units will retire, but
18 generically you believe that coal and oil units
19 are particularly at risk. Correct?

20 THE WITNESS (Hibbard): Correct.

21 MS. CSANK: You also believe there will
22 be lots of gas online, gas generators online in
23 the future. Correct?

24 THE WITNESS (Hibbard): I believe that
25 gas-fired generation will continue to play an

1 important role in power system reliability for a
2 fairly long time.

3 MS. CSANK: How long?

4 THE WITNESS (Hibbard): I don't quite
5 have the crystal ball, but I -- I assume that
6 they'll be very important for at least on the
7 period of decades.

8 MS. CSANK: But when gas generators
9 operate they typically emit greenhouse gases.
10 Correct?

11 THE WITNESS (Hibbard): Yes.

12 MS. CSANK: And so insofar as
13 Connecticut and several states have made
14 commitments to phase out such emissions there's
15 a tension with the continued operation of gas
16 generators. Correct?

17 THE WITNESS (Hibbard): I agree that in
18 order for the New England states to meet their
19 current expectations and commitments with respect
20 to carbon emissions, that they will have to, not
21 only electrify the transportation and heating
22 sectors, but will have to achieve reductions in
23 greenhouse gases on a per megawatt hour basis from
24 the electric sector over time.

25 Which to me means a reduction in the

1 existing coal, oil and gas-fired fleet over time
2 in the total annual megawatt hours generated by
3 those facilities.

4 MS. CSANK: But you cannot provide the
5 Council with any lifecycle comparison of burning
6 gas for energy compared to burning coal for
7 energy, for example. Can you?

8 THE WITNESS (Hibbard): I have not tried
9 to provide testimony of that nature in this case.

10 MS. CSANK: But you also testified that
11 you believe older, dirtier gas steam units will
12 retire in the foreseeable future. Correct?

13 THE WITNESS (Hibbard): I believe that
14 once the coal and oil-fired units are retired then
15 the less efficient more expensive on a variable
16 cost basis gas-fired generating units will also
17 have challenging economics.

18 MS. CSANK: Why?

19 THE WITNESS (Hibbard): Because more
20 efficient generating units can generate
21 electricity on a per megawatt hour basis at a
22 lower cost. And the revenues that a generating
23 unit earns over the course of the year are a
24 function of its costs versus what it earns in the
25 wholesale market.

1 So the less efficient units, not only
2 will be dispatched less, they will actually earn
3 less revenues for each megawatt hour they generate
4 as continued efficiency is reflected in wholesale
5 power prices.

6 MS. CSANK: Do you dispute that older
7 less efficient units can be made more efficient
8 via efficiency upgrades?

9 THE WITNESS (Hibbard): I believe that
10 any generating unit can make capital investment to
11 change its -- its operations. I think in order to
12 really capture increases in the ability to
13 generate electricity more efficiently it requires
14 major capital investments, not small capital
15 investments.

16 MS. CSANK: So besides this testimony do
17 you have anything in the record that specifically
18 analyzes this issue for the Council?

19 THE WITNESS (Hibbard): I do not have
20 anything in the record that specifically analyzes
21 that.

22 MS. CSANK: Does the firm supply
23 contract include any contingencies, any outs for
24 the company if the project were denied?

25 THE WITNESS (Eves): You mean, would we

1 cancel the project if we didn't have a combustion
2 turbine to burn the gas in?

3 MS. CSANK: The pipeline, the firm
4 supply contract, would you cancel that contract?

5 THE WITNESS (Eves): If we didn't have a
6 machine to burn the gas in we would cancel the
7 contract.

8 MS. CSANK: And without that contract
9 would Connecticut still be able to procure
10 additional gas supply for its existing gas
11 generators?

12 THE WITNESS (Eves): The same way -- I
13 would say the same way they're doing it today.

14 MS. CSANK: Does that firm supply
15 contract entail any actual additional steel in the
16 ground, any additional infrastructure?

17 THE WITNESS (Hibbard): You know, I
18 think this is a really important question for the
19 Council, because it's -- you can't point to the
20 specific contract and say as a result there's an
21 additional compression station or a looping
22 project, or an additional incremental pipeline.
23 That's not possible.

24 But it's also not possible to say that
25 firm transportation are not exactly what's needed

1 in order to provide the financial incentives for
2 investment in new capacity. That's exactly how it
3 works.

4 So can you say, can -- can the applicant
5 link that firm transportation contract to a
6 specific piece of natural gas infrastructure in
7 New England? The answer is no, but I think that's
8 not really the whole story. This is the only way
9 to get new infrastructure built.

10 MS. CSANK: So is it your position that,
11 in fact, as a result of this contract additional
12 infrastructure will be built to supply the region?

13 THE WITNESS (Hibbard): No, that's not
14 what I was saying, but I think you will not get
15 new infrastructure without additional incremental
16 firm transportation commitments.

17 And it's really, you know, could I say,
18 does it take one contract like this? Or two or
19 three, or four? I don't know the answer to that
20 question, and I haven't analyzed it in this
21 docket.

22 MS. CSANK: And you're not a lawyer,
23 sir. Correct?

24 THE WITNESS (Hibbard): No.

25 MS. CSANK: So let's just stipulate that

1 you're not offering any legal conclusions to the
2 Council. But in your experience, given your
3 extensive experience do you dispute that an
4 applicant could enter into a contract that
5 specifically procures additional gas
6 infrastructure such as additional compression and
7 additional looping?

8 THE WITNESS (Hibbard): I don't see why
9 any entity in the market for gas couldn't enter
10 into that sort of a contract if there was a
11 project available.

12 MS. CSANK: But that is not in fact what
13 the applicant has done so far as you know?

14 THE WITNESS (Hibbard): The applicant
15 has entered into a firm transportation contract
16 with Emera, potential --

17 MS. CSANK: For a term of seven years?

18 THE WITNESS (Hibbard): And a
19 potential -- and a potential extension for another
20 seven.

21 MS. CSANK: My understanding -- well,
22 that extension would potentially include different
23 terms. Correct?

24 THE WITNESS (Eves): No, that would be
25 under the same terms. That -- that would be under

1 terms that are already negotiated. So we have
2 seven years that when we start drawing gas we have
3 seven years.

4 At the end of that seven-year period we
5 have another seven years under terms that are
6 already negotiated. So we have a 14-year supply.

7 MS. CSANK: What is the blast zone of
8 the storage facilities on the site?

9 THE WITNESS (Gresock): We have not
10 calculated that.

11 MS. CSANK: What is the makeup of the --
12 strike that.

13 I just wanted to clarify the record.
14 There was discussion of carbon capture and
15 sequestration technology as a form of greenhouse
16 gas reduction. I believe this was Mr. Eves'
17 testimony.

18 And I believe, sir, you testified that
19 the company is working with Mitsubishi on the
20 various technologies, but that carbon capture and
21 sequestration was not among them.

22 Is that correct?

23 THE WITNESS (Eves): That's correct.

24 MS. CSANK: And what is your basis for
25 your assertion that the company will be capable of

1 later implementing control technologies that are
2 under development by Mitsubishi?

3 THE WITNESS (Eves): Just our
4 experience, and as we've talked about technical --
5 technological change over the last few decades, we
6 would expect that change to continue.

7 As we said earlier, we did put in -- in
8 our commitment the ability to buy offsets for
9 carbon if those technologies don't become
10 commercially available.

11 MS. CSANK: Where would those offsets be
12 located?

13 THE WITNESS (Eves): I have no idea.

14 MS. CSANK: And I believe with
15 Ms. Fiedler we established that the offsets that
16 are contemplated are located in New York.

17 Correct?

18 THE WITNESS (Gresock): The -- those are
19 not contemplated offsets. Those are the required
20 emission reduction credits that have been
21 purchased and -- and are part of the air permit,
22 yes.

23 MS. CSANK: And those offsets concern
24 criteria pollutants. Correct?

25 THE WITNESS (Gresock): Yes.

1 MS. CSANK: And criteria pollutants?

2 THE WITNESS (Gresock): It's nitrogen,
3 nitrogen dioxide.

4 MS. CSANK: Has the applicant quantified
5 the pollution reduction benefit to the communities
6 who are near the site?

7 THE WITNESS (Gresock): What -- what do
8 you mean by that question?

9 MS. CSANK: I'm simply trying to
10 establish whether these offsets are really going
11 to help the local people?

12 THE WITNESS (Gresock): By issuing the
13 permit, Connecticut DEEP has affirmed that -- that
14 we have met the standards.

15 MS. CSANK: What standards?

16 THE WITNESS (Gresock): There are
17 requirements for the emission reduction credits
18 that were established by both U.S. EPA and by
19 Connecticut DEEP that within non-attainment areas
20 require projects like this to maintain the
21 offsets.

22 There are a whole series of rules that
23 have been established to ensure that they are
24 offsets that are meaningful and enforceable, and
25 there's a whole litany of requirements that have

1 been stated in this record previously, and all of
2 that was affirmed through agency review.

3 MS. CSANK: Thank you.

4 And just to clear up, the standards
5 we're referring to are the National Ambient Air
6 Quality Standards?

7 THE WITNESS (Gresock): The National
8 Ambient Air Quality Standards are -- are
9 established as a part of the federal and state
10 rules, but there are also separate rules that
11 govern emission reduction credits and
12 requirements.

13 MS. CSANK: Okay. And sticking with
14 that, the National Ambient Air Quality Standards,
15 are you aware that those have changed over time
16 based on improving science, understanding the
17 public health implications of air pollution?

18 THE WITNESS (Gresock): They do change
19 over time, yes.

20 MS. CSANK: And you're also aware that
21 there's pending litigation concerning the National
22 Ambient Air Quality Standard for the criteria
23 pollutant for which the company has offset?

24 THE WITNESS (Gresock): I'm not directly
25 following that, but there's always litigation of

1 some kind or another.

2 MS. CSANK: As so as we sit here today
3 do you have a position on the company's ability to
4 meet a more protective National Ambient Air
5 Quality Standard for the various --

6 THE WITNESS (Gresock): I know that the
7 project underwent a stringent review. The permit
8 was issued and two subsequent modifications have
9 been issued. The project has undergone that
10 stringent review at each step along the way.

11 MS. CSANK: I believe in response to the
12 Chairman's questions, the company's position --
13 and I believe this was Mr. Eves who stated that
14 the project would, quote, unquote, always be able
15 to burn gas.

16 What's the basis for stating that?

17 THE WITNESS (Eves): Our firm gas
18 contract.

19 THE WITNESS (Hibbard): All right. I
20 believe that was me. We were discussing how the
21 firm gas contract actually allows this unit to be
22 operating gas even on the coldest winter days --
23 operating on gas even on the coldest winter days.

24 MS. CSANK: But if there were some kind
25 of pipeline failure would that still be true?

1 THE WITNESS (Hibbard): If there were
2 any sort of catastrophic failure of any fuel
3 delivery mechanism then that would affect the
4 generation of any generating unit operating on
5 that fuel, whether it's gas, coal, oil or
6 anything.

7 And I think at that point in time the
8 states tend to step in and take action to ensure,
9 ensure that it doesn't lead to any adverse health
10 or welfare impacts.

11 MS. CSANK: Okay. That's a little bit
12 different than the question I was asking. So
13 under the contract, the firm supply contract is
14 Emera committed/obligated to transport the gas
15 through non-pipe alternatives in the event of a
16 pipeline failure?

17 THE WITNESS (Hibbard): I don't know the
18 answer to that question.

19 THE WITNESS (Eves): No. I mean, it's
20 if the pipeline -- they're bringing that gas
21 through has -- has some type of an issue that
22 interrupts the flow of gas on that pipe, they will
23 not be able to deliver gas to us.

24 MS. CSANK: Have you performed any
25 analysis of that contingency?

1 THE WITNESS (Eves): Other than just
2 looking over the years on the availability of gas
3 in that pipe, no.

4 MS. CSANK: I believe this was still the
5 Chairman's line that I'd like to follow up on. He
6 was asking about a New York planned plant, I
7 believe, that was under construction that involved
8 zero wastewater discharge.

9 Do you recall that?

10 THE WITNESS (Eves): Yes.

11 MS. CSANK: And I believe it was
12 Mr. Rega who stated that that zero-discharge
13 technology was ruled out on the basis of cost,
14 reliability and even potentially space
15 constraints. Is that correct?

16 THE WITNESS (Rega): Correct.

17 MS. CSANK: Is that analysis documented
18 in the record?

19 THE WITNESS (Rega): No, I don't believe
20 that is documented.

21 MS. CSANK: There also was discussion
22 around hydrogen storage and the so-called CFAS,
23 which is a chemical safety standard administered
24 and promulgated by the federal government.

25 Do you recall that?

1 THE WITNESS (Rega): Yes.

2 MS. CSANK: And I believe your testimony
3 was that the project has been deemed adequate
4 under current, those current safety standards.

5 Is that correct?

6 THE WITNESS (Gresock): We -- we stated
7 that the storage volumes were below the U.S. EPA's
8 risk management plan thresholds.

9 MS. CSANK: How far below?

10 THE WITNESS (Gresock): I don't have
11 those numbers with me.

12 MS. CSANK: And are you aware of whether
13 those standards have changed over time and are
14 subject to change in the future?

15 THE WITNESS (Gresock): I haven't seen a
16 lot of change in storage volume thresholds. I do
17 see, as -- as we all do, industry, learning from
18 experiences that -- that occur.

19 And there are, in addition to
20 organizations like OSHA, there are trade
21 organizations where powerplant operators share
22 information and best practices so that the health
23 and safety measures and training can be the best
24 that it can be at every operating facility.

25 MS. CSANK: Is that a yes? No? Don't

1 know?

2 THE WITNESS (Gresock): What was the
3 question so that I know how to answer?

4 MS. CSANK: Whether these chemical
5 standards that we identified moments ago, whether
6 they are subject to change?

7 THE WITNESS (Gresock): I don't know.

8 MS. CSANK: And turning next to the
9 topic of the labor and project labor agreements, I
10 believe some testimony expressed an openness to
11 entering a project labor agreement.

12 I believe this was Mr. Eves. Correct?

13 THE WITNESS (Eves): No.

14 MS. CSANK: No, it wasn't your
15 testimony? Or no, the company is not open to a
16 project labor agreement?

17 THE WITNESS (Eves): No, that was not my
18 testimony. My testimony was we have made a signed
19 commitment to the unions that we would use union
20 labor in this facility.

21 The various contractors that we are
22 working on selecting approached how they contract
23 with unions in different ways. One -- one way is
24 a project labor agreement, a PLA. Because we
25 hadn't selected our contractor at the time we

1 signed the agreement with the unions. We did not
2 commit to a PLA, but have signed in writing a
3 commitment that we will use union labor.

4 MS. CSANK: And it's binding?

5 THE WITNESS (Eves): It's a commitment.

6 MS. CSANK: Would you request that it be
7 a condition of approval by this Council?

8 MR. BALDWIN: Objection. I don't think
9 this Council can require it.

10 THE HEARING OFFICER: No, I was just
11 going to say that's not part of our review.

12 MS. CSANK: Mr. Eves, you're not a
13 lawyer. Correct?

14 THE WITNESS (Eves): I am not a
15 practicing lawyer in the State of Connecticut.

16 MS. CSANK: And so can we stipulate that
17 when you were describing a Rhode Island
18 powerplant's eligibility, or the likelihood that
19 it would reapply in the capacity auction, you are
20 not offering a legal conclusion?

21 THE WITNESS (Eves): I was not offering
22 a legal conclusion.

23 MS. CSANK: Nor have you performed any
24 specific factual analysis of that plant's
25 likelihood or ability to participate in future

1 capacity auctions. Correct?

2 THE WITNESS (Eves): No, I have done no
3 analysis on that facility.

4 MS. CSANK: And just to circle over and
5 make sure I understood correctly, the offsets that
6 are included in the air permit, do they have any
7 direct benefit to the local community?

8 THE WITNESS (Gresock): One of the many
9 criteria for identifying acceptable offsets is
10 that they have a direct effect and improvement in
11 the area where the project is proposed.

12 MS. CSANK: And could you point us to
13 where in the record that direct benefit is
14 documented?

15 THE WITNESS (Gresock): There would have
16 been a recitation of the requirements that are
17 established by U.S. EPA and by Connecticut DEEP.

18 And because this -- the sources were in
19 locations that would be contributing air quality
20 to the project area, they -- they would, by having
21 their -- having those emissions no longer occur
22 that would have provided a benefit.

23 MS. CSANK: And if EPA were to improve
24 upon the currently enforced National Ambient Air
25 Quality Standard for NOx, would the company be

1 able to comply with it?

2 THE WITNESS (Gresock): It wouldn't be
3 relevant. We have our air permit. Future
4 projects would be held to any change in standards.

5 MS. CSANK: And you're not a lawyer.
6 Are you?

7 THE WITNESS (Gresock): I am not.

8 MS. CSANK: I believe it was Mr. Hibbard
9 who explained to us that the project would put
10 pressure on, quote, unquote, virtually every -- I
11 will just try that again.

12 On open quote, virtually every, end
13 quote, fossil fuel plant on the system. Could you
14 please explain that further to us?

15 THE WITNESS (Hibbard): Yeah. I -- this
16 powerplant would have amongst the highest
17 efficiency of all powerplants in the region.

18 And as we discussed with the Council
19 earlier, I think Mr. Lynch in particular, the way
20 that the system operator dispatches powerplants is
21 on the basis of increasing variable cost and the
22 efficiency of the unit. The heat rate of the unit
23 is the primary determinant of that.

24 And so this unit presumably would come
25 in very low, if not the lowest in the supply stack

1 of fossil generating units in New England. And in
2 doing so, it would decrease the revenues that
3 other units are earning in the energy market,
4 other fossil generating units are earning in the
5 energy market. In addition, it would decrease the
6 actual number of hours those units would be
7 operating.

8 And so every unit that is less efficient
9 than this unit would be subject to the possibility
10 of operating less and earning fewer revenues when
11 it does operate. And that's exactly what puts
12 economic pressure on the existing assets in the
13 region.

14 MS. CSANK: Have you quantified all that
15 you just described in any way?

16 THE WITNESS (Hibbard): I have done that
17 type of analysis on numerous occasions.

18 MS. CSANK: But that was not your job in
19 this case?

20 THE WITNESS (Hibbard): I have not -- I
21 have not run a production cost model in this case.
22 I have looked at the relative efficiency of all
23 the generating units in the region compared to the
24 Killingly -- Killingly in this case. And again,
25 that's the primary determinant of this impact.

1 MS. CSANK: And just so that we're clear
2 on your scope, did you look at units that are
3 currently under construction or that are planned
4 to be constructed within the lifetime of this
5 project?

6 THE WITNESS (Hibbard): We looked
7 only at -- I looked only at the existing operating
8 units in New England.

9 MS. CSANK: Existing when?

10 THE WITNESS (Hibbard): Currently
11 operating.

12 MS. CSANK: As we sit here today?

13 THE WITNESS (Hibbard): Yes.

14 MS. CSANK: So you did not look at
15 plants that are currently under construction?

16 THE WITNESS (Hibbard): I did not look
17 at those in that analysis.

18 MS. CSANK: Nor did you look at ones
19 that are planned during the operational life of
20 this plant, of this project?

21 THE WITNESS (Hibbard): I -- I compared
22 this, this project's heat rate with the heat rates
23 of plants that are operating today.

24 MS. CSANK: I believe in response to a
25 question about the diesel supply limitations or

1 diesel-based operational limitations, testimony
2 was offered that the diesel operations would
3 depend on gas availability.

4 Could you please elaborate on the
5 reasons why gas would not be available?

6 THE WITNESS (Gresock): So there are
7 very specific conditions in the air permit that
8 restrict the conditions under which ULSD can be
9 fired.

10 MS. CSANK: May I just stop you there?

11 My question is, what are the various
12 factors or the reasons why gas would not be
13 available?

14 THE WITNESS (Hibbard): The only reason
15 I can think of is what we were speaking to
16 earlier, if there was some major contingency on
17 the natural gas pipeline system. Otherwise, this
18 unit has firm transportation rights equivalent to
19 the owners of all other firm transportation rights
20 on the pipeline system.

21 MS. CSANK: But isn't that major
22 contingency the, in essence, the winter security
23 reliability issue that we've been talking about?

24 THE WITNESS (Hibbard): No, absolutely
25 not.

1 MS. CSANK: How are they different?

2 THE WITNESS (Hibbard): The winter
3 energy reliability challenge that ISO has been
4 spending a lot of time dealing with is one where
5 there's limited -- there are very few, if any,
6 other than this facility that have firm natural
7 gas transportation contracts bringing gas into New
8 England to operate their powerplants.

9 And that's why they'll operate most days
10 of the year using the transportation capacity that
11 is currently owned by local gas distribution
12 companies. And so that the powerplants can
13 operate most of the year on gas, but when you get
14 to the coldest winter conditions they can't,
15 because all of that capacity is being used by the
16 local gas distribution companies that have the
17 firm transportation capacity.

18 So that has a significant declining --
19 decreasing impact on the available natural
20 gas-fired generation in the region. This facility
21 would not be in that situation. It has a firm
22 transportation contract that's as equally valid as
23 any other local natural gas LDC.

24 So even on the very coldest days of the
25 year it can get its gas.

1 MS. CSANK: And just to be clear, those
2 other competing end users are not just other
3 generators, but I think as you said, the LDCs,
4 i.e., those who supply end users, such as
5 businesses. Correct?

6 THE WITNESS (Hibbard): The major -- I
7 would say that with the exception of this facility
8 most of the firm natural gas transportation
9 commitments to bring natural gas into New England
10 are with the local natural gas distribution
11 companies, and it's natural gas end use. So it's,
12 cooking in homes, heating and that's businesses as
13 well as residences.

14 MS. CSANK: What I'm trying to
15 understand is -- I really struggle to understand
16 how you're helping to solve that problem if you
17 are not in fact contracting for additional
18 infrastructure.

19 You're simply displacing other users who
20 would otherwise get that gas in Connecticut?

21 THE WITNESS (Hibbard): You're not
22 displacing other units -- other users.

23 Again, most of the hours of the year
24 gas-fired powerplants can get whatever gas they
25 need. It's on the coldest days of the year where

1 that capacity is not available. By entering into
2 a firm transportation contract they are increasing
3 the amount of gas that's dedicated that must come
4 into New England on those coldest days of the
5 year.

6 In my view, effectively what that does
7 is it means that incremental gas will come in on
8 the coldest day of the year, whereas it otherwise
9 might be consumed in New York. So it's in
10 incremental quantity of gas that will be coming
11 into New England for electricity generation, not
12 for heating homes or businesses.

13 So when we talked earlier, when Chairman
14 Silvestri was speaking earlier about that one
15 particular event and worked his way down to there
16 being only four thousand something megawatts that
17 could operate on gas at that point in time, this
18 would be an additional 630 -- well, probably
19 higher in the winter -- 630 megawatts of electric
20 generation capacity available to the region that
21 couldn't be interrupted because of constraints on
22 the gas system.

23 MS. CSANK: But New York generators
24 supply Connecticut customers. Correct?

25 THE WITNESS (Hibbard): To a limited

1 extent, but on the coldest days of the year I
2 don't think that can be -- that can be assured.

3 MS. CSANK: Do you have any analysis on
4 that?

5 THE WITNESS (Hibbard): I -- I have --
6 I'm currently working with the New York ISO, and I
7 have anecdotal knowledge that there are transfers
8 of electricity between New York and in New England
9 all throughout the year, but on the very coldest
10 days of the year when people in New York are
11 trying to heat their homes and their businesses,
12 and they need all the gas-fired electric
13 generating capacity they can get, that's -- that's
14 exactly the scenario where there could be a
15 reduction or even a zeroing out of the amount of
16 electricity flowing into New England.

17 MS. CSANK: So your testimony is that
18 for this problem that stems from gas reliance in
19 the first place, the solution is additional gas
20 reliant power for 30 --

21 THE WITNESS (Hibbard): No.

22 MS. CSANK: -- for 50 years?

23 THE WITNESS (Hibbard): The problem that
24 we have doesn't stem from gas reliance. It stems
25 from the reliance on gas-fired capacity that does

1 not have firm transportation contracts. That's an
2 important distinction.

3 MS. CSANK: But you have not analyzed
4 the economic harm nor the environmental harm
5 associated with gas infrastructure. Indeed, I
6 have been unable and disallowed from asking you
7 any other further questions on that topic.
8 Correct?

9 THE WITNESS (Hibbard): For this
10 proceeding I have not tried to conduct an analysis
11 that estimates what the potential risks, or
12 environmental or public health impacts are of any
13 infrastructure.

14 MS. CSANK: And in fact, in prior
15 analysis you have concluded that appropriate
16 solutions to this problem of winter security
17 include energy efficiency, demand response,
18 storage and a host of other solutions not
19 including additional gas generators like that
20 which is being proposed in this matter.

21 Correct?

22 THE WITNESS (Hibbard): No, I wouldn't
23 say we excluded gas-fired generation. We looked
24 at exactly this deficiency problem and we analyzed
25 four types of solution sets. One was new gas

1 infrastructure. Another one was a combination of
2 energy efficiency, demand response and hydropower
3 from Quebec.

4 Another one was to look at the existing
5 market mechanisms leading to the availability of
6 oil or LNG-based gas. And the fourth one was
7 energy efficiency, dominated just by energy
8 efficiency and demand response.

9 So we did these solutions sets and
10 compared them on cost and environmental impact
11 basis. It wasn't -- we didn't construct a gas
12 powerplant scenario because that's ultimately
13 dictated by the status quo scenario in our
14 analysis, and that's -- that's in the analysis
15 itself. And we, in fact, when we did the
16 production cost modeling part of that we included
17 new gas-fired generation being added to the region
18 to meet incremental reliability needs.

19 So it's -- I know, but you asked. You
20 asked the question and I -- so it's unfair to
21 characterize that report as suggesting that
22 gas-fired generation with a firm transportation
23 contract is somehow excluded from the analysis.

24 MS. CSANK: So just to make sure that in
25 plain English we can all understand what you just

1 said, I believe what you said is in the past you
2 were specifically analyzing solutions to the
3 winter security problem and you identified four
4 scenarios.

5 One was gas infrastructure, i.e., not
6 gas generators. Another -- and there were three
7 other factors, none of which were expressly
8 choosing additional gas generation. Correct?

9 THE WITNESS (Hibbard): No. No. The --
10 the gas infrastructure scenario specifically
11 committed that gas infrastructure for electricity
12 generation during the coldest winter days. In
13 effect, that scenario said we're increasing the
14 firm transportation quantity that's available to
15 gas-fired generators in New England.

16 MS. CSANK: Existing?

17 THE WITNESS (Hibbard): Existing and
18 new, because in our production cost modeling we
19 were including new gas-fired capacity to build out
20 for incremental demand growth, to meet incremental
21 demand growth.

22 So that's why I'm saying, no, we didn't
23 exclude gas-fired generation that has access to
24 firm transportation. It's part of the solution
25 set, the pipeline infrastructure solution set.

1 MS. CSANK: What about the three non-gas
2 scenarios that you studied? Did they include new
3 gas generators?

4 THE WITNESS (Hibbard): Yes.

5 MS. CSANK: All of them?

6 THE WITNESS (Hibbard): Yes.

7 MS. CSANK: How much?

8 THE WITNESS (Hibbard): I don't recall
9 at this point in time. It's -- it would be
10 gas-fired generation being added as needed to meet
11 growth and demand.

12 MS. CSANK: And you performed production
13 cost modeling for that analysis. Correct?

14 THE WITNESS (Hibbard): Yes.

15 MS. CSANK: And why did you? Why was
16 that modeling relevant?

17 THE WITNESS (Hibbard): Because we were
18 looking at various ways to address the gas
19 deficiency problem and quantifying the impact of
20 each of those solutions would have on ratepayers
21 in terms of the upfront cost and the overall
22 impact on energy prices. And in addition we're
23 quantifying what is the greenhouse gas emission
24 impact of those various solutions.

25 So the -- the whole point of the

1 analysis compares all of the solution sets from
2 the standpoint of ratepayer impact and carbon
3 dioxide emissions.

4 MS. CSANK: And we can agree that the
5 credibility, the accuracy of modeling depends on
6 the inputs?

7 THE WITNESS (Hibbard): I'm not sure how
8 to answer that question.

9 MS. CSANK: Let me thread it this way.
10 Modeling is an analysis that attempts to predict
11 the future. Correct?

12 THE WITNESS (Hibbard): Our analysis
13 contained a forecast of several -- of several
14 things necessary for the production cost modeling,
15 including forecasting various fuel prices,
16 forecasting electricity demand growth.

17 So yes, forecasting was part of that
18 analysis.

19 MS. CSANK: And in forecasting, the
20 accuracy of forecasting depends on the accuracy
21 and the realization of the assumptions that
22 undergird the forecasting. Correct?

23 THE WITNESS (Hibbard): I -- I
24 understand. I wouldn't say the accuracy. I would
25 say that the results of any type of analysis

1 depend upon what assumptions you are making with
2 respect to the forecasts. The accuracy actually
3 depends on what does happen compared to what you
4 modeled.

5 MS. CSANK: And forecasting, forecasts
6 by the system operator, for example, are developed
7 on a regular basis. Correct?

8 THE WITNESS (Hibbard): The system
9 operator comprehensively assesses the -- and in
10 this particular case I think what you're referring
11 to is the level of electricity demand over time,
12 and they do it based on economic analysis,
13 historic -- historical data, and a comprehensive
14 review of the energy efficiency and renewable
15 energy resources that are -- distributed resources
16 that are being added to the system as a result of
17 state policies.

18 MS. CSANK: And the reason why they
19 undertake such complex analysis time and again is
20 because those inputs are changing over time.
21 Correct?

22 THE WITNESS (Hibbard): They -- it's a
23 requirement that they do that in order to meet the
24 enforceable federal reliability standards, because
25 all of that goes into identifying what is the

1 level of resources that need to be purchased to
2 meet reliability, to meet the region's reliability
3 needs. So that forecasting is required on an
4 annual basis.

5 MS. CSANK: So the answer to my question
6 is, yes?

7 THE WITNESS (Hibbard): You would have
8 to repeat it. I obviously didn't directly say yes
9 because I didn't think it could be answered that
10 directly.

11 MS. CSANK: I believe we heard testimony
12 that state-of-the-art controls for greenhouse gas
13 reductions would not work on older gas plants. I
14 think this might be best directed to Ms. Gresock?

15 THE WITNESS (Gresock): So I'm not sure
16 what you're asking. Certainly the project was
17 required to do a robust greenhouse gas backed
18 analysis to evaluate best available control
19 technologies, and that demonstration was a part of
20 the air permit.

21 I believe Mr. Eves mentioned that it is
22 uncertain as to whether add on developing
23 technology would be suitable to apply to certain
24 types of existing facilities, and -- and I
25 don't -- I don't think we know the answer to that

1 question.

2 MS. CSANK: Wouldn't the same also be
3 true with regard to this project, that over time
4 it would potentially be less viable to put
5 state-of-the-art controls on it?

6 THE WITNESS (Gresock): I think in this
7 instance the project has made a very specific
8 commitment to stepping down it's greenhouse gas
9 emissions over time and we'll need to look very
10 carefully at the various ways in which that can be
11 done, whether that is operations, whether that's
12 add-on controls, changes in technology or some
13 kind of external offsetting.

14 MS. CSANK: Your Honor, if I may just
15 ask for a two-minute restroom break so that I can
16 make sure that I have completed all my questions?

17 Or a five-minute break?

18 THE HEARING OFFICER: Let's go for about
19 10 or 15 minutes. Let's get back here for quarter
20 of.

21
22 (Whereupon, a recess was taken from
23 4:31 p.m. to 4:46 p.m.)

24
25 THE HEARING OFFICER: All right, ladies

1 and gentlemen. Thank you for the break. I did
2 need to stretch my legs as well.

3 Why don't we continue with questions
4 from the Sierra Club, please.

5 MS. CSANK: Thank you, your Honor.

6 So this next line concerns a statement
7 in the January 2019 environmental overview, and
8 specifically the reference therein to certain
9 upgrades to the pipeline system owned and operated
10 by Eversource which would provide for twice the
11 capacity for downstream users.

12 THE WITNESS (Greysock): Can you provide
13 us where that is in the overview?

14 MS. CSANK: It's on page 23. Can you
15 please explain -- well, sorry. I'll let you get
16 there. Please tell me when you're there.

17 THE WITNESS (Gresock): Okay.

18 MS. CSANK: Please explain what you mean
19 by the system owned and operated by Eversource
20 that this statement is referring to?

21 THE WITNESS (Greysock): I'm sorry.
22 Can -- now that we've found the page, can you
23 speak to the topic again so we can find it?

24 MS. CSANK: Yes, of course. So there is
25 a statement at the beginning of the second full

1 paragraph concerning certain upgrades to the
2 existing pipeline system owned and operated by
3 Eversource. And the overview goes on to state
4 that those upgrades would provide for twice the
5 capacity for downstream users.

6 Are you with me?

7 THE WITNESS (Eves): That Eversource is
8 Yankee Gas. Eversource owns Yankee Gas. So
9 that's -- that's Yankee Gas' pipeline.

10 MS. CSANK: Okay. So where on that
11 pipeline system are the upgrades occurring?

12 THE WITNESS (Eves): There's an existing
13 either four or six-inch pipe. I believe --

14 THE WITNESS (Rega): Six.

15 THE WITNESS (Eves): There's an existing
16 six-inch pipe. They are going to take that 6-inch
17 pipe out and replace it with a 16-inch pipe.

18 MS. CSANK: Where is the termini of that
19 pipe?

20 THE WITNESS (Eves): It starts at
21 Algonquin and will run down to Lake Road just a
22 little bit to the west of the facility, and then
23 there will be a pipe over from -- from that point
24 to our facility.

25 MS. CSANK: And so there's an existing

1 right-of-way along the entire linear course that
2 you just described?

3 THE WITNESS (Eves): Yes.

4 MS. CSANK: And there's existing pipe
5 between Algonquin and Lake Road, you said?

6 THE WITNESS (Eves): Yes. Yes.

7 MS. CSANK: And there's existing pipe
8 between Lake Road and the site?

9 THE WITNESS (Eves): No, that -- that
10 pipe will be added.

11 MS. CSANK: And that pipe will be two
12 miles in length?

13 THE WITNESS (Eves): No, no. The pipe
14 from Algonquin replacing the six-inch line, that's
15 probably two miles. And then there's maybe a
16 tenth of a mile from where that pipe crosses Lake
17 Road down to our facility.

18 So the two miles of right-of-way have --
19 have the existing six-inch pipe in it.

20 MS. CSANK: Are there residential areas
21 nearby?

22 THE WITNESS (Eves): Yes.

23 MS. CSANK: Do you know the demographics
24 of those residential areas?

25 MR. BALDWIN: Can we be more specific as

1 to what areas you're speaking about?

2 MS. CSANK: Well, let me ask what's the
3 scope of --

4 MR. BALDWIN: I just don't know if
5 you're talking about the areas around the gas line
6 right-of-way, the area around KEC.

7 MS. CSANK: Well, what has been analyzed
8 by the company?

9 MR. BALDWIN: As far as the gas line
10 extension?

11 THE WITNESS (Greysock): So in the
12 original application we had some general
13 information about the anticipated interconnection
14 areas where we had some graphics that showed land
15 use and natural resource mapping, but the actual
16 permitting is something that is the responsibility
17 of Yankee Gas.

18 And so we have not looked very closely
19 at the details of their applications.

20 MS. CSANK: Okay. So in the context of
21 this matter the company is putting forward
22 analysis concerning the site itself. Correct?

23 THE WITNESS (Greysock): That's correct.

24 MS. CSANK: And what in relation to the
25 site itself have you analyzed in terms of the

1 surrounding communities? What's the geographic
2 scope that's been analyzed?

3 THE WITNESS (Greysock): So again, in
4 the original application there was a fair amount
5 of information about the surrounding land uses and
6 zoning, and demographic characteristics of -- of
7 the surroundings.

8 MS. CSANK: Has an update been performed
9 for that analysis for the purposes of this matter?

10 THE WITNESS (Greysock): That has not
11 been updated except to note that where Killingly
12 was previously an environmental justice community,
13 it's no longer listed as one of those distressed
14 communities and no longer is under the
15 environmental justice program.

16 MS. CSANK: Do you know the basis for
17 the delisting?

18 THE WITNESS (Greysock): I do not.

19 MS. CSANK: Do you know the scope of the
20 delisting?

21 THE WITNESS (Greysock): I do not.

22 THE WITNESS (Eves): No.

23 MS. CSANK: What are the nature of the
24 pipeline upgrades to which we were referring are
25 earlier in relation to what's referenced on page

1 23 of the environmental overview?

2 THE WITNESS (Eves): The upgrades are
3 going to be to replace the 6-inch line with a
4 16-inch line.

5 MS. CSANK: Nothing beyond that?

6 THE WITNESS (Eves): No.

7 MS. CSANK: Is there additional
8 compression associated with increasing the
9 pipeline capacity?

10 THE WITNESS (Eves): No.

11 MS. CSANK: And when will those upgrades
12 be completed?

13 THE WITNESS (Eves): This question was
14 asked earlier, and I don't remember the specific
15 date that we have in the agreement with the
16 engineering agreement that we have in place with
17 Yankee Gas Eversource.

18 But it should be, I believe, mid 2021 is
19 the date that we have, but I would have to check
20 that.

21 MS. CSANK: What regulatory approvals
22 are required?

23 THE WITNESS (Eves): I don't know.

24 MS. CSANK: What is the status of them?

25 THE WITNESS (Eves): I don't know.

1 MS. CSANK: Is anyone else paying for
2 them?

3 THE WITNESS (Eves): Under our
4 engineering service agreement we are paying
5 Eversource Yankee for the work they are doing on
6 our behalf.

7 MS. CSANK: Is anyone else paying for
8 them?

9 THE WITNESS (Eves): No.

10 MS. CSANK: How much additional capacity
11 in cubic feet per day will those upgrades result
12 in?

13 THE WITNESS (Eves): I don't know the
14 answer to that and I've talked to Yankee about
15 that pretty extensively. And that is a
16 confidential number that they would like to
17 maintain for themselves.

18 MS. CSANK: So that confidential amount
19 has not been provided in discovery. Correct?

20 THE WITNESS (Eves): That's correct.

21 MS. CSANK: So what basis does this
22 counsel have to verify that there is any
23 additional capacity that's contemplated?

24 THE WITNESS (Eves): I don't know.

25 MR. BALDWIN: Mr. Chairman, I will

1 remind counsel. I know she wasn't here in the
2 prior proceedings, but there was an extensive
3 amount of discussion as it relates to this gas
4 line extension and the limited role that this
5 project team and this Council will play in that
6 process.

7 It's a separate process, a separate
8 permitting process that Yankee Gas will undertake.
9 There's a contract that is a part of the record
10 now that talks about our agreement with Yankee Gas
11 and what it will entail, but I'm not sure why
12 these issues beyond that are relevant.

13 MS. CSANK: If I may respond to that
14 briefly, sir?

15 THE HEARING OFFICER: Please.

16 MS. CSANK: Mr. Chairman, my colleague
17 Mr. Berman who regrets not being able to be
18 present today who was part of those prior
19 discussions specifically instructed me to ask this
20 question.

21 So at least he believed that it was not
22 sufficiently addressed by that prior exchange.
23 And so insofar as the company has put forward
24 these upgrades and indeed makes it part of its
25 application materials, we would maintain that this

1 line is entirely appropriate to ask.

2 THE HEARING OFFICER: The line would be
3 Yankee/Eversource. Am I correct on that, Mr.
4 Eves?

5 THE WITNESS (Eves): Yes, Yankee and
6 Eversource are the same company. So Eversource
7 owns Yankee Gas. So we can use Yankee Gas and
8 Eversource interchangeably here, but yes, the line
9 will be owned by Yankee Eversource.

10 THE WITNESS (Greysock): And I guess I
11 would note that the section referenced in the
12 environmental overview is one that is discussing
13 specific changes to individual sections that were
14 in the original application, and it's speaking to
15 the socioeconomic section.

16 And the reference to these upgrades is
17 just intended to reflect the discussions the
18 project has continued to have with the Town which
19 acknowledges that there are certain upgrades that
20 are for the benefit of the project, but that which
21 also could result in some additional benefit to
22 the Town relative to future economic development
23 or what have you.

24 So the intent of it being reflected here
25 is not to imply that we are approving this change

1 as a part of this proceeding, but to be
2 descriptive.

3 THE HEARING OFFICER: Does that answer
4 your question, Counselor?

5 MS. CSANK: I'm afraid I'm a little more
6 confused than I was before, but I'll just continue
7 in the interests of time.

8 So to be clear, will those upgrades, and
9 however they were just characterized by
10 Ms. Gresock, result in incremental gas capacity
11 additions to the region of New England?

12 THE WITNESS (Eves): No.

13 MS. CSANK: Next, let's please refer to
14 volume 1, the original 2016 application, page 17.

15 And I'm specifically referring to
16 language that begins, KEC is located south of the
17 traditional pipeline constraints that occur
18 further north on the New England gas supply system
19 around the major metropolitan and load centers,
20 and it goes on. So that entire sentence is what
21 I'm referring to in this.

22 MR. BALDWIN: Mr. Chairman, while
23 Ms. Gresock pulls out her resource information
24 referred to, I feel compelled to at least remind
25 everyone here this is a limited purpose hearing.

1 This hearing is on the chain of
2 circumstances that the Council heard discussions
3 going back to the original application, the gas
4 line, the constraints of the gas line somewhere
5 else in New England -- I think is not focused on
6 those changed conditions.

7 We might be more efficient in our time
8 if we focused on the changed conditions. I think
9 the Chair has given Sierra Club a lot of latitude
10 in that regards. Many times we strayed from those
11 changed conditions, sometimes more than others.

12 So I think if we can focus on what we're
13 here for, the limited purpose for what we're here
14 for we might be more efficient.

15 THE HEARING OFFICER: Counselor?

16 MS. MILLER: If I might respond on
17 behalf of my clients which are Not Another
18 Powerplant and the Wyndham Land Trust?

19 I would agree with the attempt at
20 efficiency and to deal with the changed
21 conditions, although I would submit that any
22 progress that's been made towards permitting of
23 the gas line would be something that we just would
24 like to know given that that has happened in the
25 two years since. So I know that for myself I do

1 have a very limited amount of questioning just on
2 where that is and where we are in terms of that.

3 And I believe it probably stands, but we
4 did have discussion early on about the
5 segmentation of the project. And I would assume
6 even though this is a new hearing, the discussions
7 that happened then, the decision that was made and
8 any appealability of it would still stand. That
9 is everyone else's understanding.

10 So we don't have to make the same
11 arguments again regarding the segmentation, but I
12 actually direct that to Attorney Bachman. Are we
13 at this point still in the same position that we
14 were before with regard to the segmentation issue?

15 MS. BACHMAN: I believe that we are.

16 MS. MILLER: Okay. From what I recall I
17 think it was the Connecticut Fund for the
18 Environment who made a motion that was denied, and
19 that is where that issue stands.

20 I know this is a continued -- kind of a
21 continued hearing. So I have not made that motion
22 again, again in the interests of efficiency with
23 the proceedings. So I just wanted to note that.

24 But in terms of, I think, the question
25 that we -- that my clients have with regards to

1 the gas line, it would be limited to what has
2 happened in the past two years with regard to the
3 gas line.

4 MR. BALDWIN: That's perfectly
5 acceptable, Attorney Mintel Miller.

6 THE HEARING OFFICER: I agree. Thank
7 you.

8 MS. CSANK: So the question that was
9 pending was referencing again page 17 of volume 1
10 of the original 2016 application. And my question
11 is whether -- what the company is proposing now in
12 this matter is additional to what it proposed
13 originally in 2016?

14 THE WITNESS (Eves): Yes, it is.

15 MS. CSANK: Please explain how it is
16 different?

17 THE WITNESS (Eves): Oh, I'm sorry. I
18 thought you said are we -- is it the same as we
19 proposed in '16. What we are offering now is the
20 same as what we offered in '16.

21 MS. CSANK: All right. Thank you.

22 My next question is for Mr. Hibbard.
23 Are you familiar with Robert Ethier?

24 THE WITNESS (Hibbard): Yes, Bob Ethier
25 at ISO New England.

1 MS. CSANK: Can you tell us his title?

2 THE WITNESS (Hibbard): I believe he's
3 vice president for -- not market design, market
4 operations.

5 MS. CSANK: Market operations?

6 THE WITNESS (Hibbard): Market
7 operations, yeah.

8 MS. CSANK: I'll hand you an article
9 that was published last month transcribing a
10 recent interview with Mr. Ethier, if Mr. Chairman
11 allows me or my colleague to approach the witness?

12 THE HEARING OFFICER: Relevance,
13 Counselor?

14 MS. CSANK: This goes to certain
15 statements that Mr. Hibbard has made in his
16 testimony and making sure the record is clear on
17 the basis of that testimony.

18 MR. BALDWIN: It would have been nice to
19 have this article in advance of the hearing,
20 Mr. Chairman.

21 THE HEARING OFFICER: Agreed.

22 MR. BALDWIN: And for that reason I
23 object. I'm not sure. I haven't seen the
24 article.

25 THE HEARING OFFICER: It's also not in

1 the record, Counselor, too. So --

2 MR. BALDWIN: Mr. Hibbard's comments in
3 other proceedings may or may not be relevant, but
4 I object to it coming in at this point.

5 They had ample opportunity to submit
6 this information into the record and give us the
7 opportunity, rather than trying to spring it on us
8 at the hearing.

9 THE HEARING OFFICER: I agree. Without
10 it being in the record right now we cannot use it
11 at this time.

12 MS. CSANK: Your Honor, if I may just
13 very briefly?

14 I understand the ruling, but just for
15 the record the purpose of this document was not
16 for the truth of the matter asserted. It's a
17 rather brief document to give Mr. Hibbard an
18 opportunity to expand on the testimony that he has
19 provided and to clarify some of the statements
20 he's made.

21 If it's still Your Honor's ruling that
22 we cannot examine the witness on this document,
23 then I would like to at least preserve that
24 objection for the record.

25 THE HEARING OFFICER: Yeah. Again, the

1 document is not admissible at this point. I'm not
2 sure what the relevance is based on what you're
3 looking for Mr. Hibbard to expand upon.

4 If you had a question of what he might
5 have been talking about earlier or his prior
6 testimony, that you needed a further explanation,
7 that I could allow.

8 MS. CSANK: Your Honor, this concerns
9 the winter security issue which we've been
10 discussing today.

11 THE HEARING OFFICER: Then please ask
12 that question, but I don't want to keep going back
13 to the same issues that we have discussed before
14 because we really should have wrapped that up
15 earlier -- but if you have that question on winter
16 reliability please ask it.

17 MS. CSANK: And may I use the document
18 to examine the witness? Or would you prefer I not
19 do so?

20 THE HEARING OFFICER: (Shaking head in
21 the negative.)

22 MS. CSANK: Okay. So subject to check,
23 Mr. Hibbard, do you dispute that the concern that
24 the New England system operator has expressed with
25 respect to winter security is an energy shortage

1 issue?

2 THE WITNESS (Hibbard): I know that
3 that's the phrase they have used in many
4 documents.

5 MS. CSANK: And do you have any reason
6 to dispute that Mr. Ethier has specifically stated
7 that, although they have looked at pipelines as a
8 potential solution, they have effectively ruled
9 out pipelines as part of the solution.

10 THE WITNESS (Hibbard): I am aware from
11 things that I have read that -- I'm not sure about
12 Bob Ethier, but certainly the CEO Gordon van Welie
13 has -- has essentially said that -- and I'm
14 paraphrasing. So I may not be getting this
15 exactly right, but that they no longer count on
16 additional pipeline infrastructure being
17 constructed as a way of addressing the winter
18 reliability issue.

19 MR. BALDWIN: And do you know the reason
20 why they have discounted that as a solution?

21 THE WITNESS (Hibbard): My -- my
22 expectation is that -- is because there have been,
23 number one, a lot of difficulty in siting new
24 pipeline infrastructure in New England.

25 And number two, efforts to try to get

1 electric ratepayers to pay for it have failed. So
2 it's sort of out of the jurisdiction of the power
3 system. And there, there hasn't been a lot of
4 progress in getting new infrastructure built. So
5 I think it's just a reflection on the fact that
6 some projects have been proposed and not
7 constructed.

8 And so in terms of ISO's responsibility
9 as the entity responsible for power system
10 reliability, they're no longer counting on new
11 pipelines. And so they're trying to figure out
12 other ways to maintain winter fuel security. That
13 would be my interpretation of whether it's Bob or
14 Gordon.

15 MS. CSANK: Thank you. And indeed
16 those, those other ways that are now being
17 contemplated by the system operator include
18 imports of electricity from Canada and offshore
19 wind. Correct?

20 THE WITNESS (Hibbard): No.

21 MS. CSANK: Why not?

22 THE WITNESS (Hibbard): I think what
23 their focus is, is developing market mechanisms to
24 provide the correct financial incentives for
25 ensuring winter security. They are not -- they

1 are not a proponent of any type of project or any
2 fuel source or anything along those lines.

3 MS. CSANK: So you dispute that they're
4 considering offshore wind and electricity imports
5 from Canada as potential solutions?

6 THE WITNESS (Hibbard): I believe they
7 evaluate all resources on the system, but they
8 don't consider solutions. So the only thing
9 within their purview is to design markets to
10 provide the right financial incentives to maintain
11 reliability.

12 MS. CSANK: So it would help if we
13 define solutions. So I just want to make sure I
14 understand what you're disputing. So can you
15 explain that further?

16 THE WITNESS (Hibbard): Sure. ISO
17 doesn't consider any resources whatsoever. All
18 they do is design the wholesale markets in a way
19 that investors will provide -- will invest in
20 resources that can solve the reliability challenge
21 they're trying to solve through a market design.

22 And so for example, I was mentioning
23 earlier that there are interim compensation
24 mechanisms. It's called for in the next few years
25 where you if can demonstrate fuel security you can

1 get paid additional revenues.

2 In the meantime, ISO is trying to
3 develop longer-term market designs that would
4 provide the same sort of incentives to have fuel
5 security during cold winter conditions, and it
6 ranges from -- in the past it has ranged from
7 including performance incentives and performance
8 penalties in the capacity market, which still
9 exists. It's included increasing the level of
10 reserves on the system during winter conditions,
11 increasing the pricing for reserves.

12 There are a lot of different market
13 designs that are geared towards addressing the
14 winter security problem, but ISO itself is
15 resource developer fuel neutral. They can only
16 create those financial incentives.

17 MS. CSANK: And sir, you are in a
18 somewhat different position than the system
19 operator. Have you considered those other
20 resources and their potential applicability to
21 this winter security issue?

22 THE WITNESS (Hibbard): I'm sorry. This
23 is hydro and offshore wind?

24 MS. CSANK: Yes, sir.

25 THE WITNESS (Hibbard): I have certainly

1 thought about it.

2 MS. CSANK: And they are potential
3 solutions?

4 THE WITNESS (Hibbard): You know, my
5 personal view, I have looked at the contracts that
6 are proposed for approval in Massachusetts for
7 power from Hydro-Quebec and I don't think it
8 necessarily provides that level of reliability. I
9 know there are -- and this is my understanding.

10 I'm not a lawyer. I've only looked at
11 the contracts out of interest, but this, my -- my
12 review of them indicates that while there are
13 daily energy delivery requirements there are ways
14 in which Hydro-Quebec could say on a given day, I
15 cannot meet those requirements today and I'll make
16 it up later. That's my -- the way of explaining
17 it.

18 And so in my view -- and I was involved
19 in discussing this issue as a regulator in the
20 past, and -- and when we did our report we were
21 discussing earlier the thing that we included as a
22 caveat was transmission from Canada can't help us
23 in the winter unless it's absolutely guaranteed to
24 be available on the coldest days of the year.

25 And in this case when I look at those

1 contracts there are winter delivery requirements,
2 but Hydro-Quebec which is a winter peaking system
3 could back out on a given day. Now again, I'm not
4 a lawyer. I may have that wrong, but if that were
5 the case those are absolutely not a solution to
6 the winter security problem.

7 Offshore wind, to the extent it's
8 available can reduce our need to generate
9 electricity from other resources, but there's
10 always that chance that on those coldest winter
11 days the wind is not available, or is available at
12 a lower -- an essential capacity factor than
13 maximum.

14 So do I believe it can provide -- that
15 can provide a contribution? Both of them, yes.
16 Do I think that they're the same level of
17 guarantee as a firm gas transportation contract,
18 oil sitting in a storage tank or nuclear
19 generation? No. I don't. I don't think it's
20 equivalent.

21 MS. CSANK: Okay. And just so that
22 we're clear we can agree that you did not perform
23 that analysis for this matter as winter security
24 relates to Connecticut. Correct?

25 Yes, no, don't know?

1 THE WITNESS (Hibbard): No. No. I'm
2 thinking through my testimony and trying to see.
3 I obviously have gone through this thought
4 process, and I've done it in the context of
5 working for clients on the winter security issue
6 within New England.

7 So it's at the front of my mind and
8 where -- was I thinking about that going through
9 my mind when I was developing testimony for this
10 particular case? Probably, but I can't think
11 sitting here that in my testimony I specifically
12 analyzed that in particular and commented on it in
13 the testimony.

14 MS. CSANK: Nor did you quantify the
15 reliability benefit that you're claiming this
16 permit offers Connecticut. Correct?

17 THE WITNESS (Hibbard): I -- I think the
18 reliability benefits of a powerplant like this are
19 obvious as a function of design. I did not try to
20 say, here quantitatively is what the reliability
21 benefit is.

22 THE HEARING OFFICER: Mr. Lynch has a
23 follow-up question.

24 MR. LYNCH: Mr. Hibbard, would a
25 liquefied natural gas facility in the area help

1 alleviate that winter problem?

2 THE WITNESS (Hibbard): Mr. Lynch, I --
3 I think, let me -- and I know we discussed this a
4 little bit last time. So let me take a shot at
5 rephrasing what we talked about last time.

6 A liquefied natural gas facility like
7 the one at Everett or at Canaport in Canada, or
8 offshore provided there's a contract with firm
9 transportation to a powerplant, can provide that
10 level of security.

11 My understanding is that the smaller
12 liquefied natural gas facilities that are
13 construct -- that exist and that are being
14 constructed are designed to help meet designed aid
15 demand for the local natural gas distribution
16 companies.

17 So that they could not be counted on to
18 deliver gas to a powerplant for winter energy
19 security. There they're generally there to
20 maintain pressure on natural gas distribution
21 systems and provide a peaking resource for natural
22 gas, for heating and businesses, not for
23 powerplants.

24 And when I was on the commission in
25 Massachusetts effectively that wasn't -- those

1 were peaking facilities for natural gas demand for
2 heating, and it would have been frowned upon to
3 consider them as being a resource for powerplant
4 operations during the winter.

5 MR. LYNCH: That's what I thought. I
6 just wanted to get a clarification. And I know
7 there's a big problem with transportation as far
8 as liquefied natural gas, getting it into the --
9 especially in New England.

10 Thank you.

11 THE HEARING OFFICER: Counselor, you can
12 continue.

13 MS. CSANK: Thank you, your Honor.

14 So nor have you analyzed, Mr. Hibbard,
15 in any quantitative way the reliability benefits
16 with respect to specifically this winter security
17 issue for this matter and how resources such as
18 offshore wind and hydro imports from elsewhere
19 compare to the proposed project.

20 Correct?

21 THE WITNESS (Hibbard): That's correct,
22 as you have stated it, but quantitatively I -- as
23 I think I had testified earlier, a firm natural
24 gas contract allowing for the operation of 630
25 megawatts on natural gas in the region would be an

1 incremental benefit to the region equal to 630
2 megawatts on a cold winter day.

3 MS. CSANK: Absent some kind of
4 catastrophic pipeline failure that prohibits gas
5 from reaching the project. Correct?

6 THE WITNESS (Greysock): On any given
7 day if one of the major pipelines coming into New
8 England has a catastrophic failure I think all
9 bets are off, but that does not -- that does not
10 relate to the reliability and fuel security value
11 of this facility compared to other generating
12 facilities in New England.

13 MS. CSANK: Well, those other resources,
14 whether they're imports or sited within New
15 England, if they're non-gas then they're not
16 subject to that same catastrophic pipeline failure
17 vulnerability. Are they?

18 THE WITNESS (Hibbard): Yes. Well, let
19 me -- let me amend my last answer. As I mentioned
20 I think this morning that in that catastrophic
21 pipeline failure, don't forget that the dual-fuel
22 capability of the facility, and ability to store
23 oil and replenish it at a rate that allows them to
24 continue operation I think is exactly that type of
25 protection against a pipeline failure.

1 The problem we would have if demand were
2 high and one of the pipelines were -- were lost
3 could be lessened by generating resources that
4 don't consume the gas. On the other hand, I think
5 that's a problem of significant magnitude.

6 MS. CSANK: But neither you nor Yankee,
7 nor Eversource have provided any analysis on the
8 record of how long it would take to restore a
9 pipeline's operations after such a catastrophic
10 failure.

11 Correct?

12 THE WITNESS (Hibbard): That's correct.

13 MS. CSANK: Sir, do you know how many
14 combined cycle gas plants Connecticut has added in
15 the past two years?

16 THE WITNESS (Hibbard): Not off the top
17 of my head.

18 MS. CSANK: Are you aware of the
19 Towantic plant?

20 THE WITNESS (Hibbard): I am familiar
21 with the Towantic plant, yes.

22 MS. CSANK: Subject to check, would you
23 agree that that came online in 2018?

24 THE WITNESS (Hibbard): Subject to
25 check, I'll agree with that.

1 MS. CSANK: And that is an 805 megawatt
2 facility. Correct, subject to check?

3 THE WITNESS (Hibbard): I'll take it.

4 MS. CSANK: Are you aware, sir, that the
5 Bridgeport Harbor Station 5 is among those new
6 combined cycle plants that came online in the last
7 two years?

8 THE WITNESS (Hibbard): That sounds
9 familiar.

10 MS. CSANK: Subject to check, would you
11 accept that that facility is scheduled to come
12 online in the next two months?

13 THE WITNESS (Hibbard): Sure, and I'm,
14 you know, I'm happy to go through and confirm
15 these things in writing if helpful.

16 MS. CSANK: Is that a proffer of a
17 late-filed exhibit?

18 THE WITNESS (Hibbard): Sorry, I'm not a
19 lawyer. Yeah, I answered the question.

20 I'm accepting it subject to check.

21 MS. CSANK: That's fine for these
22 purposes. Thank you.

23 Has adding such gas plants increased
24 winter reliability in New England, sir?

25 THE WITNESS (Hibbard): To answer that

1 question, Counselor, I would want to look at
2 the -- whether or not those units had firm natural
3 gas transportation contracts and/or whether or not
4 they had dual-fuel capability.

5 My expectation is that they both have
6 dual-fuel capability, which is potentially helpful
7 under winter energy security challenges.

8 MS. CSANK: And do those plants support
9 integration of new renewable generation in the
10 region?

11 THE WITNESS (Hibbard): Again, I would
12 need to look at it, but my expectation is as
13 natural gas plants that likely can cycle fairly
14 easily and frequently, that they would support the
15 integration of variable generation.

16 MS. CSANK: So that was a yes?

17 THE WITNESS (Hibbard): It should be
18 obvious, yes.

19 MS. CSANK: Thank you, sir. And the
20 applicant has elected to lock in its clearing
21 price in the FCA-13 for the full allowable period
22 of seven years. Correct?

23 THE WITNESS (Hibbard): That's my
24 understanding.

25 MS. CSANK: And that's further

1 identified in interrogatory number 19, just for
2 the record.

3 Does the applicant believe that capacity
4 prices will remain at or below \$3.80 per kilowatt
5 a month for the next 7 years?

6 THE WITNESS (Hibbard): I -- I have
7 not -- I personally on behalf of the applicant
8 have not looked into that.

9 MS. CSANK: Mr. Eves, why did the
10 applicant choose to lock in that price?

11 THE WITNESS (Eves): That gives us seven
12 years of forecastable revenues. This market has
13 been rather volatile in the auction. We thought
14 this was our best way to lock in the seven years
15 at a price that we know.

16 MS. CSANK: Besides the predictability
17 or certainty of your revenue, was there any other
18 reason?

19 THE WITNESS (Eves): No.

20 MS. CSANK: And you would know if there
21 were?

22 THE WITNESS (Eves): I would think so.

23 MS. CSANK: The applicant also expects
24 that several thousand megawatts of existing fossil
25 fuel fired facilities are likely to retire in the

1 very near future. Correct?

2 THE WITNESS (Hibbard): I certainly
3 believe that, at least to those, the existing coal
4 and oil units that are economically challenged are
5 likely to retire, and in addition potentially
6 other units.

7 MS. CSANK: If thousands of megawatts
8 are likely to retire imminently, wouldn't this be
9 anticipated to increase capacity prices in New
10 England in the next seven years?

11 THE WITNESS (Hibbard): I wouldn't be
12 able to answer that without constructing a model
13 to come up with a forecast that -- that I think
14 represents how it would affect capacity market
15 prices.

16 MS. CSANK: And again you didn't perform
17 such modeling analysis for this matter. Correct?

18 THE WITNESS (Hibbard): Not for this
19 matter, no.

20 MS. CSANK: Nor have any of the other
21 company's witnesses. Correct?

22 THE WITNESS (Eves): Yes, that is
23 correct. None of the witnesses here have
24 conducted that, however PA analysis did conduct
25 that in our -- in the first round of our hearings.

1 MS. CSANK: And that was based on inputs
2 that are now over two years old?

3 THE WITNESS (Eves): Two and a half,
4 three years.

5 MS. CSANK: Isn't it true that other
6 resources are also anticipated to come online that
7 will help offset -- strike that.

8 Isn't it true that other resources are
9 also anticipated to come online that would further
10 change capacity prices in New England in the next
11 seven years?

12 THE WITNESS (Hibbard): Without, you
13 know, I'm tempted to ask which resources in
14 particular you have in mind. But provided they
15 are full capacity market resources as opposed to
16 state-sponsored resources, then I -- then I
17 believe that at any point in time capacity market
18 prices will be determined by both the demand curve
19 and the supply of resources, and the offers that
20 those resources make in the capacity market.

21 You can't look at a particular resource
22 and know what they're going to offer and come to a
23 conclusion whether or not it means the clearing
24 price in the market will be different than it
25 otherwise would, but obviously it's entirely

1 determined by that demand curve and the supply
2 offers of all resources.

3 MS. CSANK: So as we sit here today you
4 do not dispute that that supply curve may change
5 based on the offshore wind being contracted for by
6 Connecticut, Rhode Island and Massachusetts.
7 Correct?

8 THE WITNESS (Hibbard): I prefer not to
9 answer that because I don't -- haven't looked at
10 the extent to which those resources would be
11 state-sponsored resources subject to mitigation,
12 and/or subject to participating in the market only
13 through the -- the -- what is an adjunct to the
14 capacity market. CASPR it's called.

15 So I don't -- so I think it's difficult
16 to answer that question without knowing more about
17 how those resources would be funded through
18 ratepayers and ultimately how that would affect
19 what offers they would make in the capacity
20 market.

21 MS. CSANK: Thank you for the
22 explanation.

23 So in short, you don't know?

24 THE WITNESS (Hibbard): Well, I
25 certainly know how I would come to an opinion on

1 that if -- if I were asked to.

2 MS. CSANK: But as we sit here today you
3 do not know the answer because you have not
4 performed that analysis. Correct?

5 THE WITNESS (Hibbard): I have not
6 performed that analysis in this case.

7 MS. CSANK: And similarly, you have not
8 performed any analysis of how hydroelectric
9 generation that would be wheeled in via the Clean
10 Energy Connecticut line would impact capacity
11 prices. Correct?

12 THE WITNESS (Hibbard): I would give
13 exactly the same answer. It depends entirely upon
14 their funding through ratepayers and how that
15 affects the way in which they were -- whether, and
16 the way in which they would participate in the
17 capacity market.

18 MS. CSANK: Thank you, sir.

19 Returning back to Emera just very
20 briefly. Emera does not own the Algonquin
21 Pipeline. Correct?

22 THE WITNESS (Hibbard): Emera, as I
23 understand it, has portfolios of supply and
24 transportation assets throughout the Northeast. I
25 do not know whether or not to what extent their

1 assets include transportation rights on Algonquin.

2 They are not the owner and operator
3 of -- of the unit, but I don't know the answer to
4 the question about what -- what comprises their
5 portfolio of transportation assets.

6 MS. CSANK: Do you know if Emera
7 presently sells gas into New England?

8 THE WITNESS (Hibbard): I certainly know
9 they will in three years if this project is
10 approved. My expectation would be that they are
11 active in the New England market, and that's also
12 my understanding.

13 Do I know of whether -- do I know of
14 specific commodity sale contracts to entities in
15 New England sitting here? No.

16 MS. CSANK: So when we earlier discussed
17 the possibility that absent the project Emera
18 could instead sell gas to New York, does the
19 applicant have any analysis to support that claim?

20 THE WITNESS (Hibbard): I have not tried
21 to forecast what Emera would do in terms of its
22 participation in the natural gas market if
23 Killingly did not go forward. I have not looked
24 into that.

25 THE HEARING OFFICER: Can I ask

1 relevance on that, Counselor?

2 MS. CSANK: Yes, your Honor. It goes to
3 this continued, and as characterized by the
4 witness, critical issue of their claimed winter
5 security benefit of this project. And whether
6 it's in fact additive in any way as compared to
7 what the existing resources and infrastructure
8 are.

9 THE HEARING OFFICER: Is your concern
10 Emera can't provide gas? Is that what you're
11 trying to get at?

12 MS. CSANK: No, your Honor. It's rather
13 the nature of -- and I don't want to get too far
14 and testify myself. So perhaps I will just leave
15 it at that, and say that this line goes to the
16 winter security issue.

17 THE HEARING OFFICER: Yeah. I'm just
18 trying to figure out where we're going. That's
19 why I'm asking the question.

20 MS. CSANK: I'm sorry, Your Honor, that
21 I can't better explain. As I stated earlier, some
22 of this examination is informed by my co-counsel.
23 And so I'm actually turning to a new line.

24 Mr. Hibbard, have you performed any
25 analysis on customer vulnerability to gas price

1 fluctuations over the period of time that the
2 project is supposed to operate?

3 THE WITNESS (Hibbard): Do you have any
4 particular customers in mind? Do you mean,
5 natural gas LDC customers in New England?

6 MS. CSANK: Yes, sir.

7 THE WITNESS (Hibbard): I have recently
8 had occasion to look at potential variation in gas
9 prices as a function of demand as part of a
10 confidential project, but not for this project.

11 MS. CSANK: Subject to check, would you
12 agree that recent news reports have identified
13 that New England power costs have hit a four-year
14 high due to New England's reliance on gas for
15 power?

16 THE WITNESS (Hibbard): I wouldn't be
17 surprised if that's been written in an article
18 recently.

19 THE WITNESS (Thibeault): Well, why
20 wouldn't you be surprised?

21 THE WITNESS (Hibbard): Because my
22 understanding is that natural gas prices fluctuate
23 as a function of the severity of the winter
24 natural gas prices in new England. And we've had
25 a relatively severe winter from that perspective.

1 It's not easy to pin it exactly to
2 specific peak days or peak cold snap periods, but
3 I know that virtually all of the year prices are
4 suppressed because of the availability of gas and
5 transportation.

6 And really when you look at, how does
7 one year's annual cost of gas compare to another
8 year? It's almost entirely driven by the
9 volatility and the fluctuation during severe
10 winter periods.

11 MS. CSANK: And you would also agree
12 that, subject to check, the average price of
13 electricity increased 28 percent in New England in
14 2018 as compared to the previous year while the
15 average price of gas in New England increased
16 30 percent in that same period?

17 THE WITNESS (Hibbard): I'll agree that
18 it looks like you're reading that from something,
19 but I don't know those numbers in particular.

20 MS. CSANK: So yes, you agree subject to
21 check?

22 MR. BALDWIN: The question was subject
23 to check. You want to tell us what you're reading
24 from, and maybe we can confirm it?

25 MS. CSANK: Yeah, I would gladly hand

1 the witness an article. I just got the impression
2 that that would raise objections. I was trying to
3 work around it.

4 THE WITNESS (Hibbard): You know, I'll
5 accept subject to check that if the source of that
6 information is, for example, the ISO New England
7 reports, the market monitoring reports.

8 They tend to use accurate data on the
9 price of natural -- well, their own estimates of
10 the price of natural gas and compare in -- at the
11 same time look at -- they have the data on what
12 the price of electricity is.

13 So I -- I believe that what you're
14 reporting is most likely accurate, and if it's
15 ultimate -- the ultimate source is ISO New
16 England, that's probably -- that's probably
17 correct.

18 MS. CSANK: Your Honor, should the
19 Council want to have it for its reference, the
20 document I am referring to is a news report that
21 is barely over a page. And we have copies to
22 provide, but only if the Council is interested.

23 THE HEARING OFFICER: Unfortunately,
24 Counselor, we normally don't take in news reports
25 for exhibits -- but I do want to ask. You

1 mentioned winter reliability was your
2 focus before, and I'm struggling again with the
3 price of natural gas and the price of electricity,
4 how you're trying to fit that in.

5 If you could explain that to me it would
6 be great?

7 MS. CSANK: Your Honor, I think it's
8 better explained by the witnesses, but just very
9 briefly most things can happen at a cost. And so
10 there's a very close relationship between what has
11 developed to meet reliability and what prices the
12 developers can obtain in the market.

13 And so that's why I would offer the
14 relationship.

15 THE HEARING OFFICER: Perhaps you can
16 formulate a question more specific to what you
17 just told me.

18 MS. CSANK: Yes, your Honor. I'll
19 endeavor to do so.

20 Mr. Hibbard, adding the project to New
21 England's energy mix would release the power
22 systems reliance on gas. Correct?

23 THE WITNESS (Hibbard): I think it
24 would -- I think the answer to that question is
25 no, if what you're referring to is the risks

1 associated with exposure to gas-fired generation
2 during cold winter periods.

3 If the question you're asking is, will
4 operation of this unit increase the total annual
5 consumption of gas for electricity generation
6 compared to a scenario where everything else was
7 equal, but this powerplant didn't exist, I don't
8 know the answer.

9 It could be less because it will be
10 displacing at least in part gas-fired units that
11 operate less efficiently -- efficiently. So I
12 don't know what effect it would have on New
13 England's annual consumption of gas, but I do know
14 it would not increase our susceptibility to
15 reliability risks during cold winter conditions.

16 MS. CSANK: What's the basis of that
17 latter opinion?

18 THE WITNESS (Hibbard): A firm natural
19 gas contract.

20 MS. CSANK: That's it?

21 THE WITNESS (Hibbard): That's -- yes,
22 that's it.

23 MS. CSANK: Thank you.

24 What is the anticipated capacity factor
25 of the plant in 2025?

1 THE WITNESS (Eves): That's something
2 we'll have to check on. I know we submitted an
3 answer to one of the interrogatories to that, that
4 I think addressed the first -- first year capacity
5 factor. Let me see if I can find it in here.

6 MS. CSANK: While you look, maybe I
7 should just ask -- and step back -- a more basic
8 question, which is whether the company has in fact
9 modeled a capacity factor using a production cost
10 model for future years?

11 THE WITNESS (Eves): Yes, we did and
12 that was part of our previous hearings.

13 MS. CSANK: So it was that original
14 analysis performed for the 2016 proceeding?

15 THE WITNESS (Eves): Yes.

16 MS. CSANK: And there's been no
17 subsequent update. Correct?

18 THE WITNESS (Eves): That's correct.

19 MS. CSANK: Okay. Moving on. So maybe
20 I can spare you from having to rifle through it.

21 THE WITNESS (Eves): Let me kind of
22 clarify that a little bit. There's been no
23 quantitative update.

24 We have sat down with Mr. Hibbard here
25 and did a more, I would say, subjective update to

1 the production cost modeling results that we had
2 from our previous case.

3 MS. CSANK: And so it's not the
4 company's position that such quantitative
5 model-based analysis is not feasible. You just
6 did not do it. Correct?

7 THE WITNESS (Eves): We think that what
8 has taken place between 2000 -- between when we
9 opened the docket and now are -- the changes have
10 been so clear. There's no need for -- no need for
11 additional modeling.

12 MS. CSANK: What changes are so clear?

13 THE WITNESS (Hibbard): I -- the
14 discussion we have had is -- really relates to
15 what we've discussed several times I think
16 throughout this proceeding, which is that the new
17 project is larger and more efficient.

18 So holding everything else equal
19 compared to the analysis that was done at the last
20 point in time, those changes would have in a
21 production cost model two effects. It would
22 increase generation from the facility and
23 reduce -- and increase -- and also lower the price
24 per megawatt hour generated by the facility as a
25 function of fuel cost.

1 So the only effect on a production cost
2 model would be further displacement of more
3 expensive resources. So the, you know, my
4 judgment looking at that is that if we hold
5 everything else equal, the change that's at issue
6 in this case could only do greater benefits.

7 A production cost analysis -- which is
8 complicated and would potentially inundate the
9 procedures here. It would only generate results
10 that would improve the project's impact from a
11 ratepayer and economic standpoint.

12 MS. CSANK: What about the new gas
13 plants in Connecticut that we spoke about?

14 THE WITNESS (Hibbard): By far the
15 biggest impact of this facility will be on
16 existing less efficient generating facilities,
17 both in terms of hours of operation and over the
18 longer run retirement of those facilities.

19 The -- the units that will always be --
20 or mostly be inframarginal and the dispatch of
21 powerplants in New England will include this
22 facility and any recent efficient combined cycle
23 facility. The impact on production costs is
24 really the impact on the more expensive less
25 efficient facilities that are further out in the

1 supply stack.

2 MS. CSANK: So sir, the basis of the
3 opinion that you just stated is your experience,
4 and it's not actually any documented analysis for
5 the Council or anyone else to independently
6 review. Correct?

7 THE WITNESS (Hibbard): I did not
8 do production costs modeling as part of my
9 testimony here, but in discussions the conclusion
10 that I came to in thinking about this is that it's
11 really -- holding all else equal, there's really
12 only one direction you -- you would get out of a
13 production cost model compared to the previous
14 facility, and that would be to increase its -- its
15 generation and displacement of more expensive
16 resources, and lower the price whenever it's on
17 the margin.

18 MS. CSANK: But all else is not equal,
19 sir. Correct? Because there have in fact been
20 changes to the system since that production
21 modeling was performed in 2016. Correct?

22 THE WITNESS (Hibbard): There certainly
23 have been changes to the system on both the load
24 side and the resource side.

25 MS. CSANK: So you haven't analyzed it?

1 THE WITNESS (Hibbard): No, I've thought
2 about it. And I -- have I run the model? No,
3 but in -- based on my analysis I don't think it
4 would change the results other than to increase
5 the economic benefit, and increase the ratepayer
6 savings associated with this facility.

7 MS. CSANK: But you performed no
8 analysis of gas price risk from customers now
9 relying on more gas capacity for 30 to 55
10 additional years that they do not rely on today?

11 THE WITNESS (Hibbard): Again, this was
12 all in comparison to the analysis that was done
13 for the facility last time.

14 MS. CSANK: Okay. So I would like to
15 turn next to the 2017/2018 winter cold snap -- and
16 this continues to be a question, or a line,
17 rather, for you Mr, Hibbard.

18 I would like to refer you to the
19 applicant's sponsor to intervenor interrogatory
20 number 15. Please tell me when you're there.

21 THE WITNESS (Hibbard): Okay. I'm
22 there.

23 MS. CSANK: For your calculation of
24 carbon dioxide emissions savings you assumed a
25 hundred percent capacity factor for the project

1 and an output level of 647 megawatts. Correct?

2 THE WITNESS (Hibbard): I'll accept that
3 subject to check.

4 MS. CSANK: At that output level --
5 rather that output level corresponds to the
6 plant's operation under ISO conditions of
7 59 degrees Fahrenheit, or 14.7 psi barometric
8 pressure, and at 60 percent relative humidity.

9 Correct?

10 THE WITNESS (Hibbard): I believe it
11 was -- I asked the company for that information.
12 So --

13 THE WITNESS (Rega): I'll agree to that,
14 subject to check.

15 MS. CSANK: Why did you use any output
16 under ISO conditions?

17 THE WITNESS (Hibbard): I believe that's
18 where we were able to estimate what the CO2
19 emission rate would be for the facility. And --
20 and in terms of the capacity the assumption here
21 was that the unit under these conditions would be
22 operating at full capacity.

23 MS. CSANK: But those conditions are not
24 reflective of actual conditions during the cold
25 snap. Correct?

1 THE WITNESS (Hibbard): I would be
2 surprised if -- if the weather conditions during
3 the cold snap exactly matched these winter
4 specifications.

5 MS. CSANK: You assumed oil was the
6 marginal fuel during all 336 hours modeled.
7 Correct?

8 THE WITNESS (Hibbard): The assumption I
9 made for the purposes of doing this proxy
10 calculation was that what Killingly would be
11 displacing would be oil-fired generation.

12 Recall at the time what ISO New England
13 was doing as oil was being diminished throughout
14 the region as they started posturing generation in
15 order to maintain reliability. So I thought it
16 was a reasonable assumption that if you increased
17 gas-fired generation from Killingly, by and large
18 what would be reduced in order to reserve to
19 maintain oil in the tanks during these conditions
20 would be oil-fired generation.

21 So it -- it's an estimate. It's a proxy
22 calculation to say, here's the potential carbon
23 benefit of this unit operating during that cold
24 snap.

25 MS. CSANK: Did you verify that

1 assumption?

2 THE WITNESS (Hibbard): In what way?

3 MS. CSANK: Did you see if it reflected
4 actuals?

5 THE WITNESS (Hibbard): I -- I was -- I
6 was postulating a scenario where Killingly did
7 exist during that period in time.

8 MS. CSANK: So the answer is no?

9 THE WITNESS (Hibbard): I don't
10 understand the question. It wasn't -- I couldn't
11 verify it because Killingly didn't exist at the
12 time.

13 MS. CSANK: Killingly aside, all of the
14 other -- strike that.

15 You assumed that gas being delivered to
16 the project would not otherwise be delivered to a
17 powerplant in New England. Correct?

18 THE WITNESS (Hibbard): Are you
19 referring to this particular analysis?

20 MS. CSANK: Yes, sir.

21 THE WITNESS (Hibbard): Yes, my
22 assumption was, this would be incremental
23 gas-fired generation in New England displace --
24 displacing oil generation in part because at the
25 time what we do know is all the gas-fired

1 generation that could operate was operating.

2 MS. CSANK: And how did you verify
3 whether during the 336 hours that assumption was
4 reasonable?

5 THE WITNESS (Hibbard): Again, I -- I
6 did not verify it through any sort of modeling
7 or -- or otherwise any specific analysis. This
8 was indicative. This was an indicative
9 calculation to say if Killingly existed here's the
10 potential carbon dioxide reduction benefits.

11 I hope I did not represent it as -- as
12 actually what would happen based upon production
13 costs, modeling or some other type of modeling.
14 And in part that wouldn't even necessarily be more
15 accurate because of the posturing of units that
16 was happening during this cold snap which isn't
17 reflective of economic dispatch, which is what a
18 production cost model is actually modeling.

19 MS. CSANK: So you're not guaranteeing
20 these results?

21 THE WITNESS (Hibbard): I don't believe
22 I've suggested these are absolutely guaranteed
23 results for a future winter, if that's the
24 question.

25 MS. CSANK: And you used your revised

1 CO2 emission rate provided by the company.

2 Correct?

3 THE WITNESS (Hibbard): Yes.

4 MS. CSANK: Do you know how that
5 emission rate was derived?

6 THE WITNESS (Gresock): It was based on
7 the air-permit values.

8 MS. CSANK: And do you know how that
9 emission rate compares to the emission rate that
10 the applicant has used elsewhere in its
11 application materials?

12 THE WITNESS (Hibbard): I do not.

13 MS. CSANK: And you put your Killingly
14 emission rate in tons of carbon dioxide
15 equivalents. Correct?

16 THE WITNESS (Hibbard): Whatever the --
17 the basis for the permit emission rate is, is
18 the -- are the units.

19 MS. CSANK: Did you account for the
20 greenhouse gas impacts beyond direct stack
21 emissions?

22 THE WITNESS (Hibbard): Again, as when
23 thinking through this analysis my assumption is
24 that there are also upstream methane emissions
25 associated with the delivery of other fuels that

1 were being displaced.

2 Did I specifically try to calculate
3 the difference in upstream emissions of using this
4 facility versus figuring out where the oil was
5 extracted, whether it was tied oil, or somewhere
6 else, and what's the methane that's released in
7 the production and transportation of oil? I did
8 not try to go through that analysis.

9 THE WITNESS (Gresock): Can I make a
10 correction to my response? I had stated that
11 the -- the CO2 emissions values were from the
12 permit, but in fact I'm looking more closely at
13 the notes here. And in this instance for this
14 response it was associated with full output of the
15 unit under -- under winter conditions.

16 MS. CSANK: Could you please explain the
17 significance of that clarification?

18 THE WITNESS (Gresock): So the
19 air-permit value would be under the ISO conditions
20 previously referenced, which is the custom.

21 MS. CSANK: Thank you.

22 So understanding that you did not
23 perform a quantitative analysis of anything beyond
24 the direct stack emissions, as we sit here today
25 do you have any opinion on their relative

1 significance as compared to the results of your
2 analysis that you did perform?

3 THE WITNESS (Hibbard): Again, I -- I
4 don't have any quantitative answer, but I -- I do
5 want to reflect on the fact that if this is
6 displacing other fossil fuel generation it
7 wouldn't be appropriate to quantify only the
8 upstream emissions of this facility.

9 We would want to quantify the upstream
10 emissions of the sources it was displacing. And I
11 have no reason to believe those will be greater or
12 less than this one with the exception that -- and
13 this is not the scenario here.

14 If this were displacing less efficient
15 gas-fired generation then I would expect the
16 upstream emissions of that less efficient
17 gas-fired generation to be higher than this,
18 because it's essentially more gas being burned for
19 the same purpose, the same quantity of megawatt
20 hours.

21 MS. CSANK: Okay. And now turning to
22 the 2019 cold snap and liquefied natural gas. And
23 I'm going to be referring to a publication by the
24 Conservation Law Foundation entitled, *Frigid
25 Temperatures, Not a Problem in New England.*

1 If I may, I would like to approach the
2 witness and provide this publication to him?
3 Otherwise I can proceed another way.

4 THE HEARING OFFICER: That goes back to
5 what we talked about before with other exhibits
6 that haven't been accepted into the record.

7 So the short answer is no.

8 MS. CSANK: So subject to check, during
9 the 2019 cold snap, the 2019 cold snap was
10 impacted by the availability of liquefied natural
11 gas which I'll just continue to refer to as
12 liquefied gas tankers that were moored off of
13 Boston Harbor.

14 Do you dispute that?

15 THE WITNESS (Hibbard): I -- I am aware
16 there was a tanker on the Accelerate buoy in
17 Boston Harbor. And my understanding, although I
18 haven't independently verified this, is that they
19 were injecting gas at various times.

20 MS. CSANK: So you agree that the
21 availability of additional liquified gas impacts
22 the system reliability and the prices during a
23 cold snap?

24 THE WITNESS (Hibbard): I wouldn't
25 distinguish liquefied gas from any other gas in

1 that respect. Increasing the quantity of gas
2 flowing into New England is going to affect both
3 prices and the reliability challenge, holding
4 everything else equal.

5 I certainly do believe that the
6 existence of LNG facilities at the eastern end of
7 the New England pipeline system -- and when
8 they're injecting gas it's very helpful to the
9 fuel security reliability challenges in New
10 England.

11 MS. CSANK: But you would agree that a
12 critical difference between gas that's liquefied
13 versus gas that's not is that that the liquefied
14 gas can be stored. Correct?

15 THE WITNESS (Hibbard): I wouldn't -- I
16 agree that that's different -- well, the -- there
17 is storage for liquefied gas. I wouldn't say that
18 necessarily makes it more reliable than a firm
19 transportation contract because that gas obviously
20 needs to get to the burner tip of the powerplant
21 over pipelines.

22 And so unless -- with the exception of
23 what you have brought up several times, a
24 catastrophic event on the pipeline system, I would
25 equate a firm, firm transportation contract for a

1 powerplant to a powerplant having a firm
2 transportation contract from an LNG facility to
3 its burner tip. I would say that those are
4 essentially the same in terms of assistance with
5 winter reliability.

6 MS. CSANK: Since you brought it up,
7 sir, are you familiar -- well, that you brought up
8 catastrophic events on pipelines again. Are you
9 familiar, sir, with the pipeline Hazardous
10 Material and Safety Administration?

11 THE WITNESS (Hibbard): I'm familiar
12 with what they are, yes.

13 MS. CSANK: And you know that that's a
14 federal agency that's under the U.S. Department of
15 Transportation. Correct?

16 THE WITNESS (Hibbard): Yes.

17 MS. CSANK: And they regulate --

18 THE WITNESS (Hibbard): Well, I'll take
19 your word for it that it's under the DOT.

20 MS. CSANK: And you, subject to check,
21 would also agree that that agency collects
22 self-reported data on pipeline failures across
23 this country. Correct?

24 THE WITNESS (Hibbard): I'll accept
25 that. I haven't independently verified that.

1 MS. CSANK: And the data, subject to
2 check, shows that pipelines built before the 1940s
3 fail at rates comparable to pipelines that have
4 been built in recent years. Correct?

5 THE WITNESS (Hibbard): Are you
6 referring to interstate pipelines, or local
7 natural gas distribution company pipeline systems?

8 MS. CSANK: All, sir.

9 THE WITNESS (Hibbard): Oh, I think the
10 answer is extremely different for the two.

11 MS. CSANK: Please explain?

12 THE WITNESS (Hibbard): Well, the local
13 natural gas distribution system, pipeline systems
14 are configured in very different ways than the
15 interstate pipeline system and probably using very
16 different materials.

17 So I would -- to answer your question, I
18 would want to know specifically what you're
19 referring to and -- and my expectation would be
20 that the answer is different if you're looking at
21 distribution systems, versus interstate pipeline
22 systems.

23 MS. CSANK: Do you have any documentary
24 evidence to provide this Council on specifically
25 this issue as it relates to this project?

1 THE WITNESS (Hibbard): I'm -- I'm not
2 sure what the issue is. I do not have the --

3 MS. CSANK: Is the vulnerability of the
4 pipeline system on which this project would
5 rely -- its vulnerability to failures?

6 THE WITNESS (Hibbard): I have not
7 reviewed any PHMSA data or -- for this, for this
8 project, and have no reason to have done so.

9 MS. CSANK: Do you know if anyone else
10 on the panel has?

11 THE WITNESS (Hibbard): I don't. I
12 suspect not.

13 MS. CSANK: Mr. Eves?

14 THE WITNESS (Eves): No.

15 MS. CSANK: Mr. Hibbard, is it your
16 testimony that the project is uniquely able to
17 reduce greenhouse gas emissions during winter cold
18 snaps?

19 THE WITNESS (Hibbard): No.

20 MS. CSANK: Please explain?

21 THE WITNESS (Hibbard): My understanding
22 of your question. You were asking if it's my
23 testimony that this facility is uniquely able to
24 reduce greenhouse gas emissions. That's not my
25 testimony.

1 MS. CSANK: So for example, the wind
2 resources that are planned for the system are also
3 able to reduce greenhouse gas emissions during
4 winter cold snaps. Correct?

5 THE WITNESS (Hibbard): I think that
6 depends on their availability, but if we wanted to
7 compare if a wind facility were able to generate
8 the same megawatt hours during the same time
9 period it would -- and I did a sort of a proxy
10 approximation that I did in my calculation. It
11 would also be able to reduce greenhouse gases.

12 MS. CSANK: And you do not dispute that
13 wind resources could during the winter cold snap
14 meet customer demand?

15 THE WITNESS (Hibbard): I can -- what I
16 would say about that is if a wind facility is
17 generating and adding to the grid it can certainly
18 help contribute to meeting reliable system
19 operations during winter peaks.

20 What I can't say is that that would
21 always be the case, because there could be weather
22 conditions where the contribution of wind
23 facilities is not there -- and that's -- but
24 that's the sort of -- that's the sort of concern
25 that -- that Mr. Eves was speaking about earlier

1 with respect to variable generation.

2 But I think the answer to your question
3 is, yes. If a wind generating facility is
4 operating it can contribute to winter reliability.

5 MS. CSANK: Thank you, sir. If you'll
6 indulge me, just one last line of questions.

7 Sir, you authored in 2015 -- rather, you
8 co-authored a study for the Massachusetts Attorney
9 General's Office entitled, Power System
10 Reliability in New England, Meeting Electric
11 Resource Needs and an Era of Growing Dependence on
12 Natural Gas.

13 Do you recall that study?

14 THE WITNESS (Hibbard): I recall that
15 study, and that's the one we were discussing
16 earlier this afternoon.

17 MS. CSANK: And that study attempted to
18 answer several questions, the first of which was,
19 could the region experience power system, quote,
20 unquote, deficiencies during peak -- excuse me,
21 during peak winter demand when the electric system
22 may not be able to meet electric demand.

23 Correct?

24 THE WITNESS (Hibbard): Yes, that's
25 correct.

1 MS. CSANK: In addition, the study
2 attempted to address if any such deficiencies are
3 identified what is the full suite of practical
4 options for maintaining power system reliability,
5 particularly during winter months, including but
6 not limited to electric ratepayer funding for gas
7 infrastructure. Correct?

8 THE WITNESS (Hibbard): Natural gas
9 infrastructure, yes.

10 MS. CSANK: Or fracked gas
11 infrastructure?

12 THE WITNESS (Hibbard): No, I didn't
13 say fracked gas. I said natural gas
14 infrastructure.

15 MS. CSANK: But you have performed no
16 analysis on the type of extraction techniques that
17 are used to get the gas that's conveyed on this
18 infrastructure. Correct?

19 THE WITNESS (Hibbard): That's correct.

20 MS. CSANK: You also looked at the cost
21 to electric ratepayers associated with these
22 options and the extent to which the options helped
23 achieve or impede New England states' THG goals
24 and obligations. Correct?

25 THE WITNESS (Hibbard): I looked at what

1 would be the relative cost to electric ratepayers
2 associated with the options both to implement the
3 options and as a result of how they affect
4 wholesale electricity prices.

5 And then to what extent do various
6 options help achieve or impede states' obligations
7 and goals with respect to greenhouse gas
8 emissions.

9 MS. CSANK: And you found that under the
10 basecase analysis power system reliability can and
11 will be maintained over time with or without
12 additional new interstate gas pipeline capacity.
13 Correct?

14 THE WITNESS (Hibbard): Under the
15 conditions we were modeling at that point in time
16 and the resources that were available, that was
17 the conclusions we came to -- the conclusion we
18 came to under basecase conditions.

19 MS. CSANK: But under stress
20 sensitivities you found that power system
21 reliability deficiencies emerge by the winter of
22 2024/'25. Correct?

23 THE WITNESS (Hibbard): Not stress
24 sensitivities, stressed system conditions.

25 MS. CSANK: What's the difference?

1 THE WITNESS (Hibbard): Well, our
2 analysis there was we weren't running
3 sensitivities of system conditions. We did the
4 basecase, and then we did a stressed system
5 condition case, which was more like the conditions
6 that exist now, but it was involving limitations
7 on oil supply and one or two other things.

8 But the -- we didn't call it a
9 sensitivity. We did two cases. We did the
10 basecase and the stress system case, and the
11 stress system case is more like the -- the winter
12 cold snap reliability concerns that ISO has when
13 it's discussing this issue.

14 MS. CSANK: And when you say the
15 conditions are more like what they are now,
16 relative to what reference case or what baseline?

17 THE WITNESS (Hibbard): Relative to when
18 we did the analysis.

19 MS. CSANK: Thank you.

20 And you considered a range of solutions
21 sets including the addition of dual-fuel
22 capabilities, existing facilities and contracting
23 for liquefied gas. Correct?

24 THE WITNESS (Hibbard): Yes, that was
25 one of the solutions -- that was the status quo,

1 essentially.

2 MS. CSANK: But you found that those
3 solutions failed to offer outcomes consistent with
4 the climate change programs and goals of the New
5 England states. Correct?

6 THE WITNESS (Hibbard): Yes.

7 MS. CSANK: You also considered adding
8 new gas pipeline capacity. Correct?

9 THE WITNESS (Hibbard): That adding new
10 gas infrastructure -- and I just want to be clear
11 what this was, because it relates to the purpose
12 of the report.

13 It was assuming electric ratepayers paid
14 for new pipeline infrastructure. So the electric
15 ratepayers paid the cost of that investment and
16 paid -- as a result that capacity was dedicated
17 for the operation of gas only units within New
18 England.

19 So it was essentially a scenario that
20 represents firm transportation for gas-fired
21 transportation in New England.

22 MS. CSANK: I'm not sure I'm following
23 how your analysis that ruled out additional gas on
24 the basis that it failed to offer outcomes
25 consistent with climate change programs and goals

1 is influenced by who pays for the additional
2 pipelines.

3 THE WITNESS (Hibbard): The primary
4 purpose of the study -- well, let me back up. And
5 I'm sure that the councilmembers are actually
6 aware of this.

7 At the time we did this study there was
8 active discussion in the Massachusetts legislature
9 for having electric ratepayers pay for natural gas
10 infrastructure on behalf of competitive market
11 power generators. That was the active debate that
12 was going on at the time, both at the regulatory
13 level and the legislative level.

14 So the primary purpose of this was to
15 say, okay. Let's figure out where there would be
16 deficiencies on the system and then figure out
17 various ways you can eliminate those deficiencies.
18 One of them was the construction of a new natural
19 gas pipeline into Massachusetts and the capacity
20 of which would be dedicated for electricity
21 generation.

22 The other -- so that was the basic
23 purpose of the analysis, to compare these
24 solutions sets from that standpoint. We also were
25 interested in saying, okay. Well, there are other

1 impacts to be considered including, what are the
2 greenhouse gas emissions associated with each
3 option? Not that it would prevent the states from
4 meeting greenhouse gas goals, but it would affect
5 the costs of doing so. So in our analysis
6 that's -- that's why we structured it to look at
7 that as well.

8 MS. CSANK: Thank you for that
9 clarification, sir.

10 In that study you also considered a
11 solution set involving a combination of energy
12 efficiency, demand response and renewable energy
13 resources. Correct?

14 THE WITNESS (Hibbard): That sounds
15 right.

16 MS. CSANK: And you found that a
17 combination of those resources represents the best
18 solution from the perspective of ratepayer costs.
19 Correct?

20 It's page 5 -- or it will be, rather.
21 Sorry.

22 THE WITNESS (Hibbard): Okay. Yeah, I'm
23 at the -- so, yes. We looked at -- I mean, the
24 total, effectively we looked at six scenarios. Of
25 the six one of them was the status quo. It didn't

1 affect ratepayer costs, because it's the status
2 quo.

3 One was paying for new transmission to
4 Canada. That was more expensive for ratepayers.
5 The rest of them were less -- were -- created
6 ratepayer specifics. The one that was most
7 beneficial for ratepayers was the EE/DR scenario.

8 MS. CSANK: And EE and DR would stand
9 for Energy Efficiency Demand Response. Correct?

10 THE WITNESS (Hibbard): Energy
11 efficiency and demand response, yes.

12 MS. CSANK: And the customers who would
13 be achieving the most savings under that scenario,
14 under that study would include customers in
15 Connecticut. Correct?

16 THE WITNESS (Hibbard): Probably so --
17 no, hang on.

18 We -- there was an inclusion. I'll
19 accept that that's the case.

20 MS. CSANK: Thank you, sir.

21 And further, you found that EE or energy
22 efficiency combined with firm imports of
23 distillate low carbon resources on new or existing
24 transmission lines provides the greatest benefits
25 from the standpoint of greenhouse gas emissions.

1 Correct?

2 THE WITNESS (Hibbard): Correct, with
3 the caveat that if you read the report you'll see
4 that this scenario requires that energy be
5 deliverable 8,760 hours per year on the
6 transmission line from Canada. And as we were
7 discussing earlier, it's not clear to me that
8 that's the case with the current projects.

9 So in order for it to be a winter
10 reliable -- reliability solution that was a
11 condition of that scenario.

12 MS. CSANK: So thank you. With that
13 caveat your answer is, yes?

14 THE WITNESS (Hibbard): I think I
15 started with yes. Didn't I?

16 MS. CSANK: Very good. No further
17 questions. Thank you so much.

18 THE HEARING OFFICER: Thank you,
19 Counselor. You actually finished right on time.
20 The garage is going to close at 6:30 and I didn't
21 want to interject, but let me wrap this up.

22 The Council announces that it will
23 continue the evidentiary session of this hearing
24 at its office at 10 Franklin Square in New
25 Britain, on Thursday, May 2, 2019, at 11 a.m. in

1 hearing room one.

2 Please note that anyone who has not
3 become a party or intervener but who desires to
4 make his or her views known to the Council may
5 file written statements with the Council until the
6 public comment record closes.

7 Copies of the transcripts of this
8 hearing will be filed at the Killingly, Putnam and
9 Pomfret Town Clerks' offices.

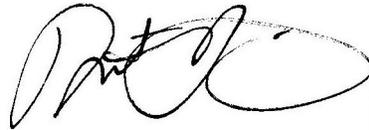
10 I hereby declare this hearing adjourned.
11 Thank you all for your participation. Drive
12 safely and enjoy the weekend.

13
14 (Whereupon the above proceedings were
15 concluded at 6:06 p.m.)
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CERTIFICATE

I hereby certify that the foregoing 299 pages are a complete and accurate computer-aided transcription of my original verbatim notes taken of the Regular Hearing in Re: DOCKET NO. 470B, MOTION TO REOPEN AN APPLICATION FROM NTE CONNECTICUT, LLC, FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF A 550-MEGAWATT DUAL-FUEL COMBINED CYCLE ELECTRIC GENERATING FACILITY AND ASSOCIATED ELECTRICAL INTERCONNECTION SWITCHYARD LOCATED AT 180 AND 189 LAKE ROAD, KILLINGLY, CONNECTICUT, which was held before ROBERT SILVESTRI, The Hearing Officer, at Connecticut Siting Council, 10 Franklin Square, New Britain, Connecticut, Thursday, April 18, 2019.



Robert G. Dixon, CVR-M 857
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My Commission Expires: 6/30/2020

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