

In The Matter Of:
Petition of Nutmeg Solar, LLC

Continued Public Hearing
January 24, 2019

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STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Petition No. 1352

Petition of Nutmeg Solar, LLC for a declaratory
ruling for the proposed construction, maintenance,
and operation of a 19.6 megawatt solar
photovoltaic electric generating facility
generally south of Bailey Road and east of Broad
Brook Road and associated electrical
interconnection to Eversource Energy's Scitico
Substation at 20 Bailey Road in
Enfield, Connecticut.

Continued Public Hearing held at the Public
Utilities Regulatory Authority, 10 Franklin
Square, New Britain, Connecticut, on Thursday,
January 24, 2019, beginning at 12:58 p.m.

H e l d B e f o r e :

SENATOR JAMES J. MURPHY, JR.,
Acting Chairman

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

2

3 Council Members:

4 ROBERT HANNON,

5 Designee for Commissioner Robert Klee

6 Department of Energy and Environmental

7 Protection

8

9 ROBERT SILVESTRI

10 DR. MICHAEL W. KLEMENS

11 EDWARD EDELSON

12

13 Council Staff:

14 MELANIE BACHMAN, ESQ.

15 Executive Director and

16 Staff Attorney

17

18 MICHAEL PERRONE

19 Siting Analyst

20

21

22

23

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

For the Petitioner:

LOCKE LORD LLP

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BY: DAVID W. BOGAN, ESQ.

KATHRYN E. BOUCHER, ESQ.

For the Town of Enfield:

MARK CERRATO, ESQ.

Assistant Town Attorney

Town of Enfield

820 Enfield Street

Enfield, Connecticut 06082

1 THE CHAIRMAN: Ladies and gentlemen,
2 this hearing is called to order this Thursday,
3 January 24, 2019, at approximately 1 p.m. My name
4 is Jerry Murphy. I'm acting chairman of the
5 Connecticut Siting Council.

6 This evidentiary session is a
7 continuation of the public hearing held on January
8 10, 2019, at the Enfield Town Hall in Enfield. It
9 is held pursuant to the provisions of Title 16 of
10 the Connecticut General Statutes and of the
11 Uniform Administrative Procedure Act upon a
12 petition from Nutmeg Solar, LLC for a declaratory
13 ruling that no Certificate of Environmental
14 Compatibility and Public Need is required for the
15 construction, maintenance and operation of a 19.6
16 megawatt solar photovoltaic electric generating
17 facility generally south of Bailey Road and east
18 of Broad Brook Road and associated electrical
19 interconnection to Eversource Energy's Scitico
20 Substation at 20 Bailey Road in Enfield,
21 Connecticut. This petition was received by the
22 Council on October 19, 2018.

23 A verbatim transcript will be made of
24 this hearing and deposited with the Town Clerk's
25 Offices in the Enfield and Somers Town Halls for

1 the convenience of the public.

2 We will continue with the appearance of
3 the petitioner, Nutmeg Solar, LLC. And I believe
4 you have an additional witness that was not
5 available last time, Mr. Bogan.

6 MR. BOGAN: We do, Mr. Chairman. Thank
7 you very much. For the record, on behalf of
8 Nutmeg Solar, LLC, David Bogan, along with Kate
9 Boucher of the law firm of Locke Lord.

10 If the Chair will allow, perhaps what
11 I'll do is authenticate what are identified as
12 Exhibits 10, 11, 12, and then we can swear in the
13 additional witness?

14 THE CHAIRMAN: Either way is fine.

15 MR. BOGAN: Thank you.

16 B R I O N Y A N G U S ,
17 N E I L W A T L I N G T O N ,
18 C H A R L E S A S H E I M ,
19 K E V I N R Y A N ,
20 J O N A T H A N G R A V E L ,
21 K A T E L I N N I C K E R S O N ,
22 M A T T H E W S I N G E R ,
23 B R I A N H U N T L E Y ,

24 called as witnesses, being previously duly
25 sworn by Ms. Bachman, continued to testify on

1 their oaths as follows:

2 DIRECT EXAMINATION

3 MR. BOGAN: Turning, if I could, to Mr.
4 Singer. Good afternoon. Did you assist or
5 oversee the preparation of Late-File Exhibits A,
6 B, C, and D, which are denoted as Exhibits 10 and
7 11 on today's hearing program list?

8 THE WITNESS (Singer): Yes, I did.

9 MR. BOGAN: And Ms. Nickerson, I'd ask
10 you the same question.

11 THE WITNESS (Nickerson): Yes.

12 MR. BOGAN: And Mr. Huntley.

13 THE WITNESS (Huntley): Yes.

14 MR. BOGAN: Do any of you have any
15 changes to make to the information contained in
16 what are marked as Exhibits 10 and 11?
17 Mr. Huntley.

18 THE WITNESS (Huntley): No.

19 MR. BOGAN: Mr. Singer.

20 THE WITNESS (Singer): No.

21 MR. BOGAN: Ms. Nickerson.

22 THE WITNESS (Nickerson): No.

23 MR. BOGAN: And is the information true
24 and accurate to the best of your knowledge and
25 ability? Ms. Nickerson.

1 THE WITNESS (Nickerson): Yes.

2 MR. BOGAN: Mr. Singer.

3 THE WITNESS (Singer): Yes.

4 MR. BOGAN: Mr. Huntley.

5 THE WITNESS (Huntley): Yes.

6 MR. BOGAN: And do you adopt them as
7 your testimony in this proceeding? Ms. Nickerson.

8 THE WITNESS (Nickerson): Yes.

9 MR. BOGAN: Mr. Singer.

10 THE WITNESS (Singer): Yes.

11 MR. BOGAN: Mr. Huntley.

12 THE WITNESS (Huntley): Yes, I do.

13 MR. BOGAN: And then finally what is
14 marked as Exhibit 12, which was Nutmeg Solar's
15 response to a letter submitted by the Town of
16 Enfield, I'd ask the same question. Mr. Singer,
17 did you oversee the preparation of that response?

18 THE WITNESS (Singer): Yes.

19 MR. BOGAN: Mr. Huntley, did you assist
20 in the preparation of that response?

21 THE WITNESS (Huntley): Yes, I did.

22 MR. BOGAN: And Ms. Nickerson?

23 THE WITNESS (Nickerson): Yes.

24 MR. BOGAN: And Ms. Nickerson, starting
25 with you, do you have any changes or corrections

1 to make to the information contained in Exhibit 12
2 for identification?

3 THE WITNESS (Nickerson): No.

4 MR. BOGAN: Mr. Singer.

5 THE WITNESS (Singer): No.

6 MR. BOGAN: Mr. Huntley.

7 THE WITNESS (Huntley): No.

8 MR. BOGAN: And is the information true
9 and accurate to the best of your knowledge?
10 Mr. Huntley.

11 THE WITNESS (Huntley): Yes, it is.

12 MR. BOGAN: Mr. Singer.

13 THE WITNESS (Singer): Yes.

14 MR. BOGAN: Ms. Nickerson.

15 THE WITNESS (Nickerson): Yes.

16 MR. BOGAN: And do you essentially
17 adopt the contents of what's marked as Exhibit 12
18 for identification as your testimony in this
19 matter? Mr. Huntley.

20 THE WITNESS (Huntley): Yes, I do.

21 MR. BOGAN: Mr. Singer.

22 THE WITNESS (Singer): Yes.

23 MR. BOGAN: Ms. Nickerson.

24 THE WITNESS (Nickerson): Yes.

25 MR. BOGAN: I would move Exhibits 10,

1 11 and 12 as full exhibits.

2 THE CHAIRMAN: Is there any objection
3 by any party or intervenor to the admission of
4 these items?

5 (No response.)

6 THE CHAIRMAN: Hearing none, they are
7 so admitted, Mr. Bogan.

8 MR. BOGAN: Thank you.

9 (Petitioner's Exhibits II-B-10, II-B-11
10 and II-B-12: Received in evidence - described in
11 index.)

12 MR. BOGAN: And in keeping with the
13 Chair's reference, we do have one additional
14 witness. That would be Mitchell Thiem.

15 If I could ask, first of all,
16 Mr. Thiem, can you state for the record your name
17 and affiliation with the petitioner?

18 MR. THIEM: My name is Mitchell Thiem.
19 I'm with NextEra, and I work with the engineering
20 construction team.

21 MR. BOGAN: If you want to swear him
22 in, we'll be all set.

23 M I T C H E L L T H I E M,

24 called as a witness, being first duly sworn
25 by Ms. Bachman, was examined and testified on

1 his oath as follows:

2 MS. BACHMAN: Thank you.

3 MR. BOGAN: And with that, the panel is
4 available for cross-examination.

5 THE CHAIRMAN: Mr. Perrone, I
6 understand you have some more questions.

7 MR. PERRONE: Yes. Thank you.

8 CROSS-EXAMINATION

9 MR. PERRONE: At the public comment
10 session held two weeks ago, there was a question
11 regarding greenhouse gas emissions. It was
12 related to the Council Interrogatory Response 45
13 which showed about the equivalent of 2.7 billion
14 miles driven by an average passenger vehicle as
15 being equivalent to the greenhouse gas emissions
16 saved. My question is, the numbers in that
17 exhibit, is that based on the full 20 years of
18 operation?

19 THE WITNESS (Singer): Just a moment
20 while I reference Interrogatory 45.

21 MR. PERRONE: Yes.

22 THE WITNESS (Singer): And could you
23 repeat the statistic?

24 MR. PERRONE: Sure. Under revised
25 Exhibit 45, which is the greenhouse gas

1 equivalency calculator, near the top it shows the
2 miles driven by an average passenger vehicle which
3 is just about 2.7 billion. Are these numbers
4 based on 20 years of full operation?

5 THE WITNESS (Singer): Yes, they're
6 based on the 20 years that were used as the basis
7 for the greenhouse gas life cycle analysis, which
8 was Exhibit M of the original petition.

9 MR. PERRONE: In that approximately 1.1
10 million metric tons of CO2 equivalent at the top
11 of the page, that basically came from page 6 of
12 that analysis where you had the emissions based on
13 an equivalent natural gas plant, and then you
14 deducted the emissions of the proposed. Is that
15 correct?

16 THE WITNESS (Singer): Yes, that's
17 correct.

18 MR. PERRONE: Also at the public
19 comment session there were some comments regarding
20 vegetative screening, and there was a discussion
21 about an existing gap in screening along Broad
22 Brook Road. And with that, as part of the
23 proposed project, how would the visibility from
24 Taft Lane be affected? Taft Lane is off to the
25 west on Figure 7.

1 THE WITNESS (Singer): We do not have
2 photo simulations from the view from Taft Lane, so
3 I wouldn't be able to speak to what the view would
4 be from there. I do want to note, however, that
5 the original concerns of the residents on Taft
6 Lane from the abutter events and public meetings
7 that we did hold for the project were related to
8 the array that was originally sited on the western
9 side of Broad Brook Road. And that has since been
10 removed, so we're just on the east side of the
11 road, partially due to that feedback we received.

12 THE WITNESS (Angus): If I could add to
13 that. To the east of the residences on Taft Lane,
14 there is a large swath of existing vegetation
15 which is not proposed to be affected as part of
16 this project. As you get towards the north where
17 there is no vegetation between the array and the
18 houses, that's where we have a number of existing
19 tobacco barns and buildings that are proposed to
20 remain, and I don't anticipate that the view will
21 be significantly different than it is today.

22 MR. PERRONE: Is that the reason why
23 there were no plantings in the center part of the
24 project along Broad Brook?

25 THE WITNESS (Angus): Correct. The

1 plan for vegetative screening was primarily
2 intended to mitigate impacts to residential
3 abutters or receptors that would have a direct
4 view of the project.

5 MR. PERRONE: Also regarding the
6 response to the town comments actually dated the
7 23rd, on page 3 there's a mention of invasive
8 species control. My other question related to
9 that would be, would poison ivy be an expected
10 invasive species encountered at the site?

11 THE WITNESS (Nickerson): Poison ivy
12 does exist at the site, so yes, it could be
13 encountered.

14 MR. PERRONE: Would the invasive
15 species control plan also mitigate that?

16 THE WITNESS (Nickerson): Yes.
17 However, I don't know, is invasive species listed
18 as -- I mean is poison ivy listed as an invasive
19 species in Connecticut is a question that I don't
20 know the answer to. I don't believe it is.

21 MR. PERRONE: I'll move on. Moving on
22 to the Late-Filed exhibits. If the area around
23 the vernal pool were to be filled, could the solar
24 facility be redesigned such that with that area
25 filled and cleared you could move some solar

1 panels into that area and take them out of that
2 southern rectangular area, or perhaps other areas
3 with steep slopes?

4 THE WITNESS (Singer): Just to clarify,
5 the southern rectangular area you're referring to?

6 MR. PERRONE: Sure. On Figure 7 this
7 would be all under what they call the eastern
8 array. In the far southern part of the eastern
9 array there's a rectangular section that extends
10 off. Could panels be taken from that section and
11 moved into the vernal pool area if the vernal pool
12 were to be filled?

13 THE WITNESS (Singer): So we analyzed
14 if the vernal pool was filled on the placement of
15 panels in this area. And what we ended up
16 determining through this initial analysis is that
17 there would be an incremental gain in panels;
18 however, more clearing would need to be associated
19 with the project because what you have is the tree
20 line would then be on steeper slopes,
21 approximately 20 percent and above, that would be
22 east of the array, and then the shading to the
23 panels would be increased, so we would need an
24 increased setback.

25 MR. PERRONE: Also with this

1 hypothetical scenario, if you had the panels in
2 the vernal pool area, how would that affect
3 visibility of the project from nearby residences?

4 THE WITNESS (Singer): We do believe,
5 because the current plan to selectively maintain
6 vegetation around the vernal pool would maintain
7 the tree line, that it would increase some
8 visibility to the project's eastern array.

9 MR. PERRONE: And lastly one other
10 question on that topic. How would that also
11 affect hydrology from a stormwater perspective?

12 THE WITNESS (Huntley): We would need
13 to redesign the stormwater. Certainly it could be
14 accommodated with a redesign to address the
15 additional runoff from the vegetation conversion
16 in these areas, specifically during the
17 construction phase.

18 MR. PERRONE: And I just have a few
19 clean-up questions in a few other areas. Exhibit
20 Q, which is the acoustic study, I see a daytime
21 sound limit for residential areas of 55 dBA. Is
22 that based on which class of emitter for the
23 proposed project, A, B or C?

24 THE WITNESS (Singer): Is there a
25 specific page reference in Exhibit Q?

1 MR. PERRONE: The first page which the
2 55 dBA is mentioned at the bottom of that page.

3 THE WITNESS (Singer): And I'm sorry,
4 could you repeat the question in relation to the
5 55 dBA?

6 MR. PERRONE: Sure. Taking that as a
7 standard, is that based on which class of emitter
8 for the proposed facility, would the facility be a
9 Class A emitter, or B, or C?

10 THE WITNESS (Singer): We don't have
11 that information at this time.

12 MR. PERRONE: Okay. I'll move on. But
13 the nearby residential areas that are mentioned in
14 Table 1, those are all Class A, is that correct,
15 or treated as Class A for the purpose of analysis?

16 THE WITNESS (Huntley): I believe that
17 that is the case, but at this point I'm not 100
18 percent positive based on the documents that are
19 in front of me.

20 MR. PERRONE: Okay. Turning to CSC-32,
21 which is in the first set, this was the question
22 relating to the interconnection and the
23 modifications to the Eversource substation. In
24 that response the petitioner expects that the
25 equipment and modifications at the substation

1 necessary to accommodate the interconnection would
2 be considered as part of the D&M plan. Would the
3 underground transmission line also be included
4 with that?

5 THE WITNESS (Singer): Yes. In
6 coordination with Eversource, it's our intent that
7 the underground transmission line would be part of
8 that.

9 MR. PERRONE: And with the excavation
10 involved for that transmission line and other
11 substation work, would you expect any impact to
12 water quality?

13 THE WITNESS (Singer): As Eversource
14 Energy will be performing that work, I don't
15 believe I'm in a position to answer that.

16 MR. PERRONE: One general question:
17 Where would the power generated from the facility
18 go?

19 THE WITNESS (Singer): In essence, the
20 power from the facility will be collected at the
21 collector substation, which will be located
22 adjacent to Eversource's existing Scitico
23 Substation, and the underground transmission line
24 will bring it over to the 115 kilovolt breaker bay
25 at Scitico Substation, which will serve as the

1 point of interconnection at which the project's
2 energy is delivered to the ISO New England grid.

3 MR. PERRONE: And one last question on
4 the electrical topic. I know at the last hearing
5 there was some discussion about the AC/DC ratio.
6 Is it correct to say that the DC megawatts is
7 generally greater than AC for a solar facility?

8 THE WITNESS (Singer): Yes.

9 MR. PERRONE: Is the reason that it's
10 larger on the DC side so that the inverters have
11 sufficient power to operate under lower light
12 conditions?

13 THE WITNESS (Asheim): That's correct.

14 MR. PERRONE: So the difference between
15 the DC megawatts and the AC megawatts is not
16 really a loss, per se, it's power that isn't
17 captured. Is that fair to say?

18 THE WITNESS (Asheim): Correct.

19 MR. PERRONE: Thank you. That's all I
20 have.

21 THE CHAIRMAN: Thank you, Mr. Perrone.

22 Turning back to the poison ivy, I'm one
23 of those that doesn't know whether it's an
24 invasive species or not. But when we treat -- the
25 obligation to control invasive species, if it is

1 not an invasive species in Connecticut, is there
2 any problem with our adding on poison ivy to
3 invasive species?

4 THE WITNESS (Singer): No, we do not
5 have issue with treating it as an invasive species
6 for the purpose of vegetation management on site.

7 THE CHAIRMAN: Okay. Thank you very
8 much.

9 We'll now turn to other Council
10 members. We've been around once, but, Dr.
11 Klemens, any questions to follow up?

12 DR. KLEMENS: Yes, I do. And I'm going
13 to start, actually, with the poison ivy. Does
14 poison ivy, although undesirable for humans at
15 times, have actual benefits for wildlife?

16 THE WITNESS (Nickerson): Yes.

17 DR. KLEMENS: Would you say that
18 actually the fruits of the poison ivy are actually
19 an important food resource for wildlife?

20 THE WITNESS (Nickerson): It could be a
21 resource for birds and other wildlife that eat
22 berries.

23 DR. KLEMENS: Thank you. Okay.
24 Mr. Perrone very kindly covered some of where I
25 was going to go on this whole issue with the

1 redesign, but I want to direct your attention --
2 so I'm changing what I was going to ask because
3 Mr. Perrone covered a lot of it.

4 Let's look at this triangular, rather
5 rectangular block of land that is in Tab 1 that
6 you have submitted. And apparently the site there
7 is so steep that it was impossible to actually dig
8 archeological test pits on certain areas. Is that
9 correct?

10 THE WITNESS (Angus): In that area the
11 slopes are in excess of 7 percent, which based on
12 input from Nutmeg Solar's historic resources
13 consultant, is the industry standard cutoff for
14 where one may expect to find subsurface
15 archeological artifacts. The slopes in that area
16 are generally up to 15 percent, which is suitable
17 for installation of solar panels. So there's two
18 different limits there.

19 DR. KLEMENS: Well, let me ask you
20 something else. I'm looking at your map. What is
21 at the very bottom of the tab, what is that little
22 green area, wooded area? I guess what I'd like to
23 know is how far is that rectangle that you're
24 proposing to put solar on to the edge of the
25 buttonbush shrub swamp which has been documented

1 as being an important vernal pool resource, what
2 is the linear footage?

3 THE WITNESS (Nickerson): We didn't
4 survey that wetland or delineate the boundary, so
5 we can't say exactly the linear footage of the
6 project limits to that wetland.

7 DR. KLEMENS: Can you make a rough
8 estimate based on do you have other maps, I mean,
9 are we 100 feet, 500 feet?

10 THE WITNESS (Ryan): So I looked at the
11 National Wetlands Inventory polygon for that
12 wetland and in GIS created the vernal pool
13 envelope and then the 750 foot critical
14 terrestrial habitat. And from looking at that,
15 this project, as designed, will not affect greater
16 than 25 percent of the critical terrestrial
17 habitat, actually, I believe, significantly less.

18 DR. KLEMENS: That's very helpful, Dr.
19 Ryan. But tell me, does the 750 foot outer limit
20 of the pool extend into this steep area?

21 THE WITNESS (Ryan): I can't say
22 definitively at the moment, but we could find that
23 out relatively shortly.

24 DR. KLEMENS: That would be very
25 helpful. Because why I began this line of

1 questioning last time for redesign, moving the
2 solar panels into what I pretty much concluded is
3 primarily a sink for vernal pool species, is
4 because I have a great deal of concern with
5 managing stormwater runoff on steep slopes that
6 are proximal to vernal pools. And you may be
7 aware or not that we've had two petitions with
8 stormwater failure, 1056 in East Lyme, and 1178 in
9 Sprague. And although the vernal pools were
10 actually not on site, in large part, runoff from
11 catastrophic stormwater failure affected both
12 those vernal pools primarily by saltation.

13 So that was what I was trying to get
14 past with this triangle of land is that -- but why
15 don't you comment on that. I shouldn't be putting
16 stuff into the record. You should be responding
17 to my questions.

18 THE WITNESS (Huntley): My response to
19 that would be that we have designed the both
20 construction phase and post-construction phase
21 stormwater controls for the project site in
22 accordance with the construction general permit.
23 We have received a permit from DEEP on those
24 projects. And it's our anticipation that the
25 measures that have been put into place from a

1 design point of view for those measures will
2 control the stormwater runoff for the entire
3 project area.

4 DR. KLEMENS: Wouldn't you feel under a
5 precautionary principle as that area is so steep
6 and there's another place on the site that moving
7 some of those arrays off the steep wooded slope
8 proximal, whether it's within 750 feet or not,
9 that could affect receiving waters, would be a
10 more precautionary way to deal with it,
11 particularly as we are now in a situation where we
12 have continual storms that exceed all expectations
13 for runoff?

14 THE WITNESS (Huntley): So our approach
15 to the review that we've done since the last time
16 we were together in looking at potential redesign
17 of the site included many factors, including the
18 clearing, development and stabilization of the
19 relatively steep slopes that are upgradient of the
20 sink vernal pool, as you describe it, as well as,
21 as Mr. Perrone indicated, the potential for some
22 visual impact or changes to the visual impact of
23 the project. Based on all of those factors, we
24 decided that the benefits of relocating that area
25 didn't outweigh the risks that were associated

1 with what we saw for those, or the benefits of the
2 redesign on the project.

3 Further, the areas that we're talking
4 about that are graded towards the south are not
5 the steepest areas. Where we're looking at this
6 development at this clearing, the grades are less
7 than 15 percent slope, and we do have stormwater
8 swales, directional swales, and basins that are
9 part of that design to give a final protection
10 prior to any discharges off the site, in addition
11 to a very aggressive construction phase, temporary
12 and permanent stabilization plan that was part of
13 the submittal to DEEP for the stormwater permit.

14 DR. KLEMENS: Let's take the visual
15 impacts and put them to one side because, at least
16 from my perspective, though it's very nice to try
17 to mitigate visual impacts, our remit on these
18 petitions is really quite narrow, and protection
19 of water is one of them.

20 So, if we can forget about, you know,
21 it would be nice to screen it, I saw an awful lot
22 of land out there by the vernal pool all the way
23 down to the edge of the field. I was not
24 advocating going up that steep slope behind the
25 vernal pool. And there was about half the vernal

1 pool corridor, protection corridor, was very
2 moderately graded. I just sort of took, roughly
3 moved your rectangle, and I saw it fitting in
4 there.

5 Now, admittedly, you're going to have
6 shading issues. Possibly you can top some trees,
7 as you were planning to do anyway, to get the
8 shading, but I'm not moved by the fact that you
9 cannot relocate a significant portion of that
10 rectangle into that spot.

11 MR. BOGAN: I'm sorry, Dr. Klemens. Is
12 there a question?

13 DR. KLEMENS: Yes, there is a question.
14 I've told you what my -- tell me why I'm wrong.
15 That's my question. Thank you, Attorney Bogan.
16 Just tell me why that statement is incorrect.

17 THE WITNESS (Huntley): The analysis
18 that we did that if we do fill in that vernal pool
19 to allow for the additional panels in the area, as
20 you've described, west of the vernal pool
21 location, we gain approximately three acres of
22 land which doesn't offset all of the area that
23 you've described in the rectangle.

24 That said, the clearing and the impact
25 that would be associated easterly of those panels,

1 if they were relocated to that area, because the
2 grades on the existing topography are between 20
3 and 25 percent, would require significantly more
4 grading on that hillside -- I'm sorry, more
5 clearing on that hillside, not grading. And the
6 concern being that that is an established
7 vegetated area, and as the hillside -- as you
8 climb and grade on the hillside with the trees
9 growing on that area, the shading impact is even
10 larger, so it requires even more clearing as you
11 get further away because your grade is rising as
12 well.

13 So it's our opinion that that
14 additional amount of clearing and the additional
15 amount of land impact isn't viable or isn't worth
16 the risks that are associated with the clearing on
17 those steeper areas that would require to relocate
18 the panels to the relatively flat areas between
19 that vernal pool and the edge of the existing
20 fields now.

21 DR. KLEMENS: So how many -- in this
22 rectangle how many arrays do you have in that
23 rectangle?

24 THE WITNESS (Huntley): I can't say
25 that based on what we have --

1 DR. KLEMENS: Where I'm going with this
2 is, how many could you relocate from the very end
3 of that rectangle? Could you shrink that
4 rectangle, relocate by filling, and not have to go
5 through all the clearing and make better use of
6 the land, make that rectangle smaller, further
7 away from the vernal pool, less steep slope
8 clearing there?

9 THE WITNESS (Singer): So while we
10 can't say -- we can't quantify exactly the amount
11 of panels in the area you're talking about that
12 could be relocated, there certainly is a certain
13 amount that would be able to be moved. Our
14 concern is the down -- I mean amongst a few
15 concerns is the downstream effects of potential
16 change in stormwater runoff which, along with the
17 NDDB, DEEP's concurrence with the approach to the
18 mitigation for the vernal pool, may jeopardize the
19 project's timeline if we were to go through the
20 redesign and recertifications associated with
21 that.

22 DR. KLEMENS: NDDB signed off on this
23 vernal pool protection plan?

24 THE WITNESS (Nickerson): Correct.

25 DR. KLEMENS: Or herpetofauna avoidance

1 plan.

2 THE WITNESS (Nickerson): The
3 concurrence letter is provided in Exhibit D in the
4 Environmental Site Conditions Report.

5 DR. KLEMENS: I did not bring the whole
6 binder.

7 THE WITNESS (Nickerson): Exhibit D,
8 appendix D.

9 DR. KLEMENS: Anyway, let's move on. I
10 just would like you to please look at relocating
11 some of that in that area. I'm looking at an
12 awful lot of land, and I don't see why it can't be
13 accomplished. And when you say about stormwater
14 management, engineers have always prided
15 themselves on being able to manage stormwater.
16 I'm actually concerned about the stormwater
17 management on the rectangle. But let me go to one
18 other issue, a very simple question.

19 On the transcript on page 83, lines 21
20 and 22, Mr. Bogan agreed that Mr. Quinn's CV
21 should be incorporated into the record, and yet
22 apparently was not submitted in the materials that
23 were distributed to the Council. And why is that?

24 THE WITNESS (Singer): In the
25 preparation for the hearing, we had focused on the

1 Late-File exhibits requested. In addition, we had
2 an internal discussion, and Mr. Quinn had
3 performed two days of field work for the project,
4 which individuals working on the project with
5 comparable contributions also have not been listed
6 in some respects. However, if the Council would
7 like, we are prepared to provide his resume as
8 early as today.

9 DR. KLEMENS: Well, I'm kind troubled,
10 actually, that there are things that you commit to
11 in an evidentiary hearing, and now you're telling
12 me you decided not to do them. Is that what I'm
13 hearing? I mean, it was a pretty firm commitment.
14 We went through a whole discussion with Dr. Ryan
15 about not only was 20 percent of the work done,
16 but also relied heavily on Mr. Quinn's work
17 elsewhere in the state for contemporaneous
18 comparison to arrive at the conclusion that the
19 eastern spade foot were not present on the site.
20 This didn't seem to be a problem. I was expecting
21 to see it. I don't know, do you actually look at
22 the transcript, or you just rely on the letter
23 that was sent to you, because there were things
24 that you committed to in the transcript.

25 MR. BOGAN: If I may? Dr. Klemens, a

1 valid point. And if there's an error, shame on
2 me. The request that you made was not a specific
3 Late-File request, but you are correct that I said
4 it is something that we could produce. I think
5 Mr. Singer has indicated why subsequent to the
6 hearing it was determined it wasn't appropriate.
7 However, if you feel that strongly about it, he's
8 indicated we're certainly prepared to do that
9 today.

10 DR. KLEMENS: I felt strongly about it
11 last time.

12 MR. BOGAN: But it wasn't designated as
13 a Late-File.

14 DR. KLEMENS: And we talked about it
15 being incorporated into the record.

16 So anyway, I have no further questions
17 except that I'm troubled by some of the
18 deviations. To me the governing document is the
19 transcript, not what you receive otherwise. Thank
20 you.

21 THE CHAIRMAN: I assume you still want
22 the resume?

23 DR. KLEMENS: Yes, I would. I think
24 it's -- Dr. Ryan agreed that was totally
25 appropriate.

1 THE CHAIRMAN: I assume, counselor,
2 that it will be forthcoming.

3 MR. BOGAN: Mr. Chairman, it is here,
4 and we can make it available now, and it will be
5 filed on the record today.

6 DR. KLEMENS: Thank you, Mr. Chairman.
7 I have no further questions.

8 THE CHAIRMAN: Mr. Silvestri, do you
9 have questions?

10 MR. SILVESTRI: Thank you,
11 Mr. Chairman. I did want to follow up slightly to
12 what Mr. Perrone and Dr. Klemens were asking you
13 about that triangular area. The related question
14 I had is, could some of the panels on the western
15 array, either in the center portion or the
16 southern portion of the array, actually be pushed
17 into that area to give you more of a buffer on
18 Broad Brook Road?

19 THE WITNESS (Singer): To clarify, the
20 relocation of panels from the western array to
21 that area being the current directional buffer
22 that we have related south to the vernal pool that
23 separates the eastern and western array?

24 MR. SILVESTRI: Correct.

25 THE WITNESS (Singer): While it is

1 possible, in the same respect to my previous
2 answer, to relocate some quantity of panels, the
3 same concerns are in play of deviating from the
4 already-approved avoidance and mitigation plan
5 from NDDB, as well as the stormwater general
6 permit with one addition here of really the most
7 suitable land for solar development throughout the
8 project is in that western array where you
9 essentially have flat fields.

10 MR. SILVESTRI: Then a comment was made
11 earlier, and I wasn't sure if the word "shading"
12 or "screening" came up in relation to either
13 Mr. Perrone or Dr. Klemens's question about moving
14 that triangle, or rectangle, rather, into the
15 triangle. The general question I have: If you
16 did more tree clearing in that triangular area,
17 wouldn't that benefit you from the standpoint that
18 the triangle goes north and south, the sun goes
19 east and west, getting rid of more trees generally
20 in that area would give you more sunlight across
21 that whole array?

22 THE WITNESS (Huntley): The design of
23 the system right now, or the array that we're
24 proposing, includes a level of clearing along the
25 eastern edge of that field, which would be the

1 western limit of that vegetated area between the
2 eastern and western array where we've already
3 essentially maximized or designed a system output
4 that is provided and associated with the tree
5 heights that are existing that would remain.

6 The concern is, is that if we were to
7 push the western array further towards the east,
8 that's where the topography climbs, and as the
9 topography climbs, it requires even more clearing
10 to be able to address the shading that's
11 associated with those existing trees.
12 Essentially, on the east and west side of an array
13 we use an approximately 3 to 1 ratio where if --
14 you know, whatever the height of your tree is,
15 three times that is what it will throw for a
16 shadow. And the height of those trees, even if
17 the trees themselves are the same height, as they
18 climb in the topography, it's more of an impact to
19 the tree clearing that's required for the shading.

20 So I think the answer to your question
21 is, if we didn't include anymore panels to the
22 east but cleared more to the east, there would be
23 less shading; however, the clearing that we have
24 shown and have proposed is what we've included in
25 our design and in our modeling. So we're not

1 looking to get additional clearing or additional
2 production based on the array layout that we have.

3 MR. SILVESTRI: Can I clarify by saying
4 that if you move the western arrays slightly to
5 the east, you're now on more of a slope rather
6 than being flat and that you're going to lose
7 power that way?

8 THE WITNESS (Huntley): Correct, or we
9 would require to have additional clearing in the
10 direction to maintain the same output.

11 MR. SILVESTRI: Got you. Thank you.

12 Going back to Broad Brook Road and what
13 Mr. Perrone had brought up earlier about the
14 vegetative screening, right now it's proposed that
15 the screening would basically end near barns 4 and
16 5 on Broad Brook Road but not go further north.
17 And why is that again?

18 THE WITNESS (Singer): The reason being
19 primarily that we selected the areas for the
20 vegetative screening based on the viewsheds for
21 direct abutters. And as part of the photo
22 simulations we completed from our analysis, there
23 would be limited to no direct abutter views in
24 that area that remains unvegetated.

25 MR. SILVESTRI: And no concern about

1 travel going back and forth looking in that
2 direction?

3 THE WITNESS (Singer): There would be.
4 Vehicle travel on Broad Brook Road would have a
5 view of the project in that area, yes.

6 MR. SILVESTRI: All right. Let me
7 leave that one for now. Let me have you go to
8 your Exhibit 12, which is the January 23rd letter
9 that came in. And if you could, turn to page 3.
10 At the very top of the page it says, "In addition,
11 approximately 3,798 feet of wide-mesh agricultural
12 fencing is proposed along the project's western
13 boundary." What is wide-mesh agricultural
14 fencing?

15 THE WITNESS (Angus): I believe, if one
16 of my colleagues can find the appropriate exhibit
17 of the petition where the spec sheet was, this is
18 fencing that has been selected to be more in
19 character with the agricultural surroundings. It
20 is, compared to chain-link fencing, has literally,
21 as it sounds, a wider mesh, and it's used more in
22 agricultural contexts.

23 THE WITNESS (Huntley): This is
24 essentially what would be referred to as a stock
25 wire as opposed to a chain link. So it's more of

1 an agricultural look, but it will provide the same
2 requirements that are needed with the National
3 Electric Code to provide security for the project.
4 The intention is that it's more in character with
5 the surrounding area than a chain link fence would
6 be in those locations.

7 MR. SILVESTRI: When you said "stock
8 wire," now I can picture what it's supposed to
9 look like. Thank you.

10 Go further down on that page, if you
11 will, under "Well Water Protection." The very
12 last sentence says, "As such, if approved, the
13 project will likely decrease the use of pesticides
14 and herbicides on the project site." My question
15 is the word "pesticides." Would pesticides
16 actually be used?

17 THE WITNESS (Singer): We're not
18 proposing to use pesticides, only herbicide
19 applications in a targeted manner is what's
20 proposed.

21 MR. SILVESTRI: Thank you.

22 That's all I have, Mr. Chairman. Thank
23 you.

24 THE CHAIRMAN: Thank you.

25 Mr. Hannon, do you have any questions?

1 MR. HANNON: Thank you. Just to follow
2 up on the same document but going towards the last
3 page. Under "Noise" in section A it talks about
4 the petitioner proposes to limit pile driving
5 construction activities from 9 to 5. If you go
6 down to B, it starts talking about the auger
7 piles, things of that nature.

8 So are you saying that the entire site
9 would be the pole driving, or would there also be
10 some augering, you've got to offset the hours when
11 using the auger? So I'm trying to get a better
12 understanding as to just exactly what you're
13 proposing here.

14 THE WITNESS (Singer): We're proposing
15 that the entire site for the post-installation
16 would be the pile driving technique with I-beam
17 posts, and that auger pile technique would not be
18 used. And that we would limit the hours of that
19 pile driving installation between the hours of 9
20 a.m. to 5 p.m.

21 MR. HANNON: What days of the week?

22 THE WITNESS (Singer): So on days that
23 we're working, so that would be Monday through
24 Friday, and then Saturdays, as needed, as
25 originally proposed in the petition -- I'm sorry,

1 in the interrogatory response.

2 MR. HANNON: You said Saturdays as
3 needed?

4 THE WITNESS (Singer): Correct. It
5 wouldn't be our initial plan in the construction
6 schedule to work on Saturdays; however, based on
7 weather and other unforeseeable events, we feel
8 strongly about retaining the optionality to have
9 the ability to work on Saturdays in order to keep
10 the schedule, meet project milestones, such as the
11 desired commercial operation date.

12 MR. HANNON: The reason I was asking is
13 because it wasn't clear in here that you might
14 also be looking for that. You could read into it
15 Monday through Friday. So I just wanted to get
16 clear on that.

17 A general comment: In talking about
18 pollinator species, was that site-wide rather than
19 in a specific location? Because if you're talking
20 about, what, 54 percent of the site, if I'm
21 reading that correctly, so it looks like it would
22 be pretty wide covered, or is that limited to some
23 of the buffer areas?

24 THE WITNESS (Angus): Those
25 calculations reflect proposed plantings in the

1 landscaping screening area, and then in certain
2 areas where grading is proposed, along the
3 internal access road we have additional plantings
4 as well.

5 MR. HANNON: Okay. Thank you. I have
6 no other questions.

7 THE CHAIRMAN: Thank you. Ed, go
8 ahead.

9 MR. EDELSON: Thank you, Mr. Chairman.
10 In the public hearing there was one
11 statement that caught my interest, and I'd
12 appreciate your response to it, indicating that
13 letting the land remain fallow for 20 years or so
14 would actually improve the quality of the land
15 going forward. And I know you've addressed the
16 plantings that would be done underneath all of the
17 panels.

18 Was that part of the benefit analysis
19 that you did that the land would be in better
20 shape? I guess I first should ask if you concur
21 with that feeling that the land would have higher
22 agricultural value towards the end of this
23 project?

24 THE WITNESS (Singer): We do concur
25 with that statement that the agricultural land,

1 after not being depleted in nutrients through an
2 agricultural site, would be in better shape at the
3 end of the project life. I would like to clarify,
4 when you say the benefit cost analysis, would that
5 be the greenhouse gas emission analysis?

6 MR. EDELSON: Right. I mean, yes.

7 THE WITNESS (Singer): No, that is not
8 included in the benefits calculated there.

9 MR. EDELSON: So related to
10 decommissioning, let me back up and just say we
11 often think of these projects, solar versus
12 farming, as substitutes; you can do one or the
13 other. What caught my attention was the fact that
14 that speaker indicated they might actually be
15 compliments.

16 And I think my question is, in terms of
17 decommissioning, which I usually think of as get
18 rid of everything that's there on the site, as a
19 percentage, how much of the infrastructure that's
20 put or is installed could be reutilized at another
21 site? I realize the solar panels themselves
22 degradate over time, but there's a lot of other
23 equipment, or I should say infrastructure building
24 there. Any sense of percentage wise what could be
25 reused, or does decommissioning really mean

1 demolish what's there and really just have to
2 recycle it in some way or just bury it?

3 THE WITNESS (Huntley): I think that
4 our hope would always be that reuse is the first
5 line within recycling, but we, you know, don't
6 know exactly what the technology will be, what the
7 situation of energy will be in 20 to 30 years from
8 now, to be able to say whether or not the racking
9 could be removed and reused, or whether the metals
10 in these would just be recycled if that's the
11 highest and best use.

12 MR. EDELSON: So they're not designed,
13 if you will, with a -- the racks are really
14 designed with the same life span as the panels as
15 far as the project economics are concerned?

16 THE WITNESS (Singer): So there
17 certainly is a possibility that the racking
18 equipment could have a useful life beyond the
19 30-year project life design. The 30 years is very
20 well correlated with the panel degradation.

21 MR. EDELSON: Right. But again, I
22 think from an economic point of view that was not
23 considered that the racks could have a longer life
24 span, they're basically, I think I'm hearing in
25 your analysis, zero value at the end of 30 years?

1 THE WITNESS (Huntley): That's correct.
2 We would say, you know, either no value, or at
3 that point we would consider them as salvage value
4 or scrap value.

5 MR. EDELSON: From what we know right
6 now?

7 THE WITNESS (Huntley): Correct.

8 MR. EDELSON: Thank you for that
9 information. Thank you, Mr. Chairman.

10 THE CHAIRMAN: Thank you.

11 Mr. Silvestri has indicated to me that
12 he has an additional question. Mr. Silvestri.

13 MR. SILVESTRI: Thank you, Mr.
14 Chairman.

15 In light of the weather that we had at
16 the beginning of the week, how do you deal with
17 ice on the solar panels?

18 THE WITNESS (Singer): If I may take a
19 second, I'd like to refer to an interrogatory
20 where I believe we spoke about this.

21 MR. SILVESTRI: I saw snow, and I don't
22 recall seeing ice.

23 THE WITNESS (Singer): On Interrogatory
24 Response 68, we refer to how the structural
25 integrity of the racking system is to account for

1 both snow and ice. In terms of panel performance,
2 it would generally be the same approach that as
3 the sun rises during the day and the photovoltaic
4 cells receive sunlight, it would create the
5 current, create warmth, which would allow the ice
6 to slide off. In addition, we account for in our
7 energy production analysis soiling where there is
8 layers of snow or ice that do remain on the
9 panels.

10 MR. SILVESTRI: So getting back to the
11 ice part, you're going to let nature take its
12 course?

13 THE WITNESS (Singer): Correct.

14 MR. SILVESTRI: Thank you.

15 Thank you, Mr. Chairman.

16 THE CHAIRMAN: Thank you.

17 Dr. Klemens, you had some follow-up.

18 DR. KLEMENS: Just one additional
19 question on the fence, and maybe it's in here
20 somewhere. This stock fence, which I'm familiar
21 with, are you going to raise it 6 inches off the
22 ground to allow larger wildlife, such as snapping
23 turtles and things, to move through because I
24 don't think they can move through the stock fence?

25 THE WITNESS (Singer): Yes. There will

1 be a 6-inch wildlife gap at the bottom of the
2 agricultural fence.

3 DR. KLEMENS: I wasn't sure if it was
4 in the application. Thank you.

5 THE CHAIRMAN: Mr. Hannon has a
6 follow-up.

7 MR. HANNON: It's sort of a follow-up
8 to Mr. Silvestri's line of questioning. We have
9 had 3-foot snowstorms around here for a while, and
10 sometimes you get that really nasty weather coming
11 in from the north, you get the snow, everything
12 freezes. So if you end up having a pretty
13 significant pile of snow at the foot of all the
14 panels, do you still anticipate that you're going
15 to be able to get a lot of the snow and ice off
16 the panels naturally? Because if they don't have
17 a spot where they can drop to the ground with 2
18 feet of clearance, how are you going to remove the
19 snow off the panels, or has that all been
20 calculated into the power generation numbers?

21 THE WITNESS (Singer): That's been
22 calculated into our power generation numbers. In
23 addition, if there was maintenance or the
24 operating technician did need to get into the area
25 in order to access that row, they would plow

1 through, which I think would also serve the
2 function of creating space for the snow to then
3 fall off the panel.

4 MR. HANNON: Okay. Thank you.

5 THE CHAIRMAN: Further questions?

6 Mr. Perrone, do you have anything else?

7 MR. PERRONE: No, I don't. Thank you.

8 THE CHAIRMAN: Any other Council
9 member?

10 (No response)

11 THE CHAIRMAN: If not, before we move
12 on, let me just state for the record that the
13 applicant has filed with the Council copies of the
14 resume of Dennis P. Quinn.

15 I understand that the town is going to
16 waive its cross-examination?

17 MR. CERRATO: That's correct, sir. We
18 would just simply request that our letter of
19 January 16th be entered.

20 THE CHAIRMAN: With that, then we'll
21 move to the case in chief of the town which is
22 rather limited in this particular instance.

23 MR. BOGAN: No objection by the
24 petitioner.

25 THE CHAIRMAN: No objection to it being

1 admitted?

2 MR. BOGAN: No objection, Mr. Chairman.

3 (Town of Enfield Exhibit III-B-2:
4 Marked for identification - described in index.)

5 MR. BOGAN: If I may, one
6 administrative matter. There was a question that
7 was raised earlier regarding Exhibit Q and the
8 noise level. I think it was Mr. Perrone. And
9 Mr. Singer may have indicated that we did not have
10 that information at the time but we could get it
11 shortly. I believe we may have the information.

12 THE CHAIRMAN: We'll take it then.

13 THE WITNESS (Angus): Mr. Perrone, your
14 question was about the class of the receptors and
15 class of the project. I've confirmed with our
16 acoustic study expert that they are both Class A.

17 MR. BOGAN: Thank you, Mr. Chairman.

18 MR. PERRONE: Thank you.

19 THE CHAIRMAN: So if the town has
20 nothing further, I think we're about ready to
21 close up.

22 MR. CERRATO: Nothing further, sir.

23 MR. BOGAN: May I have one moment?

24 THE CHAIRMAN: Yes.

25 (Off the record discussion.)

1 MR. BOGAN: Nothing further. Thank
2 you, sir.

3 THE CHAIRMAN: Thank you. With that,
4 we will close this hearing.

5 Before closing this hearing, the
6 Connecticut Siting Council announces that briefs
7 and proposed findings of fact may be filed with
8 the Council by any party or intervenor no later
9 than February 23, 2019. The submission of briefs
10 or proposed findings of fact are not required by
11 the Council, rather we leave it to the choice of
12 the parties and the intervenors.

13 Anyone who has not become a party or
14 intervenor, but who desires to make his or her
15 views known to this Council, may file written
16 statements with the Council within 30 days hereof.

17 The Council will issue draft findings
18 of fact, and thereafter parties and intervenors
19 may identify errors or inconsistencies between the
20 Council's draft findings of fact and the record.
21 However, no new information, no new evidence, no
22 argument, and no reply briefs without our
23 permission, will be considered by the Council.

24 Copies of the transcript of this
25 hearing will be filed with the Town Clerks of

1 Enfield and Somers.

2 I hereby declare this hearing
3 adjourned. I thank you for your participation,
4 and especially today. Drive safely.

5 MR. BOGAN: Thank you, sir.

6 (Whereupon, the witnesses were excused
7 and the hearing adjourned at 1:56 p.m.)

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1 CERTIFICATE

2
3 I hereby certify that the foregoing 47 pages
4 are a complete and accurate computer-aided
5 transcription of my original stenotype notes taken
6 of the Continued Hearing in Re: PETITION NO.
7 1352, PETITION OF NUTMEG SOLAR, LLC FOR A
8 DECLARATORY RULING FOR THE PROPOSED CONSTRUCTION,
9 MAINTENANCE, AND OPERATION OF A 19.6 MEGAWATT
10 SOLAR PHOTOVOLTAIC ELECTRIC GENERATING FACILITY
11 GENERALLY SOUTH OF BAILEY ROAD AND EAST OF BROAD
12 BROOK ROAD AND ASSOCIATED ELECTRICAL
13 INTERCONNECTION TO EVERSOURCE ENERGY'S SCITICO
14 SUBSTATION AT 20 BAILEY ROAD IN ENFIELD,
15 CONNECTICUT, which was held before SENATOR JAMES
16 J. MURPHY, ACTING CHAIRMAN, at the Public
17 Utilities Regulatory Authority, 10 Franklin
18 Square, New Britain, Connecticut, on January 24,
19 2019.

20
21 

22 -----
23 Lisa L. Warner, CSR 061
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PETITIONER'S EXHIBITS

4

(Received in evidence)

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10

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12

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13

14

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15

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16

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