In The Matter Of:

Petition of Nutmeg Solar, LLC for a declaratory ruling

Public Hearing

January 10, 2019

BCT Reporting LLC

55 Whiting Street, Suite 1A

Plainville, CT 06062

860.302.1876

Original File 19-01-10 - Part 01.txt

Min-U-Script®

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.

Public Hearing held at the Enfield Town Hall, Council Chambers, 820 Enfield Street, Enfield, Connecticut, on Thursday, January 10, 2019, beginning at 2:58 p.m.

H e l d B e f o r e:

SENATOR JAMES J. MURPHY, JR.,

Acting Chairman

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

Council Members:

ROBERT HANNON,
Designee for Commissioner Robert Klee
Department of Energy and Environmental Protection

LARRY P. LEVESQUE, ESQ.,
Designee for Chairman Katie Dykes
Public Utilities Regulatory Authority

ROBERT SILVESTRI
DR. MICHAEL W. KLEMENS
MICHAEL HARDER
EDWARD EDELSON

Council Staff:

MELANIE BACHMAN, ESQ.
Executive Director and
Staff Attorney

MICHAEL PERRONE
Siting Analyst

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

For the Petitioner:

LOCKE LORD LLP
20 Church Street
Hartford, Connecticut 06103
BY: DAVID W. BOGAN, ESQ.
KATHRYN E. BOUCHER, ESQ.

For the Town of Enfield:

MARIA S. ELSDEN, ESQ.
Acting Town Attorney
Town of Enfield
820 Enfield Street
Enfield, Connecticut 06082

THE CHAIRMAN: Ladies and gentlemen, I'd like to call this meeting to order this Thursday, January the 10th, 2019, at approximately 3 p.m. My name is James J. Murphy, Jr., commonly called "Jerry." I'm acting chairman of the Connecticut Siting Council.

Other members of the Council here today are Robert Hannon, designee for Commissioner Robert Klee of the Department of Energy and Environmental Protection; Larry Levesque, designee for Chairman Katie Dykes of the Public Utilities Regulatory Authority. Other members are Robert Silvestri, Dr. Michael W. Klemens, Michael Harder, and Edward Edelson.

Members of the staff are Melanie Bachman, our executive director and staff attorney; and Michael Perrone, the siting analyst for this particular petition.

This hearing is held pursuant to Title 16 of the Connecticut General Statutes and of the Uniform Administrative Procedure Act upon a petition from 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 and 20 Bailey Road in Enfield, Connecticut. This petition was received by the Council on October 19, 2018.

As a reminder to all, off-the-record communications with members of the Council or a member of the Council staff upon the merits of this petition are prohibited by law.

The parties to this proceeding are as follows: The petitioner, Nutmeg Solar, LLC, is represented by David W. Bogan, Esquire, and Kathryn Boucher, Esquire, both of Locke Lord LLP. The party to this matter is the Town of Enfield represented by Maria S. Elsden, Esquire, representing the Town of Enfield.

We'll proceed in accordance with the prepared agenda. Copies are available here, which means they are probably over there on the table someplace. Also available are copies of the Council's Citizens Guide to Siting Council Procedures.

At the end of this afternoon's evidentiary session, we will recess and resume at

6:30 p.m. for the public comment session. The 6:30 p.m. public comment session will be reserved for the public and for the public to make brief oral statements into the record.

I wish to note that the petitioner and the party, including their representatives and witnesses, are not allowed to participate in the public comment session.

I also want to note for those who are here and for the benefit of friend and neighbors who are unable to join us for the public comment session that you or they may send written statements to the Council within 30 days of the date hereof, and such written statements will be given the same weight as if spoken at this hearing.

A verbatim transcript will be made of the hearing and deposited with the Town Clerk's Office in Enfield and Somers for the convenience of the public.

Is there any public official here who wishes to make a comment before I proceed further?

(No response.)

THE CHAIRMAN: If not, administrative notices. I wish to call to your attention those

items shown on the hearing program marked Roman Numeral I-D, Items 1 through 103. Does the petitioner or the party's representative have any objection to the items on this list being administratively noticed by the Council?

MR. BOGAN: Good afternoon, Mr. Chairman. David Bogan, along with Kate Boucher, on behalf of the applicant, Nutmeg Solar, LLC. We have no objection.

MS. ELSDEN: Good afternoon. Maria Elsden for the Town of Enfield. We also have no objection.

THE CHAIRMAN: Thank you very much.

Accordingly, the Council will administratively notice these existing documents, statements, and comments.

I believe, Mr. Bogan or Attorney Boucher, whoever is going to handle it, we are ready for your panel. And once you introduce your panel, we will proceed.

MR. BOGAN: Happy to do so, sir. Thank you. If I may first have them introduce themselves for purposes of swearing, and then we'll identify and verify the exhibits.

So we'll start on the far end with

Ms. Angus. If you could just state your name and business affiliation?

BRIONY ANGUS: Briony Angus with Tighe & Bond.

NEIL WATLINGTON: Neil Watlington, NextEra Energy.

CHARLES ASHEIM: Charles Asheim, NextEra Energy.

KEVIN RYAN: Kevin Ryan with FB Environmental.

JONATHAN GRAVEL: Jonathan Gravel with NextEra Energy.

KATELIN NICKERSON: Katelin Nickerson with Tetra Tech.

MATTHEW SINGER: Matthew Singer with NextEra Energy.

BRIAN HUNTLEY: Brian Huntley with Tighe & Bond.

THE CHAIRMAN: If you have them rise, we'll have Attorney Bachman swear them in.

B R I O N Y A N G U S,
N E I L W A T L I N G T O N,
C H A R L E S A S H E I M,
K E V I N R Y A N,
J O N A T H A N G R A V E L,
K A T E L I N N I C K E R S O N,
M A T T H E W S I N G E R,
B R I A N H U N T L E Y,
called as witnesses, being first duly sworn by Ms. Bachman, were examined and testified on their oaths as follows:

MS. BACHMAN: Thank you.

DIRECT EXAMINATION

MR. BOGAN: I believe that the panel has the list of exhibits for identification.

Let me start with you, Mr. Singer. Did you oversee or cause to be prepared the petition that is the subject of this matter in Docket No. 1352 identified on the list as Exhibit 1?

THE WITNESS (Singer): Yes.

MR. BOGAN: And Mr. Huntley, did you also assist in the preparation of that petition?

THE WITNESS (Huntley): Yes, I did.

MR. BOGAN: Ms. Nickerson?

THE WITNESS (Nickerson): Yes.

MR. BOGAN: And do any of you have any changes or corrections to make to any of the information that's contained in the petition? Mr. Huntley?

THE WITNESS (Huntley): I do have one addition, which is that yesterday the notice of permit authorization was issued for the general permit registration for the discharge of stormwater and dewatering for construction activities associated with this project from DEEP.

MR. BOGAN: Thank you. And do you have any other changes or corrections?

THE WITNESS (Huntley): No, I do not.

MR. BOGAN: Mr. Singer?

THE WITNESS (Singer): No changes.

MR. BOGAN: Ms. Nickerson?

THE WITNESS (Nickerson): No.

MR. BOGAN: And moving on to the items that are denoted as Exhibits 2 through 9 for purposes of identification, which are interrogatories -- or responses to certain interrogatories, as well as certain revisions either to the petition or interrogatory responses, starting again with you, Mr. Singer, did you prepare or cause to be prepared that information?

THE WITNESS (Singer): Yes.
MR. BOGAN: Mr. Huntley, did you also assist in the preparation of those materials?
THE WITNESS (Huntley): Yes, I did.
MR. BOGAN: And Ms. Nickerson?
THE WITNESS (Nickerson): Yes.
MR. BOGAN: And do you have any changes or corrections to make to any of the information denoted as Exhibits 2 through 9 for identification? Mr. Singer?
THE WITNESS (Singer): No.
MR. BOGAN: Mr. Huntley?
THE WITNESS (Huntley): No, I do not.
MR. BOGAN: Ms. Nickerson?
THE WITNESS (Nickerson): No.
MR. BOGAN: And with that, do each of you adopt the contents of exhibits, at least in relevant part, Exhibits 1 through 9 as your testimony in this proceeding? Mr. Singer?
THE WITNESS (Singer): I do.
MR. BOGAN: Mr. Huntley?
THE WITNESS (Huntley): Yes, I do.
MR. BOGAN: Ms. Nickerson?
THE WITNESS (Nickerson): Yes.
MR. BOGAN: The panel is available, Mr.

Chairman. And I'd move the exhibits as full exhibits at this point.

THE CHAIRMAN: Does the town have any objection to these exhibits?

MS. ELSDEN: No objection.

THE CHAIRMAN: No objections from the town, they will therefore be admitted.

(Petitioner's Exhibits II-B-1 through II-B-9: Received in evidence - described in index.)

THE CHAIRMAN: We'll therefore begin with cross-examining of the petitioner, and we'll start with staff with Mr. Michael Perrone.

MR. PERRONE: Thank you.

CROSS-EXAMINATION

MR. PERRONE: Did the petitioner put up a sign for the public at the site?

THE WITNESS (Singer): Yes.

MR. PERRONE: What were the dimensions of the sign?

THE WITNESS (Huntley): The sign measures 4 feet by 6 feet.

MR. PERRONE: And where was it located?

THE WITNESS (Huntley): The sign is located in the field adjacent to Broad Brook Road.

THE CHAIRMAN: Can we just hold on for a minute? Will you find a more convenient place for the Town of Enfield? Maybe up there?

(Pause.)

THE CHAIRMAN: Sorry for the interruption, Attorney Bogan. Proceed.

THE WITNESS (Huntley): The sign is located on the east side of Broad Brook Road approximately north of barns 4 and 5, which are shown on the petition materials.

MR. PERRONE: When was the sign put in place?

THE WITNESS (Angus): The sign was installed on December 21, 2018.

MR. PERRONE: And what information was contained on the sign?

THE WITNESS (Angus): The sign depicts the petition number, the date of the public hearing, the name of the project, and the contact information for the Siting Council, both telephone number and email.

MR. PERRONE: And it also mentions the type of facility?

THE WITNESS (Angus): Yes.

MR. PERRONE: Generally, what kind of

feedback did the petitioner receive from the Town of Enfield regarding the proposed project?

THE WITNESS (Singer): Generally, the feedback we've received has been positive regarding the economic benefits for the community. There were also feedback received from project abutters and residents in town, as well as other stakeholders, regarding the visual impact of the project.

Pursuant to that feedback, we have revised the site design to move from a previous iteration that was on the west side of Broad Brook Road, we've removed that array to just be on the east side of Broad Brook Road, and in addition have added approximately 1,570 feet of vegetative screening.

MR. PERRONE: Did you receive any feedback from the Town of Somers?

THE WITNESS (Singer): While we communicated with them, we did not receive any substantive feedback.

MR. PERRONE: Going back to the site layout, I understand there's some relocated tobacco barns in the northern part of the site. We have the length and width dimensions on the

drawing, but what are the approximate heights of the relocated barns?

THE WITNESS (Singer): Just a moment while I confer.

MR. PERRONE: Sure.

(Pause.)

THE WITNESS (Huntley): While I don't have the exact measurements of the barns, I would say they are approximately 12 to 14 feet with the peak being lower than 20 feet high.

MR. PERRONE: For both?

THE WITNESS (Huntley): I'm sorry. Yes, all of the barns are very similar in construction.

MR. PERRONE: Turning to the FAA topic, I know there was some discussion about the glare analyses. On page 22 of the petition it notes, "Per previous correspondence with an FAA obstruction evaluation specialist, it was confirmed that if not explicitly stated, as is the case here, a glint/glare analysis is not required."

And my question is, does that mean that the FAA looks at the need for a glare analysis before it issues a no hazard determination?

THE WITNESS (Angus): I don't believe the FAA considers glint and glare as part of that notice of construction or the determination of hazard. That's more of an obstruction to air space. But based on our review of applicable regulations, we are not aware of any regulatory requirement for a glint or glare study on a project that is not located on or as part of a federally-obligated airport. So we don't believe there's a requirement for a glint and glare study.

MR. PERRONE: And just turning back to that reference from the obstruction evaluation specialist, when did you receive correspondence from that FAA specialist?

THE WITNESS (Angus): That I'm going to have to look.

MR. PERRONE: Okay.

(Pause.)

THE WITNESS (Angus): So thank you. We received our determinations of no hazard in May of 2018.

MR. PERRONE: But I was referring to even prior to the no hazard. Page 22 seems to suggest that the obstruction specialist informed you that unless they tell you otherwise you don't

need a glint/glare analysis. I was just wondering if there was like a document to that effect or not.

THE WITNESS (Angus): No, I would call that reference based on previous project discussion relative to this project and others.

MR. PERRONE: Okay. I understand the project was selected in two RFPs, the small-scale 2 to 20, and the tri-state. Is that correct?

THE WITNESS (Singer): That is correct.

MR. PERRONE: When you clear two different RFPs, how does it work with the PPAs, is there still one set of power purchase agreements?

THE WITNESS (Singer): Yes. The project site was selected in both RFPs, however, they were separate bids. And upon selection, the determination was made to go forward with the small-scale RFP and pursue the contract with Eversource Energy and United Illuminating pursuant to that RFP and not through the tri-state RFP. So the two offtakers for the power purchase agreements are the Connecticut electric distribution companies, Eversource Energy and United Illuminating.

MR. PERRONE: Has the petitioner

considered adding model pollinator habitat to the proposed project?

THE WITNESS (Nickerson): So, while pollinator species were considered during the planning phase for the vegetative buffer and other site stabilization, site stabilization and vegetative buffers is a priority of the project, so pollinator-friendly species are included there but not specifically creating pollinator habitat.

MR. PERRONE: And what species of -- what pollinator-friendly species were considered?

THE WITNESS (Nickerson): So the last page of the site plan layout has a list of species, and that includes highbush blueberry and viburnum, and then the flowering species in the perennial flowers is coneflower, beebalm and I think rudbeckia is included.

MR. PERRONE: And the response to Council Interrogatory 91, which got into the percent developed area of the critical terrestrial habitat, we also look at Figure 11. There is a selective trimming area and also a plantings area. Do those two areas affect that 84 percent number at all?

THE WITNESS (Nickerson): No. The 84

percent basically includes the project footprint, and the plantings and the vegetative selective clearing is calculated in sort of what's being maintained.

MR. PERRONE: As far as installation of the posts, I understand you'd most likely be looking at pile driving?

THE WITNESS (Singer): That's correct.

MR. PERRONE: Could you tell us more about the pile driving process, what's involved?

THE WITNESS (Huntley): The pile driving process is essentially a hydraulic machine that uses a vibratory hammer operation that will take each one of these posts and will drive it down into the ground to the prescribed depth based on the calculations that were done by the engineer associated with the foundation design.

MR. PERRONE: Next I'd like to get into the cost topic. I understand the final project cost estimates weren't available according to the response to Number 79. But would the petitioner have an estimate of any upfront costs thus far, like environmental studies and reports, land acquisition, engineering?

MR. BOGAN: If I may, Mr. Perrone, I

recall the interrogatory, and I frankly was scratching my head because I couldn't understand the relevance to the issue that's before the Council. So I suppose I would object to the question unless I have some better understanding of its relevance.

THE CHAIRMAN: Basically, it's the same consideration even with towers or what have you, it's a consideration as to the cost to ratepayers, and whatever costs are involved, our consideration that goes into taking that into account. And so asking questions relative to costs known and anticipated is a routine part of what we do and ask and take into account.

MR. BOGAN: I appreciate that, but as Mr. Singer indicated, the project was selected as part of the small-scale RFP, and the purchase power agreement was approved by PURA.

THE CHAIRMAN: The fact that they approved it doesn't necessarily mean that we will approve it. And so it's been my experience, and I've been on the Council for a few years, that we take a look at everything and then we make our determination as the Connecticut Siting Council whether this thing goes or doesn't go. And we

understand that a number of these things are really not known for sure, but we're kind of looking for the ballpark.

THE WITNESS (Singer): Certainly. And given the competitive business nature of that information, we'd be willing to provide a preliminary estimate under a protective order, if the Council would be amenable to that.

THE CHAIRMAN: I don't see why not. I mean, it happens in other cases where there's a protective order. If you think it's important enough for you to ask for a protective order, that would be fine.

MR. BOGAN: Yes. I mean, clearly that information is highly sensitive confidential business information that the company typically does not disclose in any circumstance. To the extent that Mr. Singer believes that we can disclose it, we'd be willing to provide it as a Late-File subject to a protective order that we will follow along with it.

THE CHAIRMAN: Okay. You work it out with Mr. Perrone as to when you will provide this.

MR. BOGAN: Sure. And do we want to just label it as Late-File 1?

THE CHAIRMAN: Go ahead.

MS. BACHMAN: You would have to file a motion for a protective order. So we would have to take that up either at the continuation hearing on January 24th or at our meeting. We have a meeting next week. We can add --

THE CHAIRMAN: Next Thursday.

MS. BACHMAN: But we understand that's a short period of time.

MR. BOGAN: We can get the motion. That's what Ms. Boucher is for.

MS. BOUCHER: We're happy to file it expediently.

MR. BOGAN: Yes.

THE CHAIRMAN: All right. If you have it, we can put it on the agenda for a week from today.

MS. BOUCHER: Very good.

THE CHAIRMAN: Mr. Perrone.

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

THE CHAIRMAN: We'll continue the questioning with members of the Council. We'll start with Mr. Harder.

MR. HARDER: Thank you, Mr. Chairman.

I just have a couple of questions. The first is on pesticide usage. The petition mentioned that pesticides, the expectation is that pesticides wouldn't be used much, I guess, but there was an indication that they would be employed as needed. I'm not sure if that's the exact language. But my question is, can someone explain the circumstances where they might be needed, and is there any reason why the applicant couldn't commit to just not using them at all? The impression I get is that you're not expecting to use them a lot, so since there will be some regular maintenance, mowing and trimming, keeping shading to a minimum, and that kind of thing, why couldn't that be the method instead of the application of pesticides?

THE WITNESS (Singer): As you mentioned, in the petition we speak about the targeted use of pesticides in cases where the targeted application would be to control woody vegetation in conjunction with mowing and other vegetation maintenance. We are not proposing any broadcast aerial spraying or regular usage. It would be on an as-needed basis, and that's informed by our experience, "our" being NextEra Energy Resources, and operating a number of solar

projects of similar size across the country.

MR. HARDER: So the same result, I guess, couldn't be achieved through just removal, trimming, cutting or whatever, you feel it's really necessary to use pesticides?

THE WITNESS (Singer): To the best of my knowledge, it is necessary to maintain that option for the operations and maintenance team until they are out there and see how field conditions are and how the vegetation takes hold. At Nutmeg Solar we wouldn't be able to make a definitive statement about the need.

MR. HARDER: Thank you. A couple of other questions more related, I guess, to stormwater. The first is in Exhibit H, the inspection of the stormwater controls, a discussion of the inspection process on page 4 in Exhibit H. It talks about the infiltration basins will be inspected after any storm event in excess of 0.5 inches within a 24-hour period, and then the next sentence says after every major storm during the first three months the basins will be inspected.

I guess I'm wondering what's the definition of a major storm? Is that intended to

be the same as a half an inch during that period? How are those two statements, how do they differ?

THE WITNESS (Huntley): Those are essentially the same statement. The indication is that in the first three months any storm that's greater than a half inch of intensity, we would consider to be a storm worthy of an inspection.

MR. HARDER: But the first sentence says before, during, after three months, any time a storm is in excess of half an inch you'll do the inspection, right, not just in the first three months, isn't that what it says?

THE WITNESS (Angus): I'm going to attribute this to poor sentence construction, and we could have -- there are three times during which inspections -- or it should be read more that during construction and for the first three months and then semi-annually inspections will be completed after a major storm defined as half an inch.

MR. HARDER: Okay. Thank you. The other question on stormwater. I'm concerned, I guess, you mentioned a couple of different places, but in the response to Council Interrogatory 59 there's a discussion of the spillways and berms.

It says in the second paragraph there, A severe storm event that exceeds the 100-year storm would overtop the berms through the emergency spillways. The water would flow as directed as it does under existing conditions. And later, during severe storm events, the site would be expected to discharge stormwater in a manner largely the same as it does under current conditions.

I guess I don't really see how that would be the case if what you're doing is concentrating the stormwater with the berms and directing it to concentrated locations as opposed to letting it flow to some extent sheet flow across the surface of the ground. How is it the same after as it is before without getting into a quantitative discussion?

(Pause.)

THE WITNESS (Huntley): The intention of the project -- and I apologize for taking a moment to read through the answer thoroughly. The intention of the project from a stormwater methodology is that we are converting, you know, in a large number of areas either a forested area that's current or fields, agricultural fields that have been handled in a number of manners to what

we are calling a meadow condition, which is where we're planting the meadow seed mix we were discussing and managing it to be a meadow condition. Meadow is a definition within the stormwater calculations in the stormwater analysis provided.

So the intention is that from a grading point of view the project will not involve large-scale grading or change in topography. So the majority of the site conditions and the stormwater runoff conditions in the stormwater areas, as they are right now, we'll maintain in place. Where we do have some long-term controls that will remain throughout the life of the project, in those areas they are intended to provide some amount of detention because there is a change in time of concentration associated with the conversion of the project. Therefore, these areas there is detention that's provided, and in those areas that's where it's described that those minor basins that we're proposing, which are based on construction of berms, they are installed with an overflow, emergency overflow from those basins which in the 100-year storm event would be overtopped, or in storms larger than the 100-year

storm event.

So the majority of the site will function similar to what it does now in these minute areas at the corners, and you can see them in the long-term plans that we've provided there is some slight change to provide additional mitigation because of time concentration changes for the project.

MR. HARDER: Thank you. The last question I had was I guess it requires a bit of a crystal ball. You have a decommissioning plan, as you're required to. I'm just wondering, given the -- and this is a question, I guess, that I've wondered about in other situations. I haven't asked it. Given the state of technology and what you anticipate to be changes in technology, you know, you have a decommissioning plan, and all of those plans indicate that the systems, these kinds of systems could be removed and the site returned to some other use. And it always makes me wonder, okay, we're approving all these solar electric systems which are potentially 20 or 30 years down the road going to be removed, no longer producing power, and we're all thinking that we're creating this wonderful situation with a lot of renewable

energy, which a lot of which is going to be removed, and so, okay, what happens then? Do you have any sense that in this situation, at least, and in others, that the system might not be removed, would not be approved because of advances in technology where you can put in different panels and generate additional power or more power and not worry about the decrease in the generation of power over the 20 or 30 years to a point where, you know, it's no longer feasible or desirable to maintain the system, if that makes sense?

THE WITNESS (Singer): As the project is currently contemplated, we anticipate a 30-year life for the facility. In regards to advancing technology, really there's a few other areas that would need to be in place for Nutmeg Solar to consider an extension of that life which we don't currently contemplate because of the decommissioning plan in place, and that would involve new landowner lease agreements and repermitting of the project. So at this time it's not anticipated that we would continue operations past 30 years. I don't know if that fully answers your question.

MR. HARDER: Well, I guess, I don't

know, maybe the way I interpreted your answer, those reasons are more to do with, I guess, soft issues, if that's the right term, you know, non-technical issues. I mean, obviously you'd have to renegotiate certain agreements, and that kind of thing. But I'm wondering about in terms of the generation of power, you know, given advances in technology, I mean, panels aren't what they used to be, today aren't what they used to be ten years ago in terms of the capability of generating power. You know, do you see in your crystal ball that advancement might continue to the point where, you know, it makes it reasonable to expect that, if not you, somebody would be able to utilize that system and continue to generate power beyond 30 years, or is that just you just have to wait and see?

THE WITNESS (Singer): With the condition that I am looking into the crystal ball, as you say, we do anticipate solar photovoltaic module technology to continue to improve with better efficiencies, and that at the end of the 30 years that's what we anticipate the end of the life of the current panels that we're proposing to install, but it's certainly feasible that someone

would be able to install new equipment should the situation be appropriate.

MR. HARDER: Okay. Thank you. That's all the questions I have, Mr. Chairman.

THE CHAIRMAN: Thank you. We'll continue the questioning with Mr. Silvestri.

MR. SILVESTRI: Thank you, Mr. Chairman. I'm actually still confused by the response you gave to Mr. Harder regarding Interrogatory 59. This is the one with the 100-year storm and the overflow of the berms. If the berms do overflow, where does the water go?

THE WITNESS (Huntley): The berms are installed on the site in areas where there's currently low spots, existing channels or existing, you know, swales, if you will, for lack of a better term. That's where these are proposed. So, if these basins do overtop in events that are larger than a 100-year statistical storm event, the stormwater will flow down the slope off the site in the same manner that it currently does. The intention of our design is that we're mitigating the flows for the 100-year storm or up through the 100-year storm to be sure that we're not increasing off-site flooding,

off-site stormwater flow impacts. And for events larger than that, our goal is to not have any flooding associated with the project. So the stormwater will flow just as it does currently on the project site.

MR. SILVESTRI: So any potential impacts from that you're saying would be essentially the same as they are now?

THE WITNESS (Huntley): That's correct.

MR. SILVESTRI: Okay. And just to verify, you folks have a maintenance plan to periodically refortify the berms and check dams, if needed?

THE WITNESS (Huntley): That's correct.

MR. SILVESTRI: Okay. I just wanted to verify.

If I could change gears and draw your attention to Interrogatory 14. This had the change in DC megawatts where it went from 32.14 to 29.008. Did that change have any effect on the AC aspect of the project?

THE WITNESS (Singer): No, it did not. The 32.14 megawatt DC originally provided was a miscalculation, and so the 29 megawatts DC is what we originally planned in the petition and was

corrected for that reason.

MR. SILVESTRI: Thank you. Because normally you'll take the wattage of the panels, multiply them by the number of panels, and that's how you're going to come up with DC?

THE WITNESS (Singer): Correct.

MR. SILVESTRI: If I can keep you on the panel aspect of it, the specification sheet for the panels talks about STC and NOCT, NOCT being the normal operating cell temperature. Could you tell me how the NOCT differs from the PTC test, PTC being photovoltaics for utility scale applications test conditions?

THE WITNESS (Singer): Which page of the spec sheet?

MR. SILVESTRI: This is the very back page that I have. It looks like this (indicating).

THE WITNESS (Asheim): Can you repeat the question?

MR. SILVESTRI: My question was, on the very bottom you have STC and NOCT. And I'm curious how the NOCT test differs from what they call PTC. Again, PTC being photovoltaics for utility scale applications test conditions. It's

a mouthful.

THE WITNESS (Asheim): I'm not familiar with PTC. I believe STC and NOCT are just measures of how much solar output you're getting from the sun, and that in turn is a test to see how much, based on that 1,000 megawatts per meter squared, that you would be getting, or 800 watts per meter squared, how much power each module would be outputting.

MR. SILVESTRI: PTC was actually developed in the mid 1990s, and I was curious if it was of use to you folks at this time.

THE WITNESS (Asheim): I'm only familiar with STC and NOCT.

MR. SILVESTRI: Okay. Let me move on then. Would you agree that electrical power or watts equals voltage times current?

THE WITNESS (Singer): Yes.

THE WITNESS (Asheim): Yes.

MR. SILVESTRI: Now, because of the physics of solar panels, as they heat up the voltage they produce goes down. Do you also agree with that?

THE WITNESS (Watlington): I believe so, yes.

MR. SILVESTRI: Okay. So the panels heat up, the voltage goes down, and the power goes down. Also agree?

THE WITNESS (Asheim): I believe so.

MR. SILVESTRI: Would it then be correct to say that the 400 watt panels, because of physics, will function at some lower number, perhaps the NOCT rating of 302 watts that's on that sheet, or maybe something in between 302 and 400 watts?

THE WITNESS (Asheim): Correct, the panel output will vary depending on things like the ambient air temperature and solar irradiance.

MR. SILVESTRI: And heating up of the panels?

THE WITNESS (Asheim): Correct.

MR. SILVESTRI: So based on what I'm looking at, if you have a clean capacity, say, of 19.6 megawatts AC or 29 megawatts DC, the actual production numbers are going to be lower than that?

THE WITNESS (Asheim): It depends. The DC output is what you were first describing, and as long as the DC output exceeds the AC nameplate, the AC will achieve the AC nameplate.

MR. SILVESTRI: Let me rephrase it another way. Was the NOCT factored into the estimated average annual energy production that you have of 37,000 megawatt hours?

THE WITNESS (Singer): Yes, it was. In our modeling of the energy production, the solar irradiance for this exact location was used and taken over an 18-year time horizon looking at the irradiance that this site would be receiving as opposed to a standard testing condition.

MR. SILVESTRI: But you would incorporate or you have incorporated that drop in power, if you will, because of the heat?

THE WITNESS (Asheim): Yes.

THE WITNESS (Singer): Yes.

MR. SILVESTRI: Okay. Thank you. Staying with that capacity part for a minute, if you look at the AC rating and the DC ratings, you have 19.6 for AC and 29 now for DC, the AC capacity rating is about 67 percent of the DC rating if you do some really quick math. In my experience with a lot of the other solar projects that I've seen, I see the rating for AC capacity is going higher between 70 and 80 percent of the DC rating. Is the 67 percent indicative of any

type of electricity losses in your project?

THE WITNESS (Asheim): Could you clarify what you mean by "losses"?

MR. SILVESTRI: Well, I'm not sure. If you're going from DC to AC, all right, there's got to be some type of transformation to be able to get that, what you're going to get through your inverters?

THE WITNESS (Asheim): Correct.

MR. SILVESTRI: And the ones I've seen seem to have a closer spread between the DC and the AC compared to your project. So that's what I'm looking at, is there some other type of loss that you're accounting for in that project?

THE WITNESS (Singer): If I may add, it's actually been a trend that we've seen going in the other direction due to module pricing for the solar industry at large that you're seeing higher amounts of DC relative to AC. So if you look at from the flip of the 67 percent, the DC to AC ratio is on average we're seeing an increase across the industry. And by doing so for the same amount of inverters you have available, you're able to produce more energy during the shoulder hours which in the afternoon coincide with peak

demand.

MR. SILVESTRI: So what you're seeing is more related to the panels or to the inverters?

THE WITNESS (Singer): I guess it's the panel pricing dropping relative to the inverters.

MR. SILVESTRI: Okay. Thank you.

THE WITNESS (Asheim): It's somewhat of an optimization. Every developer may perform somewhat differently, and it also depends, as Matt was saying, on equipment costs, solar resource availability in the area, and what you're getting paid under the PPA, and all of those things factor into the optimization which may affect that 66 percent you were describing.

MR. SILVESTRI: In your opinion, is it better or worse to have a higher percentage?

THE WITNESS (Singer): It's a case-by-case based on all of the variables that Mr. Asheim just mentioned. In this particular case, we determined through our energy modeling and design that this is the optimum balance for us.

MR. SILVESTRI: Okay. You mentioned price or cost. Tariffs seem to be coming into play of late. I was looking at some figures from

the third quarter 2018. The number of solar installations have dropped across the United States. They're kind of blaming that on tariffs. Are tariffs going to affect this project?

THE WITNESS (Singer): We do not anticipate they will.

MR. SILVESTRI: Let me get away from the panels and the AC/DC part of it for a couple of minutes. If I could turn your attention to Interrogatory Number 44. And the response under Section b in the second paragraph there, approximately the third line down, it has "First responders will not have the ability to shut down the entire facility."

My question is, if there is an issue that requires the first responders to come on site, how will they know that an area is indeed de-energized prior to entering if they can't shut down the whole facility?

THE WITNESS (Singer): I believe the answer to that is twofold: First, we as standard practice for NextEra Energy will have communication with first responders when they are onsite or trying to access the site; and second, as a second measure to assure the situation you're

describing doesn't happen, at the end of each of the combiner boxes is a disconnect switch so they can know the exact area that they're going into, they could activate that disconnect switch to ensure that it's not operational.

MR. SILVESTRI: And that training you'll provide?

THE WITNESS (Singer): Yes.

MR. SILVESTRI: Mr. Perrone had asked the question about piles before. And if I could reference your response to Interrogatory 66. In that you have the hours of operation Monday through Friday would be 7 a.m. to 7 p.m.; Saturday (as needed) 8:00 a.m. to 5 p.m. Regarding the pile aspect of it, I've been associated in my past with lots of sheet pile bulkheads being installed, and the noise from that I found to be extremely annoying. And I know the noise you're going to have is not quite the same, but my question, are you amenable to adjusting the times for putting in those piles to avoid such installation during periods like the early morning hours, you know, getting kids in the neighborhood off to school, dinner times, and the like?

THE WITNESS (Singer): That's something

we're willing to take under consideration.

MR. SILVESTRI: Okay. And like I said, I'd hate to have dinner and all of a sudden have all the vibrations or at least hearing the piles, so thank you for that.

If I can now have you turn to Interrogatory Number 92 and your response to that. In the beginning you have the embankment (berm) and emergency spillway, and under that you have a number of bullets. I'd like to reference the fourth bullet that says "unauthorized planting" and ask you the question what does that mean?

THE WITNESS (Huntley): I believe that that refers to essentially any woody vegetation that may have grown or that may come up that wouldn't be, you know, reasonable to have in a berm area or associated with a spillway.

MR. SILVESTRI: Then it might be mislabeled as "unauthorized planting." Planting to me is something that you're physically doing and putting something in the ground as opposed to windblown seeds, or something like that that are growing. So would I be correct to say that that's kind of a little misnomer there and should more reflect the windblown type of thing and maybe

weeds that are growing?

THE WITNESS (Huntley): I would agree with that, yes.

MR. SILVESTRI: Thank you. I want to now look at the phase 1B study that I believe was performed by -- actually, phase 1B was Heritage. I'll get to that in a minute. Under the phase 1 we had 419 of 433 planned shovel tests were performed. And it says the 14 planned but unexcavated fell within zones characterized by steep slopes. And these apparently were all on the southern end of the eastern array area.

Now, the problem I had is I can't find a decent overlay to see where their shovel tests were in relation to where the panels are going to go in. So the question I have for you, are the panels and racks proposed for the areas where soil test pits were planned not excavated?

THE WITNESS (Singer): We'd like to take a look at that and possibly be able to get back to you later as a Late-File or later on today depending on how quickly we're able to look at our information.

MR. SILVESTRI: Like I said, my problem, I couldn't find an overlay, and hence the

question to you. And I'll have a follow-up based on what you come back with.

THE WITNESS (Singer): Just to make sure we understand the concern, can you elaborate a bit more on the information that you'd like to see?

MR. SILVESTRI: I'll give you the overriding question that I have.

THE WITNESS (Singer): Yes.

MR. SILVESTRI: Is that if you can't take shovel tests because the areas are quote/unquote too steep, does that preclude putting panels up? I mean, if you can't take the samples, it's too steep, does that mean you can't put the solar panels up there or racks because it's too steep? That's really what I'm driving at.

THE WITNESS (Gravel): I think the intention of that trying to clarify is typically they're surveying areas, agricultural sensitive areas, which would be amenable to someone inhabiting that location. And we'll clarify. But I believe why those test pits were not taken into consideration is because of the slope and the lack of habitat for people to inhabit that location.

MR. SILVESTRI: And again, if we got an overlay that could show me where the panels are in relation to the pits, I think we could resolve that issue.

THE WITNESS (Gravel): Okay. Thank you.

MR. SILVESTRI: Going back to stormwater, this year was quite unbelievable in Connecticut, as everyone knows, for rainfall. September was extremely wet. And I think there were only four days in the month in which no measurable participation was recorded anywhere within the state. With multiple consecutive rain events, I would think that the ground soils would become saturated at some point in time. So my question for you is, do your calculations for storm events, runoff, the berms, et cetera, incorporate saturated ground soils?

THE WITNESS (Huntley): The post-construction analyses that we did essentially for what is going to remain throughout the project post-construction are based on standard industry practices which do not incorporate a super saturated condition. That said, what we have done from a construction perspective is there is a

construction stormwater pollution control plan that has been put into place that involves phasing, subphasing, staging, as well as stormwater traps, basins, and an aggressive stabilization plan that will incorporate those conditions, and it will address the site conditions regardless of whether it's a saturated condition or, you know, it's been an arid condition leading up to a storm event.

MR. SILVESTRI: Back on September 26th in my area in Hamden got hit with 8 inches of rain all at once, and the street actually turned brown from runoff that I don't know where it was coming from. And my concern is that there was a number of rain events before that, again, the ground gets saturated, things happen. I'm trying to figure out is if your plans that you mentioned are adequate enough to control a situation like that that it would not happen, you wouldn't get all this brown runoff coming down and causing havoc.

THE WITNESS (Huntley): The stormwater plan that we put together that was submitted for a permit that was issued by DEEP does include the provisions to address the actual site conditions, and there are requirements in there for on-site

mitigation, on-site requirements based on actual site conditions, not necessarily design conditions. So it's our belief that the stormwater plan that was submitted does incorporate those conditions, and it does allow for or does require the contractor to manage regardless of site conditions and saturated conditions, yes.

MR. SILVESTRI: And that would be during construction and post-construction?

THE WITNESS (Huntley): During construction primarily and post-construction where I believe that it's a situation where the post-construction analyses show a condition very similar to what existing conditions are right now, so we're not proposing to change that, meaning that if there was a super saturated condition now, this project would not make that condition any worse were it to happen. And, in fact, given that the majority of the site is currently cropland, this will provide more vegetated cover and much more additional stabilization to what the current site conditions are, at least in the farm field areas.

THE CHAIRMAN: Dr. Klemens, you have a

question?

DR. KLEMENS: Yes, I do. You just said that the majority of the site is cropland. And I'm looking at the map, Figure 7. I would say the majority of the site is forested. Is that not correct?

THE WITNESS (Huntley): And I apologize. And I believe that my intention was to say that a majority of the cropland would be in an improved condition, not a majority of the site being cropland. If that's what I said, I apologize.

DR. KLEMENS: Thank you.

MR. SILVESTRI: I have two other questions for you, if I can find them. Out of curiosity, Interrogatory Number 72 kind of talked about recycling the panels. In your discussion with PV module manufacturers, are you aware of any take-back program for panels at this point?

THE WITNESS (Singer): Yes, we're aware of the manufacturer, First Solar, has a fairly robust take-back program.

MR. SILVESTRI: Okay. Thank you. And the last one I have for you is based on the visual photos and renderings that you had provided, there

is an area along Broad Brook. Number 7 has west of Charnley Road looking northeast. It's photo number 3. There's no plantings provided for that area, I believe.

THE WITNESS (Singer): Actually, there is plantings proposed. The way that the renderings are structured, it's in three different stages. Photo 6, or number 6, which is photo 3, shows the existing. Number 7, which you just referred to, shows without the mitigation we have planned. And then number 8 is that same photo with the vegetative screening mitigation rendered.

MR. SILVESTRI: Okay. I think you cleared up my confusion on that. Great.

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

THE CHAIRMAN: Thank you. Mr. Hannon is next.

MR. HANNON: Thank you, Mr. Chairman.

One of the things I will say is it was a lot easier to read this application than it has been on some others, so for that I do thank you.

I have a question for you. You have a statement in your wildlife resources where you're talking about the outbreak of gypsy moths, and

there are some general references to the impact that they may have had on I guess the oak and the pines. Can you be a little more specific about how severe the damage was?

THE WITNESS (Nickerson): So that was the summer of 2017 when surveys were being conducted. I would have to say it wasn't specifically measured or quantified, but a majority of the site was completely defoliated from the gypsy moths.

MR. HANNON: I'm not looking for an exact number, but just there was a couple of trees over here, or is it most of the site?

THE WITNESS (Nickerson): Yes.

MR. HANNON: It may be here somewhere, but I didn't see it. What is the maximum grade slope that you can use for the solar panels?

THE WITNESS (Angus): So the maximum for the solar panels would be 20 percent; however, the vast majority is under 15 percent. And for the western array there's an average of 0 to 7 percent, and for the eastern array an average of 2 to 10 percent.

MR. HANNON: The reason I'm asking is because I know when the Council first started

seeing solar panel projects, we were in the 10 to 12 slope range. We're now getting into something larger, so I'm assuming that the technology is changing to enable developers to do that. So that's all.

The majority of my questions fall under Tab G. Some of the questions may be repetitive because the same thing occurs on some of the mapping. But starting on C-024, a question about the swales, are they all stone lined, or are you using something other than stone lined?

THE WITNESS (Huntley): The details for this project are for all stone-lined swales in those locations.

MR. HANNON: Thank you. Because that eliminates a couple other questions I had. But also staying there, you have a delineation 54 linear feet of 18 inch HDPE culvert. You show a rip rap splash pad, but I don't really see anything with a level spreader. Now, you've incorporated level spreaders with other aspects of the design, so I'm just trying to verify whether or not level spreaders will be incorporated into the outfalls of the pipe design because you do say it will be there for the stone-lined swale

outlets, and there is no diagram in the details which would show some type of a level spreader or some type of mechanism to deal with that.

THE WITNESS (Huntley): I agree with you, and that's correct that there is not a specific detail showing a spreader at the outlet of the culverts, but the intention, as indicated in the design and in the analyses is that the culvert outlets will be treated with level spreaders to dissipate the flow from those pipes.

MR. HANNON: Okay. Thank you. On C-025 a few questions here. But I want to compare that to -- let me get one of the maps so that we're talking basically the same issue. This is a little further back than I had anticipated. This is, for example, sheet C-036. There where you have on sheet C-036 you're showing an emergency spillway that has a stone construction, you have the level spreader at the tail end. But going back to C-025, you don't show that as far as the spillway on that berm that's built on the lower right-hand corner.

So I'm just trying to figure out exactly what the construction is, is it going to be some type of fortified spillway, is it going to

be just grass, or what's it's going to be? Because I'm a little concerned if it's just grass. And there's also a note that talks about a stone check swale or stone check dams also tied in with the emergency spillway area. So I'm a little confused as to just exactly what's going in in these areas.

THE WITNESS (Huntley): Sheet C-041 does show the detail of the emergency spillways and their associated level spreaders. The intention is that that detail will be used on all of the outlets. So there will be a spreader detail, and then on the outlet at the extremity of the spreader the intention is that there is an area that would be vegetated that would be treated with permanent erosion control blankets as well to further fortify the area after the velocity has been reduced from the spreaders.

MR. HANNON: Seeing as how you just gave me that answer, instead of waiting I'll ask, on the erosion control blankets what is the design and what are they made of, is it a woven fabric, or is it a plastic material that's holding the fabric together?

THE WITNESS (Huntley): I don't know

the exact material that would be used on this project, but for the permanent erosion control blankets the intention would be that it's a plastic material that holds the fibers together.

MR. HANNON: It really shouldn't be the plastic. We don't want something that's -- I think that creates more of a problem, it does for some of the animals, it creates some havoc. I think what I've seen mostly for the control mats is it's a woven fabric. So that may be something you want to take a closer look at, but it's not in the detail, and there's no language in there, so that's why I'm asking on it.

Sticking with C-025, I'm a little confused in terms of how you go in with the berm in that area as it extends into the solar panels and what the impact is either on the solar panels on the berm or the berm on the solar panels, either way.

THE WITNESS (Huntley): In those locations the berms are built into the existing topography, and they could be constructed. Likely it would be concurrent with some of the racking that's going in. And the idea is that the berms themselves are on the neighborhood of it looks

like 2 to 3 feet high at the highest point in those berms, and that would be compatible with the structures and to have those located beneath some of the array in those locations.

MR. HANNON: Well, the area that I'm looking at right on that elbow, the height of the berm is 253, I believe, and the natural topography is 248. So if my math is right, that's a 5 foot differential, which is much higher than the low end of the solar panels. So I just think that's something that's going to have to be worked out just to make sure that what's being proposed is actually going to function between the panels and the berm.

THE WITNESS (Huntley): I agree.

MR. HANNON: We're not going to deal with some of these others because we've identified -- it's taken care of a lot of questions.

On sheet C-035 I'm assuming that where you have the low flow crossing on the curb of the road that's just to allow some of the water collection in the road to drain off. Is that correct?

THE WITNESS (Huntley): That is

correct.

MR. HANNON: Thank you. On sheet C-041 just a general question. For the emergency spillway detail you talk about low permeability soil. Are you referring to clay or something along those lines?

THE WITNESS (Huntley): Not necessarily clay, but yes, something along those lines where it could be a till material, a tight material that has low permeability characteristics, yes.

MR. HANNON: Thank you. I do have a few more questions. This goes back to one of the things we were talking about earlier in response to Council Interrogatory 59. That's where it talks about the emergency spillways include check dams, and I didn't see that in the design. So that's something that would need to be addressed. It's more of a statement than a question.

In the Siting Council Interrogatory Number 70, I know you're talking about promoting the grasses, but one of the things I didn't see anywhere is, are you planning on using fertilizers on the site?

THE WITNESS (Gravel): Overall, we don't anticipate the use of fertilizers. During

the monitoring of the meadow habitat which will be established, if there's a problem area, we may need to use a fertilizer, perhaps, to help that grow vegetation.

MR. HANNON: I'm not arguing against fertilizer, but if you're looking at the erosion sedimentation control guidelines established by the department, you're probably going to need to use fertilizers on some areas where you start having runoff, things of that nature, maybe around the berms, in order to maintain that grass area, because the last thing you want on this site or on any solar site is to start having the grass start dying, you start getting nice open spaces of dirt and create some significant issues.

And this last question, I don't know if you can answer it. It's not on any of the details. And this is just something that I came across the other day, but I want to find the back-up sheet that I had with it. It has to do with Siting Council Interrogatory Number 72. With the panels, do you know what the PV technology is that's associated with the panels that you're proposing to use?

THE WITNESS (Singer): The panels we're

proposing to use, which matches the 400 watt spec sheet in Exhibit F, are crystalline silicon.

MR. HANNON: Okay. Thank you. I have no additional questions.

THE CHAIRMAN: Thank you.

Mr. Levesque.

MR. LEVESQUE: Some of my questions were answered. Probably Mr. Gravel and Mr. Singer, look at your photo simulation 8. Well, it's actually a photo with proposed mitigation. From that picture -- do you have it already?

THE WITNESS (Singer): Yes.

MR. LEVESQUE: You generally know what I'm talking about anyway. That photo and the map show that you're making substantial plantings all around on the roadside and also to some of the neighboring property to the south also, and there's a lot of -- many arborvitaes.

Now, that grassy area as an example in 8, that's still going to be under the control of the farm owner. Correct? It's outside the lease area, or it borders your lease boundary, it seems?

THE WITNESS (Singer): It would be outside the project fence, but the lease boundary, I couldn't say at this time if it was outside of.

Whether it's with the landowner or our operations team, we would ensure that vegetation management of that grass would be appropriate.

MR. LEVESQUE: Whether it's in or out or the investment, the expenditure.

THE WITNESS (Singer): Correct.

MR. LEVESQUE: Some of the opposition to the larger solar projects, large for Connecticut, are that you're losing good farmland or the opportunity to provide, you know, local food products. It looks like there might be room -- and you already mentioned that one of your recommended plantings would be blueberry bushes. Instead of spending more on the arborvitaes, or even in addition, couldn't you consider, if the farmer wanted it, providing like three rows of blueberry bushes and then they'd have a local valuable product?

You could look into it and come back to us. Because it would provide visual screening that's pleasing to people and also something useful.

THE WITNESS (Singer): It's something we're open to considering. I would also mention that just recently we revised our vegetative

screening plan pursuant to feedback from the Enfield Town Council to create denser shrubbery, and so the off center spacing for the medium shrubs that we're proposing to plant decreased from 5 feet off center to 4. And so there's 60 additional plants that we're planning to put in that wasn't in the original petition.

MR. LEVESQUE: Just a suggestion.

THE WITNESS (Singer): Understood.

MR. LEVESQUE: That you talk to the Town of Enfield and only if the property owner wants a bunch of blueberry bushes. He seems like he grows a variety of things. Maybe that would be something new, if he's interested, and then come back and report on it.

THE WITNESS (Singer): Certainly.

MR. LEVESQUE: Thank you. That's all for me.

THE CHAIRMAN: Thank you, Mr. Levesque.

Mr. Edelson.

MR. EDELSON: So in the report, and you already mentioned it in one of the answers to the questions, the project has a 30-year life, but in the environmental benefits, or I should say the benefits, you only use 20 years. Was that just an

oversight, or why 20 years when calculating the greenhouse benefits versus the 30-year life expectancy?

THE WITNESS (Singer): The difference between the 20 and 30 years is due to a conservative assumption on the greenhouse gas analysis in terms of the emission savings that the project would produce as opposed to the 30-year life.

MR. EDELSON: And what's the justification? Why short sell the project? I mean, the whole RFP is about trying to generate as much electricity with lower carbon emissions, lower greenhouse emissions. I would encourage you to redo the calculation and let's see the benefits that are really there. If you really believe it's got a 30-year life, let's go for it.

THE CHAIRMAN: If I may interject? In follow-up to Mr. Edelson's, from my notes and having read this a long time ago, the contract is for 20 years no renewal?

THE WITNESS (Singer): That's correct.

THE CHAIRMAN: How is it you talk in terms of 30 years then? I mean, to me normally, at least as I've experienced it, if it's a 20-year

deal and you're thinking 30, you've got an option for the other 10, or you've got some doorway open to continue on. From what I read, it's 20 years but you're thinking 30, but the door is shut.

THE WITNESS (Singer): So we anticipate that the equipment has a 30-year life.

THE CHAIRMAN: I understand that.

THE WITNESS (Singer): So for the 10 years after the current power purchase agreements would expire, we would either seek to operate in one of two ways: One, a new agreement for 10 years to cover the balance of the project life; or two, operate in the wholesale market to sell power into the ISO New England grid without a contract. And so that makes up for the difference, and in determining the economics of the project, that's how we viewed it.

THE CHAIRMAN: But you pursue it today without any options on your part to continue on after 20 years if the landowner tells you a flat-out no? That surprises me with such an investment.

THE WITNESS (Singer): I believe, if I'm understanding the question correctly, the leases with our landowners are for a total

potential term, if all operator extensions are used, of 40 years. So the lease being active is not a concern to us.

THE CHAIRMAN: So the information of the contract is for 20 years with no renewal is not really accurate then?

THE WITNESS (Singer): I believe it is. The contract in that context is referring to the power purchase agreements, and the 40 years is in relation to the land lease real estate agreements.

THE CHAIRMAN: So your lease then is for more than 20 years?

THE WITNESS (Singer): Potentially. How it operates is that once the production term starts, there's five-year increments, and, you know, we decide to renew in each of those five-year increments. So it has the potential to be 40 years total.

THE CHAIRMAN: So let me ask you flat out then. When 20 years go by and you decide you want to continue this operation, you have the ability to do that contractually?

THE WITNESS (Singer): That's correct.

THE CHAIRMAN: So you really do have some options to renew. Okay. Well, that clears

that up. Thank you.

MR. EDELSON: So just to put another spin on it, when you say "conservative," that's really a worst-case analysis that after 20 years the electricity market is such that this particular site is no longer economically viable and there's no reason to continue with the solar, and so that's why you didn't take the benefits, would that be a way of looking at it?

THE WITNESS (Singer): I believe that's a fair way of looking at it.

MR. EDELSON: If we turn to page 11 -- and I might have overthought this -- this is about the project phasing. And it seemed to me you were trying to lay out a timeline for when things are going to happen so we don't expect everything is going to happen on day one. But I wasn't sure why you separated phase 2 and 4 and put phase 3 in between. It would seem to me you would have tried to make working on either array, or especially the eastern array, a continuous thing, but it almost reads as if you're going to start work on the eastern array, then stop that, start working on the western array, and then come back to the eastern array. And it would seem to me that you

would want to do the western array first and finish that. It seems to be easier because it's an open field already, you don't have to do as much of the grubbing and more extensive stormwater work.

So I might be overinterpreting this as being phased as one phase followed by another by another, but if you could just speak to the timeline associated with this phasing?

THE WITNESS (Huntley): The phasing that we put together is intended to follow both what makes sense from a time of year point of view assuming that the construction, that the clearing is starting in the winter, and then we're moving on from that to spring and then through the summer and fall construction, as well as it's aligned with the stormwater permit from a construction period and a construction point of view.

The intention is -- and let me back up. The reason that we're breaking up those phases is the idea is that a lot of the work for the civil components of the construction, which are the grubbing, the road construction, those types of pieces, are going to be done by a single contractor, and this allows the concurrence of

that contractor to continue throughout the site and then move on to the other areas with the other contractors that are doing the racking, that are doing the installation to follow along behind.

There is an intention that a level of this will be done concurrently depending on what contractors, what subcontractors are on site at any given time, to allow for a lot of these to happen at the same time, just as you indicated, that phase 4 could happen immediately after phase 2 while phase 3 is happening in another location by a different contractor.

So I think that the way it's written out is a logical representation on paper. There is going to be some overlap, but those overlaps have very specific stormwater requirements and DEEP permit requirements that are going to be associated with each of those operations in those areas.

MR. EDELSON: Okay. Thank you. So my next question is about remote monitoring, and there's references to that. And it sounds like NextEra has quite a lot of experience in that. But I'm trying to better understand what that actually means. Is that just monitoring the

output, or are you using other visual techniques that allow you to visually monitor what's going on on the site? It wasn't clear to me in reading that section. So if you could speak to what you mean by remote monitoring and how it actually works on an operational basis?

THE WITNESS (Asheim): The site is, as you said, monitored by the output. There's also controls in place to monitor when equipment is online or offline.

MR. EDELSON: So no visual, it's just all based on, let's say -- well, again, I keep coming back to output. I'm aware that some solar fields are being monitored by drones as a way to look for problems and maybe going along with the idea of, you know, you end up -- this is a large area, and things can happen as far as mud, vandalism, other things that could cause the output to be degraded. So I'm wondering if you're thinking in terms of any visual monitoring remotely?

THE WITNESS (Asheim): We currently do not have cameras installed or drones flying over our sites, but that's something that we are looking into as that technology advances.

MR. EDELSON: So currently you're --

THE WITNESS (Singer): If I may add? And part of that that we're looking at, the company is looking at right now, is thermographic scanning in general. So that whether it's someone on foot with a device that could see if current is flowing through properly, or if it's via a drone, that you're able to quickly identify if a part of the site isn't operating properly.

MR. EDELSON: But again, that's potentially in the future, it's not in the current operational plan, at least in your mind?

THE WITNESS (Singer): Correct.

MR. EDELSON: And I don't know if that's something, you know, in terms of the local community would want you to come back if that was a change in your operation. But again, currently in your operation it's, if you will, much more noninvasive in the sense of having physical devices going around, you can be down in Juno, Florida enjoying the good weather and remotely see what we're going through up here. We're not jealous.

(Laughter.)

MR. EDELSON: I guess my last area, and

I want to make sure I understand what it is you're trying -- and just briefly on page 31, a lot of discussion about the stormwater. And I'm trying to make sure I believe our ultimate objective here is, you know, that the flow or the hydrology of the site is pretty much the same afterwards as it is today, especially on the fields on the western array.

And you refer here, if I've got the right page, that you look at these arrays as the only array or the only line of arrays that's impervious is the, let's say, the upper-most one, and therefore from that point going down gradient all the others are considered to be pervious because the water keeps flowing sheet flow to sheet flow so that the amount of acreage that is covered is quite minimal because it's just that first row. Is that what you're trying to say there in that sentence that says kind of the top of the page, "Therefore, the only solar modules that are considered impervious will be the most upgradient modules in each subcatchment." That's the intention, right?

THE WITNESS (Huntley): That's correct. And the intention is that based on the

construction of the racking systems and of the arrays, each one of these panels is independent from the others. So where stormwater falls on top of a panel, it will run off down to the grade, as it exists currently, or as it will exist with minor modification, to vegetated states and to meadow grass that in those areas the downgradient areas will receive runoff from the higher gradient panels, and in all of those areas it's still a meadow that exists beneath the panels so evapotranspiration and infiltration can still occur within those areas.

To be conservative, we've assumed that the most hydraulically remote of these panels are impervious. That way we're basically saying that if there is no panel or no contributing area at a higher level than that, then in that area there would not be any infiltration because there wouldn't be anything contributing to that area. So we believe it's the most conservative approach to take in the modeling that was done for the stormwater, that's correct.

MR. EDELSON: I think in other solar projects we've heard the concern that the water that comes off of the panel, so it has a sheet

flow to it but it comes down, if you will, in one row, and that you could get gullying or erosion there. So that although we'd like to see it as a nice flow, the concern might be that that's going to create kind of little gullies going along the front end of each panel or each line of panel.

Anything you can do or say to allay my concern that that's going to happen and we're going to see not the continuous sheet flow that we see today on the property? Do you see the image I have in my mind?

THE WITNESS (Huntley): Yes, I understand. And I guess the answer to that is twofold: One is that each one of the panels are separate from the others. So as opposed to like a roof of a barn or a roof of a house or a building where you have a continuous, you know, roof that is a continuous flow and a drip edge that has a potential for erosion, what we have here are the individual panels themselves with a drip coming down in between each one of those rows. So it is a much less of a concentration in those areas.

And then the second part of that is that based on the experience that we have, the grass vegetation, once established, with

recognizing that the leading edge of these panels is likely somewhere in the 2 to 3 foot range, we don't see any erosion or rilling from the drip edge of those panels in the industry throughout the area.

MR. EDELSON: Okay. Chairman, those are my questions. Thank you.

THE CHAIRMAN: Dr. Klemens, please.

DR. KLEMENS: Thank you, Mr. Chairman. A couple questions have come up as hearing my colleagues speak. Firstly, the concept of using arborvitae, isn't that just putting out a buffet for the deers?

THE WITNESS (Angus): There actually is no arborvitae proposed. It's eastern red cedar.

DR. KLEMENS: Thank you. Much better.

I have a question on the western array. Why is that hedge row being left intact, is there a reason? Because it just seems if you're trying to create the arrays that you're creating this area of trees and shading, and it sort of affects the efficient layout of the solar arrays.

THE WITNESS (Singer): Dr. Klemens, are you referring to the space below barns 4 and 5 on the figure where there's a kind of rectangular

cut-in where the panels and the vegetation screening discontinues?

DR. KLEMENS: I'm talking, if you look at figure number 3, existing conditions, there just seems to be the disturbance limits, and there is this long hedge row that goes from the road almost, you know, into the vernal pool protection area.

THE WITNESS (Singer): Yes.

DR. KLEMENS: What's the purpose?

THE WITNESS (Singer): That is a right-of-way owned by Connecticut Light and Power.

DR. KLEMENS: Okay. Thank you.

Okay. Now I'll get to the questions I've prepared. Most of these are going to focus on Exhibit D. And I just want to for the record confirm that it's the applicant's conclusion that the area that is used by vernal pool amphibians for breeding does not meet the definitions of a wetland based on either federal, state, or town definitions?

THE WITNESS (Nickerson): That's correct.

DR. KLEMENS: So it's not a wetland?

THE WITNESS (Nickerson): Correct.

DR. KLEMENS: So based on my -- and this is a very complete application. And it's nice to have an application where you have enough data. You don't have to talk about the deficiencies, but you can talk about the planning implications of the data. We don't always get them like that.

So we have called this vernal pool an ecological sink. Is that the same as what we also often refer to as a decoy pool, one that's essentially siphoning off breeding animals from viable pools and fails to provide the adequate hydroperiod and other factors to result in successful development in metamorphosis. Is that what this pool is?

THE WITNESS (Nickerson): We're saying that in most years that's correct.

DR. KLEMENS: So most years it functions as a sink?

THE WITNESS (Nickerson): Correct.

DR. KLEMENS: And you're basing this on two years of data, and one of those years was quite wet?

THE WITNESS (Nickerson): Which year are you referring to?

DR. KLEMENS: 2018.
THE WITNESS (Nickerson): I would say 2018 was quite wet later in the season. During the vernal pool season we discussed it and kind of concurred that it was sort of a normal or average year.
DR. KLEMENS: Okay.
THE WITNESS (Nickerson): In the spring. Sorry.
DR. KLEMENS: So the application refers to other wetlands immediately offsite to the southeast, including a large buttonbush swamp, scrub swamp. And is it your sense that this is probably where the amphibians came from?
THE WITNESS (Nickerson): Likely, yes.
DR. KLEMENS: Okay. So let's go to Appendix K.
THE WITNESS (Nickerson): Of Exhibit D?
DR. KLEMENS: Appendix K. I've leaving D. We're going to Appendix K --
THE WITNESS (Nickerson): Excuse me.
DR. KLEMENS: -- which is the stormwater management. And my first question is, I believe that one of the Figure 5s should be Figure 4. You have two Figure 5s and no Figure 4

there. And I'm looking at the existing -- I'm actually looking at Figure 3, and what you label as Figure 5, which I believe the following figure should be 4. That may be just a labeling error.

THE WITNESS (Huntley): I believe that is correct, yes. Thank you.

DR. KLEMENS: Okay. So we're calling that Figure 3 and Figure 4 now, right, these two, and Figure 5 is the Scantic River Watershed?

THE WITNESS (Huntley): Correct.

DR. KLEMENS: So can you tell me, I'm looking at all these different sub-watersheds, is the hydrological contribution to the vernal pool post-development the same, are you increasing or decreasing the amount of water entering this vernal pool?

THE WITNESS (Nickerson): Yes. The level of site work required for the project will not alter the smaller watersheds within the site.

DR. KLEMENS: So the hydrological budget for the vernal pool remains the same post-construction?

THE WITNESS (Nickerson): Correct.

DR. KLEMENS: Calhoun and Klemens BDP, which is administratively noticed as Item No. 90,

recommends on page 21, "Avoid creating ruts and artificial depressions that hold water. And if ruts are created, refill to grade." Do you agree with that statement?

THE WITNESS (Nickerson): Yes.

DR. KLEMENS: Your response to CSC Interrogatory 91 states that the project will occupy 84 percent of the critical terrestrial habitat. That is the area 100 to 750 feet from the vernal pool. Is that compliant with the development standards set forth in Calhoun and Klemens 2002, page 16?

THE WITNESS (Nickerson): Sorry. I'm looking for what exactly you're referring to on page 16.

DR. KLEMENS: I'll make it easy for you. It's 25 percent.

THE WITNESS (Nickerson): 25 percent, correct. So it's not technically in conformance with the 25 percent threshold; however, we considered that in the development of the project and decided to offer the directional corridor as an alternative to conforming with that given the nature of the pool.

DR. KLEMENS: And will this 84 percent

removal include a significant amount of forested habitat; and if so, what is the acreage?

THE WITNESS (Nickerson): So the 84 percent is the project footprint; 71 percent of that is forested.

DR. KLEMENS: So 71 percent of the 84 percent in the critical terrestrial habitat is forested habitat removing --

THE WITNESS (Nickerson): Correct.

DR. KLEMENS: So as the excavated pool is not a wetland, and as you're developing a significant amount of the critical terrestrial habitat rendering the pool noncompliant, and the pool is primarily functioning as an ecological sink, wouldn't the prudent conservation solution be to grade out this area, fill it, as opposed to trying to conserve it as a dysfunctional pool? What's the conservation benefit of all of this?

THE WITNESS (Ryan): In some years, and particularly wetter years, it still may produce a metamorph, say wood frogs.

DR. KLEMENS: May?

THE WITNESS (Ryan): It might.

DR. KLEMENS: A handful of eggs. And the reason I'm asking this is there's an awful lot

of redesign on this project that has been redesigned on some very, very gently, relatively flat area with sort of rather poor, at least as I saw it, forest. Might it make sense to really remove that and turn that into area for solar arrays and avoid some of the better forest and some of the steeper slopes?

THE WITNESS (Singer): Based on the points you've raised, it is something we're willing to take under consideration in refining the site design. I would like to add that the steepest portions that break up the western and eastern array, that ridge, we are avoiding placing solar panels on as it is.

DR. KLEMENS: And I noticed that there is in this corridor that you are now protecting part of it is quite steep, but around the vernal pool, as we've walked to the vernal pool and the toe of the slope, there's a large area, relatively flat that I think could be used and maybe move the arrays around and maybe get a better fit, maybe protect some more of the forest. That's just -- so if you do reconsider it, that would be great. Because I think based on the data that you have put into the record, it's marginal the full

effective pool, and actually if you're following Calhoun and Klemens, the recommendation is to fill such things and not leave them on the landscape, and it's not a wetland, as you have determined.

THE WITNESS (Nickerson): Understood.

THE CHAIRMAN: Mr. Silvestri has a follow-up question.

MR. SILVESTRI: I appreciate Dr. Klemens' comments on this. Correct me if I'm wrong, isn't there an agreement between you and the landowner that that area remains as-is?

THE WITNESS (Singer): To my knowledge, our agreement with the landowner does not contain a provision stating that.

MR. SILVESTRI: Okay. I thought I read that. That's why I asked the question. Thank you.

THE CHAIRMAN: Thank you. Dr. Klemens.

DR. KLEMENS: Moving to the eastern spadefoot toad study, in a recently approved CSC application, Petition 1345, nocturnal surveys took place between May 22nd and October 29, 2017, expending 198 person hours over 11 nights and locating 31 eastern spadefoots. Can you explain why 26 person hours over five nights between May

and July of 2018 constitutes sufficient effort on the part of the applicant to conclusively demonstrate that eastern spadefoots were not present at this site?

THE WITNESS (Ryan): Based on my previous experience, I felt that that amount of time, that five nights in optimal conditions, would be adequate to detect the presence of eastern spadefoots on the property.

DR. KLEMENS: You're going to have to qualify or tell us what is different about this property that led you to that conclusion, Dr. Ryan.

THE WITNESS (Ryan): While I searched everything from having a search image from where I've observed eastern spadefoots in the past, it did not seem to be an abundance of adequate habitat at this site, nor is there Hinckley soils necessarily on the site. The agricultural fields themselves are pretty bare, so there's not clumps of vegetation when you typically would find spadefoots. So surveying was focused mainly on the edges of the fields, but again, I tried to cover the entire site just to --

DR. KLEMENS: Did you go into the

woods?

THE WITNESS (Ryan): Yes.

DR. KLEMENS: All through that hill?

THE WITNESS (Ryan): Yes, and searched the entire property just to be thorough, focused on areas where you think you would find them, where you'd have the optimal chance of detecting the species, but then to stay open minded and not close anything out and cover the rest of the area as well, which includes the woods.

DR. KLEMENS: As a conservation biologist, you know that it's much more challenging to conclusively prove an absence than a presence?

THE WITNESS (Ryan): I agree, and I would say they're likely not present. I refrain from -- or avoid making absolute statements.

DR. KLEMENS: But can you give us some level of confidence, some sort of -- 95 percent?

THE WITNESS (Ryan): I think it's highly unlikely that eastern spadefoots occur on the site.

DR. KLEMENS: Based on?

THE WITNESS (Ryan): Based on the amount of effort that we have put in and previous

experience.

DR. KLEMENS: Let me try to understand. You're saying the site is just not, in your opinion, suitable compared to other sites you've studied?

THE WITNESS (Ryan): It doesn't look optimal, no. And the spadefoot observations track pretty well with Hinckley soils and with the predictive model developed by DEEP. And there is no predicted area or Hinckley soils on the site. The Hinckley soils are on the other side of -- across from the project area across Bailey Road to the north.

DR. KLEMENS: Okay.

THE WITNESS (Ryan): I should mention, too, that the nocturnal surveys also consisted of nocturnal searches on Bailey Road on the properties adjacent to get as near as the Hinckley soil as I could without going in people's yards.

DR. KLEMENS: And one additional question or comment because we strive to make a very complete record. As you heard Mr. Perrone started off trying to get a lot of facts into the record.

Now, as I understand it, Dennis Quinn

conducted 20 percent of those nocturnal studies. Correct?

THE WITNESS (Ryan): That is correct.

DR. KLEMENS: Without you?

THE WITNESS (Ryan): Without me. I was not present.

DR. KLEMENS: Right. And you also relied on corroborating data from other surveys Mr. Quinn was conducting contemporaneously in another part of Connecticut to reach some of your conclusions. Correct?

THE WITNESS (Ryan): Correct.

DR. KLEMENS: So this is just an administrative thing. Don't you think that including his CV as part of the project would be appropriate and necessary for a complete record the qualifications of the scientists working on this as opposed to the assistance?

THE WITNESS (Ryan): That would have been prudent, yes.

DR. KLEMENS: That can be added?

MR. BOGAN: Yes.

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

THE CHAIRMAN: Mr. Silvestri has a

follow-up.

MR. SILVESTRI: I knew I wasn't getting senile on this one based on the question I asked you before. I want to refer you to within Section D by Tetra Tech there is a Herpetofauna Avoidance and Mitigation Plan. And on page 4 of that, and I'll quote, "The contract with the leasing landowner has been negotiated to allow no clearing within the landscape connection (directional buffer) for the life of the project. The critical terrestrial habitat calculations and a visual demonstration of the directional buffer is provided in Appendix A, Figure 2."

How does that differ from what you gave me for an answer before?

THE WITNESS (Singer): The clarification, if I may, is that that stipulation is that the landowner may not conduct the clearing activity, not precluding the tenant, us, from doing the clearing actively should it be in the project scope.

MR. SILVESTRI: I don't read that from here, but you have the contract, I don't. To me when I read this is that you are not allowed to do the clearing.

(Pause.)

THE CHAIRMAN: Perhaps maybe you can take a look at the contracts and give us whether or not the tenant can do it, which I think will answer the question for you, Mr. Silvestri.

MR. SILVESTRI: Okay.

THE WITNESS (Singer): Yes, if it's --

THE CHAIRMAN: Otherwise, we'll just talk about it for quite a while and not resolve it.

THE WITNESS (Singer): We'd like to do so.

MR. SILVESTRI: Thank you.

Thank you, Mr. Chairman.

THE CHAIRMAN: That's the end of your questions?

DR. KLEMENS: That's the end of my questions, Mr. Chairman.

THE CHAIRMAN: Does any member of the Council have any? Mr. Silvestri.

MR. SILVESTRI: I actually have one more quick one. Before we were talking about 20-year life spans, 30-year life spans, I heard 40 might pop in there. My comment starts with the inverters have a finite life, so somewhere along

the line, 10 years or whatever, you're going to have to replace the inverters. All right? Somewhere along the line I would think manufacturers are going to produce panels that are probably greater than 400 megawatts to some other number. So with that, replacing and upgrades by manufacturer, couldn't this project go on in perpetuity, I mean, periodically go back, change an inverter, change a panel, make it a stronger megawatt or watt, rather, and just keep going beyond 20, 30, 40 years?

THE WITNESS (Singer): The replacing of the panels that we're proposing to install currently with newer panels would likely require a lot of downstream effects such as changing the racking components and making sure that the voltage with the inverters is consistent. Moreover, I would add the way that we view the economics of the project is that you make the upfront investment and those panels pay back over that 20-year period, and that it's currently not economically viable to replace panels in a time frame shorter than that period.

MR. SILVESTRI: What about at the end of that period?

THE WITNESS (Singer): The end of that period being 20 years?

MR. SILVESTRI: Or 30.

THE WITNESS (Singer): I can't speak definitively to that where we would be 30 years from now, and so I wouldn't want to make a prediction on that front, but our current plan is to decommission after 30 years.

MR. SILVESTRI: Okay. Thank you.

THE WITNESS (Asheim): I would add that it is technically possible outside of the -- from an economic or development perspective to replace equipment consistently for beyond 30 or 40 years.

MR. SILVESTRI: Thank you again.

THE CHAIRMAN: Mr. Hannon, you had something?

MR. HANNON: Thank you, Mr. Chairman.

Two quick questions, maybe three. Where are the panels manufactured?

THE WITNESS (Asheim): The proposed panel is manufactured in a number of different facilities, including the U.S. and outside of the U.S. So it would depend on what batch of modules we get at the particular time.

MR. HANNON: Is there any way to get a

certification that the solder that's used in the panels is lead free? And the reason I'm asking is because some recent TCLP testing showed that some of the panels are exhibiting signs of lead and they did not pass the test, and it had to do with the soldering. So is that something you can look into?

THE WITNESS (Singer): Yes, it's something we could look into.

MR. HANNON: Thank you. That's all.

THE CHAIRMAN: Dr. Klemens.

DR. KLEMENS: Actually I'm glad you mentioned the herpetofauna avoidance plan because I did have a couple of comments. This was not written -- who wrote this plan?

THE WITNESS (Nickerson): I wrote the majority of it. It was reviewed by Dr. Ryan.

DR. KLEMENS: Okay, great. Thank you. And the only comment I had was on page 4, "Documentation and Reporting: If rare, threatened, or endangered species are found..." I mean, as I understand it, rare is not a legal classification in Connecticut. We have three classifications: Endangered, threatened, or special concern. Is what you mean when you say

rare species are the special concern ones?

THE WITNESS (Nickerson): Yes, I would say that that was referring to kind of regular surveys that would be done to indicate rare, threatened, or endangered species, specifically, yes, you're correct in saying that if threatened, endangered, or special concern species are identified, that's what it's referring to.

DR. KLEMENS: You could change that then, right?

THE WITNESS (Nickerson): Yes.

DR. KLEMENS: Great. Thank you.

Thank you, Mr. Chairman.

THE CHAIRMAN: Okay. With that, the Council is going to recess until 6:30 p.m., and this evening's session will be restricted to the public comment hearing testimony or comments from the public. So we'll adjourn until 6:30 p.m. Thank you.

MR. BOGAN: Thank you.

(Whereupon, the witnesses were excused, and the above proceedings were adjourned at 5 p.m.)

CERTIFICATE

I hereby certify that the foregoing 89 pages are a complete and accurate computer-aided transcription of my original stenotype notes taken of the Council Meeting in Re: 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, which was held before SENATOR JAMES J. MURPHY, ACTING CHAIRMAN, at Enfield Town Hall, Council Chambers, 820 Enfield Street, Enfield, Connecticut, on January 10, 2019.

Lisa L. Warner, CSR 061
Court Reporter
BCT REPORTING SERVICE
55 WHITING STREET, SUITE 1A
PLAINVILLE, CONNECTICUT 06062

I N D E X

APPLICANT'S EXHIBITS

(Received in evidence)

I n d e x (Cont'd.):

I n d e x (Cont'd.):