

**In The Matter Of:**  
*STATE OF CONNECTICUT*  
*CONNECTICUT SITING COUNCIL*

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*Petition No. 1310A*  
*February 4, 2020*

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*BCT Reporting LLC*  
*55 Whiting Street, Suite 1A*  
*Plainville, CT 06062*  
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## 1 STATE OF CONNECTICUT

## 2 CONNECTICUT SITING COUNCIL

3  
4 Petition No. 1310A

5 Quinebaug Solar, LLC petition for a declaratory  
6 ruling, pursuant to Connecticut General Statutes  
7 Section 4-176 and Section 16-50k, for the proposed  
8 construction, maintenance and operation of a 50  
9 megawatt AC solar photovoltaic electric generating  
10 facility on approximately 561 acres comprised of  
11 29 separate and abutting privately-owned parcels  
12 located generally north of Wauregan Road in  
13 Canterbury and south of Rukstela Road and Allen  
14 Hill Road in Brooklyn, Connecticut.

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17 Continued Public Hearing held at the  
18 Connecticut Siting Council, Ten Franklin Square,  
19 New Britain, Connecticut on Tuesday, February 4,  
20 2020, beginning at 1 p.m.

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23 H e l d B e f o r e :

24 ROBERT SILVESTRI, Hearing Officer  
25

1    A p p e a r a n c e s :

2

3            Council Members:

4            ROBERT HANNON,

5                    Designee for Commissioner Katie Dykes

6                    Department of Energy and

7                    Environmental Protection

8            LARRY LEVESQUE, ESQ.,

9                    Designee for Chairman Marissa P. Gillett

10                   Public Utilities Regulatory Authority

11            JOHN MORISSETTE

12            MICHAEL HARDER

13            DANIEL P. LYNCH, JR.

14

15            Council Staff:

16                    MELANIE BACHMAN, ESQ.

17                    Executive Director and

18                    Staff Attorney

19

20                    MICHAEL PERRONE

21                    Siting Analyst

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23

24

25

1   A p p e a r a n c e s (Continued):

2  
3           For the Applicant, Quinebaug Solar, LLC:

4                   LOCKE LORD LLP

5                   20 Church Street

6                   Hartford, Connecticut 06103

7                   BY: DAVID W. BOGAN, ESQ.

8                           KATHRYN E. BOUCHER, ESQ.

9  
10           For The Connecticut Light and Power Company  
11           d/b/a Eversource Energy:

12                   CARMODY TORRANCE SANDAK HENNESSEY LLP

13                   50 Leavenworth Street

14                   P.O. Box 1110

15                   Waterbury, Connecticut 06702

16                   BY: MARIANNE BARBINO DUBUQUE, ESQ.

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1           MR. SILVESTRI: Good afternoon, ladies  
2 and gentlemen. This hearing is called to order  
3 this Tuesday, February 4, 2020, at 1 p.m. My name  
4 is Robert Silvestri, member and presiding officer  
5 of the Connecticut Siting Council.

6           This evidentiary session is a  
7 continuation of the public hearing held on January  
8 14, 2020 at the Brooklyn Community Center in  
9 Brooklyn. It is held pursuant to the provisions  
10 of Title 16 of the Connecticut General Statutes  
11 and of the Uniform Administrative Procedure Act  
12 upon a motion to reopen a petition from Quinebaug  
13 Solar, LLC for a declaratory ruling for the  
14 proposed construction, maintenance and operation  
15 of a 50 megawatt AC solar photovoltaic electric  
16 generating facility located generally north of  
17 Wauregan Road in Canterbury and south of Rukstela  
18 Road and Allen Hill Road in Brooklyn, Connecticut.

19           On December 5, 2019, the Council,  
20 pursuant to a request filed by Quinebaug Solar,  
21 LLC and the provisions of Connecticut General  
22 Statutes Section 4-181a(b) reopened this petition.

23           A verbatim transcript will be made of  
24 this hearing and deposited with the Clerk's  
25 offices in the Towns of Brooklyn, Canterbury and

1 Plainfield and the City of Norwich for the  
2 convenience of the public.

3 We will proceed in accordance with the  
4 prepared agenda, copies of which are available on  
5 the table next to the door.

6 I wish to call your attention to those  
7 items shown on the hearing program marked as Roman  
8 Numeral I.D., Items 20, 67, 85, 95 and 96.

9 Does any party have an objection to the  
10 additional items that the Council has  
11 administratively noticed?

12 MS. BARBINO DUBUQUE: Mr. Silvestri,  
13 Marianne Barbino Dubuque for Eversource. We have  
14 no objection.

15 MR. SILVESTRI: Thank you.

16 MR. BOGAN: Good afternoon, Mr.  
17 Silvestri. David Bogan along with Kate Boucher on  
18 behalf of the petitioner. We have no objection.

19 MR. SILVESTRI: Thank you, counselor.  
20 And the other party I do not see in the room.  
21 Okay.

22 Accordingly, the Council hereby  
23 administratively notices these items.

24 We will proceed with the appearance of  
25 the party, Eversource Energy.

1                   Counselor, could you have your  
2 witnesses stand up?

3                   MS. BARBINO DUBUQUE: Yes. Please  
4 stand.

5                   MR. SILVESTRI: And Attorney Bachman,  
6 could you begin by swearing in the party's  
7 witnesses?

8                   A L I   R.    K A R I M I,  
9                   M I C H A E L   P.   L I B E R T I N E,  
10                  S T E P H E N   M A R I E N,  
11                  A N U J   M A T H U R,  
12                  C H R I S T O P H E R   P.   S O D E R M A N,  
13                  called as witnesses, being first duly sworn  
14                  by Ms. Bachman, were examined and testified  
15                  on their oaths as follows:

16                  MS. BACHMAN: Thank you.

17                  MR. SILVESTRI: Thank you. You may be  
18 seated.

19                  Now, Attorney Dubuque, could you please  
20 begin by identifying the exhibits you have filed  
21 in this matter and verifying the exhibits by the  
22 appropriate sworn witnesses?

23                  MS. BARBINO DUBUQUE: Yes. Thank you.

24                  DIRECT EXAMINATION

25                  MS. BARBINO DUBUQUE: Good afternoon.

1 May I just introduce them quickly, the panel  
2 members, ask them to just introduce themselves and  
3 their title?

4 THE WITNESS (Karimi): My name is Ali  
5 Karimi.

6 MR. SILVESTRI: Please use the  
7 microphone.

8 THE WITNESS (Karimi): Sorry. My name  
9 is Ali Karimi. I'm with Eversource Energy. I'm  
10 the project engineer for this project.

11 THE WITNESS (Libertine): I'm Michael  
12 Libertine. I'm the director of the environmental  
13 siting and permitting group at All-Points  
14 Technology. And I'm here consulting on the  
15 environmental portions of the application.

16 THE WITNESS (Marien): Stephen Marien,  
17 lead engineer for transmission line and civil  
18 engineering at Eversource.

19 THE WITNESS (Soderman): Christopher  
20 Soderman, Eversource Energy, interim director of  
21 transmission line engineering.

22 THE WITNESS (Mathur): Anuj Mathur,  
23 Eversource Energy, project manager.

24 MS. BARBINO DUBUQUE: Thank you. We  
25 have three exhibits we'd like admitted into



1 evidence. And I'd like to start with Exhibit 1,  
2 Eversource Energy's request for party status,  
3 dated 12/23/2019. And I'll ask Mr. Mathur, are  
4 you familiar with the information as to  
5 Eversource's role set forth in Exhibit 1?

6 THE WITNESS (Mathur): Yes.

7 MS. BARBINO DUBUQUE: Are there any  
8 corrections, clarifications or additions relating  
9 to Exhibit 1?

10 THE WITNESS (Mathur): No.

11 MS. BARBINO DUBUQUE: To the best of  
12 your knowledge as to Exhibit 1, is the information  
13 in Exhibit 1 true and accurate, and do you adopt  
14 this material as an exhibit?

15 THE WITNESS (Mathur): Yes.

16 MS. BARBINO DUBUQUE: Thank you. I'd  
17 like to continue with Exhibit 2, direct testimony  
18 of Stephen A. Marien, Ali R. Karimi, Anuj Mathur,  
19 Michael Libertine and Christopher Paul Soderman,  
20 dated 1/7/2020.

21 And Exhibit 3, Eversource Energy's  
22 responses to Council interrogatories, Set One,  
23 dated 1/28/2020.

24 First I'd like to ask Mr. Marien to  
25 state for the record the revisions to attachment

1 C, originally part of the direct testimony that  
2 are now reflected in Exhibit 3 as part of the  
3 response to Interrogatory number 11, so  
4 essentially it's a corrected attachment now.

5 THE WITNESS (Marien): Sure. In  
6 response to Interrogatory Number 11, Eversource  
7 provided an updated map set correcting the 1675  
8 line to the 1000 line. The 1675 line --

9 MR. LYNCH: Could you speak up, please?

10 THE WITNESS (Marien): Sure.  
11 Eversource provided an updated map set. We  
12 correctly showed the 1000 line instead of the 1675  
13 line in the project area. The 1675 line is  
14 correctly shown on page 2 just east of Bean Hill  
15 Substation.

16 In addition to making this revision,  
17 updated structure numbers were also provided, and  
18 the addition of existing structure 6807A is shown  
19 which was not shown previously.

20 MS. BARBINO DUBUQUE: So just to be  
21 clear, Mr. Marien, the response with the  
22 attachment to Interrogatory Number 11 now replaces  
23 attachment C to the direct testimony?

24 THE WITNESS (Marien): Correct.

25 MS. BARBINO DUBUQUE: I'll ask

1 Mr. Marien, Mr. Karimi, Mr. Mathur, Mr. Libertine  
2 and Mr. Soderman, did you prepare or oversee the  
3 preparation of Exhibit 2 with your respective  
4 resumes and Exhibit 3?

5 THE WITNESS (Marien): Yes.

6 THE WITNESS (Libertine): Mike  
7 Libertine. Yes.

8 THE WITNESS (Karimi): Ali Karimi.  
9 Yes.

10 THE WITNESS (Soderman): Christopher  
11 Soderman. Yes.

12 THE WITNESS (Mathur): Anuj Mathur.  
13 Yes.

14 MS. BARBINO DUBUQUE: And other than  
15 Mr. Marien's testimony moments ago as to the  
16 revisions to attachment C which are now part of  
17 the response to Interrogatory Number 11, the  
18 revised drawings, are there any other corrections,  
19 clarifications or additions?

20 THE WITNESS (Marien): No.

21 THE WITNESS (Libertine): Mike  
22 Libertine. No.

23 THE WITNESS (Karimi): Ali Karimi. No.

24 THE WITNESS (Soderman): Christopher  
25 Soderman. No.

1 THE WITNESS (Mathur): Anuj Mathur.

2 No.

3 MS. BARBINO DUBUQUE: To the best of  
4 your knowledge, is the information in Exhibit 2,  
5 as corrected by the response to Interrogatory  
6 Number 11 and the information in Exhibit 3 true  
7 and accurate, and do you adopt the written  
8 testimony with attachments and your respective  
9 resumes in Exhibit 2 and the responses to the  
10 Council's interrogatories in Exhibit 3 as your  
11 sworn testimony?

12 THE WITNESS (Marien): Steve Marien.

13 Yes.

14 THE WITNESS (Libertine): Mike

15 Libertine. Yes.

16 THE WITNESS (Karimi): Ali Karimi.

17 Yes.

18 THE WITNESS (Soderman): Christopher

19 Soderman. Yes.

20 THE WITNESS (Mathur): Anuj Mathur.

21 Yes.

22 MS. BARBINO DUBUQUE: Mr. Silvestri, I  
23 respectfully request that the Council admit into  
24 evidence Exhibits 1, 2 and 3 of Eversource Energy  
25 as full exhibits.

1 MR. SILVESTRI: Thank you, counselor.

2 Does any party have any objection to  
3 the admission of the Eversource Energy exhibits?

4 MR. BOGAN: No objection.

5 MR. SILVESTRI: Thank you, counselor.  
6 The exhibits are admitted. Thank you.

7 MS. BARBINO DUBUQUE: Thank you.

8 (Eversource Energy's Exhibits IV-B-1  
9 through IV-B-4: Received in evidence - described  
10 in index.)

11 MR. SILVESTRI: We'll begin with  
12 cross-examination of the party by staff, Mr.  
13 Perrone.

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

15 CROSS-EXAMINATION

16 MR. PERRONE: Regarding Eversource's  
17 Canterbury and Norwich portions of the project,  
18 would either portion of the project impact  
19 identified resources within the Last Green Valley  
20 National Heritage Corridor?

21 THE WITNESS (Libertine): The answer is  
22 no. I can certainly elaborate, if you'd like.

23 MR. PERRONE: Please.

24 THE WITNESS (Libertine): The primary  
25 structural improvements are going to occur on the

1 circuit transmission line in Norwich where we are  
2 going from single poles to two poles. The  
3 structures there today are approximately 85 feet  
4 tall. We're going to be increasing those new  
5 structures by about 10 feet, give or take. That  
6 corridor is visible, minimally visible in the  
7 surrounding area. In fact, you have to actually  
8 be in line with the right-of-way to actually pick  
9 up the structures from a visual standpoint.

10 Further, we have no real environmental  
11 resources approximate to the project area. So  
12 from a direct and indirect standpoint there are no  
13 anticipated impacts. If we move up to the  
14 switchyard area, we will be introducing some new  
15 structures in that area as well, but because it's  
16 going to be in concert with Quinebaug Solar's  
17 development and the fact that we have existing  
18 transmission lines in the area, it's not going to  
19 really have a substantive additional effect on the  
20 existing visual impacts that are there today.

21 And finally from that standpoint, in  
22 Canterbury we're essentially being provided a pad  
23 to construct on. So from an earth work or impact  
24 from a construction standpoint, that's really not  
25 something that we're responsible for. So from our

1 standpoint we don't feel as though the project  
2 really has -- well, the Eversource portion of the  
3 project certainly has no impact on the Last Green  
4 Valley.

5 MR. PERRONE: Turning to page 16 of the  
6 January 7, 2020 direct testimony in the paragraph  
7 on visual effects, at the very end it says, "The  
8 nearest residence located approximately 300 feet  
9 to the southeast," and then it gets into the  
10 elevation. But as far as that residence, could  
11 you please identify that residence on map sheet 1?

12 THE WITNESS (Libertine): Certainly.  
13 If I can direct everyone's attention to map sheet  
14 1 of the prefile testimony behind attachment C,  
15 you hold that in a landscape position, if you look  
16 at existing structures 6801 and 6802, if you move  
17 to the south you'll notice there is a residence  
18 essentially closer to 6802 in terms of a vertical  
19 line, but that's the residence in which we're  
20 referencing as the closest residence to the  
21 project area. It is at a significantly lower  
22 elevation. You'll also notice that their driveway  
23 actually crosses the right-of-way to the left of  
24 the page, essentially next to existing structure  
25 6799, but that is the residence and abutting

1 neighbor that we were referring to.

2 MR. PERRONE: Because looking at it  
3 quick, it almost appears that there's two  
4 residences. This is the one a bit farther to the  
5 west?

6 THE WITNESS (Libertine): There are  
7 residences closer to the right-of-way, but from  
8 the standpoint of where we're physically doing the  
9 structure separations, that would be the closest.  
10 So technically, yes, there could be a closer  
11 residence in terms of proximity to the  
12 right-of-way that we're accessing.

13 MR. PERRONE: And the 300 foot  
14 measurement, where is that from, from the  
15 residence to --

16 THE WITNESS (Libertine): The residence  
17 to essentially the edge of the right-of-way.

18 MR. PERRONE: And now back to the topic  
19 of the elevation, it says here that residence is  
20 set at an elevation that's substantially lower  
21 than the right-of-way. Could you explain how that  
22 would affect visibility of the transmission  
23 project from that house?

24 THE WITNESS (Libertine): Because of  
25 that aspect, topography alone, because it sits at



1 such a lower elevation, there's not a direct line  
2 of sight to the existing structures that are there  
3 today, and so we are going to be working on the  
4 opposite side, in fact, further away from the  
5 house. And although there's a 10 foot  
6 differential in the height, we don't anticipate  
7 there to be any direct views from that topography  
8 alone. We will still be leaving some right-of-way  
9 edge as well which will also help to buffer if  
10 there were views from like a second-story window,  
11 but we just don't anticipate that based on our  
12 knowledge and visiting the site.

13 MR. PERRONE: Lastly on visibility,  
14 this is more general, could you compare the  
15 existing and proposed conditions for the  
16 transmission project?

17 THE WITNESS (Libertine): Sure. As I  
18 said, we're going from single poles within this  
19 right-of-way to a double circuit arrangement. And  
20 essentially what is to the, we'll call it to the  
21 west where the neighborhoods are Philanne Drive  
22 and Beechwood Boulevard, there is no real  
23 substantive views today in the neighborhood.  
24 There are some of the adjoining right-of-way. And  
25 I suppose, I have not stood in the backyards of

1 these folks, but I've driven those roads and I've  
2 actually done a project on the adjacent parcel  
3 where the water tank sits essentially to the  
4 north/northwest, there are not really significant  
5 views in that portion of the right-of-way.

6           So we're not expecting from that  
7 particular vantage point that things are going to  
8 change really from the existing conditions today.  
9 If in fact someone has seen one of the poles,  
10 perhaps the closest pole that's there today within  
11 our project area which would be 6800, they may  
12 catch a glimpse of the new pole, but I'd be very  
13 doubtful that that is the case. Again, I've been  
14 out in that area over the last few years on a few  
15 projects, and it's just not highly visible.

16           As we move to what I'll call the east  
17 side or the northeast side just off -- and  
18 actually if you turn to map 2, that might give  
19 you -- map 2 of 2 behind that same attachment --  
20 that might give you a pretty good perspective --  
21 it drops substantially off, it is really a cliff  
22 there that drops down to Route 2. As you move  
23 across Route 2, there is some commercial  
24 development. There is some residential  
25 development a little bit further to the north.

1 I've driven that area extensively, and the only  
2 direct views of the existing structures, and in  
3 this case it would be existing structure 6805, can  
4 really only be achieved when you are looking  
5 directly down in line parallel with the  
6 transmission corridor today. So from an overall  
7 general visibility standpoint, things should not  
8 change substantially as they are today.

9 MR. PERRONE: Also on page 16 of the  
10 direct testimony at the bottom of the page it  
11 says, "Eversource would use an existing access  
12 road originating off Philanne Drive to access the  
13 work."

14 Would any upgrades to this existing  
15 access be necessary for the project?

16 THE WITNESS (Marien): Yes, the  
17 project proposed is an upgrade to the existing  
18 access road, and a new access is proposed just to  
19 the northwest of the proposed two single circuit  
20 lines.

21 MR. PERRONE: Could you tell us what  
22 type of upgrades to the existing access you would  
23 be looking at?

24 THE WITNESS (Libertine): Essentially  
25 we'd be slightly widening it and top grading it

1 for construction vehicles. It's fairly rutted out  
2 today. It is accessible and cleared, but it just  
3 needs really some topping just to facilitate that,  
4 and some line trucks. I'd also mention that the  
5 main reason that we're creating a bit of a spur to  
6 access is just to avoid going outside the  
7 right-of-way so we can maintain within our rights.

8 MR. SILVESTRI: Mr. Lynch has a  
9 follow-up question.

10 MR. LYNCH: Mr. Libertine, will this  
11 upgrade to the access road accommodate emergency  
12 vehicles, fire trucks, rescue trucks without any  
13 problem?

14 THE WITNESS (Libertine): It certainly  
15 will provide that in terms of width and overall  
16 grade, yes.

17 MR. LYNCH: Thank you.

18 THE WITNESS (Libertine): It will be  
19 gated, however, as it is today.

20 MR. LYNCH: I'll get to that later.

21 MR. SILVESTRI: Thank you, Mr. Lynch.  
22 Mr. Perrone.

23 MR. PERRONE: Thanks. Does Eversource  
24 need to provide notice to the Federal Aviation  
25 Administration for any of your new structures,

1 either in Canterbury or Norwich?

2 THE WITNESS (Marien): All the  
3 structures and all this project scope has been  
4 reviewed with the FAA Notice Criteria Tool and has  
5 not activated any criteria that we would need to  
6 file any FAA notifications.

7 MR. PERRONE: And lastly regarding the  
8 proposed switching station, is it correct to say  
9 that that would be an air insulated rather than a  
10 gas insulated switching station?

11 THE WITNESS (Marien): Correct.

12 MR. PERRONE: And with that, is it also  
13 correct to say that it would not contain the  
14 greenhouse gas sulfur hexafluoride?

15 THE WITNESS (Karimi): There will be  
16 some SF 6 gas in the breakers that we install  
17 there, yes, but it's not a significant amount  
18 basically, about 60 pounds per breaker.

19 MR. SILVESTRI: Just a clarification,  
20 60 pounds per --

21 THE WITNESS (Karimi): Per breaker.

22 MR. SILVESTRI: Per breaker. And how  
23 many breakers?

24 THE WITNESS (Karimi): Three breakers  
25 at present.

1 MR. SILVESTRI: Thank you.

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

4 MR. SILVESTRI: Thank you, Mr. Perrone.  
5 We'll continue with Mr. Levesque.

6 MR. LEVESQUE: Mr. Perrone took care of  
7 almost all my questions, but what's the purpose of  
8 the gas in the breakers?

9 THE WITNESS (Karimi): The gas provides  
10 the insulation. In the old days we used oil,  
11 mineral oil for that insulation, and now it's the  
12 gas, and it's going to change pretty soon in the  
13 future.

14 MR. LEVESQUE: Thank you very much.

15 MR. SILVESTRI: Thank you.

16 We'll continue with Mr. Harder.

17 MR. HARDER: Thank you. I just have  
18 one question. The direct testimony on the issue  
19 of tree removal, you'd be expanding the corridor  
20 anywhere from 35 to 55 feet, is that solely to  
21 accommodate splitting of the lines to two?

22 THE WITNESS (Marien): Can you clarify?  
23 This is for the double separate circuit  
24 separations?

25 MR. HARDER: That's correct.

1           THE WITNESS (Marien): Yes, that's to  
2 separate the line to maintain necessary standards  
3 consistent with our Eversource standards and  
4 National Electric Safety Code and to maintain an  
5 aerial bucket corridor for our crews to work  
6 safely.

7           MR. HARDER: Thank you. That's all I  
8 have. Thank you.

9           MR. SILVESTRI: Thank you, Mr. Harder.  
10 Mr. Hannon.

11          MR. HANNON: Thank you, but I have  
12 nothing at this point in time.

13          MR. SILVESTRI: Thank you, Mr. Hannon.  
14 Mr. Morissette.

15          MR. MORISSETTE: Thank you. Good  
16 afternoon, panel. I would like to walk through a  
17 couple of the interrogatories filed on January  
18 28th. 001 indicates that Eversource is purchasing  
19 40.18 percent of the output. That is specifically  
20 CL&P is purchasing the 40.18 percent of the  
21 facility, correct?

22          THE WITNESS (Mathur): Yes, that's  
23 correct.

24          MR. MORISSETTE: Western Mass and NSTAR  
25 are purchasing other percentages associated with

1 the output?

2 THE WITNESS (Mathur): That's correct.

3 MR. MORISSETTE: Moving on to 002, just  
4 a point of clarification for the record.

5 Mr. Libertine, you reviewed Quinebaug's  
6 information specifically for the switching  
7 station, and you utilized that information to  
8 opine on the environmental impacts of that area.  
9 For the circuit separation part of the project,  
10 did you also rely on that information, or did you  
11 perform it independently?

12 THE WITNESS (Libertine): No, the  
13 circuit separation in Norwich, which is remote  
14 from the main physical plant that Quinebaug is  
15 proposing, we did an independent review. So we  
16 did field reviews as well as publicly available  
17 mapping as though it were an independent piece.

18 MR. MORISSETTE: Thank you.

19 THE WITNESS (Libertine): You're  
20 welcome.

21 MR. MORISSETTE: Moving on to the line  
22 separation, the estimated cost for that is, as I  
23 understand it, \$3.3 million. Can you confirm  
24 that?

25 THE WITNESS (Mathur): That is correct.



1 MR. MORISSETTE: The overloads  
2 associated with causing to separate is associated  
3 with a confidential location, but essentially if a  
4 single structure with two circuits gets affected,  
5 an overload will occur on the system, correct?

6 THE WITNESS (Marien): When Quinebaug  
7 Solar is connected, this was studied by the ISO  
8 New England interconnection process, and this was  
9 identified as a way to avoid the overload.

10 MR. MORISSETTE: Do you know what the  
11 output of the facility, the solar facility, was  
12 inputted into that study? So i.e. the total  
13 capacity of the solar facility is 49 megawatts.  
14 Was it 49 megawatts at full load capacity?

15 THE WITNESS (Soderman): This is Chris  
16 Soderman. Yes, it was studied at full capacity.  
17 That's part of a system impact study process.

18 MR. MORISSETTE: Typically a solar  
19 facility will reach maximum capacity at, what,  
20 three, four hours a day when it's bright and  
21 sunny, would you agree, disagree?

22 THE WITNESS (Soderman): That follows,  
23 yes, typically.

24 MR. MORISSETTE: Were other  
25 alternatives looked at as far as tripping the

1 solar plant in the event of a double circuit  
2 fault, i.e., a transfer trip?

3 THE WITNESS (Soderman): I can't speak  
4 to all the machinations that the ISO system  
5 planning process went through to arrive at this  
6 being the recommended solution. So the system  
7 impact study process essentially identified two  
8 solutions: One, rebuild the overloaded circuits  
9 so that you could meet their rating, or to  
10 eliminate the double circuit contingency which  
11 causes that. Again, I can't really speak to the  
12 inner machinations of the ISO process.

13 MR. MORISSETTE: Well, it seems \$3.3  
14 million to split the circuit isn't an exorbitant  
15 amount of money, but given it's a 50 megawatt  
16 solar plant that is operating three, four hours a  
17 day at max capacity, maybe, Mr. Soderman, you know  
18 when the trigger is. Does the overload occur at  
19 some point on the curve or is it --

20 THE WITNESS (Soderman): Again, I  
21 didn't perform, and Eversource doesn't perform  
22 these system impact studies. That was done by ISO  
23 New England. So I can't speak to the coincidence  
24 of the max output and the max load that might  
25 drive this overload.

1           MR. MORISSETTE: Maybe we could get a  
2 Late-File to determine what the trigger point and  
3 capacity output is.

4           MS. BARBINO DUBUQUE: May we go off the  
5 record for one moment, please?

6           MR. MORISSETTE: No Late-Files?

7           MR. SILVESTRI: We're going to hold  
8 just for a second, attorney.

9           (Pause.)

10          MR. MORISSETTE: I reject that  
11 question. Thank you.

12          MS. BARBINO DUBUQUE: Mr. Morissette,  
13 before you continue, I think Mr. Marien, though,  
14 might want to just comment on what Chris said  
15 about there were two alternatives identified. So  
16 I think you would want to hear his response to  
17 that question on the other alternative.

18          MR. MORISSETTE: That would be great.  
19 Thank you.

20          THE WITNESS (Marien): We were asked to  
21 look at the overload. In fact, that was the first  
22 thing we were asked to look at. And it involved a  
23 project that would be significantly more  
24 expensive, much longer project, including brand  
25 new lines, brand new structures, insulators, and

1 it came down to it was a much more expensive  
2 alternative. So ISO New England directed us to  
3 handle the 1000 and 1080 double circuit separation  
4 instead.

5 MR. MORISSETTE: So this is the least  
6 cost alternative for Eversource?

7 THE WITNESS (Marien): Correct.

8 MR. MORISSETTE: Okay. It seems that  
9 the probability of losing that double circuit is  
10 pretty low given that it's a solar facility. And  
11 I would assume that if you're going to lose the  
12 circuit, it's at a time of a weather event and  
13 you're not getting much solar energy out of the  
14 weather event and therefore your output would be  
15 low, and the loss of the line, your output would  
16 be low, and therefore the overload would be  
17 mitigated. But nonetheless, ISO did the analysis,  
18 and the result is a \$3.3 million split.

19 Okay, moving on. Did Heritage review  
20 the line split area?

21 THE WITNESS (Libertine): Yes. A  
22 cultural resource survey was done, both a Phase 1A  
23 and a Phase 1B, which consisted of a walkover of  
24 each of the sites.

25 MR. MORISSETTE: Thank you.

1 THE WITNESS (Libertine): You're  
2 welcome.

3 MR. MORISSETTE: That's all the  
4 questions I have at this time. Thank you.

5 MR. SILVESTRI: Thank you,  
6 Mr. Morissette.

7 We'll continue with Mr. Lynch.

8 MR. LYNCH: Just two questions. I  
9 wanted just to follow up on my colleague to the  
10 right here. What part of this project, the cost  
11 of this project, is being borne by Eversource and  
12 what part is being borne by Quinebaug Solar?

13 THE WITNESS (Mathur): The entire cost  
14 of this project is being borne by Quinebaug Solar  
15 100 percent.

16 MR. LYNCH: And I've got two different  
17 costs for that. Could you give me a round number?

18 THE WITNESS (Mathur): The estimated  
19 cost for Eversource's portion of the project is  
20 estimated to be \$13.4 million.

21 MR. LYNCH: That's what it has in the  
22 application, but at our last meeting the  
23 applicant, Quinebaug Solar, said it would be much  
24 more. So that's why I was confused. Thank you.

25 THE WITNESS (Mathur): You're welcome.

1           MR. LYNCH: And my last question is, we  
2 haven't had a substation or a switching station in  
3 a long time, and my question has to do with a fire  
4 protection plan. Mr. Libertine said the road  
5 would be wide enough for trucks. But do you offer  
6 to the volunteer fire departments in that area any  
7 special training, any special equipment, did you  
8 or the fire as very -- I realize it's not a high  
9 priority in this area, but for them, you know, the  
10 likelihood of it happening is probably nil, but so  
11 was Donald Trump being elected.

12           (Laughter.)

13           MR. LYNCH: I'm just wondering if you  
14 did provide any special information, special  
15 training to access your facility?

16           THE WITNESS (Marien): I'm not aware of  
17 any special training. In the event of that  
18 situation, our resources would be dispatched, and  
19 we would help ensure the safety of the public  
20 outside of the station.

21           THE WITNESS (Soderman): And we don't  
22 have anything necessarily specific training for  
23 this project, but Eversource does work with  
24 emergency response personnel on training for  
25 electric safety on an ongoing basis throughout the

1 entire service territory.

2 MR. LYNCH: Mr. Soderman, I know that  
3 had been testified to before. That's why I asked.  
4 Thank you.

5 That's all, Mr. Chairman.

6 MR. SILVESTRI: Thank you, Mr. Lynch.

7 I have one question for you. On the  
8 supposition that the project is approved, at the  
9 end of the project life the collector substation  
10 would be removed, the question I have for you: Is  
11 there any anticipated impact or, say, modification  
12 that would be needed to be made on the proposed  
13 switching station or the transmission lines once  
14 that collector station is removed besides from  
15 disconnecting?

16 THE WITNESS (Karimi): It all depends  
17 on that time period. If Eversource Energy  
18 determines or ISO New England determines that that  
19 switching station is no longer needed, we can  
20 restore the line to the original position that it  
21 was prior to this project. If there was other  
22 needs for that switching station it will stay in  
23 service, but the contract between Eversource and  
24 Quinebaug Solar would expire at that time, and  
25 Eversource has to take care of the switching

1 station.

2 MR. SILVESTRI: You hit my follow-up  
3 question. Thank you.

4 I'll ask the Council members and Mr.  
5 Perrone from staff if there's any other questions  
6 for the party. Mr. Levesque.

7 MR. LEVESQUE: Did you -- maybe  
8 Mr. Mathur knows. Did you hear or understand the  
9 transmission part of the project cost that Dan was  
10 talking about?

11 THE WITNESS (Mathur): Yes, I did  
12 understand the question.

13 MR. LEVESQUE: Was the difference in  
14 the cost like their site preparation and, you  
15 know, pad costs that you're not doing?

16 THE WITNESS (Mathur): I cannot speak  
17 to that.

18 MR. LEVESQUE: Okay. Thank you.

19 THE WITNESS (Mathur): Thank you.

20 MR. SILVESTRI: Any other questions by  
21 the Council?

22 (No response.)

23 MR. SILVESTRI: Good. Thank you. We  
24 will now move into appearance by the party.

25 Oh, I'm sorry, Attorney Bogan, my



1 apologies. Did you have any questions?

2 MR. BOGAN: No apologies necessary, and  
3 I do not.

4 MR. SILVESTRI: Thank you, sir.

5 Yes, counselor.

6 MS. BARBINO DUBUQUE: Mr. Silvestri, I  
7 just want to be absolutely clear. We had a  
8 request for administrative notice for three items,  
9 and I wasn't completely clear if that was already  
10 handled when we first started today. I wrote down  
11 the numbers of the other ones, but I didn't see  
12 ours that are listed on page 13. I just wanted to  
13 make sure that that was taken care of.

14 MR. SILVESTRI: Let me go back and find  
15 it. Let's take care of that now.

16 MS. BARBINO DUBUQUE: Thank you.

17 MR. SILVESTRI: Attorney Bogan, can I  
18 call your attention to page 13, Item A, numbers 1,  
19 2 and 3? Do you have any objection to those?

20 MR. BOGAN: I do not, sir.

21 MR. SILVESTRI: Super. Thank you. And  
22 I don't know if the Sposatos are here, but I'll  
23 ask if they have any objections to that as well.

24 (No response.)

25 MR. SILVESTRI: And hearing and seeing

1 none, they are admitted. Thank you.

2 MS. BARBINO DUBUQUE: Thank you, Mr.  
3 Silvestri.

4 MR. SILVESTRI: Thanks for the catch.  
5 (Witness panel excused.)

6 MR. SILVESTRI: I would like to  
7 proceed. The party, I guess, Mr. and Mrs., or  
8 Troy and Meghan Sposato are not here, in which  
9 case we will move back to appearance by the  
10 petitioner. So if you can take a couple of  
11 minutes just to get reorganized.

12 (Whereupon, a recess was taken from  
13 1:34 p.m. until 1:39 p.m.)

14 MR. SILVESTRI: I believe we're all set  
15 to continue. And we will now continue with the  
16 appearance of the petitioner, Quinebaug Solar,  
17 LLC, to swear in their two new witnesses, David  
18 George from Heritage Consultants, LLC, and  
19 Patricia Vallejo from NextEra Energy Resources,  
20 LLC, and to verify the new exhibits marked as  
21 Roman Numeral II-B-7 through 9 on the hearing  
22 program.

23 MR. BOGAN: Good afternoon, Mr.  
24 Silvestri. And again for the record, David Bogan  
25 on behalf of the petitioner, along with Kate

1 Boucher. I should note that Ms. Vallejo is not  
2 here today, but we do have Mr. George. So if we  
3 could swear him in, that would be appropriate.

4 MR. SILVESTRI: That would be great.  
5 Thank you.

6 D A V I D G E O R G E ,

7 called as a witness, being first duly sworn  
8 by Ms. Bachman, was examined and testified on  
9 his oath as follows:

10 K E V I N R Y A N ,

11 K A T E L I N N I C K E R S O N ,

12 B R I A N H U N T L E Y ,

13 J O N A T H A N G R A V E L ,

14 H A G E N L E E ,

15 J O S E P H C A R T A Y A ,

16 E D W A R D D E V A R O N A ,

17 having been previously duly sworn, continued  
18 to testify on their oaths as follows:

19 MS. BACHMAN: Thank you.

20 DIRECT EXAMINATION

21 MR. BOGAN: Very quickly. Mr. George,  
22 did you prepare or cause to be prepared what is  
23 noted on the Council's list of exhibits for  
24 identification which has now been admitted as a  
25 full exhibit petitioner's Phase 1B Cultural

1 Resources Report?

2 THE WITNESS (George): Yes, I did.

3 MR. BOGAN: Do you have any changes,  
4 corrections to make to that?

5 THE WITNESS (George): No.

6 MR. BOGAN: Is the information true and  
7 accurate to the best of your knowledge and belief?

8 THE WITNESS (George): Yes, it is.

9 MR. BOGAN: And you adopt that as your  
10 testimony in this proceeding?

11 THE WITNESS (George): Yes, sir.

12 MR. BOGAN: Thank you. Moving on to  
13 the additional items that are noted on the  
14 Council's list. Starting with you, Mr. Ryan, did  
15 you assist in the preparation of certain responses  
16 to Late-Filed exhibits, dated January 28th and  
17 noted as Item 7 on the Council's list?

18 THE WITNESS (Ryan): Yes, I did.

19 MR. BOGAN: Ms. Nickerson?

20 THE WITNESS (Nickerson): Yes.

21 MR. BOGAN: Mr. Huntley?

22 THE WITNESS (Huntley): Yes.

23 MR. BOGAN: Mr. Lee?

24 THE WITNESS (Lee): Yes.

25 MR. BOGAN: Mr. Gravel?

1 THE WITNESS (Gravel): Yes.

2 MR. BOGAN: Mr. Devarona?

3 THE WITNESS (Devarona): Yes.

4 MR. BOGAN: Mr. Cartaya?

5 THE WITNESS (Cartaya): Yes.

6 MR. BOGAN: And do you have any  
7 changes, corrections, additions, modifications to  
8 make to that information? Mr. Ryan?

9 THE WITNESS (Ryan): No.

10 MR. BOGAN: Ms. Nickerson?

11 THE WITNESS (Nickerson): No.

12 MR. BOGAN: Mr. Huntley?

13 THE WITNESS (Huntley): No.

14 MR. BOGAN: Mr. Lee?

15 THE WITNESS (Lee): No.

16 MR. BOGAN: Mr. Gravel?

17 THE WITNESS (Gravel): No.

18 MR. BOGAN: Mr. Devarona?

19 THE WITNESS (Devarona): No.

20 MR. BOGAN: Mr. Cartaya?

21 THE WITNESS (Cartaya): No.

22 MR. BOGAN: And do you adopt that as  
23 your testimony in this matter? Mr. Ryan?

24 THE WITNESS (Ryan): Yes.

25 MR. BOGAN: Ms. Nickerson?

1 THE WITNESS (Nickerson): Yes.

2 MR. BOGAN: Mr. Huntley?

3 THE WITNESS (Huntley): Yes.

4 MR. BOGAN: Mr. Lee?

5 THE WITNESS (Lee): Yes.

6 MR. BOGAN: Mr. Gravel?

7 THE WITNESS (Gravel): Yes.

8 MR. BOGAN: Mr. Devarona?

9 THE WITNESS (Devarona): Yes.

10 MR. BOGAN: Mr. Cartaya?

11 THE WITNESS (Cartaya): Yes.

12 MR. BOGAN: Moving on to what's noted  
13 as Item Number 8 which is the petitioner's sign  
14 posting affidavit. I believe that was prepared  
15 under your direction, is that correct,  
16 Mr. Huntley?

17 THE WITNESS (Huntley): Yes.

18 MR. BOGAN: Is the information true and  
19 accurate to the best of your knowledge and belief?

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

21 MR. BOGAN: And do you adopt that as  
22 your testimony in this matter?

23 THE WITNESS (Huntley): I do.

24 MR. BOGAN: And then finally there were  
25 certain interrogatories propounded by Mr. Sposato

1 noted as Number 9 on this list. Mr. Ryan, did you  
2 assist in the preparation of the responses to  
3 those interrogatories?

4 THE WITNESS (Ryan): Yes.

5 MR. BOGAN: Ms. Nickerson?

6 THE WITNESS (Nickerson): Yes.

7 MR. BOGAN: Mr. Huntley?

8 THE WITNESS (Huntley): Yes.

9 MR. BOGAN: Mr. Lee?

10 THE WITNESS (Lee): Yes.

11 MR. BOGAN: Mr. Gravel?

12 THE WITNESS (Gravel): Yes.

13 MR. BOGAN: Mr. Devarona?

14 THE WITNESS (Devarona): Yes.

15 MR. BOGAN: Mr. Cartaya?

16 THE WITNESS (Cartaya): Yes.

17 MR. BOGAN: And do you have any  
18 changes, corrections, additions to make to that  
19 information? Mr. Ryan?

20 THE WITNESS (Ryan): No.

21 MR. BOGAN: Ms. Nickerson?

22 THE WITNESS (Nickerson): No.

23 MR. BOGAN: Mr. Huntley?

24 THE WITNESS (Huntley): No.

25 MR. BOGAN: Mr. Lee?

1 THE WITNESS (Lee): No.

2 MR. BOGAN: Mr. Gravel?

3 THE WITNESS (Gravel): No.

4 MR. BOGAN: Mr. Cartaya?

5 THE WITNESS (Cartaya): No.

6 MR. BOGAN: Mr. Devarona?

7 THE WITNESS (Devarona): No.

8 MR. BOGAN: And is the information true  
9 and accurate to your knowledge and belief? Mr.  
10 Ryan?

11 THE WITNESS (Ryan): Yes.

12 MR. BOGAN: Ms. Nickerson?

13 THE WITNESS (Nickerson): Yes.

14 MR. BOGAN: Mr. Huntley?

15 THE WITNESS (Huntley): Yes.

16 MR. BOGAN: Mr. Lee?

17 THE WITNESS (Lee): Yes.

18 MR. BOGAN: Mr. Gravel?

19 THE WITNESS (Gravel): Yes.

20 MR. BOGAN: Mr. Devarona?

21 THE WITNESS (Devarona): Yes.

22 MR. BOGAN: And Mr. Cartaya?

23 THE WITNESS (Cartaya): Yes.

24 MR. BOGAN: And do you adopt that as  
25 your testimony in this proceeding? Mr. Ryan?



1 THE WITNESS (Ryan): Yes.

2 MR. BOGAN: Ms. Nickerson?

3 THE WITNESS (Nickerson): Yes.

4 MR. BOGAN: Mr. Huntley?

5 THE WITNESS (Huntley): Yes.

6 MR. BOGAN: Mr. Lee?

7 THE WITNESS (Lee): Yes.

8 MR. BOGAN: Mr. Gravel?

9 THE WITNESS (Gravel): Yes.

10 MR. BOGAN: Mr. Devarona?

11 THE WITNESS (Devarona): Yes.

12 MR. BOGAN: Mr. Cartaya?

13 THE WITNESS (Cartaya): Yes.

14 MR. BOGAN: The witnesses are  
15 available. And I'd ask that the information  
16 denoted as Items 7, 8 and 9 be admitted as full  
17 exhibits.

18 MR. SILVESTRI: Thank you, Attorney  
19 Bogan.

20 Does any party object to the admission  
21 of the petitioner's new exhibits?

22 MS. BARBINO DUBUQUE: Marianne Barbino  
23 Dubuque for Eversource. No objection. Thank you.

24 MR. SILVESTRI: Thank you. And hearing  
25 and seeing none, the exhibits are admitted. Thank

1 you.

2 (Petitioner's Exhibits II-B-7 through  
3 II-B-9: Received in evidence - described in  
4 index.)

5 MR. SILVESTRI: We will begin with  
6 cross-examination of the petitioner by staff. Mr.  
7 Perrone.

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

9 CROSS-EXAMINATION

10 MR. PERRONE: Mr. Lee, at the last  
11 hearing I had asked you about the PPAs, and you  
12 had explained that Quinebaug had to apply for an  
13 extension for the milestones due to the change in  
14 the commercial operation target date, but the PPAs  
15 themselves remain largely the same.

16 My question is, did Quinebaug need to  
17 receive any additional PURA approvals for those  
18 changes to the PPAs?

19 THE WITNESS (Lee): I don't think so.

20 MR. PERRONE: Referencing the response  
21 to Council Interrogatory 1, I understand that the  
22 qualified capacity for the project for ISO  
23 purposes is 24.9 megawatts, but the project itself  
24 is a little under 50 megawatts AC. And I  
25 understand it was testified that those are two

1 different things, but my question is how does the  
2 50 get derated to, say 49.2, about 24.9 by ISO?

3 THE WITNESS (Devarona): It's in  
4 relation to the forward capacity auction. I'm  
5 actually not completely knowledgeable on the  
6 process that ISO goes through on their decrease in  
7 price and as well as megawatts for the unit. I do  
8 know that the auction actually happened yesterday,  
9 and it actually cleared all the way down to 11  
10 megawatts, and I believe the price is 1.50, but I  
11 haven't confirmed that yet. It's a process that  
12 kind of goes through based on the capacity  
13 obligation that ISO New England sees and the units  
14 that actually bid into that auction, but I'm not  
15 fully knowledgeable on the process.

16 MR. PERRONE: Turning to the Late-File  
17 exhibits, Exhibit E, there's two different numbers  
18 for the module wattages, STC and NOCT. In the  
19 Late-File exhibit it says that "NextEra generally  
20 uses STC to base our module wattage." Could you  
21 explain why STC is preferred over NOCT?

22 THE WITNESS (Cartaya): Standard  
23 testing conditions would be the way that the  
24 market rates most modules for procurement purposes  
25 and what we base it to forecast our productivity.

1 But in more detail when we are doing production  
2 results, we do more realistic testing, more  
3 realistic modeling. That's just a purchase number  
4 basically.

5 MR. PERRONE: Now I'd like to move on  
6 to the traffic topic. The response to Council  
7 Interrogatory 34 stated that the 1310 findings of  
8 fact with regard to traffic remain accurate.  
9 Specifically Finding of Fact 144 said specifically  
10 during construction five to ten delivery vehicles  
11 would be expected to visit the site daily. More  
12 recently we have the response to the Sposato  
13 Interrogatory 15 where it says during construction  
14 it is expected that approximately 10 to 20  
15 additional vehicles will access the site along  
16 Wauregan Road per day.

17 Can you explain why this is a greater  
18 number than before, we went from five to ten to 10  
19 to 20?

20 THE WITNESS (Huntley): These are all  
21 estimates, and we did some assessment based on an  
22 overall project to come up with some averages. I  
23 believe in this case we're looking at a more  
24 timely manner of some of the construction  
25 duration, so I think that that could increase some

1 of the traffic. And I think that the number that  
2 we provided is a little bit more conservative than  
3 the number that was provided previously in a  
4 finding of fact.

5 MR. LEVESQUE: The questions might be  
6 different. One of them said five to ten delivery  
7 trucks, and then the other one said like total  
8 trucks including service and --

9 THE WITNESS (Huntley): And I believe  
10 that there also is a slight difference in the  
11 location that they're asking for those trucks as  
12 well, specifically in response to the primary  
13 access that's existing that's adjacent to the  
14 Sposato residence is where we're anticipating some  
15 level of trucks for deliveries during the project  
16 as well as potentially other locations and for the  
17 location of the substation as well which are  
18 different. So the split throughout exactly where  
19 they're going is going to be slightly different  
20 throughout the duration of the project as well.

21 MR. PERRONE: So by "additional  
22 vehicles," you mean beyond what is going past  
23 there today, there would be additional with regard  
24 to the project?

25 THE WITNESS (Huntley): Correct. That

1 access road is currently used for the gravel  
2 removal operations that are existing at the  
3 facility. This project doesn't anticipate  
4 changing the operation currently, so the  
5 additional vehicles are implying that it's not  
6 vehicles that are associated with any current  
7 operations. This would be additional vehicles  
8 associated with this project.

9 MR. PERRONE: So approximately 10 to 20  
10 along Wauregan Road. I know you mentioned the  
11 possibility of vehicles in other areas. What do  
12 you think would be a worst-case total per day?

13 THE WITNESS (Huntley): I think I would  
14 defer to the E&C on this.

15 THE WITNESS (Cartaya): Specifically  
16 for delivery at peak we can expect somewhere about  
17 12 max delivery vehicles, delivery trucks over the  
18 course of we anticipate about seven, eight weeks  
19 at the peak.

20 MR. PERRONE: And lastly back to the  
21 Sposato interrogatory response for that 10 to 20  
22 figure. For 10 to 20 additional vehicles, that's  
23 basically a combination of personal vehicles,  
24 construction vehicles and delivery vehicles?

25 THE WITNESS (Huntley): It's primarily

1 construction and delivery vehicles is what that  
2 number is, yes.

3 MR. PERRONE: Also, Mr. Huntley, at the  
4 last hearing you had testified that the petitioner  
5 had reviewed the January 9, 2020 letter from the  
6 State Historic Preservation Office. The  
7 petitioner was going through a detailed analysis  
8 to determine the impacts of those recommendations,  
9 and it was the petitioner's intention to move  
10 forward towards implementing those. Do you have  
11 an update on those?

12 THE WITNESS (Huntley): It is still the  
13 intention of the petitioner to address all of  
14 those concerns, and I think I could defer to Mr.  
15 George maybe for some more detail on that.

16 THE WITNESS (George): The plan is to  
17 follow the protocol that SHPO outlined in the  
18 letter, including establishment of buffers, areas  
19 of 50 feet around resources that are considered  
20 eligible for the national register. Areas that  
21 are not eligible for the national register either  
22 due to prior disturbance or a lack of resource  
23 potential can move on, can be developed going  
24 forward. So that's how SHPO is indicating to us  
25 in their letter what they'd like to see.

1           MR. PERRONE: In the, it's labeled the  
2 revised May 2019 Wetland and Watercourse  
3 Delineation Report. And I'm going to turn to  
4 Table 2 in that report, wetland S03. At the end  
5 of the paragraph it said small fish were observed  
6 in downstream pools. And my question is, were the  
7 species of fish identified?

8           THE WITNESS (Nickerson): No, the  
9 species of fish were not identified in stream S03.  
10 However, the intention of the Wetland and  
11 Watercourse Survey is to delineate the boundaries  
12 of these resources, not identify the fish within  
13 them.

14           MR. PERRONE: Would the proposed  
15 project impact groundwater recharge of Cold Spring  
16 Brook and Blackwell Brook?

17           THE WITNESS (Nickerson): No.

18           MR. PERRONE: And with that, would you  
19 expect that it would materially impact the water  
20 temperature of these brooks and thus the wild  
21 brook trout population?

22           THE WITNESS (Nickerson): No, we don't  
23 anticipate the wild brook trout population or any  
24 fish or aquatic species to be impacted by this  
25 project. We're avoiding these areas especially



1 with the new footprint.

2 THE WITNESS (Huntley): And if I could  
3 add to that as well? I apologize. The project  
4 has been designed using standard engineering  
5 practice as well as the Connecticut required  
6 regulations for stormwater, both construction  
7 phase and long term being followed, with the  
8 anticipation that we don't anticipate any impacts  
9 to any of those resource areas as a result of the  
10 project.

11 MR. PERRONE: In the Environmental Site  
12 Conditions Report, the bottom of page 17, we have  
13 the banded sunfish state listed species of special  
14 concern. And it says due to the lack of suitable  
15 habitat to support the banded sunfish, this  
16 species is unlikely to occur. Could you elaborate  
17 on why there is not suitable habitat at the site?

18 THE WITNESS (Nickerson): Sure. Banded  
19 sunfish prefer habitat with densely vegetated  
20 aquatic vegetation. They prefer warmer water  
21 systems, lakes and ponds, typically beaver  
22 impacted streams, those kinds of habitats. Those  
23 do not occur at the site.

24 MR. PERRONE: Dr. Ryan, on our  
25 administrative notice list, Item Number 5, the

1 habitat assessment and survey for eastern  
2 spadefoot toad located at Putnam Tech Park site,  
3 and this was prepared on behalf of the Department  
4 of Economic and Community Development. In that  
5 report -- and I have a copy if you need it -- on  
6 pages 8 and 9 of that report it says, "Of the 47  
7 acres of mapped Hinckley soils on the site, 18  
8 acres are actively mined and nine are on very  
9 steep slopes greater than 15 percent limiting  
10 their potential usefulness for the spadefoot  
11 toad." What is your opinion on that?

12 THE WITNESS (Ryan): I would want to  
13 revisit Moran and Button, the publication that was  
14 used to build the DEP predictive model, and see  
15 exactly how they treated slope. Most of the  
16 spadefoots that I found in my own studies have  
17 been more in flatter areas. However, I have had a  
18 few burrow in cut hillsides, in steep hillsides.

19 Does that help?

20 MR. PERRONE: Okay. And what is your  
21 experience with the steep hillsides affecting how  
22 viable the habitat is for the spadefoot?

23 THE WITNESS (Ryan): In some of the  
24 areas that I found eastern spadefoots would be in  
25 gravel mining operations, and sometimes the bank

1 cut would create a steep slope, and on occasion I  
2 would find a spadefoot burrowed into that steep  
3 slope. But again, I would have to -- I wouldn't  
4 rule out steep slopes. One would still want to  
5 search if it was everything that was Hinckley soil  
6 just to be inclusive. But I think you'd be more  
7 likely to find them in the flatter areas with  
8 sparse vegetation rather than on a steep hillside,  
9 at least that's from my own experience in the  
10 field.

11 MR. SILVESTRI: I'm actually curious  
12 about that one. If you had a steep slope, would  
13 the chance of finding them be more towards the  
14 bottom of the slope, or would they be higher up on  
15 the slope?

16 THE WITNESS (Ryan): That's a great  
17 question. I don't know if I have a large enough  
18 sample size of spadefoots on slopes to be able to  
19 parse that out. The ones that I have found, I  
20 found them on the side of slopes, and sometimes  
21 one spadefoot was in a pile, a man, human created  
22 pile, but those, if I remember correctly, those  
23 individuals didn't tend to stay burrowed for all  
24 that long. Usually ones that were in -- that stay  
25 burrowed for long periods of time, one animal in a

1 flat area used the same 10 meter squared area for  
2 over two years.

3 MR. SILVESTRI: I had to ask that.

4 Thank you.

5 Mr. Perrone.

6 MR. PERRONE: Does the petitioner have  
7 any updates on a final determination regarding the  
8 Natural Diversity Data Base?

9 THE WITNESS (Nickerson): We continue  
10 to work with NDDDB. We have not received any  
11 comments; however, we filed some supplemental  
12 information to them probably two or so weeks ago.

13 MR. PERRONE: I had asked a similar  
14 question to Eversource. In the case of  
15 Quinebaug's substation, would that be air  
16 insulated or gas insulated?

17 THE WITNESS (Cartaya): Air insulated.

18 MR. PERRONE: Would there be any sulfur  
19 hexafluoride such as in the breaker?

20 THE WITNESS (Cartaya): Yes.

21 MR. PERRONE: Is that basically a fixed  
22 amount that you would have to top off from time to  
23 time or --

24 THE WITNESS (Devarona): I'm not an  
25 expert on the equipment, but it's similar. The

1 115 kV breaker that our project will have on the  
2 high side, on the high voltage side of the  
3 transformer, is a similar breaker to the ones that  
4 are on the Eversource switchyard, and they do  
5 contain a certain small amount of the gas.

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

8 MR. SILVESTRI: Thank you, Mr. Perrone.  
9 So on the breaker, you have one breaker  
10 you're expecting maybe 60 pounds, similar to what  
11 Eversource said?

12 THE WITNESS (Cartaya): That's correct.

13 MR. SILVESTRI: Thank you. I'd like to  
14 continue now with the Council members who did not  
15 have the opportunity to ask questions the last  
16 time that we were together. And I'd like to start  
17 with Mr. Hannon.

18 MR. HANNON: Thank you. I'll sort of  
19 start at the beginning. That's how my questions  
20 are set up. On page 6.2, 6.3, sort of the  
21 introductory, there's a comment, "Per DEEP  
22 recommendations, Quinebaug Solar will additionally  
23 make reasonable efforts to use off-road  
24 construction equipment that meets USEPA or  
25 California Air Resources Board standards for

1 diesel engine emissions." What do you consider  
2 "make reasonable efforts"?

3 THE WITNESS (Cartaya): During the  
4 contracting process we will have some portion of  
5 the contract where we ask them to meet the  
6 guidelines of emissions. That would be at the  
7 discretion of the EPC ultimately what machinery  
8 they use onsite. But in the companies we work  
9 with mostly all use the highest standard  
10 equipment, we anticipate it would probably meet  
11 all the guidelines set forth.

12 MR. HANNON: I'm just trying to figure  
13 out what you mean by "make reasonable efforts."

14 THE WITNESS (Huntley): If I can add to  
15 that? In general, the approach is to try to not  
16 limit the contractor. And on a project like this,  
17 there are certain pieces of equipment that are  
18 typically low use, I would say an onsite water  
19 truck for dust control, those types of equipment,  
20 that could be older in a contractor's fleet and  
21 may not meet the most current EPA requirements.  
22 The goal was to try to keep in mind the use or the  
23 potential use of these vehicles in combination  
24 with meeting all of the current CARB emission  
25 requirements as well. We would anticipate that

1 any construction, earth moving type equipment,  
2 would be fairly new and would likely be compliant  
3 with all the requirements. The goal was to try to  
4 leave a little bit of flexibility in for some of  
5 these lesser used and potentially older pieces of  
6 equipment to look at the overall costs or  
7 potential construction costs on the site.

8 MR. SILVESTRI: I believe Mr. Lynch had  
9 a follow-up to that.

10 MR. LYNCH: One of my questions real  
11 quick. As far as your contracting out for the  
12 construction project, do you issue RFPs, and does  
13 the contractor have to be licensed or union?

14 THE WITNESS (Cartaya): Yes, we do hold  
15 an RFP process and go out for bid.

16 MR. LYNCH: And do these contractors  
17 need to be licensed with the State of Connecticut,  
18 or are they union contractors? And if they are  
19 union, and this is just a big if, do you get into  
20 any PLA agreements with them?

21 THE WITNESS (Cartaya): So the EPCs  
22 hiring is their process. They will, if they are  
23 going to work with local unions, they may indeed  
24 go through that, but in general it's at their  
25 discretion to hire local labor depending on the

1 state's guidance. In terms of labor that's --

2 MR. LYNCH: Okay. I'll let it go.

3 Thank you.

4 Thank you, Mr. Chairman.

5 MR. SILVESTRI: Just for the record,  
6 EPC, engineer procure construct, correct?

7 THE WITNESS (Cartaya): That's correct.

8 MR. SILVESTRI: Thank you. Mr. Hannon.

9 MR. HANNON: On page 6.15, 6.16, it  
10 talks about the project is proposing no direct  
11 wetland impacts and will apply a standard 100-foot  
12 no-disturbance upland buffer area, so on and so  
13 forth. But the question I have is would the  
14 proposed horizontal drilling associated with this  
15 project have an unintended direct impact on the  
16 wetlands?

17 THE WITNESS (Huntley): The goal of the  
18 horizontal directional drilling is to avoid the  
19 direct impacts and the potential to direct  
20 impacts. From that perspective, blowouts are  
21 certainly possible. The goal of the project would  
22 be to manage that with the appropriate, you know,  
23 licensed and experienced contractors to minimize  
24 any potential impacts and avoid that scenario  
25 entirely.



1           MR. HANNON: What type of materials  
2 would be used in the horizontal drilling?

3           THE WITNESS (Huntley): It's typically  
4 a slurry that's used. I would certainly have to  
5 look into the actual proposal when it came time  
6 for shop drawing review on what would be used, but  
7 we could certainly specify that it is nontoxic  
8 materials that would be used for the project.

9           MR. HANNON: That's kind of where I'm  
10 going with it.

11          MR. SILVESTRI: Could you elaborate on  
12 the term you used blowout, what's a blowout?

13          THE WITNESS (Huntley): Generally a  
14 blowout. So the horizontal directional drilling  
15 has a pit, a receiving pit, and a commencing pit  
16 that's on each side. So they drill under the  
17 ground, and as that is drilled, there is a slurry  
18 that's typically very aqueous that opens up this  
19 path to create the hole that a pipe would then be  
20 drawn through. So what can happen from time to  
21 time is if the pressure is too high as it's being  
22 drilled, some of that slurry could come up through  
23 the ground, and that's what a blowout would be is  
24 if some of that came up into an area that's not  
25 either the receiving pit or the entry pit.

1           MR. SILVESTRI: And how is that  
2 prevented?

3           THE WITNESS (Huntley): It's typically  
4 prevented with good site controls and management  
5 and experienced people that are doing this work.

6           MR. SILVESTRI: Thank you.

7           MR. HANNON: Tab C. It's on page 2,  
8 1.3.2. It talks about shallow groundwater at the  
9 site, and it says the groundwater depth at the  
10 monitoring station is mapped as approximately  
11 10.5. I'm just trying to figure out, I didn't see  
12 any location on the maps as to where this  
13 monitoring station was located. So can you  
14 enlighten me on that?

15           THE WITNESS (Gravel): If I may, are  
16 you referring to the geotechnical survey work?

17           MR. HANNON: Yes. That's in Tab C,  
18 correct. So it talks about the groundwater depth  
19 at the monitoring station nearest the project site  
20 is mapped as approximately 10.5 feet. And I'm  
21 just trying to figure out where that monitoring  
22 station is located.

23           (Pause.)

24           THE WITNESS (Gravel): Thanks for  
25 waiting. I'm just trying to pull up that

1 appendix.

2 THE WITNESS (Huntley): Figure 8 in  
3 that report actually does show the piezometer  
4 locations. I believe that would correlate the  
5 results that you're seeing to the numbers.

6 MR. HANNON: I just didn't find it, so  
7 I'm just asking.

8 THE WITNESS (Huntley): I think Figure  
9 8 does that.

10 MR. HANNON: Okay. Thank you. I also  
11 have on that same section it looks like because of  
12 the presence of shallow groundwater it may  
13 complicate construction and require a buoyant  
14 foundation. What is that?

15 THE WITNESS (Huntley): Essentially  
16 what it implies is that in addition to the  
17 strength that's required from pulling the posts  
18 out of the ground from the soil, we would also  
19 have to take buoyancy into account with the  
20 design, which essentially means that anywhere that  
21 your foundation is actually within the level of  
22 groundwater, the buoyant force, which is the  
23 upward force, reduces the effect of the weight of  
24 the soil in that location. So it would mean that  
25 there would be slightly more embedment where there

1 is a higher groundwater to overcome those  
2 additional buoyant forces.

3 MR. HANNON: I just hadn't seen that as  
4 a foundation system prior to this, so thank you.

5 In Section 3.2, groundwater conditions.  
6 The groundwater measurements indicated groundwater  
7 level at four weeks after installation ranged from  
8 5.9 feet to 27.3 feet. So is it possible that  
9 there are some perched groundwater tables in this  
10 area, and can that represent a problem?

11 THE WITNESS (Huntley): It's certainly  
12 possible that there are some perched groundwater  
13 throughout the site and through many sites in the  
14 area. We don't anticipate that being a problem at  
15 all for the design because the design usually  
16 takes the most conservative approach which would  
17 be the highest groundwater level. So if there is  
18 a perched groundwater at any location, that would  
19 be taken as the most constraining point for the  
20 long-term design of the structures. So in the  
21 event that they do drain out quicker or that it's  
22 not perched for a long period of time, it would  
23 just be a more conservative design in that area.

24 MR. HANNON: And then I'm just not  
25 totally familiar with some of the terminology. So

1 if you could please explain the comments regarding  
2 the deeper foundations and drilled shafts or  
3 driven piles used where there may be a need for  
4 casings? I'm just having a hard time wrapping my  
5 head around all these different techniques that  
6 might be applicable.

7 THE WITNESS (Huntley): And I believe  
8 that in this event that report was put together to  
9 be very conservative and to cover a large number  
10 of potential construction types as well as  
11 potential construction activities. The intention  
12 on this project is to use a driven system, so  
13 anything that would be associated with the casings  
14 is not relevant for the project. Where there is a  
15 potential for refusal and there is augering that's  
16 required, that would be backfilled with grout as  
17 opposed to requiring a casing in this case.  
18 Typically that casing is required if it's a  
19 more -- a deeper structure that would be required  
20 for something more substantial than, say, a  
21 racking system which is not what we're proposing  
22 and not what we would anticipate in areas of  
23 concern.

24 MR. SILVESTRI: I just want to  
25 interject on that. So casings would not be used

1 on this project?

2 THE WITNESS (Huntley): There's no  
3 intention to use casings for any of the piles that  
4 are driven for the racking structure, correct.

5 MR. SILVESTRI: Thank you.

6 MR. HANNON: Also, 4.1.2 on page 15  
7 it's a little word but it really caught my  
8 attention, talking about soil stabilization, and  
9 it makes reference to the use of cement, lime or  
10 fly ash. Now, I've been dealing with fly ash for  
11 a long time, and every time I've dealt with it  
12 it's always been a hazardous material. So I was  
13 surprised to see fly ash identified as a possible  
14 soil stabilizing agent. Can you explain?

15 THE WITNESS (Gravel): This report,  
16 geotechnical report, is just providing kind of  
17 things that could be used to help if there's any  
18 challenging circumstance, and they kind of give a  
19 recommendation that you might be able to use. We  
20 have no intention to use fly ash. This is, again,  
21 just a report that kind of highlights what  
22 constraints might be found at a very conservative  
23 level, but we have no intention to use fly ash.

24 MR. HANNON: I would have been much  
25 happier if it talked about cement and lime only.

1 Again, fly ash, from what I've seen in a number of  
2 different entities, it's always been pretty  
3 hazardous. So that really caught my eye on that  
4 one. So as long as you're going on record saying  
5 that that is something that will not be used on  
6 the site.

7 THE WITNESS (Huntley): If I can add to  
8 that? I think the intention is that that would  
9 certainly not be something that would be used for  
10 ground stabilization, but I can't say that fly ash  
11 wouldn't potentially be a component in some of the  
12 concrete that could be used on the site which is  
13 very common in the concrete industry. So I think  
14 that in the context of the question that you  
15 raised, I think we could absolutely say that for  
16 site stability and soil stabilization it would  
17 absolutely not be used on the site.

18 MR. HANNON: But even using it in the  
19 concrete raises some issues because the agencies  
20 had problems in the past where CRRA was talking  
21 about using fly ash in concrete blocks, things of  
22 that nature, and I'm concerned about the hazardous  
23 components associated with fly ash. So if that is  
24 something that might possibly be used, I would  
25 sure like to see some type of analytical on what's

1 in that cement and what the leaching issues are,  
2 things of that nature, because I'm not sure it's  
3 something that we've really looked at favorably in  
4 the past.

5 This is just a question because it's  
6 not a term I'm familiar with, so I'm going to ask.  
7 On page 17 it's under 4.1.7, the third paragraph  
8 talks about concrete placed in drill shaft  
9 excavations in the presence of water should be  
10 placed using a -- and I'm not even sure what kind  
11 of pipe that is, so if you could please explain to  
12 me what that is?

13 THE WITNESS (Huntley): Tremie pipe.  
14 Essentially what that is, is it's placement of the  
15 concrete from the bottom of that shaft up. So  
16 it's essentially the appropriate way that you  
17 would fill a structure that has groundwater in it.  
18 Essentially, you would put a pipe all the way down  
19 to the bottom of that and fill it with concrete to  
20 the top so it would displace the water, as opposed  
21 to the potential for that grout to mix with water  
22 as it's dropped in from above.

23 MR. HANNON: I just wasn't familiar  
24 with the term.

25 THE WITNESS (Huntley): It's a very



1 common term and essentially when you're  
2 decommissioning any types of wells where you would  
3 use a tremie grout method is what it is. It's  
4 basically where you're filling from the bottom up  
5 with concrete to purge any of the water out so it  
6 doesn't mix with the grout that's going in there  
7 and reduce the strength of that grout when it  
8 hardens.

9 MR. HANNON: Thank you. On page 18,  
10 4.1.9 under dewatering. What are the standard  
11 dewatering procedures that you're proposing to use  
12 on site?

13 THE WITNESS (Gravel): Dewatering I  
14 would think would only occur at deep foundations  
15 which would be located mostly for the substation.  
16 Based on the soil conditions there, we feel the  
17 water table is quite low, meaning deep. And right  
18 now we don't foresee or anticipate the use of  
19 dewatering, but if dewatering were used it would  
20 be handled onsite and probably done in accordance  
21 to general permit rules.

22 MR. HANNON: Thank you. On 4.2.1 it  
23 talks about, last paragraph, last sentence, "Barr  
24 understands that the test pile program has been  
25 completed but has not reviewed the results of the

1 testing." Has that been done by any chance, and  
2 is that information available anywhere?

3 THE WITNESS (Gravel): Can you repeat  
4 that section, please?

5 MR. HANNON: Sure. It's 4.2.1, last  
6 paragraph, last sentence, "Barr understands that  
7 the test pile program has been completed but has  
8 not reviewed the results of the testing." I'm  
9 just wondering if that has been done.

10 MS. BOUCHER: Bottom of page 18.

11 THE WITNESS (Gravel): Some pile  
12 testing has been done. We might want to do  
13 additional. And if we have concerns based on the  
14 report from Barr and how the testing is completed  
15 and the results of the pile testing might not  
16 compare or need further consultation, we can  
17 provide that to Barr.

18 MR. HANNON: But that answer makes it  
19 sound like the results haven't been complete or  
20 that information hasn't been completely reviewed.  
21 I mean, that's what it's sounding like.

22 THE WITNESS (Cartaya): I'm going to  
23 add to that. For preliminary testing for pile and  
24 geotechnical, it is just a standard process for  
25 our preliminary construction activities. When we

1 do go out to bid in EPC, there is further  
2 geotechnical and pole testing done. In addition  
3 to that, we're also in the process of doing some  
4 additional work out in the substation area. We'll  
5 be doing more geotech and pole tests there as  
6 well. So this was a preliminary result. We do  
7 more beyond this.

8 MR. HANNON: I was just asking because  
9 it said something had been done but it hadn't been  
10 reviewed. I'm just trying to find out if it had  
11 been reviewed.

12 In Tab D this was touched upon a little  
13 bit earlier. It has to do with the Natural  
14 Diversity Data Base group. And I guess there was  
15 some information submitted a couple weeks ago. I  
16 believe what was testified to. When we're talking  
17 about close to reaching an agreement with the  
18 Natural Diversity Data Base group, what are we  
19 talking about?

20 THE WITNESS (Nickerson): We have had  
21 ongoing dialogue with the NDDB group since we  
22 filed our request for a final determination in  
23 August of 2019 -- sorry, April of 2019. Over the  
24 summer we responded to some questions regarding  
25 water quality. Those are provided in Exhibit D.

1 More recently we have received questions from them  
2 regarding protections of eastern spadefoot toad at  
3 the site, and we're responding to those questions  
4 currently.

5 Does that answer your question?

6 MR. HANNON: I mean, the answer that  
7 all of us would like is when?

8 THE WITNESS (Nickerson): I would like  
9 that answer too.

10 MR. HANNON: So that's the first book.  
11 I broke down all your information into different  
12 notebooks, so I'm done with the first book.

13 This one I'm trying to keep in order,  
14 the Herpetofauna Avoidance and Mitigation Plan.  
15 And my question is to Dr. Ryan. Do you agree with  
16 the data from -- well, let me rephrase that  
17 because I actually went online to try to find some  
18 general information. And there's some data from  
19 the Savannah River Ecology Lab that has shown that  
20 the eastern spadefoot is very long lived and  
21 populations often go for many years without  
22 successful reproductive events. Would agree with  
23 that statement?

24 THE WITNESS (Ryan): Yes, in short,  
25 yes. They can skip years between breeding which

1 having a life history strategy of longevity helps  
2 if you're only going to have a successful breeding  
3 event once every so many years.

4 MR. HANNON: I'm glad that you agree  
5 because that leads to my next question, assuming I  
6 can find where it is in here. If the 2019 data  
7 shows a higher density or the presence of a  
8 breeding pool ends up being confirmed, will that  
9 establish -- I take it back.

10 If you find, because one of the things  
11 that was done for mitigation purposes, there was a  
12 refuge area that was supposedly identified, but  
13 what I'm not sure of is whether or not that was in  
14 one of the proposed construction areas or whether  
15 it was in the proposed laydown area. So is that  
16 something that you can answer?

17 THE WITNESS (Nickerson): So the  
18 Avoidance Mitigation Plan was written in the  
19 spring of 2019 prior to the 2019 eastern spadefoot  
20 toad surveys. We continued our surveys through  
21 the summer of 2019. So the explanation you're  
22 reading was a theoretical. If a breeding pool was  
23 found or a breeding population was found, we would  
24 establish a refuge area. It would probably be  
25 within proximity of that pool, or otherwise, that

1 would make sense for protecting the species.

2 THE WITNESS (Ryan): If I can add to  
3 that? The 2018 surveys were, from what we saw  
4 from one year, as we know, these things are  
5 erratic in their breeding and populations are  
6 difficult to detect. So from what we got from  
7 spending I think it was 164.5 person hours in 2018  
8 detected -- so that's 16 nights of surveys spanned  
9 throughout spring/summer and I think into early  
10 fall -- yielded only three toads which suggested a  
11 very low population density. So we set the plan  
12 in place but just to keep things moving with the  
13 permitting process moving. But in 2019, just to  
14 be sure because the spadefoots are so erratic, we  
15 continued surveys on the site, and that's why that  
16 was put in there if it was discovered that all of  
17 a sudden, wow, there is a huge population of these  
18 animals on the site that we hadn't seen, and 2018  
19 must have been just a slow year for activity, then  
20 we would proceed with the refuge area and  
21 everything. But the information we collected in  
22 2019 backed up our observations, backed up our  
23 conclusions from 2018.

24 MR. HANNON: Again, my question goes  
25 more to if you needed to establish that refuge

1 area, which one of the gravel areas was it being  
2 proposed for? Because you've got some active  
3 gravel operations, and one of the other gravel  
4 operations, I believe part of that area is  
5 identified as a laydown area for equipment for the  
6 project, so I'm not sure where the laydown area  
7 may be or the active construction compared to  
8 where you're talking about the refuge. That's all  
9 I'm looking for. I'm just trying to make sure  
10 that it's not in any of those areas.

11 THE WITNESS (Nickerson): Sure. To  
12 explain, it would be isolated using construction  
13 silt fence, so it would not just be a random area  
14 selected. And I think Kevin can probably add to  
15 this, but it would be determined on site depending  
16 on the location of the pool and the breeding area  
17 that would theoretically be found.

18 THE WITNESS (Ryan): To back up what  
19 she said, we would want to, if we did discover a  
20 high population density in a specific area or a  
21 breeding population, we would then work on the  
22 site to decide what would be the most appropriate  
23 area to set aside as a refuge, and that would  
24 consist of a walled-off enclosure of silt fence.  
25 And then there would be a number of nighttime

1 surveys to catch individuals and move them into  
2 that temporary area that is suitable spadefoot  
3 habitat so they're not spending their time trying  
4 to get out. And then once construction was  
5 complete, we would remove the silt fence and let  
6 things disperse.

7 MR. HANNON: I just wanted to make sure  
8 that if you found any they were safe.

9 THE WITNESS (Ryan): Yes, that's what  
10 we would seek to ensure.

11 MR. HANNON: And then two -- actually,  
12 I'll just combine sort of my next three questions.  
13 In this section you talk about mitigation actions,  
14 1, construction phasing to avoid take of eastern  
15 spadefoots. You've got mitigation action 2,  
16 post-construction population monitoring. And  
17 mitigation 3, monitor and protect potential  
18 breeding pools. And there's talk about if you  
19 don't really see any of the breeding in 2019, then  
20 you may -- it sounds like you may not need to do  
21 some things. But because of how many years these  
22 critters can go without reproductive events, why  
23 don't we just incorporate all three of those  
24 mitigation measures on the site?

25 THE WITNESS (Nickerson): This is



1 exactly the conversation we're having with NDDB  
2 currently, so these conversations are ongoing, and  
3 you could see potentially more protection for some  
4 of these potential breeding pools.

5 THE WITNESS (Ryan): Essentially  
6 setting enough land aside that would satisfy the  
7 life history requirements of the eastern spadefoot  
8 toad. So the project, as built, would have  
9 everything that a spadefoot needs to complete its  
10 life history.

11 MR. HANNON: Okay. On page 12 this is  
12 a mitigation action that's identified. It's under  
13 4.5, spotted salamander and wood frog. It's just  
14 a general comment that's made. It's the second  
15 bullet. It talks about silt fence will be  
16 installed surrounding the area to prevent fine  
17 materials from being deposited into wetlands.  
18 However, having had a fair amount of experience in  
19 dealing with it, to me if you're trying to keep  
20 vines which I believe are onsite and some of the  
21 clay particles which are onsite, a silt fence just  
22 doesn't work, and especially when it's related to  
23 a wetland area I think you need something in  
24 addition to the silt fence. Because I know the  
25 silt fence is providing other safety measures on

1 the site.

2 I would prefer to see something like  
3 silt socks or whatever terminology you want to put  
4 on them. I think that should also be  
5 incorporated, especially where you've got any  
6 wetland areas between the project area and that  
7 wetland body. Because, again, the intent here was  
8 to keep the silt out of the wetland, and I would  
9 like to see the silt kept out of the wetland.

10 (Off the record discussion between Mr.  
11 Hannon and Mr. Silvestri.)

12 MR. HANNON: Assuming this project was  
13 approved, they still have to -- it will be located  
14 on their D&M plan.

15 MR. SILVESTRI: Perfect.

16 MR. HANNON: Okay.

17 MR. SILVESTRI: Just making sure.

18 MR. HANNON: Volume 4, I don't have any  
19 questions because I asked that the last time and  
20 you gave me the answer, so I'm fine with that one.

21 Site plans. I'm going to deal with  
22 some of the maps here. Map G-001, general notes,  
23 number 12, store fuel, oil, paint and other  
24 hazardous materials in a secondary container and  
25 removed from the site to a locked indoor area with

1 an impervious floor during nonworking hours.

2 Where is that site located?

3 THE WITNESS (Huntley): We would expect  
4 that during the site construction there would be  
5 potentially some conex containers, some storage  
6 containers, places on site that would provide  
7 exactly what we're talking about for safe, on-site  
8 locked inside storage. The exact location is not  
9 determined. It's something that would be  
10 determined by the contractor as we get into the  
11 construction phase of the project.

12 MR. HANNON: I'm assuming it's going to  
13 be close by. So the goal would be to remove all  
14 of that material from the site on a daily basis?

15 THE WITNESS (Huntley): Correct.

16 MR. HANNON: I'm looking at map C-003.  
17 This is just a general question. When you're  
18 talking about internal property boundaries, I'm  
19 assuming that throughout all the maps that's just  
20 trying to identify the different number of parcels  
21 that have all been accumulated on this, and it's  
22 just showing some of the individual property  
23 lines, but the project is much larger as a whole?

24 THE WITNESS (Huntley): That's correct.  
25 The project consists of several, maybe as many as

1 30, different parcels, and the internal property  
2 lines are those that would delineate between  
3 different properties that are all within the  
4 footprint of the overall project.

5 MR. HANNON: I'll use map C-005 as an  
6 example, but it also includes 008, 009, 0011, 23,  
7 25, 14, 15 and others. What appears to be at  
8 least somewhat problematic for me is the  
9 indicators you have here for those areas that will  
10 be having trees cleared and stumps to remain in  
11 those areas where the property will be cleared and  
12 grubbed. Using that diagonal line for a portion  
13 of it, but then going in with -- in trying to  
14 figure out what you're doing there and where and  
15 how far you go, especially on some of the areas  
16 where they're smaller to deal with, is there a way  
17 that that can be more clearly defined? Because to  
18 me it's just way up in the air. I mean, you could  
19 have 50 feet because the line doesn't extend far  
20 enough, and you're clearing a lot more area and  
21 grubbing a lot more area than you anticipated. So  
22 that's just more a matter of trying to clarify  
23 what's in the plans.

24 THE WITNESS (Huntley): Sure. And is  
25 your question would this be more defined prior to

1 construction to give the contractor very clear --

2 MR. HANNON: Very clear.

3 THE WITNESS (Huntley): Yes. So  
4 historically what has been included in D&M plans  
5 in the past and would be included in issued for  
6 construction drawings would be lines delineating  
7 the difference between what's happening, and each  
8 of the vertices on those lines would provide a  
9 coordinate. So the contractor has X and Y of  
10 every single point that would define exactly where  
11 this delineation of tree clearing and stumps  
12 remaining versus tree clearing and clearing and  
13 grubbing the stumps versus it's already open and  
14 there is no clearing required. Those would be  
15 provided on a final construction set that would be  
16 prepared before the project goes to construction.

17 MR. HANNON: Thank you. And then on  
18 C-013, I mean, that's where I found the  
19 construction laydown area, but I don't think  
20 anywhere I saw any type of erosion control  
21 measures around that laydown area. It may be on  
22 another map. I didn't see it anywhere. So I just  
23 want to bring that to your attention.

24 THE WITNESS (Huntley): So for clarity,  
25 I think, on the laydown area that's in the center

1 of the site, it's actually at a low point on the  
2 site. It's where the gravel removal has happened  
3 to date. It will be cordoned off or defined for  
4 the contractor exactly where their laydown area is  
5 and it's allowed. From an erosion and sediment  
6 point of view, they will have to manage it as part  
7 of the project which will be required to comply  
8 under the construction general permit as well.  
9 But we don't anticipate runoff necessarily from  
10 these areas because they are essentially at the  
11 low points on the site because of the previous  
12 activities that have happened.

13 MR. HANNON: Thank you. This is just  
14 sort of a general question on map C-027. I'm just  
15 trying to figure out what that circle is in the  
16 middle of the property. Yes, that one. Because  
17 if I'm not mistaken, I believe the solar panels  
18 also work around that circle. So I'm just curious  
19 as to what it is.

20 THE WITNESS (Nickerson): Mr. George  
21 might be able to elaborate on this, but I believe  
22 this is a cultural site that's being avoided.

23 MR. HANNON: Okay, that's fine. I  
24 wasn't sure why it was there. And I think I'm  
25 correct in that the panels are also avoiding that

1 area?

2 THE WITNESS (Nickerson): Yes.

3 THE WITNESS (Huntley): That's correct.

4 MR. SILVESTRI: I'd also add that on  
5 drawing C-069 where it's labeled as protective  
6 fencing during construction, and again, I had no  
7 idea, as Mr. Hannon did, as to what that area was.

8 THE WITNESS (Huntley): That's the same  
9 issue. And the protective fencing is indicative  
10 that it would be a construction fence or, you  
11 know, a snow fence to make sure that the  
12 contractor stays out of that area and they're  
13 protecting that area.

14 MR. SILVESTRI: Thank you.

15 MR. HANNON: On map C-041 what is that  
16 truck turnaround in the middle of the property?

17 THE WITNESS (Gravel): Which number?

18 MR. HANNON: C-041.

19 THE WITNESS (Huntley): That's an  
20 existing conditions drawing, and it's actually  
21 showing some of the existing onsite road network  
22 that exists. And I would say I don't know exactly  
23 what the truck turnaround is, but it's potentially  
24 part of a previous either agricultural or gravel  
25 operation.

1           MR. HANNON: It has nothing to do with  
2 this operation?

3           THE WITNESS (Huntley): That's correct.  
4 These are existing conditions. These drawings  
5 essentially delineate where the clearing and the  
6 grubbing is. It's when you get after the C-044 or  
7 45, I believe, that gets into proposed, that that  
8 would show where the proposed roads are. All of  
9 this here is the existing network that you're  
10 seeing on those drawings.

11          MR. HANNON: Okay. I'm not sure  
12 exactly how to handle this next question because I  
13 actually went through virtually all of them, but  
14 general questions about the infiltration basins.  
15 And my primary question is why are there so many  
16 different elevations below the high point of the  
17 berm? So, for example, on map C-046 berm height  
18 is 228, spillway 227.5.

19                 On map C-051 maximum berm height is  
20 260, elevation leaching to spillway is part of  
21 berm 258, spillway elevation 257.5.

22                 On C-056 maximum berm elevation is 274,  
23 spillway is 273.75, which I believe is what is in  
24 the details you're showing a 3-inch elevation  
25 below the top of the berm for the spillway.



1           On C-059 maximum berm elevation is 211,  
2 spillway 210.25.

3           On C-061 maximum berm elevation 286,  
4 spillway 285.

5           On C-062 and on 68 maximum berm  
6 elevation is 254, spillway 253.

7           So I'm trying to figure out why all the  
8 different elevations. You've got in the details  
9 there is a specific elevation that you're looking  
10 at which is roughly the 3 inches. So why are we  
11 going from 3 inches to a foot? I'm just not  
12 understanding the dynamics on that.

13           THE WITNESS (Huntley): So each one of  
14 these proposed basins was designed and analyzed  
15 through HydroCAD through modeling of the exact  
16 site. And the freeboard and the different  
17 elevations were looked at and determined. And I  
18 believe where this comes out of is that depending  
19 on the amount of contributing area to each one of  
20 these basins, you need a little bit larger  
21 freeboard to maintain 100 year storm within these  
22 basins above the spillway just because of the  
23 dynamics of the stormwater.

24           So I think in general the 3 inches is a  
25 minimum, and we did detail every single basin to

1 provide for exactly what each one of those basins  
2 is requiring on a site by site and a location per  
3 location basis to be sure that even in a larger  
4 event we're not overtopping any of the berms.

5 MR. HANNON: Because, again, the reason  
6 I'm raising the question is because in looking at  
7 the details that were provided, it specifically  
8 identifies a 3-inch height.

9 THE WITNESS (Huntley): Correct.

10 MR. HANNON: So if there is going to be  
11 some variation, then you probably need to go ahead  
12 and change the detail side of things so that it  
13 accommodates what you're proposing to do. Because  
14 if you just look at the details and as a single  
15 detail saying a 3-inch --

16 THE WITNESS (Huntley): I agree.

17 MR. HANNON: So that's the reason why  
18 I'm bringing it up.

19 THE WITNESS (Huntley): Thank you.

20 MR. HANNON: On map C-081 I'm curious.  
21 Let's see, I'm assuming it's on the eastern side.  
22 I'm trying to figure out why, it looks like east  
23 of that roadway, why there's some of the grading  
24 outside of that area. It goes beyond where the  
25 panels are going. It goes beyond where some of

1 the other work is being provided, switching  
2 station and things of that nature. So I'm just  
3 curious as to what that grading is about.

4 THE WITNESS (Huntley): That is  
5 required in order to essentially close out the  
6 contours on the site. This is an area that's  
7 currently actively being mined for gravel removal.  
8 In order to avoid, if you can see on the like  
9 lower right side, there is a wetland there that  
10 we're trying to maintain the buffer zone from that  
11 wetland without doing any grading or any impact at  
12 all in that wetland. In order to do that, we have  
13 to steepen up some of the slopes or adjust some of  
14 the slopes beyond that 100 foot buffer in order to  
15 be able to tie all the contours together  
16 throughout the entire site. So this is an area  
17 where there's some earth work that's going to be  
18 required prior to the project in order to deal  
19 with some of those issues that are already on  
20 site.

21 MR. HANNON: Okay. Were you planning  
22 on providing any details with the horizontal  
23 directional drilling because I saw them on C-049,  
24 C-071, C-072 and C-076. I mean, I'm kind of  
25 curious as to what kind of depth you might be

1 looking at. I know we talked about having it used  
2 in the first place, but except for two lines  
3 showing where there's horizontal drilling, there  
4 really isn't any other detail about it.

5 THE WITNESS (Huntley): Right.  
6 Typically with the horizontal directional drilling  
7 there's a lot more geotechnical investigation  
8 that's going to be required before we can come up  
9 with a design. That's why we left it at that high  
10 level point.

11 MR. HANNON: Okay. Thank you. I'm  
12 getting close to the end. Tab H, the Operations  
13 and Management Plan. It's on the second page  
14 under long-term maintenance. You've got the  
15 planted areas will be inspected on a semi-annual  
16 basis. Weeds and invasive species will be removed  
17 by hand. Can you provide a little more detailed  
18 description as to how the site would be maintained  
19 against the invasives?

20 THE WITNESS (Gravel): Currently our  
21 plan for invasive species is to maintain  
22 problematic species that would maybe become an  
23 issue for, say, like a shrubby species or  
24 something like that, that may have the ability to  
25 grow up into the panels and may cause some

1 functional issues. So that's one way we would  
2 utilize some maintenance controls to minimize  
3 invasive species.

4 MR. HANNON: It also goes beyond just  
5 what you need for the panels because there's a lot  
6 of area that you're disturbing. And I would think  
7 that all of that area would be incorporated into  
8 an invasive species management plan just because  
9 it may have an impact on your panels. And you  
10 treat it there. You don't want to let it grow up  
11 around the panels around the perimeter of the  
12 project so then when you pack up your bags and go  
13 home the property owner is left with a major  
14 problem.

15 THE WITNESS (Gravel): I think by  
16 maintaining a meadow habitat, we would be  
17 precluding a lot of invasive species that could  
18 potentially inhabit within the fence line. So I  
19 think that's probably mowing twice a year will  
20 maintain it so that you wouldn't have a lot of  
21 invasives.

22 MR. HANNON: But there may be some  
23 things that you might need to go back and take a  
24 look at and do some hand removal, or if you do  
25 some cutting there may have to be something

1 applied to the stalk of the plant just as a way to  
2 try to mitigate anything there.

3           And then my last question is dealing  
4 with the array cleaning procedure, and it talks  
5 about no harmful chemicals shall be used. But I  
6 didn't think chemicals were going to be used at  
7 all, so why say no harmful chemicals? If it's  
8 just water and a brush, that's what the plan  
9 should say. But when you say no harmful  
10 chemicals, that implies that there could be other  
11 chemicals that are used.

12           THE WITNESS (Cartaya): We don't intend  
13 to have to clean the modules at these locations.  
14 But in the case that they would be, I think water  
15 and a soft brush, as has been mentioned before,  
16 would suffice. I hear your point.

17           MR. HANNON: I don't like some of these  
18 soft squishy words in some of these reports  
19 because it opens the door to be doing something  
20 that on one side you say you're going to use water  
21 and soft bristle brushes, but on the other hand  
22 you could always point to this, well, we said no  
23 harmful chemicals. So I'm just trying -- so just  
24 be aware of that so should this project go forward  
25 that you may need to be cleaning up some of the

1 plans for the D&M plan.

2 THE WITNESS (Cartaya): (Nodding head  
3 in the affirmative.)

4 MR. HANNON: I have a couple of  
5 questions dealing with decommissioning, and some  
6 of it relates to comments earlier saying that I  
7 believe there's apparently a lot of salt in the  
8 soils. And this may be very acidic soils, and it  
9 can do a job on the posts. So what I'm wondering  
10 is when you go to dismantle this project or  
11 decommission the project at the end, what impact  
12 might that have on the value of those materials?  
13 Because I think everybody anticipates that they'd  
14 be able to use the panels, all the metal framing  
15 and everything, that they're going to be able to  
16 get some pretty good money out of it. And I'm  
17 just curious if you do have, as was mentioned in  
18 the report you may be dealing with some highly  
19 erosive soils, what's the impact on the  
20 decommissioning plan and the profits coming in to  
21 cover the cost?

22 THE WITNESS (Huntley): Given the  
23 potential 30 year, you know, long life of the  
24 project and the galvanized nature of the piles  
25 that we're using, we certainly wouldn't

1 anticipate, even if there is some level of  
2 corrosion that would exist, that it would have a  
3 significant impact on the material that would be  
4 removed. They could be recycled at the end of the  
5 project.

6 MR. HANNON: And this, I think, is my  
7 final question unless something comes up from  
8 somebody else. But if the materials are so  
9 valuable and it only takes 11 months for  
10 construction, why would it take two years to  
11 remove the materials from the site?

12 THE WITNESS (Huntley): I don't think  
13 it takes two years to remove the materials from  
14 the site. I think that the decommissioning  
15 process from a de-energizing and the, I would say,  
16 the bureaucracy involved with getting a project  
17 done is where the applicant is looking for the  
18 flexibility and the time allowed to remove it, as  
19 well as seasonal condition requirements as well.

20 MR. HANNON: Well, it was striking to  
21 me that based on your time frame it would take 11  
22 months to construct but you need two years to  
23 decommission it. It just didn't seem quite right.

24 THE WITNESS (Cartaya): If I could add?  
25 I think in decommissioning, you know, we state we



1 will turn it back to its original state. That in  
2 nature is going to take a little longer than civil  
3 grading a field and getting it prepped for  
4 construction. So turning it back with seasonality  
5 included, as Brian had mentioned, I think all  
6 those things as more of a covering of time to be  
7 able to make sure it's turned back to the original  
8 state.

9 MR. HANNON: Then I think the  
10 decommissioning plan needs to be more specific.

11 THE WITNESS (Cartaya): Okay.

12 MR. HANNON: I yield the rest of my  
13 time.

14 MR. SILVESTRI: Thank you, Mr. Hannon.  
15 I'd like to turn now to Mr. Morissette.

16 MR. MORISSETTE: Thank you. Good  
17 afternoon, everyone. First, I'd like to go  
18 through the interrogatories dated January 7th, and  
19 I refer you to the response to Question 1. We'll  
20 go back to that one because I'm still confused.  
21 My understanding from the last hearing is that  
22 you've cleared in FCA 13, and you were going to  
23 participate in FCA 14.

24 THE WITNESS (Devarona): That's  
25 correct. This last one that happened last year

1 was FCA 14, and the auction actually took place  
2 yesterday.

3 MR. MORISSETTE: So did you clear in  
4 FCA 13?

5 THE WITNESS (Devarona): We believe we  
6 did clear. The postings will actually be done by  
7 ISO New England in a couple of weeks. And so what  
8 I learned this morning is that we believe we  
9 cleared somewhere around the 11 megawatt value,  
10 and then the actual dollars for that were between  
11 3 and 1.50 per kilowatt month.

12 MR. MORISSETTE: That was for FCA 14,  
13 correct?

14 THE WITNESS (Devarona): 14, yes.

15 MR. MORISSETTE: So did you clear in  
16 13?

17 THE WITNESS (Devarona): No, in 13 we  
18 did not clear the auction.

19 MR. MORISSETTE: Now, as far as the  
20 capacity of 24.9 that you bid into FCA 14, so you  
21 bid 24.9 into the auction, correct?

22 THE WITNESS (Devarona): I think the  
23 way it works -- and again, I'm not an expert on  
24 exactly how these things happen. Our marketing  
25 group is the one that handles a lot of this -- is,

1 you know, obviously the project is bid at the 50  
2 megawatt value, and ISO New England applies a  
3 capacity value to that which ends up being 24.9  
4 megawatts.

5 MR. MORISSETTE: Is that based on a  
6 capacity value or coincident with ISO's peak?

7 THE WITNESS (Devarona): I think it may  
8 be based on resource type. Being a solar plant,  
9 it does not get the full capacity value of the  
10 nameplate. It gets derated down to some sort of  
11 probability of what it actually is producing  
12 during the time.

13 MR. MORISSETTE: But you only cleared  
14 11 megawatts?

15 THE WITNESS (Devarona): So that was a  
16 deration process that goes on, and that's the  
17 piece that I'm not very familiar with how that  
18 actually ends up happening. The 24.9 was what the  
19 capacity value I was given by ISO New England, and  
20 then it actually was derated down to 11 megawatts.

21 MR. MORISSETTE: Thank you. Moving on  
22 to Question 6, the response says, as a general  
23 matter, system control and dispatch is an area  
24 that is fully under the authority and operational  
25 control of ISO New England. But isn't it true

1 that for this type of facility you're basically  
2 running it at base load and doing a bilateral  
3 contract with the parties of the contract, and  
4 therefore to the extent that ISO New England is  
5 dispatching it, they're not, they're only  
6 dispatching it in the case of an emergency?

7 THE WITNESS (Devarona): Yeah. And so  
8 I think that the question, the way that we  
9 interrupted the question is, you know, inherently  
10 is the dispatch of this unit and the fact that  
11 it's a variable resource add to the -- or take  
12 away from the ability of the ISO New England  
13 operators to manage the grid for reserves and  
14 reliability. And our response to that is, yeah,  
15 we do have a solar resource that does have some  
16 level of variability based on times of year and  
17 weather patterns. Those forecasted values that  
18 the unit is going to be expected to be running at  
19 are provided to ISO New England for them to take  
20 into consideration ensuring that at all times they  
21 have proper reserves and reliability coverage for  
22 their system.

23 MR. MORISSETTE: Right. But your unit  
24 will not be dispatched, per se, it's going to run  
25 at base load and it is what it is because it's --

1           THE WITNESS (Devarona): Yes. It will  
2 run to satisfy its contract obligations. It does  
3 get potentially curtailed if there's any issue on  
4 the ISO New England system, and so that ends up  
5 being a level of dispatch.

6           MR. MORISSETTE: I wanted to clarify.

7           MR. SILVESTRI: Just to reinforce that,  
8 though, ISO is not going to call you and say go on  
9 or go ramp up, you're either going to be on or  
10 you're going to be off depending on the weather  
11 conditions?

12          THE WITNESS (Devarona): Correct.

13          MR. SILVESTRI: So I want to make that  
14 clear that you're really not going to be  
15 dispatched, you're going to be on, whatever you  
16 could produce for ISO is going to be based on  
17 solar conditions.

18          THE WITNESS (Devarona): Yes.

19          MR. SILVESTRI: But again, you can't  
20 change that unless the sun changes.

21          THE WITNESS (Devarona): Correct.

22          MR. SILVESTRI: Thank you.

23          MR. MORISSETTE: Thank you. I just  
24 wanted to clarify for the record.

25                   Interrogatory Number 12. Referring to

1 Tab O, the Tech Environmental acoustic analysis.  
2 On Table 1 it says 29 Liepis Road with a maximum  
3 sound level of 36.9. If I look on Figure 2, and  
4 maybe it's my orientation, let me ask this before  
5 we go on: The substation is specifically included  
6 in the sound analysis based on this report?

7 THE WITNESS (Huntley): That's correct.

8 MR. MORISSETTE: I would suspect that  
9 you're getting more higher sound levels from the  
10 substation than you are from the inverters?

11 THE WITNESS (Huntley): I don't know  
12 the exact levels that were used for each of the  
13 facilities; however, they did use actual material  
14 specifications when the work was done.

15 MR. MORISSETTE: It also said that at  
16 night the sound levels are quite low. There's no  
17 humming out of the inverters at night?

18 THE WITNESS (Huntley): No, there's  
19 not.

20 MR. MORISSETTE: None at all, zero?

21 THE WITNESS (Huntley): When the sun is  
22 not shining on the panels, when the panels are not  
23 generating power, the inverters are completely  
24 silent.

25 MR. MORISSETTE: Back to Figure 2, 29

1 Liepis Road. I'm trying to put that in relation  
2 to the substation. Can you help me out there?

3 THE WITNESS (Huntley): Yes. So the  
4 location of 29 Liepis Road is closer to an  
5 inverter than it is to the substation by quite a  
6 bit. The substation is across the field, and I  
7 don't know the scale on this drawing, but I would  
8 say, you know, several hundred, if not more than  
9 1,000 feet away from the substation itself.

10 MR. MORISSETTE: So it's closer to 237  
11 Wauregan Road; is that correct? Am I looking at  
12 that right?

13 THE WITNESS (Huntley): Wauregan Road,  
14 yes, I believe that's the case.

15 MR. MORISSETTE: Okay. So the  
16 substation is that gray box on the other side of  
17 the road?

18 THE WITNESS (Huntley): Yes.

19 MR. MORISSETTE: So I would have  
20 thought that 237 Wauregan Road would have the  
21 higher sound levels from the substation than it  
22 would from the inverter. So what that tells me is  
23 that the inverters are making more noise than the  
24 substation; is that accurate?

25 THE WITNESS (Huntley): I don't think

1 that that's necessarily accurate, but I think it  
2 is based on proximity. Because the location of  
3 that Wauregan Road property is further away from  
4 the substation than the Liepis Road property is  
5 from the inverter. I think that's why that Liepis  
6 Road property has such a high value is because  
7 it's significantly closer to that inverter than  
8 the other properties are to the substation.

9 MR. MORISSETTE: Thank you. That helps  
10 put it in perspective.

11 This next topic we talked about at the  
12 last hearing, but it's still not clear to me, and  
13 it has to do with the increase in panel output.  
14 You're now at 410 kilowatts per panel. Previously  
15 it was 390. So the output of the panels are all  
16 higher, but your output of the facility is the  
17 same. Now, my interpretation of that is, is that  
18 you're limited by the inverters, or is there some  
19 other limitation why you are not able to get  
20 beyond 49 megawatts?

21 THE WITNESS (Cartaya): You're correct  
22 in your assumption. The inverters are the  
23 delivery in AC ultimately is our point of  
24 interconnect. DC on other side, the wattage of  
25 the modules is limited by -- ultimately converted



1 by those inverters. So to your point, the AC is  
2 going to be fixed by the inverter count.

3 MR. MORISSETTE: So you could put in  
4 more inverters, correct?

5 THE WITNESS (Cartaya): No, and that  
6 would be because of studies that we've done with  
7 ISO New England.

8 THE WITNESS (Devarona): And I'll lean  
9 on Hagen also for the commercial aspects of the  
10 project, but the interconnection request which  
11 starts the process of studying the unit is put in  
12 for 50 megawatts of output on the New England  
13 system. Anything above that would require a brand  
14 new interconnection request and study process for  
15 ISO New England to go through.

16 MR. MORISSETTE: Okay. That makes  
17 sense. Thank you.

18 Now, let's turn our attention to costs.  
19 The 96 million, does it include the switchyard,  
20 the line loop and the double circuit separation?

21 THE WITNESS (Lee): So 96 million is  
22 the total investment cost for the project  
23 including Eversource scope of work.

24 MR. MORISSETTE: Would you know what  
25 the Enfield project total cost was, your Enfield

1 project for comparison purposes?

2 MR. BOGAN: If I may, Mr. Morissette,  
3 typically the company maintains as confidential  
4 its project costs, although we have provided the  
5 information, I believe, for example, in connection  
6 with the Nutmeg project subject to a  
7 confidentiality order. The reason it was made  
8 public here was because the prior project manager  
9 had disclosed the project price at that time, and  
10 so therefore there was no ability for Mr. Lee or  
11 any witness to maintain it as confidential in this  
12 proceeding. But the Nutmeg project, for example,  
13 it was submitted subject to a protective order.

14 MR. MORISSETTE: Okay. Thank you.

15 MR. BOGAN: Thank you.

16 MR. SILVESTRI: Thank you, counselor.

17 MR. MORISSETTE: I'll continue with  
18 costs. My understanding is that CL&P, as we  
19 discussed with Eversource earlier, they are  
20 purchasing 40.18 and United Illuminating is  
21 purchasing 9.82, so that's about 50 percent of the  
22 output. What would you say the impact of this  
23 project is on Connecticut ratepayers from a cost  
24 perspective?

25 MR. BOGAN: If you know.

1           MR. MORISSETTE: It doesn't need to be  
2 a dollar figure. I'm talking conceptually what's  
3 the impact on Connecticut ratepayers. I know the  
4 answer. I could tell you.

5           THE WITNESS (Lee): Solar generation  
6 helps Connecticut meet its renewable energy goals.  
7 Also, by nature solar energy generation coincides  
8 with summertime peak hours. I would imagine in  
9 that regard it would be beneficial to the  
10 Connecticut ratepayers.

11           MR. MORISSETTE: Let's try this another  
12 way. Of the 96 million, would you say that  
13 Connecticut ratepayers are on the hook for 50  
14 percent, or are they on the hook for the kilowatt  
15 hours, 50 percent of all the kilowatt hours that  
16 are exported from the facility?

17           (Off the record discussion.)

18           THE WITNESS (Lee): I don't know what  
19 the offtakers do in terms of distributing their  
20 cost. From the developer's perspective, we  
21 finance this project up front and recoup our costs  
22 over 30 years. And if you want to break down the  
23 rate of recuperation from this project by  
24 offtaker, I would say approximately it would break  
25 down according to offtaker percentage.

1           MR. MORISSETTE: So Connecticut would  
2 purchase 50 percent, and that would be the  
3 financial obligation of CL&P and UI combined?

4           THE WITNESS (Lee): Not exactly because  
5 the last ten years of this project finance is done  
6 through a merchant assumption.

7           MR. MORISSETTE: True.

8           THE WITNESS (Lee): And that goes into  
9 NEPOOL, and that doesn't go straight to any  
10 specific offtaker.

11          MR. MORISSETTE: Thanks for clarifying  
12 that. Can we just quickly go through which  
13 wetlands are impacted by the 50-foot boundary? I  
14 want to beat a dead horse here.

15          THE WITNESS (Nickerson): The best way  
16 to look at this is the wetland report from May  
17 2019, Figure 2.

18          MR. MORISSETTE: Actually, I'm looking  
19 at this blowout that was provided in the  
20 interrogatories.

21          THE WITNESS (Nickerson): That's a  
22 similar figure, correct.

23          MR. MORISSETTE: Great. Thank you.

24          THE WITNESS (Nickerson): So it points  
25 out wetlands 18, 20, wetland 8, part of -- sorry,

1 part of wetland 18, part of wetland 9, wetland 1,  
2 and a small portion of wetland 2.

3 MR. MORISSETTE: Could you go a little  
4 slower?

5 THE WITNESS (Nickerson): Yeah. So  
6 there are six total.

7 MR. MORISSETTE: Six, okay. I got two.

8 THE WITNESS (Nickerson): Wetland 18  
9 partially, wetland 20 partially, wetland 8, part  
10 of wetland 9, wetland 1 and wetland 2. The other  
11 way to look at this is in the legend you can see  
12 the orange 50-foot buffer.

13 MR. MORISSETTE: Okay. Got you.  
14 That's helpful. Great. Thank you.

15 THE WITNESS (Nickerson): No problem.

16 MR. MORISSETTE: Last question. Could  
17 you briefly describe what a typical average day  
18 output would look like? I didn't see anything in  
19 the petition that described. I'm assuming that  
20 the facility peaks at 10 or 11 and peaks for a few  
21 hours and then starts to decline as the sun gets  
22 weaker?

23 THE WITNESS (Lee): Similar to most  
24 solar facilities, it does peak in the afternoon  
25 hours, and it looks very similar to a bell curve

1 if you plot out 0 to 24 hours. And we're  
2 expecting just over 90,000 megawatt hours per year  
3 in generation.

4 MR. MORISSETTE: So 3 or 4 in the  
5 afternoon it's at a lower level than, say, 11 or  
6 12?

7 THE WITNESS (Cartaya): It changes by  
8 season too. So, you know, summer solstice higher,  
9 longer bell curve, and in the winter you'll see  
10 that shrink a little bit.

11 MR. MORISSETTE: Thank you. That's all  
12 the questions I have.

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

15 Just to follow up on that part with the  
16 bell curve. You mentioned it could be wider, but  
17 it could also be taller, correct, depending on the  
18 position of the sun and output?

19 THE WITNESS (Cartaya): That's correct.

20 MR. SILVESTRI: Okay. One other  
21 follow-up.

22 THE WITNESS (Huntley): I'm sorry. If  
23 I could add on to that?

24 MR. SILVESTRI: Sure.

25 THE WITNESS (Huntley): The height of

1 that bell curve is limited by the AC output of the  
2 system. That's the point of the AC/DC  
3 relationship that we have on the site. So it's  
4 not taller with what's actually leaving the site.

5 MR. SILVESTRI: Thank you. And one  
6 other follow-up I had from Mr. Morissette about  
7 the inverters. Is inverter noise directional?

8 THE WITNESS (Cartaya): So to answer  
9 that, yes and no. The reason is really what  
10 you're hearing is the fan, the cooling fan, or  
11 some mechanism that's kicking in to cool down the  
12 inverter that's on a certain side of the inverter  
13 that could be directional, but overall it can be  
14 heard. And I want to state that it's not very  
15 loud. So, you know, you're a couple, 50 feet away  
16 it's very inaudible, but nonetheless.

17 MR. SILVESTRI: Thank you.

18 I'd like to go now to Mr. Lynch.

19 MR. LYNCH: Thank you, Mr. Chairman.

20 A few questions. I'm just trying to  
21 find out what they are. Let's start out with a  
22 few quick ones. As far as federal and state tax  
23 credits and subsidies are concerned, when are you  
24 eligible for them; and two, if you are, how long  
25 are they in place, when do they start to go away?

1 MR. BOGAN: If you know the answer.

2 THE WITNESS (Lee): This project is  
3 eligible for ITC tax credit.

4 MR. LYNCH: Sorry, I can't hear you.

5 THE WITNESS (Lee): Quinebaug is  
6 eligible for ITC, investment tax credit.

7 MR. LYNCH: Now, coming back to your  
8 contractors for a second, do you have separate  
9 contractors for clearing the land, or is it one  
10 contractor who will clear the land and put up your  
11 racks and the panels?

12 THE WITNESS (Cartaya): Typically we'll  
13 have one contractor do all. This may be a  
14 separate case, so we are open to both at  
15 Quinebaug. We may have someone clear, a  
16 contractor clear for us earlier, but in most cases  
17 we'll have one contractor do all the activities.

18 MR. LYNCH: Will that contractor also  
19 be responsible for maintenance and repairs for any  
20 panels or inverters that may be damaged?

21 THE WITNESS (Cartaya): No, sir, that  
22 would be part of our operations and maintenance  
23 team.

24 MR. LYNCH: Thank you.

25 THE WITNESS (Cartaya): Just as a



1 caveat, unless it's during construction and part  
2 of the installation --

3 MR. LYNCH: No, I meant --

4 THE WITNESS (Cartaya): After?

5 MR. LYNCH: We're in New England so we  
6 get storms all the time.

7 THE WITNESS (Cartaya): Sure.

8 Post-construction it would be on us.

9 MR. LYNCH: Now, this question is a  
10 little off the reservation, but I'm going to ask  
11 it anyhow. We're in an era now of acquisitions  
12 and mergers as far as companies are concerned. If  
13 your company is bought five, ten years down the  
14 road -- this may be a question for Mr. Bogan -- do  
15 the contracts, are they assigned, or do they stay  
16 with the company, or does the buyer, do they go  
17 with the new buyer? Sorry to make you testify,  
18 Mr. Bogan.

19 MR. BOGAN: That's okay. I was going  
20 to say at the risk of testifying, and I don't  
21 recall the specific provision of the PPA, but  
22 typically, particularly given that it's a contract  
23 with the state, it's conditioned upon certain  
24 obligations that would be undertaken by the  
25 acquiring entity.

1           MR. LYNCH: Now, this question I  
2 actually did my own research on. The people who  
3 live in Florida won't be able to answer it, but  
4 the ones in Maine might be able to. A couple --  
5 last month we had two snowstorms, ice storms back  
6 to back. And I noticed in my evening walk, cigar  
7 walk, that some of the residential panels were  
8 covered with first snow and then ice, because the  
9 two storms were identical, one after the other.  
10 And according to your interrogatory, they would  
11 melt off and fall down. They did not. Now, this  
12 is at a residential area so I was curious. So  
13 there are two smaller solar farms near me, and I  
14 went over to see if it was the same there, and it  
15 was.

16           Now, does the ice prohibit the snow  
17 from sliding off, and if your panels are covered  
18 you're not putting any output. Can you explain  
19 what's happening here?

20           THE WITNESS (Cartaya): So as part of  
21 our production modeling, all soiling, as stated  
22 earlier, is assumed. That includes snow, that  
23 includes dust from mining, and really any other  
24 event. So those are anticipated. And that's why,  
25 when you look at our production curve, you'll see

1 a significant drop in the wintertime due to lower  
2 sun and also snow soiling.

3 MR. LYNCH: Now, my follow-up would be,  
4 does this heavy ice, not necessarily snow, but  
5 does heavy ice do damage to the panels and their  
6 effectiveness?

7 THE WITNESS (Cartaya): They don't do  
8 damage to the panel itself. Effectiveness, if  
9 you're referring to production, yes. But if once  
10 the ice melts did it do any damage to the panel  
11 actually being able to produce? No.

12 MR. LYNCH: Now, my next questions, if  
13 you were part of the last panel that testified  
14 here you'll be aware of what they are. I already  
15 know the answers to them. And they revolve around  
16 fire protection. And I noticed in looking at your  
17 diagrams is that you have limited access roads and  
18 limited exit roads. And to fire departments,  
19 whether they're paid or volunteer, they want to be  
20 able to get in and out of areas; they don't want  
21 to be trapped. Are you going to identify your  
22 exit areas, or would you put in more exit areas  
23 after talking to the fire department?

24 THE WITNESS (Huntley): So I think the  
25 general answer to that is that we've tried to

1 design the access roads to be as efficient as  
2 possible to provide clean and clear access to all  
3 of the inverter locations. The inverters and the  
4 transformer locations we would anticipate are the  
5 areas that have the highest likelihood of  
6 something that could actually combust. From that  
7 perspective, there are a number of ingresses and  
8 egresses on the site currently where there are a  
9 few areas there are some dead ends to get to these  
10 inverters, but the majority of the areas where  
11 there are inverters are along a road that goes  
12 from one area to another where there could be, you  
13 know, a straight shot in and out.

14 MR. LYNCH: You led into my next  
15 question really. As far as the transformer and  
16 the inverters are concerned during a fire, I  
17 assume that Eversource would turn off the  
18 transformers. Who turns off the inverters?

19 THE WITNESS (Huntley): The inverters  
20 actually I think in this location would need to be  
21 isolated by somebody on site. So my  
22 anticipation -- all right, go ahead.

23 THE WITNESS (Cartaya): So in the case  
24 of a fire, the inverter could be shut down, would  
25 be shut down, and remotely as well, if I'm not

1 mistaken, so those can be isolated immediately to  
2 not affect the grid or in the case of our point of  
3 interconnection.

4 MR. LYNCH: Even with the inverters off  
5 and a bright sunny day, those panels are still  
6 hot. Can anyone be -- get a shock, I'm sure, from  
7 these, or could they do further damage?

8 THE WITNESS (Cartaya): So each string  
9 has a shut-off as well. And that is where the  
10 fire department will be trained by our teams to  
11 how to deal with that electrically, so I don't  
12 believe that will be an issue.

13 MR. LYNCH: You're leading into my next  
14 questions. Would you offer the area fire  
15 departments -- they're all volunteer out there --  
16 any training or expertise of special equipment,  
17 same question I asked Eversource?

18 THE WITNESS (Huntley): Yes. The  
19 intention is that Quinebaug Solar would provide  
20 training to the local fire departments for what's  
21 required in the case of an emergency on the site.

22 MR. LYNCH: And if they needed special  
23 equipment, I know some electrical fires are fought  
24 with foam or Co2. Would you be able to provide  
25 that until our legislature comes up with, you

1 know, does away with the foam?

2 THE WITNESS (Huntley): The answer to  
3 that, I believe, is that the emergency responders  
4 would be taught on what the appropriate method is  
5 for attacking the site, attacking a fire, what to  
6 do, what to turn on, what to turn off, and how to  
7 get there. And I don't believe that there's any  
8 significant specialty equipment that would be  
9 required for that.

10 MR. LYNCH: Would this be hands-on  
11 training or classroom?

12 THE WITNESS (Huntley): I expect it  
13 would probably be a combination of both.

14 MR. LYNCH: Pardon?

15 THE WITNESS (Huntley): Likely some  
16 combination of both with an onsite level as well.

17 And if I can add to your earlier  
18 comment with the question about the panels and  
19 their capability to generate in the case of a  
20 fire? There's a significant grounding system  
21 that's put on the site as well as on the racking.  
22 So there are safety precautions in place. So  
23 touching a panel shouldn't have any issue from an  
24 electrical point of view, there is grounding in  
25 place.

1 MR. LYNCH: That's understandable.

2 Thank you.

3 Now, I noticed that -- would you allow  
4 the fire marshal or the fire chief in the area to  
5 come and do an inspection after you're up and  
6 running of the facility and then periodic  
7 inspections of the facility?

8 THE WITNESS (Lee): We work very  
9 closely with the town, and town leadership often  
10 requests that, so we're open to that.

11 MR. LYNCH: Thank you. Now, as far as  
12 technology is concerned -- I've asked this  
13 question many times on these panels -- there's a  
14 thing called Morse law or Morse principle which  
15 says all technology changes within 18 months.  
16 Now, that having been said, it could take longer  
17 or shorter. But with the advent of new technology  
18 whether it's regarding your panels or, you know,  
19 some new type of inverters that come along that  
20 would increase your output, you know, would you in  
21 the future think of changing or developing these  
22 technologies?

23 THE WITNESS (Lee): So we don't develop  
24 the product but --

25 MR. LYNCH: No, that has been

1 developed. Let me put it that way.

2 THE WITNESS (Lee): Yes. This project  
3 has fully been calculated. The return has been  
4 calculated based on these specified equipment.  
5 It's highly unlikely that we will go in and redo  
6 the work once it's operating.

7 MR. LYNCH: Okay.

8 THE WITNESS (Lee): Our plan is to  
9 install it and operate it for 30 years.

10 MR. LYNCH: One of the technologies  
11 that's being developed and is being used out in  
12 California by Native Americans are batteries for  
13 their solar panels. And you mentioned here that  
14 you're not going to use batteries. Why not?

15 THE WITNESS (Lee): I wasn't part of  
16 the contracting team. When this project was  
17 contracted in 2017, a number of things could have  
18 gone on. They may have not been looking to  
19 procure storage. As I understand, storage  
20 procurement is a recent phenomenon. And I did bid  
21 a storage project in a more recent RFP. So I  
22 don't know if the procurement agency was looking  
23 for storage at that time.

24 MR. LYNCH: The reason I'm asking is  
25 because Connecticut has their green project goals



1 set up for 2004 to 2050. I forget the exact date.  
2 And we get appearing before us all the time the  
3 environmentalist that say you have to go green to  
4 get rid of fossil fuels. And it would just seem  
5 to me that batteries which would help you operate  
6 when there's no sun would be something you'd want  
7 to incorporate.

8 THE WITNESS (Lee): Yes, I absolutely  
9 agree. Energy storage provides great flexibility  
10 and helps shift intermittent resources so that you  
11 can address energy demand more efficiently. I  
12 absolutely agree.

13 MR. LYNCH: So are you saying in your  
14 agreement that if Mr. Musk or UTC here in  
15 Connecticut, which is also working on storage  
16 batteries, come up with something in the future,  
17 you may incorporate that?

18 THE WITNESS (Lee): We look at all  
19 technology available to us, and we're pushing  
20 storage quite aggressively not only in this region  
21 but nationwide. So if Connecticut were to procure  
22 storage, we would be the first ones to bid on  
23 that.

24 MR. LYNCH: I know there's two  
25 companies, I won't name them, but there's two

1 companies in Connecticut working on battery  
2 storage. And that's all, Mr. Chairman.

3 MR. SILVESTRI: Thank you, Mr. Lynch.

4 I have a few follow-ups based on  
5 Council members' questions before I get to my own.  
6 And I wanted to start with Mr. Lynch when he was  
7 talking about the ice and snow issue. I'm aware  
8 with wind turbine developments that they're coming  
9 in with heaters now to try to keep ice off of  
10 them. The question I pose to you, is there  
11 anything on the horizon or available now for  
12 heaters with solar panels that granted they would  
13 take away some of your output, but is there  
14 anything there that helps get rid of ice and snow?

15 THE WITNESS (Lee): There are early  
16 stage technologies out there. However, the degree  
17 to which it has been commercialized hasn't been  
18 proven yet, and I don't think it's ready for this  
19 project. We do take into consideration, to my  
20 colleague's point earlier, a certain number of  
21 snow days and ice days per year, and we have high  
22 confidence that those days are sufficiently baked  
23 into our model to, you know, account for snow and  
24 ice losses.

25 MR. SILVESTRI: I appreciate that.

1 Like I said, I know it's out there for other types  
2 of technology. I didn't know if anything was on  
3 the horizon yet. And it seems like it may be  
4 coming, but not commercially available from what  
5 you responded.

6 I also wanted to follow up on a couple  
7 things that Mr. Hannon brought up. Go back to the  
8 fly ash. When fly ash was mentioned, and again  
9 it's still iffy as to what might happen with it,  
10 if it happens at all, was the fly ash anticipated  
11 from a certain combustion product?

12 THE WITNESS (Huntley): The reference  
13 to fly ash came directly out of a third-party  
14 geotechnical report that was done as a possible  
15 way for some ground improvements. It certainly  
16 wasn't anything that was thought out beyond  
17 mentioning as one of the possibilities in my  
18 opinion on that.

19 MR. SILVESTRI: All right, just to go  
20 on. And again, from what Mr. Morissette said, not  
21 to beat a dead horse, but was the intention of  
22 that in the report to be used as a flowable fill  
23 or a pozzolanic property in concrete or any other  
24 type of context?

25 THE WITNESS (Huntley): The context

1 that I read in that report was for stabilizing  
2 some potentially liquid soil. So I think that the  
3 idea is that it would be from an inclusion in a  
4 mixture point of view, not necessarily as a  
5 component within a concrete product. I think it  
6 was a high-level term that was used for potential  
7 suggestions for soil stabilization.

8 MR. SILVESTRI: The other thing, you  
9 were talking with Mr. Hannon about grout. What's  
10 the composition of grout?

11 THE WITNESS (Huntley): Grout is  
12 essentially a concrete, a curable product that has  
13 flowable properties. So it typically has a  
14 smaller aggregate than a structural concrete, but  
15 it's a flowable concrete product essentially.

16 MR. SILVESTRI: I'm aware of grout with  
17 fly ash in it. Are you looking at that type of  
18 material there as well, or would it be fly ash  
19 free?

20 THE WITNESS (Huntley): Again, I think  
21 in my comment of suggesting that we wouldn't use  
22 fly ash in itself on the site, only in a location  
23 where it would be bound up in a concrete product  
24 was my recommendation. That said, I'm not sure  
25 that I can say that we would, you know, either

1 include or not fly ash anywhere at all on the  
2 project where fly ash is generally allowed within  
3 the industry on a concrete product is what the  
4 flexibility that I was requesting.

5 MR. SILVESTRI: Thank you for your  
6 comments.

7 Questions that I had, I'd like to start  
8 off with the panels, and I'm not sure which person  
9 might be the panel expert. But the first question  
10 I have on panels is, are they crystalline silicon  
11 panels?

12 THE WITNESS (Cartaya): Yes.

13 MR. SILVESTRI: Thank you. Are they  
14 free of cadmium telluride?

15 THE WITNESS (Cartaya): Yes.

16 MR. SILVESTRI: Thank you also. Are  
17 half-cell modules now becoming the norm?

18 THE WITNESS (Cartaya): I don't think  
19 there is a norm in the module technology right  
20 now, to reference Mr. Lynch's comment about Morse  
21 law. There's a lot of monocrystalline and  
22 polycrystalline modules out there. We are going  
23 to explore the best option at the time of  
24 procurement for this project.

25 MR. SILVESTRI: What I found in my own

1 research is that the half cells kind of give you  
2 more power and more efficiency compared to other  
3 types that are out there, but that's why I kind of  
4 asked the question about quote/unquote the norm  
5 now.

6 THE WITNESS (Cartaya): Yeah, if  
7 they're available, we'll buy them, but at the time  
8 of procurement for this project we'll look at the  
9 best possible product we can buy.

10 MR. SILVESTRI: One other question on  
11 the panels. They're designated, from what I saw,  
12 as PID free or potential induced degradation free.  
13 Is there anything special that must be done with  
14 the inverters, such as galvanic isolation,  
15 installing a reversal device or anything else that  
16 has to go along with a PID free panel?

17 THE WITNESS (Cartaya): No.

18 MR. SILVESTRI: Thank you. All right,  
19 different topic, and this goes back to Exhibit L  
20 which is the greenhouse gas assessment. The  
21 exhibit compares the life cycle emissions of Co2  
22 equivalence of natural gas with the expected  
23 reductions that would occur with the project.  
24 Again, EPA kind of sets this up. I'm not happy  
25 with the way EPA compares things because I don't

1 think EPA puts it necessarily in real-life  
2 situations. For example, you know, taking X  
3 amount of passenger cars off the road is one of  
4 the things they compare, but obviously a project  
5 like this wouldn't take cars off the road.

6 But the question I want to pose to you  
7 is, do you know how many million cubic feet of  
8 natural gas compares to the listed life cycle Co2  
9 equivalents that are in there? Because that to me  
10 would be realistic that the solar panel goes out,  
11 probably natural gas doesn't get burned, but I'd  
12 love to know what in terms of million cubic feet  
13 of natural gas that might be.

14 MR. BOGAN: If you know.

15 THE WITNESS (Lee): That's a great  
16 question. We'll get back to you.

17 MR. SILVESTRI: You don't have to get  
18 back. I know the answer, but I just wanted to see  
19 if you knew the answer. If you want to know the  
20 answer, I put it in terms of 30,000 million cubic  
21 feet, so, you know, what does that mean in terms  
22 of generation, it might be 1.7 hours for a  
23 combined-cycle or a single-cycle operation. But  
24 to me that's meaningful information that I can't  
25 point a finger at you folks because the EPA

1 graphic that's there just doesn't include things  
2 like that, but I wish it would.

3           We kind of touched on the State  
4 Historic Preservation Office earlier in the  
5 conversations, their letter dated January 9th.  
6 And on a couple of the pages they recommend or  
7 suggest that if you don't bifurcate the stone  
8 walls and you include different things that are  
9 there. One, I don't know your opinion on, or what  
10 you plan to do based on the SHPO recommendations  
11 that are there, or if you had any further  
12 conversations with SHPO, so I'm kind of curious  
13 how you left off with the January 9th letter with  
14 them.

15           THE WITNESS (George): I met with them  
16 just prior to the January 9th letter to discuss  
17 this and other aspects of the project. They are  
18 content with the small breaching of the stone  
19 walls to make the project area viable for truck  
20 traffic and construction, and then NextEra will  
21 leave the remainders of the wall in place being  
22 good stewards of resources.

23           There's only a few sensitive areas.  
24 Two of them are adjacent to a historic cemetery in  
25 the property, and that the SHPO has required a



1 50-foot buffer for any breach from the cemetery  
2 itself, and I believe we are even a little bit  
3 past 50 feet. So that's where we left off with  
4 SHPO in that conversation.

5 MR. SILVESTRI: Thank you. This might  
6 be the last question I have. And again, this was  
7 touched on earlier about the watercourses that are  
8 in the area. But if you look at Exhibit D,  
9 specifically on page 6, at the bottom of Section  
10 3.1 entitled Wetlands and Watercourses, there's a  
11 sentence that says, "Two perennial watercourses,  
12 Cold Spring Brook and Blackwell Brook, border the  
13 study area on the western boundary. A more  
14 detailed account of these resources is provided in  
15 the wetland and the watercourse delineation report  
16 in Appendix C."

17 Now, unless it was missing from my  
18 copy, I can't find any details of Cold Spring and  
19 Blackwell Brooks in Appendix C of Exhibit D. Did  
20 I miss it? Was it not in mine, or could you  
21 explain why this statement is there but I can't  
22 find the details?

23 THE WITNESS (Nickerson): So if you  
24 look at Table 1, which is Appendix A of the  
25 wetland report.

1 MR. SILVESTRI: So it's not Appendix C?

2 THE WITNESS (Nickerson): Well,  
3 Appendix C contains the wetland report. The  
4 wetland report contains Appendix A.

5 MR. SILVESTRI: So I'm confused  
6 already, but go ahead.

7 THE WITNESS (Nickerson): Either way  
8 the -- I'm sorry, it's Table 2 has a summary of  
9 the resources, the watercourse resources. Table 1  
10 is the summary of the wetland resources. Table 2  
11 is a summary of the watercourse resources, and  
12 there's a further description of those resources  
13 in that table.

14 MR. SILVESTRI: I'm not going to take  
15 the time to open up the page right now, but could  
16 you briefly summarize the survey for those brooks?

17 THE WITNESS (Nickerson): Sure. These  
18 watercourses were included in the follow-up  
19 wetland delineations that we conducted after the  
20 original petition. The delineation maps the  
21 boundary of those watercourses and characterizes  
22 just sort of the general ecology, the type of flow  
23 and the bottom and the substrate and the  
24 surrounding ecology.

25 MR. SILVESTRI: Species as well?

1           THE WITNESS (Nickerson): Plant  
2 species, anecdotal observations of wildlife, but  
3 that's not necessarily the intention of the  
4 wetland and watercourse delineation survey.

5           MR. SILVESTRI: My final question, at  
6 least at this point, and we kind of hinted to it  
7 earlier, but I want to again revisit it. Do you  
8 anticipate a temperature increase in runoff from  
9 the panels specifically in a midsummer condition  
10 where you have a pop-up rainstorm? So your panels  
11 are already exposed to the sun for a period of  
12 time, and all of a sudden a little storm comes in  
13 and rainwater happens.

14          THE WITNESS (Huntley): This is an  
15 interesting question, and I think it comes back to  
16 a number of anecdotal situations that I've run  
17 into on these projects over the years, that what I  
18 would say is in the specific condition that you  
19 described we do not anticipate any increase in the  
20 temperature of that runoff. And I'll elaborate a  
21 little further that the nature of these solar  
22 panels is to convert the solar energy into  
23 electricity, therefore using some of the energy  
24 that's coming down on the ground. If the solar  
25 panels weren't in place, you would likely have

1 hotter temperatures of the soil beneath these  
2 panels. So, you know, from that perspective, a  
3 pop-up shower falling on soil that's been heated  
4 up from the sun versus a pop-up shower falling on  
5 these panels and then running off onto the ground  
6 beneath it, we would not anticipate any increase  
7 in temperature of that runoff.

8 MR. SILVESTRI: Thank you for your  
9 response. I don't have any further questions, but  
10 I did want to go back to Mr. Perrone to see if he  
11 had any follow-ups at this time.

12 MR. PERRONE: Just one final question.  
13 I understand the increase in panel wattage since  
14 the previous configuration and the adjustment of  
15 panel quantity. My very last question is, what  
16 factors led to the change in the angle from 25  
17 degrees the first time to 18 this time?

18 THE WITNESS (Cartaya): That's just a  
19 product of optimization. So running iterations  
20 and seeing what best works for this region, sun,  
21 et cetera, and coming up with the best design.

22 MR. PERRONE: To optimize energy  
23 output?

24 THE WITNESS (Cartaya): Correct.

25 MR. PERRONE: Okay.

1           THE WITNESS (Lee): Can I elaborate on  
2 that? So the panel wattage was not the only one  
3 that changed. Our footprint changed introducing  
4 300 percent more buffer and protection area  
5 significantly shrunk our developable footprint.  
6 So to optimize a smaller piece of land we ran, I  
7 think, over 10,000 simulations and different  
8 layout simulations. So that's why the parameters  
9 changed.

10           MR. PERRONE: Thank you. I'm all set.

11           MR. SILVESTRI: Thank you, Mr. Perrone.  
12           Mr. Hannon had a comment.

13           MR. HANNON: You might want to go back  
14 and take a look at map C-051 and redo your  
15 calculations for the elevations of the spillway  
16 because I do believe it's wrong. You actually  
17 created a depression in the spillway. That should  
18 be 259.5 and not 257.5.

19           THE COURT REPORTER: And not 257?

20           MR. HANNON: I don't think it should be  
21 257.5 which is there because that creates a  
22 depression. It should probably be 259.5 which  
23 would be more consistent with the other projects,  
24 and that was the reason why I started looking at  
25 all of the basins.

1 THE WITNESS (Huntley): Thank you.

2 MR. SILVESTRI: Thank you, Mr. Hannon.

3 Mr. Levesque, do you have any other  
4 questions?

5 MR. LEVESQUE: No, thank you.

6 MR. SILVESTRI: Mr. Harder?

7 MR. HARDER: Yes, actually. Well,  
8 first a preliminary question. I think at the  
9 hearing out in Brooklyn I made a comment that I  
10 guess expressed some concern about what I call the  
11 fragmented nature of the development areas in the  
12 southern part, maybe southeastern part of the  
13 project. And I'm looking actually now at Figure  
14 1A, the project overview comparison. Obviously  
15 there's a lot of area that was originally proposed  
16 that's no longer proposed for development.

17 And I guess two parts: One, my concern  
18 about the fragmented nature. I guess a lot of  
19 times concerns expressed about fragmented -- about  
20 development resulting in fragmented resource  
21 areas, and some negative issues there, I think  
22 there's an element of that here. I believe that  
23 in one area the use of directional drilling is  
24 required to go under a wetland or a watercourse.  
25 I think there's some of the areas that are closer

1 to the wetlands around that area.

2           So I'm thinking, well, okay, maybe  
3 instead of utilizing those areas, kind of step  
4 back and use some of the areas that were  
5 originally proposed that are more contiguous with  
6 some of the larger areas that are proposed now.  
7 But the question, I guess, the bigger question  
8 that gets me to is the issue of possible  
9 reductions in the capacity that we talked about at  
10 the last hearing.

11           And I'm looking now at the Late-Filed  
12 exhibit, the January 28th submission. The  
13 response to Question C to me is confusing. The  
14 question, basically, is indicate whether the PPAs  
15 allow any flexibility in the capacity of the  
16 project so for any reason if the capacity is  
17 reduced. And the response is the PPAs allow up to  
18 10 percent reduction if three conditions are met,  
19 but then the next sentence says Quinebaug Solar  
20 would not be able to satisfy these conditions if  
21 the capacity were reduced which sounds confusing,  
22 at best.

23           So I guess the bottom line question is,  
24 can you for whatever reason reduce the capacity of  
25 the system and still meet your contractual

1 obligations or not?

2 THE WITNESS (Lee): No.

3 MR. HARDER: So why is that response --  
4 I mean, the response starts off by saying they  
5 allow up to a 10 percent reduction, but then you  
6 say basically if you reduce the capacity you can't  
7 meet your obligation. I mean, it seems  
8 immediately contradictory.

9 MR. BOGAN: Mr. Harder, may I have one  
10 second?

11 (Pause.)

12 THE WITNESS (Lee): So, in order to  
13 obtain the nameplate reduction, we have to meet  
14 these three conditions. And in order to meet  
15 these three conditions, the petitioner would have  
16 to take on extra obligations, and we would not be  
17 able to declare commercial operation because of  
18 those new obligations.

19 MR. HARDER: I mean, is that regardless  
20 of capacity reduction or not? I guess I'm  
21 not -- I'll put my confusion aside. I guess I'll  
22 go back to your answer. So you're not able to  
23 reduce the capacity within your existing --

24 THE WITNESS (Lee): No, we're not able  
25 to.



1           MR. HARDER: Okay. Thank you. That's  
2 all I have.

3           MR. SILVESTRI: Thank you, Mr. Harder.  
4           Again, final call for Council members  
5 at this time? Are there any other questions?

6           (No response.)

7           MR. SILVESTRI: And hearing and seeing  
8 none, I'll say fine.

9           I'd like to continue cross-examination  
10 of the petitioner by the parties. Eversource  
11 would be first, Attorney Dubuque.

12           MS. BARBINO DUBUQUE: Thank you, Mr.  
13 Silvestri. Eversource has no questions for this  
14 panel.

15           MR. SILVESTRI: Thank you. The other  
16 party would be Mr. Sposato.

17           (No response.)

18           MR. SILVESTRI: And again, hearing and  
19 seeing that he's not here, we do not have any  
20 other cross-examination.

21           MS. BOUCHER: Mr. Hearing Officer,  
22 could we have a five-minute break to decide  
23 whether or not we need to recross?

24           MR. SILVESTRI: Need to --

25           MR. BOGAN: Redirect.

1 MS. BOUCHER: To redirect. I'm sorry.

2 MR. SILVESTRI: Sure.

3 (Pause.)

4 MR. SILVESTRI: Ms. Boucher, before we  
5 go, I'd like our attorney just to comment on that  
6 because that might be out of bounds.

7 MS. BOUCHER: Sure.

8 MS. BACHMAN: We typically do not allow  
9 for redirect.

10 MS. BOUCHER: Understood.

11 MR. BOGAN: Very well.

12 MR. SILVESTRI: And my apology.

13 With no further questions from the  
14 Council, no further cross-examination of the  
15 petitioner by the parties, before I do close the  
16 evidentiary record of this matter, the Connecticut  
17 Siting Council announces that briefs and proposed  
18 findings of fact may be filed with the Council by  
19 any party or intervenor no later than March 5,  
20 2020. The submission of briefs or proposed  
21 findings of fact are not required by this Council;  
22 rather, we leave it to the choice of the parties  
23 and intervenors.

24 Anyone who has not become a party or  
25 intervenor but who desires to make his or her

1 views known to the Council, may file written  
2 statements with the Council within 30 days of the  
3 date hereof.

4           The Council will issue draft findings  
5 of fact, and thereafter parties and intervenors  
6 may identify errors or inconsistencies between the  
7 Council's draft findings of fact and the record;  
8 however, no new information, no new evidence, no  
9 argument, and no reply briefs without our  
10 permission will be considered by the Council.

11           Copies of the transcript of this  
12 hearing will be filed at the Clerk's offices in  
13 the Towns of Brooklyn, Canterbury and Plainfield  
14 and the City of Norwich for the convenience of the  
15 public.

16           I hereby declare this hearing  
17 adjourned. I thank you all for your  
18 participation. And please drive safely.

19           MR. BOGAN: If I may, the record is  
20 closed now, the Sposato information is denoted as  
21 available for verification as a full exhibit.  
22 That was never dealt with, so it shouldn't come in  
23 as a full exhibit, but I certainly have no  
24 objection to it being in the record as public  
25 comment.

1 MS. BACHMAN: Attorney Dubuque, do you  
2 have any objection to Mr. Sposato's prefile  
3 testimony coming into the record as an exhibit?

4 MS. BARBINO DUBUQUE: Eversource has no  
5 objection.

6 MS. BACHMAN: And Attorney Bogan, you  
7 indicate that you do have an objection.

8 MR. BOGAN: That would be correct, but  
9 I have no objection to it coming in as public  
10 comment. And what I would say is it hasn't been  
11 verified by Mr. Sposato nor has he been available  
12 for cross-examination, so it would be  
13 inappropriate to handle it as a full exhibit.

14 MS. BACHMAN: Ordinarily, Attorney  
15 Bogan, since you did respond to his  
16 interrogatories, I think you've had a chance at  
17 least to respond to some of his concerns, but it's  
18 historically been this Council's practice to let  
19 these type of things in for what they are worth  
20 understanding you have an objection.

21 MR. BOGAN: Understood.

22 MS. BACHMAN: Thank you.


23 MR. SILVESTRI: Thank you, counselor.

24 (Whereupon, the witnesses were excused  
25 and the hearing concluded at 3:52 p.m.)

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CERTIFICATE

I hereby certify that the foregoing 130 pages are a complete and accurate computer-aided transcription of my original stenotype notes taken of the Continued Public Hearing in Re: PETITION NO. 1310A, QUINEBAUG SOLAR, LLC PETITION FOR A DECLARATORY RULING PURSUANT TO CONNECTICUT GENERAL STATUTES 4-176 AND SECTION 16-50k FOR THE PROPOSED CONSTRUCTION, MAINTENANCE AND OPERATION OF A 50 MEGAWATT AC SOLAR PHOTOVOLTAIC ELECTRIC GENERATING FACILITY ON APPROXIMATELY 561 ACRES COMPRISED OF 29 SEPARATE AND ABUTTING PRIVATELY-OWNED PARCELS LOCATED GENERALLY NORTH OF WAUREGAN ROAD IN CANTERBURY AND SOUTH OF RUKSTELA ROAD AND ALLEN HILL ROAD IN BROOKLYN, CONNECTICUT, which was held before ROBERT SILVESTRI, Presiding Officer, at the Public Utilities Regulatory Authority, 10 Franklin Square, New Britain, Connecticut, on February 4, 2020.

  
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Lisa L. Warner, CSR 061  
Court Reporter  
BCT REPORTING, LLC  
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I N D E X

WITNESSES	ALI KARIMI	PAGE	110
	MICHAEL LIBERTINE		
	STEPHEN MARIEN		
	ANUJ MATHUR		
	CHRISTOPHER SODERMAN		
	EXAMINERS:		
	Ms. Barbino Dubuque (Direct)		110
	Mr. Perrone (Cross)		116
	Mr. Lynch		123,132
	Mr. Silvestri		124,134
	Mr. Levesque		125,135
	Mr. Harder		125
	Mr. Morissette		126
WITNESSES	HAGEN LEE	PAGE	138
	JONATHAN GRAVEL		
	BRIAN HUNTLEY		
	KATELIN NICKERSON		
	KEVIN RYAN		
	JOSEPH CARTAYA		
	EDWARD DEVARONA		
	DAVID GEORGE		
	EXAMINERS:		
	Mr. Bogan (Direct)		138
	Mr. Perrone (Cross)		145,148,155,227
	Mr. Levesque		148
	Mr. Silvestri		154,156,160,164,182,196,205,217
	Mr. Hannon		156,159,161,165,182,228
	Mr. Lynch		158,206
	Mr. Morissette		192,196
	Mr. Harder		229

## 1 I n d e x (Continued):

2

3 EVERSOURCE ENERGY'S EXHIBITS  
4 (Received in evidence)

5 EXHIBIT DESCRIPTION PAGE

6 IV-B-1 Eversource Energy's Request for 116  
party status, dated November 23, 2019.7 IV-B-2 Eversource Energy's Direct 116  
8 testimony of Stephen A. Marien, Ali  
R. Karimi, Anuj Mathur, Michael Libertine  
9 and Christopher Paul Soderman, dated  
January 7, 2020.10 IV-B-3 Eversource Energy's responses to 116  
11 Council's interrogatories, Set One,  
dated January 28, 2020.12 IV-B-4 Protective order related to 116  
13 unredacted response to Council  
interrogatory No. 8, signed January  
14 30, 2020.

15

16 PETITIONER'S EXHIBITS  
17 (Received in evidence)

18 EXHIBIT DESCRIPTION PAGE

19 II-B-7 Petitioner's Late-Filed Exhibits, 145  
20 dated January 28, 2020.21 II-B-8 Petitioner's sign posting affidavit, 145  
22 dated January 28, 2020.23 II-B-9 Petitioner's responses to Sposato 145  
24 interrogatories, dated January 28, 2020.  
25

	<b>122:4</b>	<b>address (2)</b> 150:13;216:11	<b>agency (1)</b> 215:22	<b>155:22;156:5;176:18; 184:19;222:3</b>
<b>§</b>	<b>acidic (1)</b> 190:8	<b>adjacent (3)</b> 121:2;148:13; 223:24	<b>agenda (1)</b> 109:4	<b>analysis (4)</b> 131:17;150:7; 197:1,6
<b>\$13.4 (1)</b> 132:20	<b>acoustic (1)</b> 197:1	<b>adjoining (1)</b> 120:24	<b>agent (1)</b> 165:14	<b>analytical (1)</b> 166:25
<b>\$3.3 (3)</b> 127:23;129:13; 131:18	<b>acquiring (1)</b> 208:25	<b>adjourned (1)</b> 234:17	<b>aggregate (1)</b> 219:14	<b>analyzed (1)</b> 184:14
<b>A</b>	<b>acquisitions (1)</b> 208:11	<b>adjust (1)</b> 186:13	<b>aggressively (1)</b> 216:20	<b>anecdotal (2)</b> 226:2,16
<b>ability (3)</b> 187:24;195:12; 201:10	<b>acres (2)</b> 153:7,8	<b>adjustment (1)</b> 227:14	<b>ago (3)</b> 114:15;155:12; 170:15	<b>angle (1)</b> 227:16
<b>able (17)</b> 154:18;165:19; 181:21;186:15; 190:14,15;192:7; 199:19;209:3,4; 210:11,20;212:24; 230:20;231:17,22,24	<b>across (2)</b> 121:23;198:6	<b>Administration (1)</b> 123:25	<b>agree (7)</b> 128:21;171:15,22; 172:4;185:16;216:9, 12	<b>animal (1)</b> 154:25
<b>above (3)</b> 167:22;184:22; 200:13	<b>Act (1)</b> 108:11	<b>Administrative (3)</b> 108:11;136:8; 152:25	<b>agreement (2)</b> 170:17;216:14	<b>animals (1)</b> 173:18
<b>absolutely (5)</b> 136:7;166:15,17; 216:8,12	<b>action (2)</b> 175:15;176:12	<b>administratively (2)</b> 109:11,23	<b>agreements (1)</b> 158:20	<b>announces (1)</b> 233:17
<b>abutting (1)</b> 118:25	<b>actions (1)</b> 175:13	<b>admission (2)</b> 116:3;144:20	<b>agricultural (1)</b> 182:24	<b>anticipate (17)</b> 120:6,11;149:3,18; 151:23;152:8;157:10, 25;163:14;164:22; 168:18;181:9;191:1; 211:4;226:8,19;227:6
<b>AC (5)</b> 108:15;145:24; 199:23;200:1;206:1	<b>activated (1)</b> 124:5	<b>admit (1)</b> 115:23	<b>ahead (3)</b> 185:11;211:22; 225:6	<b>anticipated (5)</b> 117:13;134:11; 179:21;209:24; 218:10
<b>AC/DC (1)</b> 206:2	<b>active (2)</b> 174:2,7	<b>admitted (6)</b> 111:25;116:6; 137:1;138:24;144:16, 25	<b>air (5)</b> 124:9;155:15,17; 156:25;179:18	<b>anticipates (1)</b> 190:13
<b>access (15)</b> 122:11,12,15,18,18, 22;123:6,11;133:15; 147:15;148:13;149:1; 210:17;211:1,2	<b>actively (2)</b> 153:8;186:7	<b>adopt (6)</b> 112:13;115:7; 139:9;140:22;141:21; 143:24	<b>Ali (6)</b> 111:4,9;112:18; 114:8,23;115:16	<b>anticipating (1)</b> 148:14
<b>accessible (1)</b> 123:2	<b>activities (4)</b> 164:11;169:25; 181:12;207:17	<b>advent (1)</b> 214:17	<b>Allen (1)</b> 108:18	<b>anticipation (2)</b> 152:8;211:22
<b>accessing (1)</b> 119:12	<b>activity (1)</b> 173:19	<b>aerial (1)</b> 126:5	<b>allow (5)</b> 214:3;230:15,17; 231:5;233:8	<b>Anuj (5)</b> 111:22;112:18; 114:12;115:1,20
<b>accommodate (2)</b> 123:11;125:21	<b>actual (3)</b> 160:5;193:10; 197:13	<b>affect (2)</b> 119:22;212:2	<b>allowed (3)</b> 181:5;191:18;220:2	<b>apologies (2)</b> 136:1,2
<b>accommodates (1)</b> 185:13	<b>actually (31)</b> 117:7,8;118:23; 121:2,18;146:5,8,9, 14;154:11;162:3,21; 171:17;175:11;181:1; 182:20;183:13;193:1, 6;194:11,18,20; 203:18;206:4;209:2; 210:11;211:6,20; 228:16;229:7,13	<b>affected (1)</b> 128:4	<b>All-Points (1)</b> 111:13	<b>apologize (1)</b> 152:3
<b>accordance (2)</b> 109:3;168:20	<b>add (11)</b> 152:3;157:14; 166:7;169:23;173:2; 174:14;182:4;191:24; 195:11;205:23; 213:17	<b>affecting (1)</b> 153:21	<b>almost (2)</b> 119:3;125:7	<b>apology (1)</b> 233:12
<b>according (2)</b> 202:25;209:10	<b>addition (5)</b> 113:16,18;162:16; 170:2;176:24	<b>affidavit (1)</b> 141:14	<b>alone (2)</b> 119:25;120:8	<b>apparently (1)</b> 190:7
<b>Accordingly (1)</b> 109:22	<b>additional (13)</b> 109:10;117:19; 139:13;145:17; 147:15;148:21,23; 149:5,7,22;163:2; 169:13;170:4	<b>affirmative (1)</b> 190:3	<b>along (7)</b> 109:17;137:25; 147:15;149:10; 211:11;214:19; 221:16	<b>appearance (4)</b> 109:24;135:24; 137:9,16
<b>account (3)</b> 162:19;217:23; 224:14	<b>additionally (1)</b> 156:22	<b>afternoon (8)</b> 108:1;109:16; 110:25;126:16; 137:23;192:17; 204:24;205:5	<b>alternative (3)</b> 130:17;131:2,6	<b>appearing (1)</b> 216:2
<b>accumulated (1)</b> 178:21	<b>additions (4)</b> 112:8;114:19; 140:7;142:18	<b>Again (21)</b> 121:13;129:11,20; 137:24;154:3;165:20; 166:1;173:24;177:7; 182:6;185:5;193:23; 196:19;218:8,20; 219:20;221:24;224:6; 226:7;232:4,18	<b>alternatives (2)</b> 128:25;130:15	<b>appears (2)</b> 119:3;179:7
<b>accurate (8)</b> 112:13;115:7; 139:7;141:19;143:9; 147:8;198:24;199:1		<b>against (1)</b> 187:19	<b>although (2)</b> 120:5;201:4	<b>appendix (7)</b> 162:1;224:16,19, 24;225:1,3,4
<b>achieved (1)</b>		<b>agencies (1)</b> 166:19	<b>always (3)</b> 165:12;166:2; 189:22	<b>applicable (1)</b> 164:6
			<b>Americans (1)</b> 215:12	<b>Applicant (3)</b> 107:3;132:23; 191:17
			<b>amount (7)</b> 124:17;129:15;	<b>application (2)</b> 111:15;132:22



<p><b>applied (1)</b> 189:1</p> <p><b>applies (1)</b> 194:2</p> <p><b>apply (2)</b> 145:12;159:11</p> <p><b>appreciate (1)</b> 217:25</p> <p><b>approach (2)</b> 157:15;163:16</p> <p><b>appropriate (6)</b> 110:22;138:3; 159:22;167:16; 174:22;213:4</p> <p><b>approvals (1)</b> 145:17</p> <p><b>approved (2)</b> 134:8;177:13</p> <p><b>approximate (1)</b> 117:11</p> <p><b>approximately (7)</b> 117:3;118:8; 147:14;149:9;161:10, 20;202:24</p> <p><b>April (1)</b> 170:23</p> <p><b>aquatic (2)</b> 151:24;152:20</p> <p><b>aqueous (1)</b> 160:18</p> <p><b>area (67)</b> 113:13;117:7,11, 14,15,18;118:21; 121:11,14;122:1; 127:8;131:20;133:6, 9;155:1,1;159:12; 160:24;163:10,14,23; 170:4;172:12,15,24; 173:20;174:1,4,5,6, 13,16,20,23;175:2; 176:16,23;177:6,25; 179:20,21;180:19,21, 25;181:4;182:1,7,12, 13;184:19;185:24; 186:6,16;188:6,7; 194:23;209:12; 211:12;212:14;214:4; 223:19;224:8,13; 228:4;229:15,23; 230:1</p> <p><b>areas (31)</b> 149:11;150:18,20; 151:25;152:9;153:17, 24;154:7;164:22; 172:14;174:1,10; 177:6;179:9,11,15; 181:10;187:15; 210:20,22,22;211:5,9, 10;223:23;229:11,21, 25;230:3,4,6</p> <p><b>argument (1)</b> 234:9</p> <p><b>around (9)</b></p>	<p>150:19;164:5; 180:21;181:18; 188:11,11;193:9; 210:15;230:1</p> <p><b>arrangement (1)</b> 120:19</p> <p><b>array (1)</b> 189:4</p> <p><b>arrive (1)</b> 129:5</p> <p><b>ash (18)</b> 165:10,10,13,20,23; 166:1,10,21,23;218:8, 8,10,13;219:17,18,22; 220:1,2</p> <p><b>aside (3)</b> 174:23;176:6; 231:21</p> <p><b>aspect (1)</b> 119:25</p> <p><b>aspects (2)</b> 200:9;223:17</p> <p><b>assessment (3)</b> 147:21;153:1; 221:20</p> <p><b>assigned (1)</b> 208:15</p> <p><b>assist (2)</b> 139:15;142:2</p> <p><b>associated (8)</b> 126:25;128:2,2; 149:6,8;159:14; 164:13;166:23</p> <p><b>assume (2)</b> 131:11;211:17</p> <p><b>assumed (1)</b> 209:22</p> <p><b>assuming (6)</b> 172:5;177:12; 178:12,19;185:21; 204:19</p> <p><b>assumption (2)</b> 199:22;203:6</p> <p><b>attachment (7)</b> 112:25;113:4,22, 23;114:16;118:14; 121:19</p> <p><b>attachments (1)</b> 115:8</p> <p><b>attacking (2)</b> 213:5,5</p> <p><b>attention (6)</b> 109:6;118:13; 136:18;165:8;180:23; 200:18</p> <p><b>Attorney (11)</b> 110:5,19;130:8; 135:25;136:17; 144:18;232:11;233:5; 235:1,6,14</p> <p><b>auction (6)</b> 146:4,8,14;193:1, 18,21</p>	<p><b>augering (1)</b> 164:15</p> <p><b>August (1)</b> 170:23</p> <p><b>authority (1)</b> 194:24</p> <p><b>available (10)</b> 109:4;127:16; 144:15;169:2;216:19; 217:11;218:4;221:7; 234:21;235:11</p> <p><b>average (1)</b> 204:17</p> <p><b>averages (1)</b> 147:22</p> <p><b>Aviation (1)</b> 123:24</p> <p><b>avoid (6)</b> 123:6;128:9; 159:18,24;175:14; 186:8</p> <p><b>Avoidance (2)</b> 171:14;172:18</p> <p><b>avoided (1)</b> 181:22</p> <p><b>avoiding (2)</b> 151:25;181:25</p> <p><b>aware (5)</b> 133:16;189:24; 210:14;217:7;219:16</p> <p><b>away (8)</b> 120:4;195:12; 198:9;199:3;206:15, 25;213:1;217:13</p>	<p>153:25</p> <p><b>BARBINO (25)</b> 107:16;109:12,13; 110:3,23,25;111:24; 112:7,11,16;113:20, 25;114:14;115:3,22; 116:7;130:4,12; 136:6,16;137:2; 144:22,22;232:12; 235:4</p> <p><b>Barr (4)</b> 168:23;169:6,14,17</p> <p><b>base (7)</b> 146:20,25;155:8; 170:14,18;195:2,25</p> <p><b>based (15)</b> 120:11;146:12; 147:21;168:16; 169:13;191:21;194:5, 8;195:16;196:16; 197:6;199:2;215:4; 217:4;223:10</p> <p><b>basically (8)</b> 124:18;147:4; 149:23;155:21;168:4; 195:1;230:14;231:6</p> <p><b>basin (1)</b> 184:25</p> <p><b>basins (6)</b> 183:14;184:14,20, 22;185:1;228:25</p> <p><b>basis (4)</b> 133:25;178:14; 185:3;187:16</p> <p><b>batteries (4)</b> 215:12,14;216:5,16</p> <p><b>battery (1)</b> 217:1</p> <p><b>Bean (1)</b> 113:14</p> <p><b>beat (2)</b> 203:14;218:21</p> <p><b>beaver (1)</b> 152:21</p> <p><b>become (2)</b> 187:22;233:24</p> <p><b>becoming (1)</b> 220:17</p> <p><b>Beechwood (1)</b> 120:22</p> <p><b>begin (4)</b> 110:6,20;116:11; 145:5</p> <p><b>beginning (1)</b> 156:19</p> <p><b>behalf (3)</b> 109:18;137:25; 153:3</p> <p><b>behind (2)</b> 118:14;121:19</p> <p><b>belief (3)</b> 139:7;141:19;143:9</p> <p><b>bell (4)</b></p>	<p>204:25;205:9,16; 206:1</p> <p><b>below (2)</b> 183:16,25</p> <p><b>beneath (2)</b> 227:1,6</p> <p><b>beneficial (1)</b> 202:9</p> <p><b>berm (9)</b> 183:17,17,19,21,22, 25;184:1,3,5</p> <p><b>berms (1)</b> 185:4</p> <p><b>besides (1)</b> 134:14</p> <p><b>best (10)</b> 112:11;115:3; 139:7;141:19;203:15; 220:23;221:9;227:20, 21;230:22</p> <p><b>beyond (8)</b> 148:22;170:7; 185:24,25;186:14; 188:4;199:20;218:16</p> <p><b>bid (8)</b> 146:14;158:15; 170:1;193:20,21; 194:1;215:20;216:22</p> <p><b>bifurcate (1)</b> 223:7</p> <p><b>big (1)</b> 158:19</p> <p><b>bigger (1)</b> 230:7</p> <p><b>bilateral (1)</b> 195:2</p> <p><b>bit (10)</b> 119:4;121:25; 123:5;148:2;158:4; 170:13;184:20;198:6; 205:10;224:2</p> <p><b>Blackwell (3)</b> 151:16;224:12,19</p> <p><b>blocks (1)</b> 166:21</p> <p><b>blowout (5)</b> 160:12,12,14,23; 203:19</p> <p><b>blowouts (1)</b> 159:20</p> <p><b>Board (1)</b> 156:25</p> <p><b>body (1)</b> 177:7</p> <p><b>BOGAN (84)</b> 107:7;109:16,17; 116:4;135:25;136:2, 17,20;137:23,24; 138:21;139:3,6,9,12, 19,21,23,25;140:2,4, 6,10,12,14,16,18,20, 22,25;141:2,4,6,8,10, 12,18,21,24;142:5,7,</p>
---	---	--	--	--

9,11,13,15,17,21,23, 25;143:2,4,6,8,12,14, 16,18,20,22,24;144:2, 4,6,8,10,12,14,19; 201:2,15,25;207:1; 208:14,18,19;222:14; 231:9;232:25;233:11; 234:19;235:6,8,15,21	233:17,20;234:9	<b>C-005 (1)</b>	174:14;175:22;	<b>causes (1)</b>
<b>book (2)</b>	<b>bright (2)</b>	179:5	179:17;186:8;187:8, 17;190:9;198:2;	129:11
<b>border (1)</b>	128:20;212:5	<b>C-013 (1)</b>	203:12;204:11;	<b>causing (1)</b>
224:12	<b>bring (1)</b>	180:18	206:13;209:18;212:1, 6;213:17;216:11;	128:2
<b>borne (3)</b>	180:23	<b>C-027 (1)</b>	219:25;221:9;228:1;	<b>caveat (1)</b>
132:11,12,14	<b>bringing (1)</b>	181:14	230:24	208:1
<b>both (5)</b>	185:18	<b>C-041 (2)</b>	<b>Canterbury (6)</b>	<b>cells (1)</b>
131:22;152:6;	<b>bristle (1)</b>	182:15,18	108:17,25;116:17;	221:1
207:14;213:13,16	189:21	<b>C-044 (1)</b>	117:22;124:1;234:13	<b>cement (3)</b>
<b>bottom (10)</b>	<b>broke (1)</b>	183:6	<b>capability (1)</b>	165:9,25;167:1
122:10;152:12;	171:11	<b>C-046 (1)</b>	213:19	<b>cemetery (2)</b>
154:14;167:15,19;	<b>Brook (6)</b>	183:17	<b>capacity (22)</b>	223:24;224:1
168:4;169:10;224:9;	151:16,16,21,23;	<b>C-049 (1)</b>	128:13,14,16,19;	<b>Center (2)</b>
225:23;230:23	224:12,12	186:23	129:17;130:3;145:22;	108:8;180:25
<b>BOUCHER (9)</b>	<b>Brooklyn (6)</b>	<b>C-051 (2)</b>	146:4,12;193:20;	<b>certain (8)</b>
107:8;109:17;	108:8,9,18,25;	183:19;228:14	194:3,6,9,19;230:9,	139:15;141:25;
138:1;169:10;232:21;	229:9;234:13	<b>C-056 (1)</b>	15,16,21,24;231:6,20, 23	156:5;157:17;206:12;
233:1,4,7,10	<b>brooks (3)</b>	183:22	<b>CARB (1)</b>	208:23;217:20;
<b>bought (1)</b>	151:20;224:19;	<b>C-059 (1)</b>	157:24	218:11
208:13	225:16	184:1	<b>Care (4)</b>	<b>certainly (12)</b>
<b>Boulevard (1)</b>	<b>brought (1)</b>	<b>C-061 (1)</b>	125:6;134:25;	116:22;118:3,12;
120:22	218:7	184:3	136:13,15	123:14;159:21;160:4, 7;163:11;166:9;
<b>bound (1)</b>	<b>brush (2)</b>	<b>C-062 (1)</b>	<b>CARMODY (1)</b>	190:25;218:15;
219:23	189:8,15	184:5	107:12	234:23
<b>boundaries (2)</b>	<b>brushes (1)</b>	<b>C-069 (1)</b>	<b>cars (2)</b>	<b>cetera (1)</b>
151:11;178:18	189:21	182:5	222:3,5	227:21
<b>boundary (3)</b>	<b>bucket (1)</b>	<b>C-071 (1)</b>	<b>Cartaya (49)</b>	<b>Chairman (4)</b>
203:13;224:13;	126:5	186:24	140:4,5,20,21;	134:5;159:4;
225:21	<b>buffer (7)</b>	<b>C-072 (1)</b>	141:10,11;142:15,16;	206:19;217:2
<b>bounds (1)</b>	120:9;159:12;	186:24	143:4,5,22,23;144:12,	<b>challenging (1)</b>
233:6	186:10,14;204:12;	<b>C-076 (1)</b>	13;146:22;149:15;	165:18
<b>Box (2)</b>	224:1;228:4	186:24	155:17,20;156:12;	<b>chance (3)</b>
107:14;198:16	<b>buffers (1)</b>	<b>C-081 (1)</b>	157:3;158:14,21;	154:13;169:1;
<b>brand (3)</b>	150:18	185:20	159:7;169:22;189:12;	235:16
130:24,25;200:13	<b>build (1)</b>	<b>cadmium (1)</b>	190:2;191:24;192:11;	<b>change (7)</b>
<b>breach (1)</b>	153:14	220:14	199:21;200:5;205:7,	121:8;122:8;
224:1	<b>built (1)</b>	<b>calculated (2)</b>	19;206:8;207:12,21,	125:12;145:13;
<b>breaching (1)</b>	176:8	215:3,4	25;208:4,7;209:20;	185:12;196:20;
223:18	<b>bullet (1)</b>	<b>calculations (1)</b>	210:7;211:23;212:8;	227:16
<b>break (3)</b>	176:15	228:15	220:12,15,18;221:6, 17;227:18,24	<b>changed (3)</b>
202:22,24;232:22	<b>buoyancy (1)</b>	<b>California (2)</b>	<b>case (14)</b>	228:3,3,9
<b>breaker (8)</b>	162:19	156:25;215:12	121:13;122:3;	<b>changes (7)</b>
124:18,21,22;	<b>buoyant (3)</b>	<b>call (7)</b>	137:9;147:23;155:14;	139:3;140:7;
155:19;156:1,3,9,9	162:13,22;163:2	109:6;120:20;	164:17;189:14;195:6;	142:18;145:18;
<b>breakers (4)</b>	<b>bureaucracy (1)</b>	121:16;136:18;196:8;	198:14;207:14;	196:20;205:7;214:15
124:16,23,24;125:8	191:16	229:10;232:4	211:23;212:2,21;	<b>changing (2)</b>
<b>breeding (11)</b>	<b>burned (1)</b>	<b>called (4)</b>	213:19	149:4;214:21
171:25;172:2,8,22, 23;173:5;174:16,21;	222:11	108:2;110:13;	<b>cases (1)</b>	<b>characterizes (1)</b>
175:18,19;176:4	<b>burrow (1)</b>	138:7;214:14	207:16	225:21
<b>Brian (1)</b>	153:18	<b>came (4)</b>	<b>casing (2)</b>	<b>chemicals (6)</b>
192:5	<b>burrowed (3)</b>	131:1;160:5,24;	164:17,18	189:5,6,7,10,11,23
<b>briefly (2)</b>	154:2,23,25	218:13	<b>casings (4)</b>	<b>chief (1)</b>
204:17;225:16	<b>Button (1)</b>	<b>can (45)</b>	164:4,13,25;165:3	214:4
<b>briefs (3)</b>	153:13	116:22;118:13;	<b>catch (3)</b>	<b>choice (1)</b>
	<b>buy (2)</b>	122:3;123:7;125:22;	121:12;137:4;175:1	233:22
	221:7,9	127:23;134:19;	<b>caught (2)</b>	<b>Chris (2)</b>
	<b>buyer (2)</b>	136:17;137:10;	165:7;166:3	128:15;130:14
	208:16,17	147:17;149:16;	<b>cause (2)</b>	<b>Christopher (5)</b>
		150:23,23;157:14;	138:22;187:25	111:19;112:19;
	<b>C</b>	160:20;161:13;		114:10,24;115:18
		163:10;165:14;166:7;		<b>Church (1)</b>
	<b>C-003 (1)</b>	169:3,16;171:25;		107:5
	178:16	172:6,16;173:2;		

<b>cigar (1)</b> 209:6	214:9	218:4	191:19;226:9,18	165:22
<b>circle (2)</b> 181:15,18	<b>closer (7)</b> 118:18;119:7,10; 198:4,10;199:7;	<b>common (2)</b> 166:13;168:1	<b>conditioned (1)</b> 208:23	<b>construct (3)</b> 117:23;159:6; 191:22
<b>circuit (13)</b> 117:1;120:19; 122:19;125:23;127:9, 13;129:1,10,14;131:3, 9,12;200:20	229:25	<b>Community (2)</b> 108:8;153:4	<b>conditions (14)</b> 120:15;121:8; 146:23;152:12;163:5; 168:16;182:20;183:4; 196:11,17;230:18,20; 231:14,15	<b>construction (36)</b> 108:14;117:24; 123:1;147:10,13,24; 149:24;150:1;152:6; 156:24;158:1,7,12; 162:13;164:10,11; 169:25;172:14;174:7, 12;175:4,14;178:4, 11;180:1,6,15,16,19; 181:8;182:6,10; 191:10;192:4;208:1; 223:20
<b>circuits (2)</b> 128:4;129:8	<b>closest (3)</b> 118:20;119:9; 121:10	<b>companies (4)</b> 157:8;208:12; 216:25;217:1	<b>conducted (1)</b> 225:19	<b>Consultants (1)</b> 137:18
<b>circumstance (1)</b> 165:18	<b>Co2 (3)</b> 212:24;221:21; 222:8	<b>Company (4)</b> 107:10;201:3; 208:13,16	<b>conex (1)</b> 178:5	<b>consultation (1)</b> 169:16
<b>City (2)</b> 109:1;234:14	<b>Code (1)</b> 126:4	<b>compare (3)</b> 120:14;169:16; 222:4	<b>confidence (1)</b> 217:22	<b>consulting (1)</b> 111:14
<b>civil (2)</b> 111:17;192:2	<b>coincidence (1)</b> 129:23	<b>compared (2)</b> 174:7;221:2	<b>confidential (3)</b> 128:3;201:3,11	<b>contain (2)</b> 124:13;156:5
<b>CL&amp;P (3)</b> 126:20;201:18; 203:3	<b>coincident (1)</b> 194:6	<b>compares (3)</b> 221:21,25;222:8	<b>confidentiality (1)</b> 201:7	<b>container (1)</b> 177:24
<b>clarification (2)</b> 124:19;127:4	<b>coincides (1)</b> 202:7	<b>comparison (2)</b> 201:1;229:14	<b>configuration (1)</b> 227:14	<b>containers (2)</b> 178:5,6
<b>clarifications (2)</b> 112:8;114:19	<b>Cold (3)</b> 151:15;224:12,18	<b>complete (3)</b> 169:19;175:5;176:9	<b>confirm (1)</b> 127:23	<b>contains (2)</b> 225:3,4
<b>clarify (4)</b> 125:22;179:22; 196:6,24	<b>colleague (1)</b> 132:9	<b>completed (3)</b> 168:25;169:7,14	<b>confirmed (2)</b> 146:11;172:8	<b>content (1)</b> 223:18
<b>clarifying (1)</b> 203:11	<b>colleague's (1)</b> 217:20	<b>completely (4)</b> 136:9;146:5; 169:20;197:23	<b>confused (3)</b> 132:24;192:20; 225:5	<b>context (3)</b> 166:14;218:24,25
<b>clarity (1)</b> 180:24	<b>collected (1)</b> 173:21	<b>compliant (1)</b> 158:2	<b>confusing (2)</b> 230:13,21	<b>contiguous (1)</b> 230:5
<b>classroom (1)</b> 213:11	<b>collector (2)</b> 134:9,14	<b>complicate (1)</b> 162:13	<b>confusion (1)</b> 231:21	<b>contingency (1)</b> 129:10
<b>clay (1)</b> 176:21	<b>combination (4)</b> 149:23;157:23; 213:13,16	<b>comply (1)</b> 181:7	<b>connected (1)</b> 128:7	<b>continuation (1)</b> 108:7
<b>clean (2)</b> 189:13;211:2	<b>combine (1)</b> 175:12	<b>component (2)</b> 166:11;219:5	<b>Connecticut (20)</b> 107:6,10,15;108:5, 10,18,21;152:5; 158:17;201:23;202:3, 6,10,13;203:1; 215:25;216:15,21; 217:1;233:16	<b>continue (11)</b> 112:17;125:5,16; 130:13;132:7;137:15, 15;155:9;156:14; 201:17;232:9
<b>cleaning (2)</b> 189:4,25	<b>combined (1)</b> 203:3	<b>components (1)</b> 166:23	<b>connection (1)</b> 201:5	<b>Continued (4)</b> 107:1;138:17; 172:20;173:15
<b>clear (15)</b> 113:21;136:7,9; 180:1,2;193:3,6,15, 18;196:14;199:12; 207:10,15,16;211:2	<b>combined-cycle (1)</b> 222:23	<b>composition (1)</b> 219:10	<b>conservative (5)</b> 148:2;163:16,23; 164:9;165:22	<b>contract (6)</b> 134:23;157:5; 195:3,3;196:2;208:22
<b>cleared (7)</b> 123:2;146:9; 179:10,11;192:22; 193:9;194:13	<b>combust (1)</b> 211:6	<b>conceptually (1)</b> 202:2	<b>consider (1)</b> 157:1	<b>contracted (1)</b> 215:17
<b>clearing (7)</b> 179:20;180:11,12, 12,14;183:5;207:9	<b>combustion (1)</b> 218:11	<b>concern (4)</b> 152:14;164:23; 229:10,17	<b>consideration (2)</b> 195:20;217:19	<b>contracting (3)</b> 157:4;158:11; 215:16
<b>clearly (1)</b> 179:17	<b>coming (8)</b> 190:20;207:7; 217:8;218:4;226:24; 227:21;235:3,9	<b>concerned (5)</b> 166:22;206:23; 208:12;211:16; 214:12	<b>considered (2)</b> 150:19;234:10	<b>contractor (12)</b> 157:16;158:13; 178:10;180:1,9; 181:4;182:12;207:10, 13,16,17,18
<b>Clerk's (2)</b> 108:24;234:12	<b>commencing (1)</b> 160:15	<b>concerns (4)</b> 150:14;169:13; 229:19;235:17	<b>consist (1)</b> 174:24	
<b>cliff (1)</b> 121:21	<b>comment (11)</b> 130:14;156:21; 176:14;213:18; 219:21;220:20; 228:12;229:9;233:5; 234:25;235:10	<b>concert (1)</b> 117:16	<b>consisted (1)</b> 131:23	
<b>close (5)</b> 170:17;178:13; 186:5;187:12;233:15	<b>comments (4)</b> 155:11;164:1; 190:6;220:6	<b>concluded (1)</b> 235:25	<b>consistent (2)</b> 126:3;228:23	
<b>closed (1)</b> 234:20	<b>commercial (4)</b> 121:23;145:14; 200:9;231:17	<b>conclusions (1)</b> 173:23	<b>consists (1)</b> 178:25	
<b>closely (1)</b>	<b>commercialized (1)</b> 217:17	<b>concrete (15)</b> 166:12,13,19,21; 167:8,15,19;168:5; 218:23;219:5,12,14, 15,23;220:3	<b>constraining (1)</b> 163:19	
	<b>commercially (1)</b>	<b>condition (3)</b>	<b>constraints (1)</b>	

<b>contractors (5)</b> 158:16,18;159:23; 207:8,9	158:6,7;200:18; 201:4,18;202:21	220:10	125:10;217:21,21, 22:234:2	149:16,17,17,24; 150:1;199:23
<b>contractor's (1)</b> 157:20	<b>Council (21)</b> 108:5,19;109:10, 22;112:22;115:23;	<b>cubic (3)</b> 222:7,12,20	<b>DC (1)</b> 199:24	<b>demand (1)</b> 216:11
<b>contracts (1)</b> 208:15	135:4,21;145:21; 147:6;156:14;217:5;	<b>cultural (3)</b> 131:22;138:25; 181:22	<b>dead (3)</b> 203:14;211:9; 218:21	<b>denoted (2)</b> 144:16;234:20
<b>contractual (1)</b> 230:25	232:4;233:14,17,18, 21;234:1,2,4,10	<b>curable (1)</b> 219:12	<b>deal (4)</b> 177:21;179:16; 186:18;212:11	<b>densely (1)</b> 152:19
<b>contradictory (1)</b> 231:8	<b>Council's (6)</b> 115:10;138:23; 139:14,17;234:7; 235:18	<b>curious (8)</b> 154:11;181:18; 185:20;186:3,25; 190:17;209:12; 223:12	<b>dealt (2)</b> 165:11;234:22	<b>density (3)</b> 172:7;173:11; 174:20
<b>contributing (1)</b> 184:19	<b>counselor (7)</b> 109:19;110:1; 116:1,5;136:5; 201:16;235:23	<b>current (3)</b> 149:6;157:21,24	<b>dealing (5)</b> 165:10;176:19; 189:3;190:5,18	<b>DEP (1)</b> 153:14
<b>control (4)</b> 157:19;180:20; 194:23,25	<b>count (1)</b> 200:2	<b>currently (7)</b> 149:1,4;171:4; 176:2;186:7;187:20; 211:8	<b>December (1)</b> 108:19	<b>Department (3)</b> 153:3;210:23; 212:10
<b>controls (2)</b> 161:4;188:2	<b>couple (9)</b> 126:17;137:10; 170:15;190:4;193:7; 206:15;209:4;218:6; 223:6	<b>curtailed (1)</b> 196:3	<b>decide (2)</b> 174:22;232:22	<b>departments (4)</b> 133:6;210:18; 212:15,20
<b>convenience (2)</b> 109:2;234:14	<b>course (1)</b> 149:18	<b>curve (6)</b> 129:19;204:25; 205:9,16;206:1; 209:25	<b>declaratory (1)</b> 108:13	<b>depending (5)</b> 158:25;174:15; 184:18;196:10; 205:17
<b>conversation (2)</b> 176:1;224:4	<b>COURT (1)</b> 228:19	<b>cut (2)</b> 153:18;154:1	<b>declare (2)</b> 231:17;234:16	<b>depends (1)</b> 134:16
<b>conversations (3)</b> 176:2;223:5,12	<b>cover (2)</b> 164:9;190:21	<b>cutting (1)</b> 188:25	<b>decline (1)</b> 204:21	<b>deposited (2)</b> 108:24;176:17
<b>convert (1)</b> 226:22	<b>coverage (1)</b> 195:21	<b>cycle (2)</b> 221:21;222:8	<b>decommission (2)</b> 190:11;191:23	<b>depression (2)</b> 228:17,22
<b>converted (1)</b> 199:25	<b>covered (2)</b> 209:8,17	<b>D</b>		<b>depth (3)</b> 161:9,18;186:25
<b>cool (1)</b> 206:11	<b>covering (1)</b> 192:6	<b>D&amp;M (3)</b> 177:14;180:4;190:1	<b>decommissioning (6)</b> 168:2;190:5,20; 191:14,25;192:10	<b>derated (3)</b> 146:2;194:10,20
<b>cooling (1)</b> 206:10	<b>create (2)</b> 154:1;160:19	<b>d/b/a (1)</b> 107:11	<b>decrease (1)</b> 146:6	<b>deration (1)</b> 194:16
<b>coordinate (1)</b> 180:9	<b>created (2)</b> 154:21;228:17	<b>daily (2)</b> 147:11;178:14	<b>de-energizing (1)</b> 191:15	<b>describe (1)</b> 204:17
<b>copies (2)</b> 109:4;234:11	<b>creates (1)</b> 228:21	<b>damage (4)</b> 210:5,8,10;212:7	<b>DEEP (3)</b> 156:21;168:14,17	<b>described (4)</b> 116:9;145:3; 204:19;226:19
<b>copy (2)</b> 153:5;224:18	<b>creating (1)</b> 123:5	<b>damaged (1)</b> 207:20	<b>deeper (2)</b> 164:2,19	<b>description (2)</b> 187:18;225:12
<b>cordoned (1)</b> 181:3	<b>credit (2)</b> 207:3,6	<b>Dan (1)</b> 135:9	<b>defer (2)</b> 149:14;150:14	<b>design (8)</b> 162:20;163:15,15, 20,23;187:9;211:1; 227:21
<b>corrected (2)</b> 113:4;115:5	<b>credits (1)</b> 206:23	<b>Data (6)</b> 155:8;170:14,18; 171:16,18;172:6	<b>define (1)</b> 180:10	<b>designated (1)</b> 221:11
<b>correcting (1)</b> 113:7	<b>crews (1)</b> 126:5	<b>date (4)</b> 145:14;181:3; 216:1;234:3	<b>defined (3)</b> 179:17,25;181:3	<b>designed (2)</b> 152:4;184:14
<b>corrections (5)</b> 112:8;114:18; 139:4;140:7;142:18	<b>Criteria (2)</b> 124:4,5	<b>dated (6)</b> 112:3,20,23; 139:16;192:18;223:5	<b>degradation (1)</b> 221:12	<b>desires (1)</b> 233:25
<b>correctly (3)</b> 113:12,14;154:22	<b>critters (1)</b> 175:22	<b>DAVID (4)</b> 107:7;109:17; 137:17,24	<b>degree (1)</b> 217:16	<b>designated (1)</b> 221:11
<b>correlate (1)</b> 162:4	<b>crosses (1)</b> 118:23	<b>day (6)</b> 128:20;129:17; 147:16;149:12; 204:17;212:5	<b>degrees (1)</b> 227:17	<b>designed (2)</b> 152:4;184:14
<b>Corridor (5)</b> 116:20;117:6; 122:6;125:19;126:5	<b>cross-examination (8)</b> 116:12,15;145:6,9; 232:9,20;233:14; 235:12	<b>day (6)</b> 128:20;129:17; 147:16;149:12; 204:17;212:5	<b>delineate (3)</b> 151:11;179:2;183:5	<b>detail (6)</b> 147:1;150:15; 184:25;185:12,15; 187:4
<b>corrosion (1)</b> 191:2	<b>CRRA (1)</b> 166:20	<b>days (5)</b>	<b>delineating (1)</b> 180:6	<b>detailed (3)</b> 150:7;187:17; 224:14
<b>cost (12)</b> 127:22;131:6; 132:10,13,19;135:9, 14;190:21;200:22,25; 201:23;202:20	<b>crystalline (1)</b>		<b>Delineation (5)</b> 151:3;180:11; 224:15;225:20;226:4	<b>details (7)</b> 183:24;184:8; 185:7,14;186:22; 224:18,22
<b>costs (8)</b> 132:17;135:15;			<b>delineations (1)</b> 225:19	
			<b>deliveries (1)</b> 148:15	
			<b>delivery (8)</b> 147:10;148:6;	

<b>detect (1)</b> 173:6	110:24;112:17; 113:1,23;117:12;	133:11	107:16;109:12,13; 110:3,19,23,25;	216:11
<b>detected (1)</b> 173:8	118:6,13;120:1,7; 122:2,10;125:18;	<b>done (18)</b> 121:2;129:22; 131:22;168:20;169:1, 9,12;170:2,9;171:12; 172:11;191:17;193:6; 197:14;200:6;203:5; 218:14;221:13	111:24;112:7,11,16; 113:20,25;114:14; 115:3,22;116:7; 130:4,12;136:6,16; 137:2;144:22,23; 232:11,12;235:1,4	<b>efforts (3)</b> 156:23;157:2,13
<b>determination (2)</b> 155:7;170:22	138:20;159:10,15,19, 19	<b>door (2)</b> 109:5;189:19	<b>due (4)</b> 145:13;150:22; 152:14;210:1	<b>egresses (1)</b> 211:8
<b>determine (2)</b> 130:2;150:8	<b>directed (1)</b> 131:2	<b>double (7)</b> 120:19;125:23; 129:1,10;131:3,9; 200:20	<b>duly (3)</b> 110:13;138:7,17	<b>eight (1)</b> 149:18
<b>determined (4)</b> 174:15;178:9,10; 184:17	<b>direction (1)</b> 141:15	<b>doubtful (1)</b> 121:13	<b>duration (2)</b> 147:25;148:20	<b>either (8)</b> 116:18;124:1; 150:21;160:25; 182:24;196:9;219:25; 225:7
<b>determines (2)</b> 134:18,18	<b>directional (7)</b> 159:18;160:14; 186:23;187:6;206:7, 13;229:23	<b>down (17)</b> 121:22;122:5; 131:1;136:10;146:9; 167:18;171:11; 194:10,20;202:22,25; 206:11;208:13; 209:11;211:24,25; 226:24	<b>during (10)</b> 147:10,13;148:15; 157:3;178:1,4;182:6; 194:12;208:1;211:16	<b>elaborate (6)</b> 116:22;152:16; 160:11;181:21; 226:20;228:1
<b>Devarona (29)</b> 140:2,3,18,19; 141:8,9;142:13,14; 143:6,7,20,21;144:10, 11;146:3;155:24; 192:24;193:5,14,17, 22;194:7,15;195:7; 196:1,12,18,21;200:8	<b>directly (2)</b> 122:5;218:13	<b>downstream (1)</b> 151:6	<b>dust (2)</b> 157:19;209:23	<b>elected (1)</b> 133:11
<b>develop (1)</b> 214:23	<b>director (2)</b> 111:12,20	<b>Dr (2)</b> 152:24;171:15	<b>dynamics (2)</b> 184:12,23	<b>electric (3)</b> 108:15;126:4; 133:25
<b>developable (1)</b> 228:5	<b>disagree (1)</b> 128:21	<b>draft (2)</b> 234:4,7	<b>E</b>	<b>electrical (2)</b> 212:23;213:24
<b>developed (3)</b> 150:23;215:1,11	<b>disagree (1)</b> 128:21	<b>draw (1)</b> 160:20	<b>E&amp;C (1)</b> 149:14	<b>electrically (1)</b> 212:11
<b>developer's (1)</b> 202:20	<b>disclosed (1)</b> 201:9	<b>drawings (4)</b> 114:18;180:6; 183:4,10	<b>earlier (10)</b> 170:13;190:6; 201:19;207:16; 209:22;213:17; 217:20;223:4;224:7; 226:7	<b>electricity (1)</b> 226:23
<b>developing (1)</b> 214:21	<b>disconnecting (1)</b> 134:15	<b>drawn (1)</b> 160:20	<b>early (2)</b> 173:9;217:15	<b>element (1)</b> 229:22
<b>development (7)</b> 117:17;121:24,25; 153:4;229:11,16,20	<b>discover (1)</b> 174:19	<b>drill (2)</b> 160:16;167:8	<b>earth (3)</b> 117:23;158:1; 186:17	<b>elevation (13)</b> 118:10,22;119:19, 20;120:1;183:20,21, 22,24;184:1,3,6,9
<b>developments (1)</b> 217:8	<b>discover (1)</b> 174:19	<b>drilled (3)</b> 160:17,22;164:2	<b>east (3)</b> 113:14;121:16; 185:22	<b>elevations (4)</b> 183:16;184:8,17; 228:15
<b>device (1)</b> 221:15	<b>discovered (1)</b> 173:16	<b>drilling (8)</b> 159:14,18;160:2, 14;186:23;187:3,6; 229:23	<b>east (3)</b> 113:14;121:16; 185:22	<b>eligible (5)</b> 150:20,21;206:24; 207:3,6
<b>dewatering (5)</b> 168:10,11,13,19,19	<b>discretion (2)</b> 157:7;158:25	<b>drive (4)</b> 120:21;122:12; 129:25;234:18	<b>Ecology (3)</b> 171:19;225:22,24	<b>eliminate (1)</b> 129:10
<b>diagonal (1)</b> 179:12	<b>discuss (1)</b> 223:16	<b>driven (5)</b> 121:1;122:1;164:3, 12;165:4	<b>Economic (1)</b> 153:4	<b>else (2)</b> 191:8;221:15
<b>diagrams (1)</b> 210:17	<b>discussed (1)</b> 201:19	<b>driveway (1)</b> 118:22	<b>edge (2)</b> 119:17;120:9	<b>embedment (1)</b> 162:25
<b>dialogue (1)</b> 170:21	<b>discussion (2)</b> 177:10;202:17	<b>drop (1)</b> 210:1	<b>effect (2)</b> 117:19;162:23	<b>emergency (5)</b> 123:11;133:24; 195:6;212:21;213:3
<b>diesel (1)</b> 157:1	<b>discussion (2)</b> 177:10;202:17	<b>dropped (1)</b> 167:22	<b>effectiveness (2)</b> 210:6,8	<b>emission (1)</b> 157:24
<b>difference (3)</b> 135:13;148:10; 180:7	<b>dismantle (1)</b> 190:10	<b>drops (2)</b> 121:21,22	<b>effects (1)</b> 118:7	<b>emissions (3)</b> 157:1,6;221:21
<b>different (18)</b> 132:16;146:1,17; 148:6,18,19;164:5; 166:2;171:11;178:20; 179:1,3;183:16; 184:8,16;221:19; 223:8;228:7	<b>dispatch (3)</b> 194:23;195:10; 196:5	<b>DUBUQUE (28)</b>	<b>Ecology (3)</b> 171:19;225:22,24	<b>enclosure (1)</b> 174:24
<b>differential (1)</b> 120:6	<b>dispatched (3)</b> 133:18;195:24; 196:15		<b>Economic (1)</b> 153:4	<b>end (6)</b> 118:7;134:9;151:4; 187:12;190:11;191:4
<b>difficult (1)</b> 173:6	<b>dispatching (2)</b> 195:5,6		<b>edge (2)</b> 119:17;120:9	<b>ends (5)</b> 172:8;194:3,18; 196:4;211:9
<b>DIRECT (17)</b>	<b>disperse (1)</b> 175:6		<b>effect (2)</b> 117:19;162:23	<b>Energy (17)</b> 107:11;109:25; 111:9,20,23;115:24;

116:3;131:13;134:17; 137:19;202:6,7; 216:9,11;226:22,23; 227:22 <b>Energy's (3)</b> 112:2,21;116:8 <b>Enfield (2)</b> 200:25,25 <b>engine (1)</b> 157:1 <b>engineer (3)</b> 111:10,17;159:6 <b>engineering (3)</b> 111:18,21;152:4 <b>England (17)</b> 128:8;129:23; 131:2;134:18;146:13; 193:7;194:2,19,25; 195:4,12,19;196:4; 200:7,12,15;208:5 <b>enlighten (1)</b> 161:14 <b>enough (4)</b> 133:5;154:17; 176:6;179:20 <b>ensure (2)</b> 133:19;175:10 <b>ensuring (1)</b> 195:20 <b>entire (3)</b> 132:13;134:1; 186:16 <b>entirely (1)</b> 159:25 <b>entities (1)</b> 166:2 <b>entitled (1)</b> 224:10 <b>entity (1)</b> 208:25 <b>entry (1)</b> 160:25 <b>environmental (6)</b> 111:12,15;117:10; 127:8;152:11;197:1 <b>environmentalist (1)</b> 216:3 <b>EPA (5)</b> 157:21;221:24,25; 222:1,25 <b>EPC (3)</b> 157:7;159:6;170:1 <b>EPCs (1)</b> 158:21 <b>equipment (13)</b> 133:7;155:25; 156:24;157:10,17,19; 158:1,6;174:5; 212:16,23;213:8; 215:4 <b>equivalence (1)</b> 221:22 <b>equivalents (1)</b>	222:9 <b>era (1)</b> 208:11 <b>erosion (2)</b> 180:20;181:5 <b>erosive (1)</b> 190:19 <b>erratic (2)</b> 173:5,14 <b>errors (1)</b> 234:6 <b>especially (4)</b> 151:25;176:22; 177:5;179:15 <b>ESQ (3)</b> 107:7,8,16 <b>essentially (22)</b> 113:4;117:22; 118:18,24;119:17; 120:20;121:3;122:24; 128:3;129:7;162:15, 20;167:14,16,18; 168:1;176:5;181:10; 183:5;186:5;219:12, 15 <b>establish (3)</b> 172:9,24;173:25 <b>establishment (1)</b> 150:18 <b>estimated (3)</b> 127:22;132:18,20 <b>estimates (1)</b> 147:21 <b>et (1)</b> 227:21 <b>even (6)</b> 166:18;167:10; 185:3;191:1;212:4; 224:2 <b>evening (1)</b> 209:6 <b>event (9)</b> 129:1;131:12,14; 133:17;163:21;164:8; 172:3;185:4;209:24 <b>events (2)</b> 171:22;175:22 <b>Eversource (37)</b> 107:11;109:13,25; 111:9,18,20,23;112:2, 21;113:6,11;115:24; 116:3,8;118:2; 122:11;123:23;126:3, 18;129:21;131:6; 132:11;133:23; 134:17,23,25;144:23; 155:14;156:4,11; 200:23;201:19; 211:17;212:17; 232:10,13;235:4 <b>Eversource's (3)</b> 112:5;116:16; 132:19	<b>everybody (1)</b> 190:13 <b>everyone (1)</b> 192:17 <b>everyone's (1)</b> 118:13 <b>evidence (5)</b> 112:1;115:24; 116:9;145:3;234:8 <b>evidentiary (2)</b> 108:6;233:16 <b>exact (4)</b> 178:8;184:15; 197:12;216:1 <b>exactly (11)</b> 148:18;153:15; 176:1;178:7;180:10; 181:4;182:22;183:12; 185:1;193:24;203:4 <b>EXAMINATION (2)</b> 110:24;138:20 <b>examined (2)</b> 110:14;138:8 <b>example (5)</b> 179:6;183:17; 201:5,12;222:2 <b>excavations (1)</b> 167:9 <b>except (1)</b> 187:2 <b>excused (2)</b> 137:5;235:24 <b>Exhibit (28)</b> 112:1,5,9,12,13,14, 17,21;113:2;114:3,4; 115:4,6,9,10;138:25; 146:17,19;170:25; 221:19,21;224:8,19; 230:12;234:21,23; 235:3,13 <b>exhibits (16)</b> 110:20,21;111:25; 115:24,25;116:3,6,8; 137:20;138:23; 139:16;144:17,21,25; 145:2;146:17 <b>exist (1)</b> 191:2 <b>existing (21)</b> 113:18;117:17,20; 118:16,24;120:2,15; 121:8;122:2,3,11,14, 17,22;148:13;149:2; 182:20,21;183:4,9; 231:23 <b>exists (1)</b> 182:22 <b>exit (3)</b> 210:18,22,22 <b>exorbitant (1)</b> 129:14 <b>expanding (1)</b> 125:19	<b>expect (4)</b> 149:16;151:19; 178:3;213:12 <b>expected (4)</b> 147:11,14;195:18; 221:22 <b>expecting (3)</b> 121:6;156:10;205:2 <b>expensive (2)</b> 130:24;131:1 <b>experience (3)</b> 153:21;154:9; 176:18 <b>experienced (2)</b> 159:23;161:5 <b>expert (3)</b> 155:25;193:23; 220:9 <b>expertise (1)</b> 212:16 <b>expire (1)</b> 134:24 <b>explain (9)</b> 119:21;146:21; 147:17;164:1;165:14; 167:11;174:12; 209:18;224:21 <b>explained (1)</b> 145:12 <b>explanation (1)</b> 172:21 <b>explore (1)</b> 220:23 <b>exported (1)</b> 202:16 <b>exposed (1)</b> 226:11 <b>expressed (2)</b> 229:10,19 <b>extend (1)</b> 179:19 <b>extension (1)</b> 145:13 <b>extensively (1)</b> 122:1 <b>extent (1)</b> 195:4 <b>extra (1)</b> 231:16 <b>eye (1)</b> 166:3	131:10;133:15;149:3; 195:1;199:16;202:16; 204:20;214:6,7 <b>fact (13)</b> 117:7,17;120:4; 121:9;130:21;147:8, 9;148:4;195:10; 233:18,21;234:5,7 <b>factors (1)</b> 227:16 <b>fair (1)</b> 176:18 <b>fairly (2)</b> 123:1;158:2 <b>fall (2)</b> 173:10;209:11 <b>falling (2)</b> 227:3,4 <b>familiar (5)</b> 112:4;163:25; 167:6,23;194:17 <b>fan (2)</b> 206:10,10 <b>far (10)</b> 118:10;128:25; 158:11;179:15,19; 193:19;206:22; 208:12;211:15; 214:11 <b>farms (1)</b> 209:13 <b>farther (1)</b> 119:4 <b>fault (1)</b> 129:2 <b>favorably (1)</b> 167:3 <b>FCA (6)</b> 192:22,23;193:1,4, 12,20 <b>February (1)</b> 108:3 <b>Federal (2)</b> 123:24;206:22 <b>feel (2)</b> 118:1;168:16 <b>feet (15)</b> 117:3,5;118:8; 125:20;150:19; 161:20;163:8,8; 179:19;198:9;206:15; 222:7,12,21;224:3 <b>fence (10)</b> 174:13,24;175:5; 176:15,21,24,25; 182:10,11;188:18 <b>fencing (2)</b> 182:6,9 <b>few (9)</b> 121:14,14;153:18; 204:20;206:20,22; 211:9;217:4;223:23 <b>field (4)</b>
<b>F</b>				
<b>FAA (2)</b> 124:4,6 <b>facilitate (1)</b> 123:3 <b>facilities (2)</b> 197:13;204:24 <b>facility (15)</b> 108:16;126:21; 128:11,11,13,19;				

127:16;154:10; 192:3;198:6 <b>figure (16)</b> 149:22;157:12; 161:11,21;162:2,8; 179:14;181:15;184:7; 185:22;197:3,25; 202:2;203:17,22; 229:13 <b>file (2)</b> 124:6;234:1 <b>filed (7)</b> 108:20;110:20; 126:17;155:11; 170:22;233:18; 234:12 <b>fill (3)</b> 167:17,19;218:22 <b>filling (1)</b> 168:4 <b>final (7)</b> 155:7;170:22; 180:15;191:7;226:5; 227:12;232:4 <b>finally (2)</b> 117:21;141:24 <b>finance (2)</b> 202:21;203:5 <b>financial (1)</b> 203:3 <b>find (11)</b> 136:14;154:2,7; 162:6;170:10;171:17; 172:6,10;206:21; 224:18,22 <b>Finding (3)</b> 147:9;148:4;154:13 <b>findings (5)</b> 147:7;233:18,21; 234:4,7 <b>fine (4)</b> 176:16;177:20; 181:23;232:8 <b>finger (1)</b> 222:25 <b>fire (16)</b> 123:12;133:3,6,8; 210:16,18,23;211:16, 24;212:10,14,20; 213:5,20;214:4,4 <b>fires (1)</b> 212:23 <b>first (15)</b> 110:13;112:24; 130:21;136:10;138:7; 171:10,12;187:2; 192:17;209:8;216:22; 220:9;227:17;229:8; 232:11 <b>fish (5)</b> 151:5,7,9,12,24 <b>five (4)</b> 147:10,18;148:6;	208:13 <b>five-minute (1)</b> 232:22 <b>fixed (2)</b> 155:21;200:2 <b>flat (1)</b> 155:1 <b>flatter (2)</b> 153:17;154:7 <b>fleet (1)</b> 157:20 <b>flexibility (5)</b> 158:4;191:18; 216:9;220:4;230:15 <b>floor (1)</b> 178:1 <b>Florida (1)</b> 209:3 <b>flow (1)</b> 225:22 <b>flowable (3)</b> 218:22;219:13,15 <b>fly (18)</b> 165:10,10,13,20,23; 166:1,10,21,23;218:8, 8,10,13;219:17,18,22; 220:1,2 <b>foam (2)</b> 212:24;213:1 <b>folks (2)</b> 121:1;222:25 <b>follow (4)</b> 132:9;150:17; 205:15;218:6 <b>followed (1)</b> 152:7 <b>follows (4)</b> 110:15;128:22; 138:9,18 <b>follow-up (7)</b> 123:9;135:2;158:9; 205:21;206:6;210:3; 225:18 <b>follow-ups (2)</b> 217:4;227:11 <b>foot (4)</b> 119:13;120:5; 184:11;186:14 <b>footprint (4)</b> 152:1;179:4;228:3, 5 <b>force (2)</b> 162:22,23 <b>forces (1)</b> 163:2 <b>forecast (1)</b> 146:25 <b>forecasted (1)</b> 195:17 <b>foresee (1)</b> 168:18 <b>forget (1)</b> 216:1	<b>forth (3)</b> 112:5;157:11; 159:13 <b>forward (4)</b> 146:4;150:10,24; 189:24 <b>fossil (1)</b> 216:4 <b>fought (1)</b> 212:23 <b>found (11)</b> 153:16,24;154:19, 20;165:22;172:23,23; 174:17;175:8;180:18; 220:25 <b>foundation (3)</b> 162:14,21;163:4 <b>foundations (2)</b> 164:2;168:14 <b>four (3)</b> 128:20;129:16; 163:7 <b>fragmented (4)</b> 229:11,18,19,20 <b>frame (1)</b> 191:21 <b>framing (1)</b> 190:14 <b>free (5)</b> 219:19;220:14; 221:12,12,16 <b>freeboard (2)</b> 184:16,21 <b>frog (1)</b> 176:13 <b>front (1)</b> 202:21 <b>fuel (1)</b> 177:23 <b>fuels (1)</b> 216:4 <b>full (9)</b> 115:25;128:14,16; 138:25;144:16;194:9; 234:21,23;235:13 <b>fully (3)</b> 146:15;194:24; 215:3 <b>functional (1)</b> 188:1 <b>Further (13)</b> 117:10;120:4; 121:25;169:16;170:1; 199:3;212:7;223:11; 225:12;226:21;227:9; 233:13,14 <b>future (3)</b> 125:13;214:21; 216:16	177:22 <b>galvanic (1)</b> 221:14 <b>galvanized (1)</b> 190:24 <b>gas (13)</b> 124:10,14,16; 125:8,9,12;155:16; 156:5;221:20,22; 222:8,11,13 <b>gated (1)</b> 123:19 <b>gave (1)</b> 177:20 <b>General (18)</b> 108:10,21;120:14; 122:7;157:15;158:24; 168:21;171:18; 176:14;177:22; 178:17;181:8,14; 183:14;184:24; 194:22;210:25; 225:22 <b>generally (4)</b> 108:16;146:19; 160:13;220:2 <b>generate (1)</b> 213:19 <b>generating (2)</b> 108:16;197:23 <b>generation (4)</b> 202:5,7;205:3; 222:22 <b>gentlemen (1)</b> 108:2 <b>George (11)</b> 137:18;138:2,21; 139:2,5,8,11;150:15, 16;181:20;223:15 <b>geotech (1)</b> 170:5 <b>geotechnical (6)</b> 161:16;165:16; 169:24;170:2;187:7; 218:14 <b>gets (6)</b> 118:9;128:4;183:7; 194:10;204:21;230:8 <b>given (5)</b> 129:15;131:10; 190:22;194:19; 208:22 <b>glad (1)</b> 172:4 <b>glimpse (1)</b> 121:12 <b>goal (5)</b> 157:22;158:3; 159:17,21;178:13 <b>goals (2)</b> 202:6;215:25 <b>goes (12)</b> 146:6,12;173:24;	180:16;185:24,25; 188:4;194:16;203:8; 211:11;221:19; 222:10 <b>Good (11)</b> 108:1;109:16; 110:25;121:20; 126:15;135:23; 137:23;161:4;190:16; 192:16;223:22 <b>grade (1)</b> 123:16 <b>grading (5)</b> 122:25;185:23; 186:3,11;192:3 <b>granted (1)</b> 217:12 <b>graphic (1)</b> 223:1 <b>Gravel (31)</b> 139:25;140:1,16, 17;141:6,7;142:11, 12;143:2,3,18,19; 144:8,9;149:1; 153:25;161:15,24; 165:15;168:13;169:3, 11;174:1,3,3;181:2; 182:17,24;186:7; 187:20;188:15 <b>gray (1)</b> 198:16 <b>great (7)</b> 130:18;138:4; 154:16;203:23; 204:14;216:9;222:15 <b>greater (2)</b> 147:17;153:9 <b>Green (4)</b> 116:19;118:3; 215:25;216:3 <b>greenhouse (2)</b> 124:14;221:20 <b>grid (2)</b> 195:13;212:2 <b>ground (7)</b> 160:17,23;162:18; 166:10;218:15; 226:24;227:5 <b>grounding (2)</b> 213:20,24 <b>groundwater (15)</b> 151:15;161:8,9,18; 162:12,22;163:1,5,6, 6,9,12,17,18;167:17 <b>group (5)</b> 111:13;170:14,18, 21;193:25 <b>grout (9)</b> 164:16;167:21; 168:3,6,7;219:9,10, 11,16 <b>grow (2)</b> 187:25;188:10
<b>G</b>				
<b>G-001 (1)</b>				

<p><b>grubbed (1)</b> 179:12</p> <p><b>grubbing (3)</b> 179:21;180:13; 183:6</p> <p><b>guess (9)</b> 137:7;170:14; 229:10,17,18;230:7, 23;231:20,21</p> <p><b>guidance (1)</b> 159:1</p> <p><b>guidelines (2)</b> 157:6,11</p>	<p><b>happened (4)</b> 146:8;181:2,12; 192:25</p> <p><b>happening (4)</b> 133:10;180:7; 194:18;209:19</p> <p><b>happens (2)</b> 218:10;226:13</p> <p><b>happier (1)</b> 165:25</p> <p><b>happy (1)</b> 221:24</p> <p><b>hard (1)</b> 164:4</p> <p><b>hardens (1)</b> 168:8</p> <p><b>Harder (12)</b> 125:16,17,25; 126:7,9;229:6,7; 231:3,9,19;232:1,3</p> <p><b>harmful (4)</b> 189:5,7,9,23</p> <p><b>Hartford (1)</b> 107:6</p> <p><b>hazardous (4)</b> 165:12;166:3,22; 177:24</p> <p><b>head (2)</b> 164:5;190:2</p> <p><b>hear (4)</b> 130:16;135:8; 189:16;207:4</p> <p><b>heard (1)</b> 206:14</p> <p><b>hearing (20)</b> 108:2,7,24;109:7; 136:25;137:21; 144:24;145:11;150:4; 192:21;199:12; 206:10;229:9;230:10; 232:7,18,21;234:12, 16;235:25</p> <p><b>heated (1)</b> 227:3</p> <p><b>heaters (2)</b> 217:9,12</p> <p><b>heavy (2)</b> 210:4,5</p> <p><b>height (5)</b> 120:6;183:17,19; 185:8;205:25</p> <p><b>held (2)</b> 108:7,9</p> <p><b>help (6)</b> 120:9;133:19; 153:19;165:17;198:2; 216:5</p> <p><b>helpful (1)</b> 204:14</p> <p><b>helps (5)</b> 172:1;199:9;202:6; 216:10;217:14</p> <p><b>HENNESSEY (1)</b></p>	<p>107:12</p> <p><b>hereby (2)</b> 109:22;234:16</p> <p><b>hereof (1)</b> 234:3</p> <p><b>Heritage (3)</b> 116:20;131:19; 137:18</p> <p><b>Herpetofauna (1)</b> 171:14</p> <p><b>hexafluoride (2)</b> 124:14;155:19</p> <p><b>high (9)</b> 133:8;156:2,2; 160:21;174:20; 183:16;187:9;199:6; 217:21</p> <p><b>higher (7)</b> 154:14;163:1; 172:7;197:9;198:21; 199:16;205:8</p> <p><b>highest (3)</b> 157:9;163:17;211:5</p> <p><b>high-level (1)</b> 219:6</p> <p><b>highlights (1)</b> 165:21</p> <p><b>highly (3)</b> 121:15;190:18; 215:5</p> <p><b>Hill (2)</b> 108:18;113:14</p> <p><b>hillside (1)</b> 154:8</p> <p><b>hillsides (3)</b> 153:18,18,21</p> <p><b>Hinckley (2)</b> 153:7;154:5</p> <p><b>hinted (1)</b> 226:6</p> <p><b>hire (1)</b> 158:25</p> <p><b>hiring (1)</b> 158:22</p> <p><b>Historic (3)</b> 150:6;223:4,24</p> <p><b>historically (2)</b> 180:4;235:18</p> <p><b>history (3)</b> 172:1;176:7,10</p> <p><b>hit (1)</b> 135:2</p> <p><b>hold (3)</b> 118:15;130:7; 158:14</p> <p><b>hole (1)</b> 160:19</p> <p><b>home (1)</b> 188:13</p> <p><b>hook (2)</b> 202:13,14</p> <p><b>horizon (2)</b> 217:11;218:3</p>	<p><b>horizontal (7)</b> 159:14,18;160:2, 14;186:22;187:3,6</p> <p><b>horse (2)</b> 203:14;218:21</p> <p><b>hot (1)</b> 212:6</p> <p><b>hotter (1)</b> 227:1</p> <p><b>hours (12)</b> 128:20;129:16; 173:7;178:1;202:8, 15,15;204:21,25; 205:1,2;222:22</p> <p><b>house (2)</b> 119:23;120:5</p> <p><b>huge (1)</b> 173:17</p> <p><b>human (1)</b> 154:21</p> <p><b>humming (1)</b> 197:17</p> <p><b>hundred (1)</b> 198:8</p> <p><b>Huntley (80)</b> 139:21,22;140:12, 13;141:2,3,16,17,20, 23;142:7,8,23,24; 143:14,15;144:4,5; 147:20;148:9,25; 149:13,25;150:3,12; 152:2;157:14;159:17; 160:3,13;161:3; 162:2,8,15;163:11; 164:7;165:2;166:7; 167:13,25;178:3,15, 24;179:24;180:3,24; 182:3,8,19;183:3; 184:13;185:9,16,19; 186:4;187:5;190:22; 191:12;197:7,11,18, 21;198:3,13,18,25; 205:22,25;210:24; 211:19;212:18;213:2, 12,15;218:12,25; 219:11,20;226:14; 229:1</p> <p><b>HydroCAD (1)</b> 184:15</p>	<p><b>identified (10)</b> 116:19;128:9; 129:7;130:15;151:7, 9;165:13;172:12; 174:5;176:12</p> <p><b>identifies (1)</b> 185:8</p> <p><b>identify (5)</b> 118:11;151:12; 178:20;210:21;234:6</p> <p><b>identifying (1)</b> 110:20</p> <p><b>ie (2)</b> 128:12;129:2</p> <p><b>iffy (1)</b> 218:9</p> <p><b>II-B-7 (2)</b> 137:21;145:2</p> <p><b>II-B-9 (1)</b> 145:3</p> <p><b>Illuminating (1)</b> 201:20</p> <p><b>imagine (1)</b> 202:8</p> <p><b>immediately (2)</b> 212:1;231:8</p> <p><b>impact (17)</b> 116:18;117:23; 118:3;128:17;129:7, 22;134:11;151:15,19; 159:15;186:11;188:9; 190:11,19;191:3; 201:22;202:3</p> <p><b>impacted (3)</b> 151:24;152:22; 203:13</p> <p><b>impacts (9)</b> 117:13,20;127:8; 150:8;152:8;159:11, 19,20,24</p> <p><b>impervious (1)</b> 178:1</p> <p><b>implementing (1)</b> 150:10</p> <p><b>implies (2)</b> 162:16;189:10</p> <p><b>implying (1)</b> 149:5</p> <p><b>improvements (2)</b> 116:25;218:15</p> <p><b>inappropriate (1)</b> 235:13</p> <p><b>inaudible (1)</b> 206:16</p> <p><b>inches (3)</b> 184:10,11,24</p> <p><b>include (4)</b> 200:19;220:1; 223:1,8</p> <p><b>included (5)</b> 180:4,5;192:5; 197:5;225:18</p> <p><b>includes (3)</b></p>
<b>H</b>				
<p><b>habitat (7)</b> 152:15,17,19; 153:1,22;175:3; 188:16</p> <p><b>habitats (1)</b> 152:22</p> <p><b>Hagen (1)</b> 200:9</p> <p><b>half (1)</b> 221:1</p> <p><b>half-cell (1)</b> 220:17</p> <p><b>hand (3)</b> 187:17;188:24; 189:21</p> <p><b>handle (3)</b> 131:3;183:12; 235:13</p> <p><b>handled (2)</b> 136:10;168:20</p> <p><b>handles (1)</b> 193:25</p> <p><b>hands-on (1)</b> 213:10</p> <p><b>Hannon (69)</b> 126:10,11,13; 156:17,18;157:12; 159:8,9;160:1,9; 161:7,17;162:6,10; 163:3,24;165:6,24; 166:18;167:23;168:9, 22;169:5,18;170:8; 171:6,10;172:4; 173:24;175:7,11; 176:11;177:11,12,16, 18;178:12,16;179:5; 180:2,17;181:13,23; 182:7,15,18;183:1,11; 185:5,10,17,20; 186:21;187:11;188:4, 22;189:17;190:4; 191:6,20;192:9,12,14; 218:7;219:9;228:12, 13,20;229:2</p> <p><b>happen (3)</b> 160:20;193:24; 218:9</p>	<p><b>harder (1)</b> 125:16,17,25; 126:7,9;229:6,7; 231:3,9,19;232:1,3</p> <p><b>harmful (4)</b> 189:5,7,9,23</p> <p><b>Hartford (1)</b> 107:6</p> <p><b>hazardous (4)</b> 165:12;166:3,22; 177:24</p> <p><b>head (2)</b> 164:5;190:2</p> <p><b>hear (4)</b> 130:16;135:8; 189:16;207:4</p> <p><b>heard (1)</b> 206:14</p> <p><b>hearing (20)</b> 108:2,7,24;109:7; 136:25;137:21; 144:24;145:11;150:4; 192:21;199:12; 206:10;229:9;230:10; 232:7,18,21;234:12, 16;235:25</p> <p><b>heated (1)</b> 227:3</p> <p><b>heaters (2)</b> 217:9,12</p> <p><b>heavy (2)</b> 210:4,5</p> <p><b>height (5)</b> 120:6;183:17,19; 185:8;205:25</p> <p><b>held (2)</b> 108:7,9</p> <p><b>help (6)</b> 120:9;133:19; 153:19;165:17;198:2; 216:5</p> <p><b>helpful (1)</b> 204:14</p> <p><b>helps (5)</b> 172:1;199:9;202:6; 216:10;217:14</p> <p><b>HENNESSEY (1)</b></p>	<p>107:12</p> <p><b>hereby (2)</b> 109:22;234:16</p> <p><b>hereof (1)</b> 234:3</p> <p><b>Heritage (3)</b> 116:20;131:19; 137:18</p> <p><b>Herpetofauna (1)</b> 171:14</p> <p><b>hexafluoride (2)</b> 124:14;155:19</p> <p><b>high (9)</b> 133:8;156:2,2; 160:21;174:20; 183:16;187:9;199:6; 217:21</p> <p><b>higher (7)</b> 154:14;163:1; 172:7;197:9;198:21; 199:16;205:8</p> <p><b>highest (3)</b> 157:9;163:17;211:5</p> <p><b>high-level (1)</b> 219:6</p> <p><b>highlights (1)</b> 165:21</p> <p><b>highly (3)</b> 121:15;190:18; 215:5</p> <p><b>Hill (2)</b> 108:18;113:14</p> <p><b>hillside (1)</b> 154:8</p> <p><b>hillsides (3)</b> 153:18,18,21</p> <p><b>Hinckley (2)</b> 153:7;154:5</p> <p><b>hinted (1)</b> 226:6</p> <p><b>hire (1)</b> 158:25</p> <p><b>hiring (1)</b> 158:22</p> <p><b>Historic (3)</b> 150:6;223:4,24</p> <p><b>historically (2)</b> 180:4;235:18</p> <p><b>history (3)</b> 172:1;176:7,10</p> <p><b>hit (1)</b> 135:2</p> <p><b>hold (3)</b> 118:15;130:7; 158:14</p> <p><b>hole (1)</b> 160:19</p> <p><b>home (1)</b> 188:13</p> <p><b>hook (2)</b> 202:13,14</p> <p><b>horizon (2)</b> 217:11;218:3</p>	<p><b>horizontal (7)</b> 159:14,18;160:2, 14;186:22;187:3,6</p> <p><b>horse (2)</b> 203:14;218:21</p> <p><b>hot (1)</b> 212:6</p> <p><b>hotter (1)</b> 227:1</p> <p><b>hours (12)</b> 128:20;129:16; 173:7;178:1;202:8, 15,15;204:21,25; 205:1,2;222:22</p> <p><b>house (2)</b> 119:23;120:5</p> <p><b>huge (1)</b> 173:17</p> <p><b>human (1)</b> 154:21</p> <p><b>humming (1)</b> 197:17</p> <p><b>hundred (1)</b> 198:8</p> <p><b>Huntley (80)</b> 139:21,22;140:12, 13;141:2,3,16,17,20, 23;142:7,8,23,24; 143:14,15;144:4,5; 147:20;148:9,25; 149:13,25;150:3,12; 152:2;157:14;159:17; 160:3,13;161:3; 162:2,8,15;163:11; 164:7;165:2;166:7; 167:13,25;178:3,15, 24;179:24;180:3,24; 182:3,8,19;183:3; 184:13;185:9,16,19; 186:4;187:5;190:22; 191:12;197:7,11,18, 21;198:3,13,18,25; 205:22,25;210:24; 211:19;212:18;213:2, 12,15;218:12,25; 219:11,20;226:14; 229:1</p> <p><b>HydroCAD (1)</b> 184:15</p>	<p><b>identified (10)</b> 116:19;128:9; 129:7;130:15;151:7, 9;165:13;172:12; 174:5;176:12</p> <p><b>identifies (1)</b> 185:8</p> <p><b>identify (5)</b> 118:11;151:12; 178:20;210:21;234:6</p> <p><b>identifying (1)</b> 110:20</p> <p><b>ie (2)</b> 128:12;129:2</p> <p><b>iffy (1)</b> 218:9</p> <p><b>II-B-7 (2)</b> 137:21;145:2</p> <p><b>II-B-9 (1)</b> 145:3</p> <p><b>Illuminating (1)</b> 201:20</p> <p><b>imagine (1)</b> 202:8</p> <p><b>immediately (2)</b> 212:1;231:8</p> <p><b>impact (17)</b> 116:18;117:23; 118:3;128:17;129:7, 22;134:11;151:15,19; 159:15;186:11;188:9; 190:11,19;191:3; 201:22;202:3</p> <p><b>impacted (3)</b> 151:24;152:22; 203:13</p> <p><b>impacts (9)</b> 117:13,20;127:8; 150:8;152:8;159:11, 19,20,24</p> <p><b>impervious (1)</b> 178:1</p> <p><b>implementing (1)</b> 150:10</p> <p><b>implies (2)</b> 162:16;189:10</p> <p><b>implying (1)</b> 149:5</p> <p><b>improvements (2)</b> 116:25;218:15</p> <p><b>inappropriate (1)</b> 235:13</p> <p><b>inaudible (1)</b> 206:16</p> <p><b>inches (3)</b> 184:10,11,24</p> <p><b>include (4)</b> 200:19;220:1; 223:1,8</p> <p><b>included (5)</b> 180:4,5;192:5; 197:5;225:18</p> <p><b>includes (3)</b></p>
<b>I</b>				
<p><b>ice (11)</b> 209:5,8,16;210:4,5, 10;217:7,9,14,21,24</p> <p><b>ID (1)</b> 109:8</p> <p><b>idea (2)</b> 182:7;219:3</p> <p><b>identical (1)</b> 209:9</p> <p><b>identification (1)</b> 138:24</p>	<p><b>harder (1)</b> 125:16,17,25; 126:7,9;229:6,7; 231:3,9,19;232:1,3</p> <p><b>harmful (4)</b> 189:5,7,9,23</p> <p><b>Hartford (1)</b> 107:6</p> <p><b>hazardous (4)</b> 165:12;166:3,22; 177:24</p> <p><b>head (2)</b> 164:5;190:2</p> <p><b>hear (4)</b> 130:16;135:8; 189:16;207:4</p> <p><b>heard (1)</b> 206:14</p> <p><b>hearing (20)</b> 108:2,7,24;109:7; 136:25;137:21; 144:24;145:11;150:4; 192:21;199:12; 206:10;229:9;230:10; 232:7,18,21;234:12, 16;235:25</p> <p><b>heated (1)</b> 227:3</p> <p><b>heaters (2)</b> 217:9,12</p> <p><b>heavy (2)</b> 210:4,5</p> <p><b>height (5)</b> 120:6;183:17,19; 185:8;205:25</p> <p><b>held (2)</b> 108:7,9</p> <p><b>help (6)</b> 120:9;133:19; 153:19;165:17;198:2; 216:5</p> <p><b>helpful (1)</b> 204:14</p> <p><b>helps (5)</b> 172:1;199:9;202:6; 216:10;217:14</p> <p><b>HENNESSEY (1)</b></p>	<p>107:12</p> <p><b>hereby (2)</b> 109:22;234:16</p> <p><b>hereof (1)</b> 234:3</p> <p><b>Heritage (3)</b> 116:20;131:19; 137:18</p> <p><b>Herpetofauna (1)</b> 171:14</p> <p><b>hexafluoride (2)</b> 124:14;155:19</p> <p><b>high (9)</b> 133:8;156:2,2; 160:21;174:20; 183:16;187:9;199:6; 217:21</p> <p><b>higher (7)</b> 154:14;163:1; 172:7;197:9;198:21; 199:16;205:8</p> <p><b>highest (3)</b> 157:9;163:17;211:5</p> <p><b>high-level (1)</b> 219:6</p> <p><b>highlights (1)</b> 165:21</p> <p><b>highly (3)</b> 121:15;190:18; 215:5</p> <p><b>Hill (2)</b> 108:18;113:14</p> <p><b>hillside (1)</b> 154:8</p> <p><b>hillsides (3)</b> 153:18,18,21</p> <p><b>Hinckley (2)</b> 153:7;154:5</p> <p><b>hinted (1)</b> 226:6</p> <p><b>hire (1)</b> 158:25</p> <p><b>hiring (1)</b> 158:22</p> <p><b>Historic (3)</b> 150:6;223:4,24</p> <p><b>historically (2)</b> 180:4;235:18</p> <p><b>history (3)</b> 172:1;176:7,10</p> <p><b>hit (1)</b> 135:2</p> <p><b>hold (3)</b> 118:15;130:7; 158:14</p> <p><b>hole (1)</b> 160:19</p> <p><b>home (1)</b> 188:13</p> <p><b>hook (2)</b> 202:13,14</p> <p><b>horizon (2)</b> 217:11;218:3</p>	<p><b>horizontal (7)</b> 159:14,18;160:2, 14;186:22;187:3,6</p> <p><b>horse (2)</b> 203:14;218:21</p> <p><b>hot (1)</b> 212:6</p> <p><b>hotter (1)</b> 227:1</p> <p><b>hours (12)</b> 128:20;129:16; 173:7;178:1;202:8, 15,15;204:21,25; 205:1,2;222:22</p> <p><b>house (2)</b> 119:23;120:5</p> <p><b>huge (1)</b> 173:17</p> <p><b>human (1)</b> 154:21</p> <p><b>humming (1)</b> 197:17</p> <p><b>hundred (1)</b> 198:8</p> <p><b>Huntley (80)</b> 139:21,22;140:12, 13;141:2,3,16,17,20, 23;142:7,8,23,24; 143:14,15;144:4,5; 147:20;148:9,25; 149:13,25;150:3,12; 152:2;157:14;159:17; 160:3,13;161:3; 162:2,8,15;163:11; 164:7;165:2;166:7; 167:13,25;178:3,15, 24;179:24;180:3,24; 182:3,8,19;183:3; 184:13;185:9,16,19; 186:4;187:5;190:22; 191:12;197:7,11,18, 21;198:3,13,18,25; 205:22,25;210:24; 211:19;212:18;213:2, 12,15;218:12,25; 219:11,20;226:14; 229:1</p> <p><b>HydroCAD (1)</b> 184:15</p>	<p><b>identified (10)</b> 116:19;128:9; 129:7;130:15;151:7, 9;165:13;172:12; 174:5;176:12</p> <p><b>identifies (1)</b> 185:8</p> <p><b>identify (5)</b> 118:11;151:12; 178:20;210:21;234:6</p> <p><b>identifying (1)</b> 110:20</p> <p><b>ie (2)</b> 128:12;129:2</p> <p><b>iffy (1)</b> 218:9</p> <p><b>II-B-7 (2)</b> 137:21;145:2</p> <p><b>II-B-9 (1)</b> 145:3</p> <p><b>Illuminating (1)</b> 201:20</p> <p><b>imagine (1)</b> 202:8</p> <p><b>immediately (2)</b> 212:1;231:8</p> <p><b>impact (17)</b> 116:18;117:23; 118:3;128:17;129:7, 22;134:11;151:15,19; 159:15;186:11;188:9; 190:11,19;191:3; 201:22;202:3</p> <p><b>impacted (3)</b> 151:24;152:22; 203:13</p> <p><b>impacts (9)</b> 117:13,20;127:8; 150:8;152:8;159:11, 19,20,24</p> <p><b>impervious (1)</b> 178:1</p> <p><b>implementing (1)</b> 150:10</p> <p><b>implies (2)</b> 162:16;189:10</p> <p><b>implying (1)</b> 149:5</p> <p><b>improvements (2)</b> 116:25;218:15</p> <p><b>inappropriate (1)</b> 235:13</p> <p><b>inaudible (1)</b> 206:16</p> <p><b>inches (3)</b> 184:10,11,24</p> <p><b>include (4)</b> 200:19;220:1; 223:1,8</p> <p><b>included (5)</b> 180:4,5;192:5; 197:5;225:18</p> <p><b>includes (3)</b></p>



<p>179:6;209:22,23 <b>including (4)</b> 130:24;148:8; 150:18;200:23 <b>inclusion (1)</b> 219:3 <b>inclusive (1)</b> 154:6 <b>inconsistencies (1)</b> 234:6 <b>incorporate (3)</b> 175:23;216:7,17 <b>incorporated (2)</b> 177:5;188:7 <b>increase (7)</b> 147:25;199:13; 214:20;226:8,19; 227:6,13 <b>increasing (1)</b> 117:4 <b>indeed (1)</b> 158:23 <b>independent (2)</b> 127:15,17 <b>independently (1)</b> 127:11 <b>index (2)</b> 116:10;145:4 <b>indicate (2)</b> 230:14;235:7 <b>indicated (1)</b> 163:6 <b>indicates (1)</b> 126:18 <b>indicating (1)</b> 150:24 <b>indicative (1)</b> 182:9 <b>indicators (1)</b> 179:9 <b>indirect (1)</b> 117:12 <b>individual (1)</b> 178:22 <b>individuals (2)</b> 154:23;175:1 <b>indoor (1)</b> 177:25 <b>induced (1)</b> 221:12 <b>industry (2)</b> 166:13;220:3 <b>infiltration (1)</b> 183:14 <b>information (25)</b> 112:4,12;115:4,6; 127:6,7,10;133:14; 139:6;140:8;141:18; 142:19;143:8;144:15; 155:12;169:2,20; 170:15;171:11,18; 173:21;201:5;222:24; 234:8,20</p>	<p><b>ingresses (1)</b> 211:7 <b>inhabit (1)</b> 188:18 <b>inherently (1)</b> 195:9 <b>inner (1)</b> 129:12 <b>inputted (1)</b> 128:12 <b>inside (1)</b> 178:8 <b>inspected (1)</b> 187:15 <b>inspection (1)</b> 214:5 <b>inspections (1)</b> 214:7 <b>install (2)</b> 124:16;215:9 <b>installation (2)</b> 163:7;208:2 <b>installed (1)</b> 176:16 <b>installing (1)</b> 221:15 <b>instead (3)</b> 113:12;131:4;230:3 <b>insulated (5)</b> 124:9,10;155:16, 16,17 <b>insulation (2)</b> 125:10,11 <b>insulators (1)</b> 130:25 <b>intend (1)</b> 189:12 <b>intent (1)</b> 177:7 <b>intention (11)</b> 150:9,13;151:10; 164:11;165:3,20,23; 166:8;212:19;218:21; 226:3 <b>interconnect (1)</b> 199:24 <b>interconnection (4)</b> 128:8;200:10,14; 212:3 <b>interesting (1)</b> 226:15 <b>interim (1)</b> 111:20 <b>interject (1)</b> 164:25 <b>intermittent (1)</b> 216:10 <b>internal (2)</b> 178:18;179:1 <b>interpretation (1)</b> 199:17 <b>interrogatories (8)</b> 112:22;115:10;</p>	<p>126:17;141:25;142:3; 192:18;203:20; 235:16 <b>Interrogatory (11)</b> 113:3,6,22;114:17; 115:5;145:21;147:7, 13;149:21;196:25; 209:10 <b>interrupted (1)</b> 195:9 <b>intervenor (2)</b> 233:19,25 <b>intervenor (2)</b> 233:23;234:5 <b>into (30)</b> 111:25;115:23; 118:9;128:12;135:24; 146:14;154:2;158:19; 160:5,24;162:19; 171:11;173:9;175:1; 176:17;178:10;183:7; 187:25;188:7;193:20, 21;195:20;203:8; 211:14;212:13; 217:19,23;226:17,22; 235:3 <b>introduce (2)</b> 111:1,2 <b>introducing (2)</b> 117:14;228:3 <b>introductory (1)</b> 156:21 <b>invasive (5)</b> 187:16,21;188:3,8, 17 <b>invasives (2)</b> 187:19;188:21 <b>inverter (10)</b> 198:5,22;199:5,7; 200:2;206:7,12,12; 211:3,24 <b>inverters (19)</b> 197:10,17,23; 198:23;199:18,22; 200:1,4;206:7; 207:20;211:3,10,11, 16,18,19;212:4; 214:19;221:14 <b>investigation (1)</b> 187:7 <b>investment (2)</b> 200:22;207:6 <b>involved (2)</b> 130:22;191:16 <b>ISO (23)</b> 128:7;129:4,12,22; 131:2,17;134:18; 145:22;146:2,6,13; 193:7;194:2,19,25; 195:4,12,19;196:4,8, 16;200:7,15 <b>isolated (3)</b> 174:12;211:21;</p>	<p>212:1 <b>isolation (1)</b> 221:14 <b>ISO's (1)</b> 194:6 <b>issue (10)</b> 125:18;158:12; 182:9;187:23;196:3; 212:12;213:23;217:7; 230:8;234:4 <b>issued (1)</b> 180:5 <b>issues (5)</b> 166:19;167:1; 186:19;188:1;229:21 <b>ITC (2)</b> 207:3,6 <b>Item (4)</b> 136:18;139:17; 141:13;152:25 <b>items (7)</b> 109:7,8,10,23; 136:8;139:13;144:16 <b>iterations (1)</b> 227:19 <b>IV-B-1 (1)</b> 116:8 <b>IV-B-4 (1)</b> 116:9</p>	<p><b>kilowatts (1)</b> 199:14 <b>kind (15)</b> 146:12;160:9; 165:16,18,21;167:10; 186:24,25;221:1,3,24; 223:3,12;226:6;230:3 <b>kinds (1)</b> 152:22 <b>knew (1)</b> 222:19 <b>knowledge (6)</b> 112:12;115:4; 120:12;139:7;141:19; 143:9 <b>knowledgeable (2)</b> 146:5,15 <b>known (1)</b> 234:1 <b>knows (1)</b> 135:8 <b>kV (1)</b> 156:1</p>
<b>L</b>				
<p><b>Lab (1)</b> 171:19 <b>labeled (2)</b> 151:1;182:5 <b>labor (2)</b> 158:25;159:1 <b>lack (2)</b> 150:22;152:14 <b>ladies (1)</b> 108:1 <b>lakes (1)</b> 152:21 <b>land (4)</b> 176:6;207:9,10; 228:6 <b>landscape (1)</b> 118:15 <b>large (2)</b> 154:17;164:9 <b>largely (1)</b> 145:15 <b>larger (4)</b> 178:23;184:20; 185:3;230:6 <b>Last (25)</b> 116:19;118:3; 121:14;132:22;133:1; 145:10;150:4;156:15; 168:23,23;169:5,6; 177:19;189:3;192:21, 25,25;199:12;203:5; 204:16;209:5;210:13; 224:6;227:15;230:10 <b>Lastly (3)</b> 120:13;124:7; 149:20 <b>Late-File (3)</b></p>				

<p>130:2;146:16,19 <b>Late-Filed (2)</b> 139:16;230:11 <b>Late-Files (1)</b> 130:6 <b>later (2)</b> 123:20;233:19 <b>Laughter (1)</b> 133:12 <b>law (2)</b> 214:14;220:21 <b>laydown (7)</b> 172:15;174:5,6; 180:19,21,25;181:4 <b>layout (1)</b> 228:8 <b>leaching (2)</b> 167:1;183:20 <b>lead (1)</b> 111:17 <b>leadership (1)</b> 214:9 <b>leading (1)</b> 212:13 <b>leads (1)</b> 172:5 <b>lean (1)</b> 200:8 <b>learned (1)</b> 193:8 <b>least (5)</b> 131:5;154:9;179:8; 226:6;235:17 <b>leave (3)</b> 158:4;223:21; 233:22 <b>Leavenworth (1)</b> 107:13 <b>leaving (2)</b> 120:8;206:4 <b>led (2)</b> 211:14;227:16 <b>Lee (38)</b> 139:23,24;140:14, 15;141:4,5;142:9,10, 25;143:1,16,17;144:6, 7;145:10,19;200:21; 201:10;202:5,18; 203:4,8;204:23; 207:2,5;214:8,23; 215:2,8,15;216:8,18; 217:15;222:15;228:1; 231:2,12,24 <b>left (5)</b> 118:23;187:9; 188:13;223:13;224:3 <b>legend (1)</b> 204:11 <b>legislature (1)</b> 212:25 <b>lesser (1)</b> 158:5 <b>letter (6)</b></p>	<p>150:5,18,25;223:5, 13,16 <b>level (12)</b> 148:15;162:21; 163:7,17;165:23; 187:10;191:1;195:16; 196:5;197:3;205:5; 213:16 <b>levels (4)</b> 197:9,12,16;198:21 <b>Levesque (10)</b> 125:5,6,14;135:6,7, 13,18;148:5;229:3,5 <b>Libertine (27)</b> 111:11,12;112:19; 114:1,6,7,21,22; 115:14,15;116:21,24; 118:12;119:6,16,24; 120:17;122:24; 123:10,14,18;127:5, 12,19;131:21;132:1; 133:4 <b>licensed (3)</b> 158:13,17;159:23 <b>Liepis (5)</b> 197:2;198:1,4; 199:4,5 <b>life (7)</b> 134:9;172:1;176:7, 10;190:23;221:21; 222:8 <b>Light (1)</b> 107:10 <b>likelihood (2)</b> 133:10;211:5 <b>likely (4)</b> 154:7;158:2; 213:15;226:25 <b>lime (2)</b> 165:9,25 <b>limit (1)</b> 157:16 <b>limitation (1)</b> 199:19 <b>limited (5)</b> 199:18,25;206:1; 210:17,18 <b>limiting (1)</b> 153:9 <b>line (24)</b> 111:17,21;113:8,8, 8,12,13,13;117:1,8; 118:19;120:1;122:5; 123:4;126:2;127:21; 131:15,20;134:20; 179:12,19;188:18; 200:20;230:23 <b>lines (10)</b> 117:18;122:20; 125:21;130:25; 134:13;178:23;179:2; 180:6,8;187:2 <b>liquid (1)</b></p>	<p>219:2 <b>list (5)</b> 138:23;139:14,17; 142:1;152:25 <b>listed (3)</b> 136:12;152:13; 222:8 <b>little (15)</b> 121:25;145:24; 148:2;158:4;165:7; 170:12;184:20; 187:17;192:2;204:3; 205:10;208:10;224:2; 226:12,21 <b>live (1)</b> 209:3 <b>lived (1)</b> 171:20 <b>LLC (6)</b> 107:3;108:13,21; 137:17,18,20 <b>LLP (2)</b> 107:4,12 <b>load (4)</b> 128:14;129:24; 195:2,25 <b>local (3)</b> 158:23,25;212:20 <b>located (8)</b> 108:16;118:8; 153:2;161:13,22; 168:15;177:13;178:2 <b>location (14)</b> 128:3;148:11,17; 161:12;162:24; 163:18;174:16;178:8; 185:2,3;198:4;199:2; 211:20;219:22 <b>locations (5)</b> 148:16;162:4; 189:13;211:3,4 <b>LOCKE (1)</b> 107:4 <b>locked (2)</b> 177:25;178:8 <b>long (10)</b> 133:3;152:7; 154:24,25;163:22; 165:11;166:4;171:20; 190:23;206:24 <b>longer (6)</b> 130:24;134:19; 192:2;205:9;214:16; 229:16 <b>longevity (1)</b> 172:1 <b>long-term (2)</b> 163:20;187:14 <b>look (17)</b> 118:15;130:21,22; 158:6;160:5;185:14; 188:24;197:3;203:16; 204:11,18;209:25;</p>	<p>216:18;221:8;224:8, 24;228:14 <b>looked (3)</b> 128:25;167:3; 184:17 <b>looking (19)</b> 119:2;122:4,23; 147:23;174:9;178:16; 184:9;185:6;187:1; 191:17;198:11; 203:18;210:16; 215:18,22;219:17; 228:24;229:13; 230:11 <b>looks (3)</b> 162:11;185:22; 204:25 <b>loop (1)</b> 200:20 <b>LORD (1)</b> 107:4 <b>lose (1)</b> 131:11 <b>losing (1)</b> 131:9 <b>loss (1)</b> 131:15 <b>losses (1)</b> 217:24 <b>lot (11)</b> 179:20,21;187:7; 188:5,17,20;190:7; 193:25;220:21; 229:15,18 <b>loud (1)</b> 206:15 <b>love (1)</b> 222:12 <b>low (9)</b> 131:10,15,16; 157:18;168:17; 173:11;181:1,11; 197:16 <b>lower (6)</b> 118:21;119:20; 120:1;186:9;205:5; 210:1 <b>LYNCH (46)</b> 113:9;123:8,10,17, 20,21;132:7,8,16,21; 133:1,13;134:2,6; 158:8,10,16;159:2; 206:18,19;207:4,7,18, 24;208:3,5,9;209:1; 210:3,12;211:14; 212:4,13,22;213:10, 14;214:1,11,25;215:7, 10,24;216:13,24; 217:3,6 <b>Lynch's (1)</b> 220:20</p>	<p style="text-align: center;"><b>M</b></p> <p><b>machinations (2)</b> 129:4,12 <b>machinery (1)</b> 157:7 <b>main (2)</b> 123:5;127:14 <b>Maine (1)</b> 209:4 <b>maintain (8)</b> 123:7;126:2,4; 184:21;186:10; 187:21;188:20; 201:11 <b>maintained (1)</b> 187:18 <b>maintaining (1)</b> 188:16 <b>maintains (1)</b> 201:3 <b>maintenance (5)</b> 108:14;187:14; 188:2;207:19,22 <b>major (1)</b> 188:13 <b>majority (1)</b> 211:10 <b>makes (3)</b> 165:9;169:18; 200:16 <b>making (3)</b> 113:16;177:17; 198:23 <b>man (1)</b> 154:21 <b>manage (3)</b> 159:22;181:6; 195:13 <b>management (3)</b> 161:4;187:13;188:8 <b>manager (2)</b> 111:23;201:8 <b>manner (1)</b> 147:24 <b>many (9)</b> 124:23;163:13; 171:21;172:3;175:21; 178:25;183:15; 214:13;222:7 <b>map (16)</b> 113:7,11;118:11, 13;121:18,19;177:22; 178:16;179:5;180:22; 181:14;182:15; 183:17,19;185:20; 228:14 <b>mapped (3)</b> 153:7;161:10,20 <b>mapping (1)</b> 127:17 <b>maps (4)</b></p>
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161:12;177:22; 178:19;225:20 <b>March (1)</b> 233:19 <b>MARIANNE (3)</b> 107:16;109:13; 144:22 <b>Marien (23)</b> 111:16,16;112:18, 24;113:5,10,21,24; 114:1,5,20;115:12,12; 122:16;124:2,11; 125:22;126:1;128:6; 130:13,20;131:7; 133:16 <b>Marien's (1)</b> 114:15 <b>marked (2)</b> 109:7;137:20 <b>market (1)</b> 146:24 <b>marketing (1)</b> 193:24 <b>marshal (1)</b> 214:4 <b>Mass (1)</b> 126:24 <b>material (6)</b> 112:14;165:12; 178:14;191:3;197:13; 219:18 <b>materially (1)</b> 151:19 <b>materials (8)</b> 160:1,8;176:17; 177:24;190:12;191:8, 11,13 <b>Mathur (24)</b> 111:22,22;112:3,6, 10,15,18;114:1,12,12; 115:1,1,20,20;126:22; 127:2,25;132:13,18, 25;135:8,11,16,19 <b>matter (6)</b> 110:21;140:23; 141:22;179:22; 194:23;233:16 <b>max (4)</b> 129:17,24,24; 149:17 <b>maximum (7)</b> 128:19;183:19,22; 184:1,3,5;197:2 <b>may (37)</b> 110:17;111:1; 121:11;130:4;151:2; 157:21;158:23; 161:15;162:12;164:3; 174:7;175:20,20; 180:21;187:24,25; 188:9,22,25;189:25; 190:8,18;194:7; 201:2;203:16;207:13, 15,20;208:14;215:18; 216:17;218:3;231:9; 233:18;234:1,6,19 <b>maybe (10)</b> 129:17;130:1; 135:7;150:15;156:10; 178:25;187:22;197:4; 229:12;230:2 <b>meadow (1)</b> 188:16 <b>mean (12)</b> 148:22;157:13; 162:24;169:21;171:6; 179:18;180:18; 186:24;222:21;231:4, 7,19 <b>meaning (1)</b> 168:17 <b>meaningful (1)</b> 222:24 <b>means (1)</b> 162:20 <b>meant (1)</b> 208:3 <b>measurement (1)</b> 119:14 <b>measurements (1)</b> 163:6 <b>measures (3)</b> 175:24;176:25; 180:21 <b>mechanism (1)</b> 206:11 <b>meet (9)</b> 129:9;157:5,10,21; 202:6;230:25;231:7, 13,14 <b>meeting (2)</b> 132:22;157:24 <b>meets (1)</b> 156:24 <b>megawatt (5)</b> 108:15;129:15; 193:9;194:2;205:2 <b>megawatts (11)</b> 128:13,14;145:23, 24;146:7,10;194:4,14, 20;199:20;200:12 <b>Meghan (1)</b> 137:8 <b>melt (1)</b> 209:11 <b>melts (1)</b> 210:10 <b>member (1)</b> 108:4 <b>members (4)</b> 111:2;135:4; 156:14;232:4 <b>members' (1)</b> 217:5 <b>mention (1)</b> 123:4 <b>mentioned (7)</b> 149:10;189:15; 190:17;192:5;205:16; 215:13;218:8 <b>mentioning (1)</b> 218:17 <b>merchant (1)</b> 203:6 <b>mergers (1)</b> 208:12 <b>met (2)</b> 223:15;230:18 <b>metal (1)</b> 190:14 <b>meter (1)</b> 155:1 <b>method (2)</b> 168:3;213:4 <b>Michael (2)</b> 111:11;112:19 <b>microphone (1)</b> 111:7 <b>middle (2)</b> 181:16;182:16 <b>midsummer (1)</b> 226:9 <b>might (23)</b> 121:18,20;129:24; 130:14;148:5;164:6; 165:19,22;166:24; 169:12,15;181:21; 186:25;188:23; 190:12;209:4;218:9; 220:9;222:13,22; 224:5;228:13;233:6 <b>Mike (3)</b> 114:6,21;115:14 <b>milestones (1)</b> 145:13 <b>million (10)</b> 127:23;129:14; 131:18;132:20; 200:19,21;202:12; 222:7,12,20 <b>mind (1)</b> 157:22 <b>mine (1)</b> 224:20 <b>mined (2)</b> 153:8;186:7 <b>mineral (1)</b> 125:11 <b>minimally (1)</b> 117:6 <b>minimize (2)</b> 159:23;188:2 <b>minimum (1)</b> 184:25 <b>mining (2)</b> 153:25;209:23 <b>minutes (1)</b> 137:11 <b>miss (1)</b> 224:20 <b>missing (1)</b> 224:17 <b>mistaken (2)</b> 181:17;212:1 <b>mitigate (1)</b> 189:2 <b>mitigated (1)</b> 131:17 <b>Mitigation (8)</b> 171:14;172:11,18; 175:13,15,17,24; 176:12 <b>mix (2)</b> 167:21;168:6 <b>mixture (1)</b> 219:4 <b>model (2)</b> 153:14;217:23 <b>modeling (3)</b> 147:3;184:15; 209:21 <b>modification (1)</b> 134:11 <b>modifications (1)</b> 140:7 <b>module (3)</b> 146:18,20;220:19 <b>modules (5)</b> 146:24;189:13; 199:25;220:17,22 <b>moment (1)</b> 130:5 <b>moments (1)</b> 114:15 <b>money (2)</b> 129:15;190:16 <b>monitor (1)</b> 175:17 <b>monitoring (5)</b> 161:10,13,19,21; 175:16 <b>monocrystalline (1)</b> 220:21 <b>month (2)</b> 193:11;209:5 <b>months (3)</b> 191:9,22;214:15 <b>Moran (1)</b> 153:13 <b>more (45)</b> 120:14;130:23; 131:1;132:24;147:1, 2,2,11,23;148:2; 150:15;153:17;154:6, 13;162:25;163:23; 164:19,20;170:5,7; 171:1;173:25;176:3; 179:17,20,21,22,25; 187:7,17;192:6,10; 197:9;198:8,23; 200:4;210:22;215:21; 216:11;221:2,2; 224:13;228:4,23; 230:5 <b>Morrisette (63)</b> 126:14,15,24; 127:3,18,21;128:1,10, 18,24;129:13;130:1,6, 10,12,18;131:5,8,25; 132:3,6;192:15,16; 193:3,12,15,19;194:5, 13,21;195:23;196:6, 23;197:8,15,20,25; 198:10,15,19;199:9; 200:3,16,24;201:2,14, 17;202:1,11;203:1,7, 11,18,23;204:3,7,13, 16;205:4,11,14; 206:6;218:20 <b>morning (1)</b> 193:8 <b>Morse (3)</b> 214:14,14;220:20 <b>most (8)</b> 146:24;153:15; 157:21;163:16,19; 174:22;204:23; 207:16 <b>mostly (2)</b> 157:9;168:15 <b>motion (1)</b> 108:12 <b>move (10)</b> 117:13;118:16; 121:16,22;135:24; 137:9;147:5;150:9, 23;175:1 <b>Moving (9)</b> 127:3,21;131:19; 139:12;141:12;158:1; 173:12,13;194:21 <b>mowing (1)</b> 188:19 <b>Mrs (1)</b> 137:7 <b>much (7)</b> 125:14;130:24; 131:1,13;132:23; 165:24;178:23 <b>Musk (1)</b> 216:14 <b>must (2)</b> 173:19;221:13				
<b>N</b>				
<b>name (4)</b> 108:3;111:4,8; 216:25 <b>nameplate (2)</b> 194:10;231:13 <b>National (4)</b> 116:20;126:4; 150:20,21 <b>nationwide (1)</b>				

<p>216:21 <b>Native (1)</b> 215:12 <b>Natural (7)</b> 155:8;170:13,18; 221:22;222:8,11,13 <b>nature (9)</b> 166:22;167:2; 186:2;190:24;192:2; 202:7;226:21;229:11, 18 <b>NDDB (3)</b> 155:10;170:21; 176:1 <b>near (1)</b> 209:13 <b>nearest (2)</b> 118:8;161:19 <b>necessarily (7)</b> 133:22;181:9; 199:1;210:4;219:4; 222:1;226:3 <b>necessary (3)</b> 122:15;126:2;136:2 <b>need (19)</b> 123:24;124:5; 145:16;153:5;158:17; 164:3;169:16;175:20; 176:23;184:20; 185:11;188:5,23; 189:25;191:22;202:1; 211:20;232:23,24 <b>needed (4)</b> 134:12,19;173:25; 212:22 <b>needs (4)</b> 123:3;134:22; 176:9;192:10 <b>negative (1)</b> 229:21 <b>neighbor (1)</b> 119:1 <b>neighborhood (1)</b> 120:23 <b>neighborhoods (1)</b> 120:21 <b>NEPOOL (1)</b> 203:9 <b>network (2)</b> 182:21;183:9 <b>new (36)</b> 117:4,14;121:12; 122:18;123:25;128:8; 129:23;130:25,25; 131:2;134:18;137:17, 20;144:21;146:13; 152:1;158:2;193:7; 194:2,19,25;195:4,12, 19;196:4;200:7,12,14, 15;208:5,17;214:17, 19;231:18;234:8,8 <b>next (10)</b> 109:5;118:24;</p>	<p>172:5;175:12;183:12; 199:11;210:12; 211:14;212:13; 230:19 <b>NextEra (3)</b> 137:19;146:19; 223:20 <b>Nickerson (37)</b> 139:19,20;140:10, 11,25;141:1;142:5,6, 21,22;143:12,13; 144:2,3;151:8,17,22; 152:18;155:9;170:20; 171:8;172:17;174:11; 175:25;181:20;182:2; 203:15,21,24;204:5,8, 15;224:23;225:2,7, 17;226:1 <b>night (2)</b> 197:16,17 <b>nights (1)</b> 173:8 <b>nighttime (1)</b> 174:25 <b>nil (1)</b> 133:10 <b>nine (1)</b> 153:8 <b>NOCT (2)</b> 146:18,21 <b>Nodding (1)</b> 190:2 <b>no-disturbance (1)</b> 159:12 <b>noise (2)</b> 198:23;206:7 <b>none (4)</b> 137:1;144:25; 197:20;232:8 <b>nonetheless (2)</b> 131:17;206:16 <b>nontoxic (1)</b> 160:7 <b>nonworking (1)</b> 178:1 <b>nor (1)</b> 235:11 <b>norm (3)</b> 220:17,19;221:4 <b>north (2)</b> 108:16;121:25 <b>north/northwest (1)</b> 121:4 <b>northeast (1)</b> 121:17 <b>northwest (1)</b> 122:19 <b>Norwich (6)</b> 109:1;116:17; 117:1;124:1;127:13; 234:14 <b>note (1)</b> 138:1</p>	<p><b>notebooks (1)</b> 171:12 <b>noted (5)</b> 138:23;139:13,17; 141:12;142:1 <b>notes (1)</b> 177:22 <b>notice (6)</b> 118:17,22;123:24; 124:4;136:8;152:25 <b>noticed (4)</b> 109:11;209:6; 210:16;214:3 <b>notices (1)</b> 109:23 <b>notifications (1)</b> 124:6 <b>NSTAR (1)</b> 126:24 <b>number (25)</b> 113:3,6,22;114:17; 115:6;132:17;141:13; 142:1;147:3,18; 148:1,3;150:2; 152:25;164:9;166:1; 174:25;177:23; 178:20;182:17; 196:25;211:7;215:17; 217:20;226:16 <b>numbers (5)</b> 113:17;136:11,18; 146:17;162:5 <b>Numeral (2)</b> 109:8;137:21 <b>Nutmeg (2)</b> 201:6,12</p>	<p>194:1;222:4;229:14 <b>occasion (1)</b> 154:1 <b>occur (7)</b> 116:25;128:5; 129:18;152:16,23; 168:14;221:23 <b>off (24)</b> 121:17,21;122:12; 130:4;155:22;177:10; 181:3;196:10;202:17; 208:10;209:11,17; 211:17,18;212:4; 213:6;217:9;220:8; 222:3,5;223:13; 224:3;227:5;231:4 <b>offer (2)</b> 133:5;212:14 <b>Office (2)</b> 150:6;223:4 <b>officer (2)</b> 108:4;232:21 <b>offices (2)</b> 108:25;234:12 <b>off-road (1)</b> 156:23 <b>oftaker (3)</b> 202:24,25;203:10 <b>oftakers (1)</b> 202:19 <b>often (2)</b> 171:21;214:9 <b>oil (3)</b> 125:10,11;177:23 <b>old (1)</b> 125:10 <b>older (2)</b> 157:20;158:5 <b>once (5)</b> 134:13;172:3; 175:4;210:9;215:6 <b>One (49)</b> 112:22;119:4; 121:9;125:18;129:8; 130:5;134:7;148:6,7; 154:4,12,21,25;156:9; 158:10;166:4;171:13; 172:10,14;173:4; 174:1,3;177:20; 181:16;184:13,19; 185:1;188:1;189:20; 192:20,25;193:25; 205:20;206:5;207:9, 13,17;209:9;211:12; 215:10;218:17; 221:10;222:3;223:9; 227:12;228:2;229:17, 23;231:9 <b>ones (7)</b> 136:11;154:19,24; 156:3;206:22;209:4; 216:22 <b>ongoing (3)</b></p>	<p>133:25;170:21; 176:2 <b>online (1)</b> 171:17 <b>only (13)</b> 122:1,4;165:25; 168:14;172:2;173:10; 191:9;194:13;195:5; 216:20;219:22; 223:23;228:2 <b>onsite (7)</b> 157:8,18;168:20; 176:20,21;182:21; 213:16 <b>on-site (1)</b> 178:7 <b>onto (1)</b> 227:5 <b>open (4)</b> 180:13;207:14; 214:10;225:15 <b>opens (2)</b> 160:18;189:19 <b>operate (2)</b> 215:9;216:5 <b>operating (2)</b> 129:16;215:6 <b>operation (7)</b> 108:14;145:14; 149:4;182:25;183:2; 222:23;231:17 <b>operational (1)</b> 194:24 <b>operations (7)</b> 149:2,7;153:25; 174:3,4;187:12; 207:22 <b>operators (1)</b> 195:13 <b>opine (1)</b> 127:8 <b>opinion (3)</b> 153:11;218:18; 223:9 <b>opportunity (1)</b> 156:15 <b>opposed (2)</b> 164:17;167:20 <b>opposite (1)</b> 120:4 <b>optimization (1)</b> 227:19 <b>optimize (2)</b> 227:22;228:6 <b>option (1)</b> 220:23 <b>orange (1)</b> 204:12 <b>order (11)</b> 108:2;171:13; 186:5,8,12,14,18; 201:7,13;231:12,14 <b>Ordinarily (1)</b></p>
		<b>O</b>		
		<p><b>oath (1)</b> 138:9 <b>oaths (2)</b> 110:15;138:18 <b>object (1)</b> 144:20 <b>objection (13)</b> 109:9,14,18;116:2, 4;136:19;144:23; 234:24;235:2,5,7,9,20 <b>objections (1)</b> 136:23 <b>obligation (3)</b> 146:13;203:3;231:7 <b>obligations (5)</b> 196:2;208:24; 231:1,16,18 <b>observations (2)</b> 173:22;226:2 <b>observed (1)</b> 151:5 <b>obtain (1)</b> 231:13 <b>obviously (3)</b></p>		

<p>235:14 <b>orientation (1)</b> 197:4 <b>original (4)</b> 134:20;192:1,7; 225:20 <b>originally (3)</b> 113:1;229:15;230:5 <b>originating (1)</b> 122:12 <b>others (1)</b> 179:7 <b>otherwise (1)</b> 172:25 <b>ours (1)</b> 136:12 <b>out (46)</b> 121:14;123:1; 131:13;154:4,19; 157:13;158:11,15; 161:11,21;162:18; 163:21;168:5;170:1, 4,10;175:4;177:8,9; 179:14;181:15; 182:12;184:7,18; 185:22;186:5;190:16; 197:17;198:2;203:25; 205:1;206:21,21; 210:20;211:13; 212:15;215:11; 217:16;218:1,13,16; 220:22;221:3;222:10; 229:9;233:6 <b>outlined (1)</b> 150:17 <b>output (19)</b> 126:19;127:1; 128:11;129:24;130:3; 131:14,15;199:13,15, 16;200:12;201:22; 204:18;205:18;206:1; 209:18;214:20; 217:13;227:23 <b>outside (3)</b> 123:6;133:20; 185:24 <b>over (10)</b> 121:14;146:21; 149:17;155:2;170:23; 202:22;205:2;209:14; 226:17;228:7 <b>overall (6)</b> 122:6;123:15; 147:22;158:6;179:4; 206:13 <b>overcome (1)</b> 163:1 <b>overload (6)</b> 128:5,9;129:18,25; 130:21;131:16 <b>overloaded (1)</b> 129:8 <b>overloads (1)</b></p>	<p>128:1 <b>oversee (1)</b> 114:2 <b>overtopping (1)</b> 185:4 <b>overview (1)</b> 229:14 <b>own (5)</b> 153:16;154:9; 209:2;217:5;220:25 <b>owner (1)</b> 188:13</p> <p style="text-align: center;"><b>P</b></p> <p><b>pack (1)</b> 188:12 <b>pad (2)</b> 117:22;135:15 <b>page (19)</b> 113:14;118:5,24; 122:9,10;136:12,18; 152:12;156:20;159:9; 161:7;165:6;167:7; 168:9;169:10;176:11; 187:13;224:9;225:15 <b>pages (2)</b> 153:6;223:6 <b>paid (1)</b> 210:19 <b>paint (1)</b> 177:23 <b>panel (16)</b> 111:1;126:16; 137:5;199:13,14; 210:8,10,13;213:23; 220:9;221:16;222:10; 227:13,15;228:2; 232:14 <b>panels (32)</b> 181:17,25;185:25; 187:25;188:5,9,11; 190:14;197:22,22; 199:15;207:11,20; 209:7,17;210:5; 212:5;213:18;214:13, 18;215:13;217:12; 220:8,10,11;221:11; 226:9,10,22,25;227:2, 5 <b>paragraph (5)</b> 118:6;151:5;167:7; 168:23;169:6 <b>parallel (1)</b> 122:5 <b>parameters (1)</b> 228:8 <b>parcel (1)</b> 121:2 <b>parcels (2)</b> 178:20;179:1 <b>Pardon (1)</b> 213:14</p>	<p><b>Park (1)</b> 153:2 <b>parse (1)</b> 154:19 <b>part (24)</b> 113:1,2;114:16; 127:9;128:17;132:10, 12;135:9;174:4; 181:6;182:24;183:20; 203:25;204:1,1,9; 205:15;207:22;208:1; 209:20;210:13; 215:15;229:12,12 <b>partially (2)</b> 204:9,9 <b>participate (1)</b> 192:23 <b>participation (1)</b> 234:18 <b>particles (1)</b> 176:21 <b>particular (1)</b> 121:7 <b>particularly (1)</b> 208:22 <b>parties (5)</b> 195:3;232:10; 233:15,22;234:5 <b>parts (1)</b> 229:17 <b>party (13)</b> 109:9,20,25;112:2; 116:2,12;135:6,24; 137:7;144:20;232:16; 233:19,24 <b>party's (1)</b> 110:6 <b>passenger (1)</b> 222:3 <b>past (5)</b> 148:22;166:20; 167:4;180:5;224:3 <b>path (1)</b> 160:19 <b>Patricia (1)</b> 137:19 <b>patterns (1)</b> 195:17 <b>Paul (1)</b> 112:19 <b>Pause (4)</b> 130:9;161:23; 231:11;233:3 <b>peak (5)</b> 149:16,19;194:6; 202:8;204:24 <b>peaks (2)</b> 204:20,20 <b>people (2)</b> 161:5;209:2 <b>per (13)</b> 124:18,20,21,22; 147:16;149:12;</p>	<p>156:21;185:2;193:11; 195:24;199:14;205:2; 217:21 <b>percent (11)</b> 126:19,20;132:15; 153:9;201:21;202:14, 15;203:2;228:4; 230:18;231:5 <b>percentage (1)</b> 202:25 <b>percentages (1)</b> 126:25 <b>perched (4)</b> 163:9,12,18,22 <b>perennial (1)</b> 224:11 <b>Perfect (1)</b> 177:15 <b>perform (3)</b> 127:11;129:21,21 <b>perhaps (1)</b> 121:10 <b>perimeter (1)</b> 188:11 <b>period (3)</b> 134:17;163:22; 226:11 <b>periodic (1)</b> 214:6 <b>periods (1)</b> 154:25 <b>permission (1)</b> 234:10 <b>permit (2)</b> 168:21;181:8 <b>permitting (2)</b> 111:13;173:13 <b>Perrone (48)</b> 116:13,14,16,23; 118:5;119:2,13,18; 120:13;122:9,21; 123:22,23;124:7,12; 125:2,4,6;135:5; 145:7,8,10,20;146:16; 147:5;148:21;149:9, 20;150:3;151:1,14, 18;152:11,24;153:20; 155:5,6,13,18,21; 156:6,8;227:10,12,22, 25;228:10,11 <b>person (2)</b> 173:7;220:8 <b>personal (1)</b> 149:23 <b>personnel (1)</b> 133:24 <b>perspective (7)</b> 121:20;159:20; 199:10;201:24; 202:20;211:7;227:2 <b>petition (4)</b> 108:12,22;204:19; 225:20</p>	<p><b>petitioner (12)</b> 109:18;137:10,16, 25;145:6;150:4,7,13; 155:6;231:15;232:10; 233:15 <b>petitioner's (5)</b> 138:25;141:13; 144:21;145:2;150:9 <b>Phase (5)</b> 131:22,23;138:25; 152:7;178:11 <b>phasing (1)</b> 175:14 <b>phenomenon (1)</b> 215:20 <b>Philanne (2)</b> 120:21;122:12 <b>photovoltaic (1)</b> 108:15 <b>physical (1)</b> 127:14 <b>physically (1)</b> 119:8 <b>pick (1)</b> 117:8 <b>PID (2)</b> 221:12,16 <b>piece (3)</b> 127:17;194:17; 228:6 <b>pieces (2)</b> 157:17;158:5 <b>piezometer (1)</b> 162:3 <b>pile (7)</b> 154:21,22;168:24; 169:7,11,15,23 <b>piles (3)</b> 164:3;165:3;190:24 <b>pipe (4)</b> 160:19;167:11,13, 18 <b>pit (5)</b> 160:15,15,15,25,25 <b>PLA (1)</b> 158:20 <b>place (8)</b> 173:12;187:2; 193:1;206:25;213:22, 25;223:21;226:25 <b>placed (2)</b> 167:8,10 <b>placement (1)</b> 167:14 <b>places (1)</b> 178:6 <b>Plainfield (2)</b> 109:1;234:13 <b>plan (15)</b> 133:4;150:16; 171:14;172:18; 173:11;177:14; 187:13,21;188:8;</p>
---	--	--	---	--

<p>189:8;190:1,20; 192:10;215:8;223:10 <b>planning (2)</b> 129:5;186:21 <b>plans (4)</b> 177:21;179:23; 180:4;190:1 <b>plant (6)</b> 127:14;129:1,16; 189:1;194:8;226:1 <b>planted (1)</b> 187:15 <b>Please (11)</b> 110:3,19;111:6; 113:9;116:23;118:11; 130:5;164:1;167:11; 169:4;234:18 <b>plot (1)</b> 205:1 <b>pm (4)</b> 108:3;137:13,13; 235:25 <b>PO (1)</b> 107:14 <b>point (22)</b> 121:7;126:12; 127:4;129:19;130:2; 163:19;180:10;181:1, 6;183:16;187:10; 189:16,22;199:23; 200:1;206:2;212:2; 213:24;217:20;219:4; 222:25;226:6 <b>points (2)</b> 181:11;203:24 <b>pole (4)</b> 121:10,12;170:2,5 <b>poles (4)</b> 117:2,2;120:18; 121:9 <b>polycrystalline (1)</b> 220:22 <b>ponds (1)</b> 152:21 <b>pool (4)</b> 172:8,22,25;174:16 <b>pools (3)</b> 151:6;175:18;176:4 <b>population (8)</b> 151:21,23;172:23; 173:11,17;174:20,21; 175:16 <b>populations (2)</b> 171:21;173:5 <b>pop-up (3)</b> 226:10;227:3,4 <b>portion (7)</b> 116:18;118:2; 121:5;132:19;157:4; 179:12;204:2 <b>portions (2)</b> 111:15;116:17 <b>pose (2)</b></p>	<p>217:10;222:6 <b>position (3)</b> 118:15;134:20; 205:18 <b>possibilities (1)</b> 218:17 <b>possibility (1)</b> 149:11 <b>possible (8)</b> 159:21;163:8,12; 165:13;211:2;218:14; 221:9;230:8 <b>possibly (1)</b> 166:24 <b>post-construction (2)</b> 175:16;208:8 <b>posting (1)</b> 141:14 <b>postings (1)</b> 193:6 <b>posts (2)</b> 162:17;190:9 <b>potential (15)</b> 150:23;153:10; 157:23;158:7;159:19, 24;164:10,11,15; 167:21;175:17;176:4; 190:23;219:6;221:12 <b>potentially (9)</b> 148:16;158:5; 166:11;176:3;178:5; 182:23;188:18;196:3; 219:2 <b>pounds (3)</b> 124:18,20;156:10 <b>Power (3)</b> 107:10;197:23; 221:2 <b>pozzolanic (1)</b> 218:23 <b>PPA (1)</b> 208:21 <b>PPAs (5)</b> 145:11,14,18; 230:14,17 <b>practice (2)</b> 152:5;235:18 <b>precautions (1)</b> 213:22 <b>precluding (1)</b> 188:17 <b>predictive (1)</b> 153:14 <b>prefer (3)</b> 152:19,20;177:2 <b>preferred (1)</b> 146:21 <b>prefile (2)</b> 118:14;235:2 <b>preliminary (4)</b> 169:23,25;170:6; 229:8 <b>preparation (4)</b></p>	<p>114:3;135:14; 139:15;142:2 <b>prepare (2)</b> 114:2;138:22 <b>prepared (5)</b> 109:4;138:22; 141:14;153:3;180:16 <b>prepped (1)</b> 192:3 <b>presence (3)</b> 162:12;167:9;172:7 <b>present (1)</b> 124:25 <b>Preservation (2)</b> 150:6;223:4 <b>presiding (1)</b> 108:4 <b>pressure (1)</b> 160:21 <b>pretty (5)</b> 121:20;125:12; 131:10;166:2;190:16 <b>prevent (1)</b> 176:16 <b>prevented (2)</b> 161:2,4 <b>previous (3)</b> 181:11;182:24; 227:14 <b>previously (4)</b> 113:19;138:17; 148:3;199:14 <b>price (3)</b> 146:7,10;201:9 <b>primarily (1)</b> 149:25 <b>primary (3)</b> 116:24;148:12; 183:15 <b>principle (1)</b> 214:14 <b>prior (8)</b> 134:21;150:22; 163:4;172:19;179:25; 186:18;201:8;223:16 <b>priority (1)</b> 133:9 <b>probability (2)</b> 131:9;194:11 <b>probably (11)</b> 133:10;155:12; 157:10;168:20; 172:24;174:14; 185:11;188:19; 213:13;222:11; 228:22 <b>problem (5)</b> 123:13;163:10,14; 188:14;204:15 <b>problematic (2)</b> 179:8;187:22 <b>problems (1)</b> 166:20</p>	<p><b>Procedure (2)</b> 108:11;189:4 <b>procedures (1)</b> 168:11 <b>proceed (4)</b> 109:3,24;137:7; 173:20 <b>proceeding (3)</b> 139:10;143:25; 201:12 <b>process (18)</b> 128:8,17;129:5,7, 12;146:6,11,15; 157:4;158:15,22; 169:24;170:3;173:13; 191:15;194:16; 200:11,14 <b>procure (3)</b> 159:6;215:19; 216:21 <b>procurement (5)</b> 146:24;215:20,22; 220:24;221:8 <b>produce (2)</b> 196:16;210:11 <b>producing (1)</b> 194:11 <b>product (9)</b> 214:24;218:11; 219:5,12,15,23;220:3; 221:9;227:19 <b>production (4)</b> 147:1;209:21,25; 210:9 <b>productivity (1)</b> 146:25 <b>profits (1)</b> 190:20 <b>program (4)</b> 109:7;137:22; 168:24;169:7 <b>prohibit (1)</b> 209:16 <b>project (100)</b> 111:10,10,23; 113:13;116:17,18; 117:11;118:1,3,21; 119:23;120:16;121:2, 11;122:15,17;124:3; 127:9;130:23,24; 132:10,11,14,19; 133:23;134:8,9,21; 135:9;145:22,23; 147:22;148:15,20,24; 149:3,8;151:15,25; 152:3,10;156:1; 157:16;158:12; 159:10,15,21;160:8; 161:19;164:12,14; 165:1;174:6;176:8; 177:6,12;178:11,23, 25;179:4;180:16; 181:7;186:18;188:12;</p>	<p>189:24;190:10,11,24; 191:5,16;194:1; 200:10,22,25;201:1,4, 6,8,9,12,23;202:21, 23;203:5;207:2; 215:2,16,21,25; 217:19;220:2,24; 221:8,23;222:4; 223:17,19;229:13,14; 230:16 <b>projects (3)</b> 121:15;226:17; 228:23 <b>proper (1)</b> 195:21 <b>properties (3)</b> 179:3;199:8;219:13 <b>property (12)</b> 178:18,22;179:1, 11;181:16;182:16; 188:13;199:3,4,6; 218:23;223:25 <b>proposal (1)</b> 160:5 <b>proposed (21)</b> 108:14;120:15; 122:17,18,19;124:8; 134:12;151:14; 159:14;172:14,15; 174:2;183:7,8; 184:14;229:15,16; 230:5,6;233:17,20 <b>proposing (5)</b> 127:15;159:10; 164:21;168:11; 185:13 <b>propounded (1)</b> 141:25 <b>protect (1)</b> 175:17 <b>protecting (2)</b> 173:1;182:13 <b>protection (4)</b> 133:4;176:3; 210:16;228:4 <b>protections (1)</b> 171:2 <b>protective (3)</b> 182:5,9;201:13 <b>protocol (1)</b> 150:17 <b>proven (1)</b> 217:18 <b>provide (11)</b> 123:15,24;133:14; 169:17;178:6;180:8; 185:1;187:17;211:2; 212:19,24 <b>provided (14)</b> 113:7,11,17; 117:22;148:2,3; 170:25;180:15;185:7; 186:1;195:19;201:4;</p>
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203:19;224:14 <b>provides (2)</b> 125:9;216:9 <b>providing (3)</b> 165:16;176:25; 186:22 <b>provision (1)</b> 208:21 <b>provisions (2)</b> 108:9,21 <b>proximity (3)</b> 119:11;172:25; 199:2 <b>public (7)</b> 108:7;109:2; 133:19;201:8;234:15, 24;235:9 <b>publication (1)</b> 153:13 <b>publicly (1)</b> 127:16 <b>pull (1)</b> 161:25 <b>pulling (1)</b> 162:17 <b>PURA (1)</b> 145:17 <b>purchase (2)</b> 147:3;203:2 <b>purchasing (5)</b> 126:18,20,25; 201:20,21 <b>purge (1)</b> 168:5 <b>purpose (1)</b> 125:7 <b>purposes (4)</b> 145:23;146:24; 172:11;201:1 <b>pursuant (2)</b> 108:9,20 <b>pushing (1)</b> 216:19 <b>put (14)</b> 164:8;167:18; 173:16;177:3;198:1; 199:10;200:3,11; 207:10;210:22; 213:21;215:1;222:20; 231:21 <b>Putnam (1)</b> 153:2 <b>puts (1)</b> 222:1 <b>putting (1)</b> 209:18	<b>quantity (1)</b> 227:15 <b>quick (3)</b> 119:3;158:11; 206:22 <b>quicker (1)</b> 163:21 <b>quickly (3)</b> 111:1;138:21; 203:12 <b>Quinebaug (18)</b> 107:3;108:12,20; 117:16;127:14;128:6; 132:12,14,23;134:24; 137:16;145:12,16; 156:22;207:5,15; 212:19;230:19 <b>Quinebaug's (2)</b> 127:5;155:15 <b>quite (5)</b> 168:17;191:23; 197:16;198:5;216:20 <b>quote/unquote (1)</b> 221:4	170:17 <b>read (1)</b> 219:1 <b>reading (1)</b> 172:22 <b>ready (1)</b> 217:18 <b>real (3)</b> 117:10;120:22; 158:10 <b>realistic (3)</b> 147:2,3;222:10 <b>realize (1)</b> 133:8 <b>real-life (1)</b> 222:1 <b>really (18)</b> 117:19,24;118:2; 121:4,8,21;122:4; 123:3;129:11;165:7; 166:3;167:3;175:19; 187:4;196:14;206:9; 209:23;211:15 <b>reason (9)</b> 123:5;185:5,17; 201:7;206:9;215:24; 228:24;230:16,24 <b>reasonable (3)</b> 156:23;157:2,13 <b>rebuild (1)</b> 129:8 <b>recall (1)</b> 208:21 <b>receive (1)</b> 145:17 <b>Received (4)</b> 116:9;145:3; 155:10;171:1 <b>receiving (2)</b> 160:15,25 <b>recent (2)</b> 215:20,21 <b>recently (2)</b> 147:12;171:1 <b>recess (1)</b> 137:12 <b>recharge (1)</b> 151:15 <b>recommend (1)</b> 223:6 <b>recommendation (2)</b> 165:19;219:24 <b>recommendations (3)</b> 150:8;156:22; 223:10 <b>recommended (1)</b> 129:6 <b>record (14)</b> 112:25;127:4; 130:5;137:24;159:5; 166:4;177:10;196:24; 202:17;233:16;234:7, 19,24;235:3	<b>recoup (1)</b> 202:21 <b>recross (1)</b> 232:23 <b>recuperation (1)</b> 202:23 <b>recycled (1)</b> 191:4 <b>Redirect (3)</b> 232:25;233:1,9 <b>redo (2)</b> 215:5;228:14 <b>reduce (4)</b> 168:7;230:24; 231:6,23 <b>reduced (2)</b> 230:17,21 <b>reduces (1)</b> 162:23 <b>reduction (4)</b> 230:18;231:5,13,20 <b>reductions (2)</b> 221:23;230:9 <b>refer (1)</b> 192:19 <b>reference (3)</b> 165:9;218:12; 220:20 <b>referencing (2)</b> 118:20;145:20 <b>referring (4)</b> 119:1;161:16; 196:25;210:9 <b>reflected (1)</b> 113:2 <b>refuge (6)</b> 172:12,24;173:20, 25;174:8,23 <b>refusal (1)</b> 164:15 <b>regard (3)</b> 147:8;148:23;202:9 <b>Regarding (7)</b> 116:16;124:7; 155:7;164:1;170:24; 171:2;214:18 <b>regardless (1)</b> 231:19 <b>region (2)</b> 216:20;227:20 <b>register (2)</b> 150:20,21 <b>regulations (1)</b> 152:6 <b>reinforce (1)</b> 196:7 <b>reject (1)</b> 130:10 <b>related (1)</b> 176:22 <b>relates (1)</b> 190:6 <b>relating (1)</b>	112:8 <b>relation (2)</b> 146:4;198:1 <b>relationship (1)</b> 206:3 <b>relevant (1)</b> 164:14 <b>reliability (2)</b> 195:14,21 <b>rely (1)</b> 127:10 <b>remain (3)</b> 145:15;147:8; 179:10 <b>remainders (1)</b> 223:21 <b>remaining (1)</b> 180:12 <b>remember (1)</b> 154:22 <b>remote (1)</b> 127:13 <b>remotely (1)</b> 211:25 <b>removal (5)</b> 125:19;149:2; 181:2;186:7;188:24 <b>remove (5)</b> 175:5;178:13; 191:11,13,18 <b>removed (5)</b> 134:10,14;177:25; 187:16;191:4 <b>renewable (1)</b> 202:6 <b>reopen (1)</b> 108:12 <b>reopened (1)</b> 108:22 <b>reorganized (1)</b> 137:11 <b>repairs (1)</b> 207:19 <b>repeat (1)</b> 169:3 <b>rephrase (1)</b> 171:16 <b>replaces (1)</b> 113:22 <b>reply (1)</b> 234:9 <b>Report (22)</b> 139:1;151:3,4; 152:12;153:5,6; 162:3;164:8;165:15, 16,21;169:14;190:18; 197:6;203:16;218:14, 22;219:1;224:15,25; 225:3,4 <b>REPORTER (1)</b> 228:19 <b>reports (1)</b> 189:18
<b>Q</b>	<b>R</b>			
<b>qualified (1)</b> 145:22 <b>quality (1)</b> 170:25	<b>racking (3)</b> 164:21;165:4; 213:21 <b>racks (1)</b> 207:11 <b>rainstorm (1)</b> 226:10 <b>rainwater (1)</b> 226:13 <b>raised (1)</b> 166:15 <b>raises (1)</b> 166:19 <b>raising (1)</b> 185:6 <b>ramp (1)</b> 196:9 <b>ran (1)</b> 228:6 <b>random (1)</b> 174:13 <b>ranged (1)</b> 163:7 <b>rate (1)</b> 202:23 <b>ratepayers (4)</b> 201:23;202:3,10,13 <b>rates (1)</b> 146:24 <b>rather (3)</b> 124:9;154:8;233:22 <b>rating (1)</b> 129:9 <b>reach (1)</b> 128:19 <b>reaching (1)</b>			

<b>represent (1)</b> 163:10	<b>responding (1)</b> 171:3	220:19;221:18; 225:15	154:16;171:15,24; 173:2;174:18;175:9; 176:5	<b>Section (6)</b> 108:22;162:11; 163:5;169:4;175:13; 224:9
<b>reproductive (2)</b> 171:22;175:22	<b>response (24)</b> 113:3,6,21;114:17; 115:5;130:16;133:24; 135:22;136:24; 145:20;147:6,12; 148:12;149:21; 192:19;194:22; 195:14;227:9;230:13, 17;231:3,4;232:6,17	<b>right-of-way (11)</b> 117:8;118:23; 119:7,12,17,21;120:8, 19,24;121:5;123:7	<b>S</b>	<b>sediment (1)</b> 181:5
<b>request (7)</b> 108:20;112:2; 115:23;136:8;170:22; 200:10,14	<b>responses (4)</b> 112:22;115:9; 139:15;142:2	<b>rights (1)</b> 123:7	<b>S03 (2)</b> 151:4,9	<b>seeing (7)</b> 136:25;144:25; 162:5;183:10;227:20; 232:7,19
<b>requesting (1)</b> 220:4	<b>responsible (2)</b> 117:25;207:19	<b>risk (1)</b> 208:20	<b>safe (2)</b> 175:8;178:7	<b>seek (1)</b> 175:10
<b>requests (1)</b> 214:10	<b>rest (1)</b> 192:12	<b>River (1)</b> 171:19	<b>safely (2)</b> 126:6;234:18	<b>seem (2)</b> 191:23;216:4
<b>require (2)</b> 162:13;200:13	<b>restore (1)</b> 134:20	<b>Road (25)</b> 108:17,18,18; 122:12,18;123:11; 133:4;147:16;149:1, 10;182:21;197:2; 198:1,4,11,13,17,20; 199:3,4,6;208:14; 211:11;222:3,5	<b>Safety (5)</b> 126:4;133:19,25; 176:25;213:22	<b>seems (4)</b> 129:13;131:8; 218:3;231:7
<b>required (15)</b> 152:5;162:17; 164:16,18,19;180:14; 181:7;186:5,18; 187:8;212:21;213:9; 223:25;229:24; 233:21	<b>result (3)</b> 131:18;152:9;170:6	<b>roads (5)</b> 121:1;183:8; 210:17,18;211:1	<b>salamander (1)</b> 176:13	<b>sees (1)</b> 146:13
<b>requirements (5)</b> 157:21,25;158:3; 176:7;191:19	<b>resulting (1)</b> 229:20	<b>roadway (1)</b> 185:23	<b>salt (1)</b> 190:7	<b>selected (1)</b> 174:14
<b>requiring (2)</b> 164:17;185:2	<b>results (6)</b> 147:2;162:5; 168:25;169:8,15,19	<b>Robert (1)</b> 108:4	<b>same (8)</b> 121:19;145:15; 155:1;162:11;182:8; 199:17;209:14; 212:17	<b>semi-annual (1)</b> 187:15
<b>rescue (1)</b> 123:12	<b>resumes (2)</b> 114:4;115:9	<b>role (1)</b> 112:5	<b>sample (1)</b> 154:18	<b>sense (2)</b> 173:1;200:17
<b>research (2)</b> 209:2;221:1	<b>return (1)</b> 215:3	<b>Roman (2)</b> 109:7;137:21	<b>SANDAK (1)</b> 107:12	<b>sensitive (1)</b> 223:23
<b>reservation (1)</b> 208:10	<b>reversal (1)</b> 221:15	<b>room (1)</b> 109:20	<b>satisfy (3)</b> 176:6;196:2;230:20	<b>sentence (4)</b> 168:23;169:6; 224:11;230:19
<b>reserves (2)</b> 195:13,21	<b>review (3)</b> 127:15;131:19; 160:6	<b>roughly (1)</b> 184:10	<b>Savannah (1)</b> 171:19	<b>separate (5)</b> 125:23;126:2; 128:2;207:8,14
<b>residence (12)</b> 118:8,10,11,17,19, 20,25;119:11,15,16, 19;148:14	<b>reviewed (8)</b> 124:4;127:5;150:5; 168:25;169:8,20; 170:10,11	<b>round (1)</b> 132:17	<b>saw (4)</b> 173:3;180:20; 186:23;221:11	<b>separation (5)</b> 127:9,13,22;131:3; 200:20
<b>residences (2)</b> 119:4,7	<b>reviews (1)</b> 127:16	<b>Route (2)</b> 121:22,23	<b>saying (5)</b> 166:4;185:15; 190:6;216:13;231:4	<b>separations (2)</b> 119:9;125:24
<b>residential (3)</b> 121:24;209:7,12	<b>revised (2)</b> 114:18;151:2	<b>Rukstela (1)</b> 108:17	<b>scale (1)</b> 198:7	<b>service (3)</b> 134:1,23;148:8
<b>resource (7)</b> 131:22;150:22; 152:9;194:8;195:11, 15;229:20	<b>revision (1)</b> 113:16	<b>rule (1)</b> 154:4	<b>scenario (1)</b> 159:24	<b>session (1)</b> 108:6
<b>resources (16)</b> 116:19;117:11; 133:18;137:19;139:1; 150:19;151:12; 156:25;216:10; 223:22;224:14;225:9, 9,10,11,12	<b>revisions (2)</b> 112:25;114:16	<b>rules (1)</b> 168:21	<b>scope (2)</b> 124:3;200:23	<b>set (13)</b> 112:5,22;113:7,11; 119:20;137:14; 156:20;157:11; 173:11;174:23; 180:15;216:1;228:10
<b>respectfully (1)</b> 115:23	<b>revisit (2)</b> 153:13;226:7	<b>ruling (1)</b> 108:13	<b>se (1)</b> 195:24	<b>sets (1)</b> 221:24
<b>respective (2)</b> 114:3;115:8	<b>revolve (1)</b> 210:15	<b>run (3)</b> 195:24;196:2; 226:16	<b>search (1)</b> 154:5	<b>setting (1)</b> 176:6
<b>respond (2)</b> 235:15,17	<b>RFP (2)</b> 158:15;215:21	<b>running (5)</b> 195:2,18;214:6; 227:5,19	<b>season (1)</b> 205:8	<b>seven (1)</b> 149:18
<b>responded (2)</b> 170:24;218:5	<b>RFPs (1)</b> 158:12	<b>runoff (4)</b> 181:9;226:8,20; 227:7	<b>seasonal (1)</b> 191:19	<b>several (2)</b> 178:25;198:8
<b>responders (1)</b> 213:3	<b>rid (2)</b> 216:4;217:14	<b>ruttid (1)</b> 123:1	<b>seated (1)</b> 110:18	<b>SF (1)</b> 124:16
	<b>right (12)</b> 132:10;168:17; 186:9;187:5;191:23; 195:23;198:12; 211:22;218:19;	<b>Ryan (24)</b> 139:14,18;140:8,9, 23,24;142:1,4,19,20; 143:10,11,25;144:1; 152:24;153:12,23;	<b>second (5)</b> 130:8;176:14; 187:13;207:8;231:10	<b>shaft (2)</b> 167:8,15
			<b>secondary (1)</b> 177:24	<b>shafts (1)</b> 164:2
			<b>second-story (1)</b> 120:10	<b>shall (1)</b>



<p>189:5 <b>shallow (2)</b> 161:8;162:12 <b>sheet (2)</b> 118:11,13 <b>shift (1)</b> 216:10 <b>shining (1)</b> 197:22 <b>shock (1)</b> 212:6 <b>shop (1)</b> 160:6 <b>short (1)</b> 171:24 <b>shorter (1)</b> 214:17 <b>shot (1)</b> 211:13 <b>show (2)</b> 162:3;183:8 <b>showed (1)</b> 113:12 <b>shower (2)</b> 227:3,4 <b>showing (4)</b> 178:22;182:21; 183:24;187:3 <b>shown (5)</b> 109:7;113:14,18, 19;171:19 <b>shows (1)</b> 172:7 <b>SHPO (6)</b> 150:17,24;223:10, 12,25;224:4 <b>shrink (1)</b> 205:10 <b>shrubby (1)</b> 187:23 <b>shrunk (1)</b> 228:5 <b>shut (2)</b> 211:24,25 <b>shut-off (1)</b> 212:9 <b>side (14)</b> 120:4;121:17,17; 154:20;156:2,2; 160:16;185:12,21; 186:9;189:20;198:16; 199:24;206:12 <b>sight (1)</b> 120:2 <b>sign (1)</b> 141:13 <b>significant (6)</b> 121:4;124:17; 191:3;210:1;213:8,20 <b>significantly (4)</b> 118:21;130:23; 199:7;228:5 <b>silent (1)</b></p>	<p>197:24 <b>silicon (1)</b> 220:10 <b>silt (10)</b> 174:13,24;175:5; 176:15,21,24,25; 177:3,8,9 <b>SILVESTRI (105)</b> 108:1,4;109:12,15, 17,19;110:5,17; 111:6;115:22;116:1, 5,11,14;123:8,21; 124:19,22;125:1,4,15; 126:9,13;130:7; 132:5;134:6;135:2, 20,23;136:4,6,14,17, 21,25;137:3,4,6,14, 24;138:4;144:18,24; 145:5,8;154:11; 155:3;156:8,13; 158:8;159:5,8; 160:11;161:1,6; 164:24;165:5;177:11, 15,17;182:4,14; 192:14;196:7,13,19, 22;201:16;205:13,20, 24;206:5,17;217:3, 25;218:19;219:8,16; 220:5,13,16,25; 221:10,18;222:17; 224:5;225:1,5,14,25; 226:5;227:8;228:11; 229:2,6;232:3,7,13, 15,18,24;233:2,4,12; 235:23 <b>similar (7)</b> 155:13,25;156:3, 10;203:22;204:23,25 <b>simulations (2)</b> 228:7,8 <b>single (7)</b> 117:2;120:18; 122:19;128:4;180:10; 184:25;185:14 <b>single-cycle (1)</b> 222:23 <b>site (53)</b> 120:12;135:14; 147:11,15;152:11,17, 23;153:2,7;158:7; 161:4,9,19;163:13; 166:6,12,16,17; 168:12;171:3;173:15, 18;174:15,22;175:24; 177:1,21,25;178:2,4, 6,14;181:1,2,11,22; 184:16;185:2,2; 186:6,16,20;187:18; 191:11,14;206:3,4; 211:8,21;212:21; 213:5,21;219:22 <b>sites (2)</b> 131:24;163:13</p>	<p><b>Siting (3)</b> 108:5;111:13; 233:17 <b>sits (2)</b> 119:25;121:3 <b>situation (1)</b> 133:18 <b>situations (2)</b> 222:2;226:16 <b>six (2)</b> 204:6,7 <b>size (1)</b> 154:18 <b>skip (1)</b> 171:25 <b>sliding (1)</b> 209:17 <b>slight (1)</b> 148:10 <b>slightly (3)</b> 122:25;148:19; 162:25 <b>slope (6)</b> 153:15;154:1,3,12, 14,15 <b>slopes (6)</b> 153:9;154:4,18,20; 186:13,14 <b>slow (1)</b> 173:19 <b>slower (1)</b> 204:4 <b>slurry (3)</b> 160:4,17,22 <b>small (4)</b> 151:5;156:5;204:2; 223:18 <b>smaller (4)</b> 179:16;209:13; 219:14;228:6 <b>snow (10)</b> 182:11;209:8,16, 22;210:2,4;217:7,14, 21,23 <b>snowstorms (1)</b> 209:5 <b>socks (1)</b> 177:3 <b>Soderman (18)</b> 111:19,20;112:19; 114:2,10,11,24,25; 115:18,19;128:15,16, 22;129:3,17,20; 133:21;134:2 <b>soft (3)</b> 189:15,18,21 <b>soil (11)</b> 154:5;162:18,24; 165:8,14;166:16; 168:16;219:2,7; 227:1,3 <b>soiling (2)</b> 209:21;210:2</p>	<p><b>soils (4)</b> 153:7;190:8,8,19 <b>Solar (34)</b> 107:3;108:13,15, 20;128:7,11,13,18; 129:1,16;131:10,13; 132:12,14,23;134:24; 137:16;156:22; 181:17;194:8;195:15; 196:17;202:5,7; 204:24;209:13; 212:19;215:13; 217:12;222:10; 226:21,22,24;230:19 <b>Solar's (1)</b> 117:16 <b>solely (1)</b> 125:20 <b>solstice (1)</b> 205:8 <b>solution (1)</b> 129:6 <b>solutions (1)</b> 129:8 <b>somebody (2)</b> 191:8;211:21 <b>someone (2)</b> 121:9;207:15 <b>sometimes (2)</b> 153:25;154:20 <b>somewhat (1)</b> 179:8 <b>somewhere (2)</b> 149:16;193:9 <b>soon (1)</b> 125:12 <b>Sorry (9)</b> 111:8;135:25; 170:23;203:25; 205:22;207:4;208:17; 225:8;233:1 <b>sort (6)</b> 156:18,20;175:12; 181:14;194:10; 225:22 <b>sound (6)</b> 169:19;197:3,6,9, 16;198:21 <b>sounding (1)</b> 169:21 <b>sounds (2)</b> 175:20;230:21 <b>south (2)</b> 108:17;118:17 <b>southeast (1)</b> 118:9 <b>southeastern (1)</b> 229:12 <b>southern (1)</b> 229:12 <b>spadefoot (11)</b> 153:2,10,22;154:2, 21;171:2,20;172:19;</p>	<p>175:2;176:7,9 <b>spadefoots (5)</b> 153:16,24;154:18; 173:14;175:15 <b>spanned (1)</b> 173:8 <b>sparse (1)</b> 154:8 <b>speak (5)</b> 113:9;129:3,11,23; 135:16 <b>special (9)</b> 133:7,7,14,14,17; 152:13;212:16,22; 221:13 <b>specialty (1)</b> 213:8 <b>species (15)</b> 151:7,9,24;152:13, 16;173:1;187:16,21, 22,23;188:3,8,17; 225:25;226:2 <b>specific (7)</b> 133:22;174:20; 184:9;192:10;203:10; 208:21;226:18 <b>specifically (10)</b> 126:19;127:6; 147:9,9;148:12; 149:15;185:7;197:5; 224:9;226:9 <b>specifications (1)</b> 197:14 <b>specified (1)</b> 215:4 <b>specify (1)</b> 160:7 <b>spending (2)</b> 173:7;175:3 <b>spillway (11)</b> 183:18,20,21,23,25; 184:2,4,6,22;228:15, 17 <b>split (4)</b> 129:14;131:18,20; 148:18 <b>splitting (1)</b> 125:21 <b>Sposato (8)</b> 137:8;141:25; 147:12;148:14; 149:21;232:16; 234:20;235:11 <b>Sposatos (1)</b> 136:22 <b>Sposato's (1)</b> 235:2 <b>spotted (1)</b> 176:13 <b>Spring (4)</b> 151:15;172:19; 224:12,18 <b>spring/summer (1)</b></p>
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173:9 <b>spur (1)</b> 123:5 <b>squared (1)</b> 155:1 <b>squishy (1)</b> 189:18 <b>stability (1)</b> 166:16 <b>stabilization (4)</b> 165:8;166:10,16; 219:7 <b>stabilizing (2)</b> 165:14;219:1 <b>staff (3)</b> 116:12;135:5;145:6 <b>stage (1)</b> 217:16 <b>stalk (1)</b> 189:1 <b>stand (2)</b> 110:2,4 <b>Standard (6)</b> 146:22;152:4; 157:9;159:11;168:10; 169:24 <b>standards (3)</b> 126:2,3;156:25 <b>standpoint (7)</b> 117:9,12,21,24; 118:1;119:8;122:7 <b>start (7)</b> 112:1;156:16,19; 206:21,25;217:6; 220:7 <b>started (2)</b> 136:10;228:24 <b>Starting (1)</b> 139:14 <b>starts (3)</b> 200:11;204:21; 231:4 <b>state (11)</b> 112:25;150:6; 152:13;158:17; 191:25;192:1,8; 206:14,22;208:23; 223:3 <b>stated (2)</b> 147:7;209:21 <b>statement (2)</b> 171:23;224:21 <b>statements (1)</b> 234:2 <b>state's (1)</b> 159:1 <b>station (15)</b> 124:8,10;127:7; 133:2,20;134:13,14, 19,22;135:1;161:10, 13,19,22;186:2 <b>status (1)</b> 112:2	<b>Statutes (2)</b> 108:10,22 <b>stay (4)</b> 134:22;154:23,24; 208:15 <b>stays (1)</b> 182:12 <b>STC (3)</b> 146:18,20,21 <b>steep (8)</b> 153:9,18,21;154:1, 2,4,8,12 <b>steepen (1)</b> 186:13 <b>step (1)</b> 230:3 <b>Stephen (2)</b> 111:16;112:18 <b>Steve (1)</b> 115:12 <b>stewards (1)</b> 223:22 <b>still (9)</b> 120:8;150:12; 154:4;177:13;192:20; 199:12;212:5;218:9; 230:25 <b>stone (2)</b> 223:7,18 <b>stood (1)</b> 120:25 <b>storage (11)</b> 178:5,8;215:19,19, 21,23;216:9,15,20,22; 217:2 <b>store (1)</b> 177:23 <b>storm (2)</b> 184:21;226:12 <b>storms (3)</b> 208:6;209:5,9 <b>stormwater (2)</b> 152:6;184:23 <b>straight (2)</b> 203:9;211:13 <b>strategy (1)</b> 172:1 <b>stream (1)</b> 151:9 <b>streams (1)</b> 152:22 <b>Street (2)</b> 107:5,13 <b>strength (2)</b> 162:17;168:7 <b>striking (1)</b> 191:20 <b>string (1)</b> 212:8 <b>structural (2)</b> 116:25;219:14 <b>structure (9)</b> 113:17,18;118:24;	119:9;122:3;128:4; 164:19;165:4;167:17 <b>structures (11)</b> 117:3,5,9,15; 118:16;120:2;122:2; 123:25;124:3;130:25; 163:20 <b>studied (2)</b> 128:7,16 <b>studies (3)</b> 129:22;153:16; 200:6 <b>study (5)</b> 128:12,17;129:7; 200:14;224:13 <b>studying (1)</b> 200:11 <b>stumps (3)</b> 179:10;180:11,13 <b>subject (2)</b> 201:6,13 <b>submission (2)</b> 230:12;233:20 <b>submitted (2)</b> 170:15;201:13 <b>subsidies (1)</b> 206:23 <b>substantial (1)</b> 164:20 <b>substantially (3)</b> 119:20;121:21; 122:8 <b>substantive (2)</b> 117:19;120:23 <b>Substation (18)</b> 113:15;133:2; 134:9;148:17;155:15; 168:15;170:4;197:5, 10;198:2,5,6,9,16,21, 24;199:4,8 <b>substrate (1)</b> 225:23 <b>successful (2)</b> 171:22;172:2 <b>sudden (2)</b> 173:17;226:12 <b>suffice (1)</b> 189:16 <b>sufficiently (1)</b> 217:22 <b>suggest (1)</b> 223:7 <b>suggested (1)</b> 173:10 <b>suggesting (1)</b> 219:21 <b>suggestions (1)</b> 219:7 <b>suitable (3)</b> 152:14,17;175:2 <b>sulfur (2)</b> 124:14;155:18 <b>summarize (1)</b>	225:16 <b>summary (3)</b> 225:8,10,11 <b>summer (3)</b> 170:24;172:21; 205:8 <b>summertime (1)</b> 202:8 <b>sun (9)</b> 196:20;197:21; 204:21;205:18;210:2; 216:6;226:11;227:4, 20 <b>sunfish (3)</b> 152:13,15,19 <b>sunny (2)</b> 128:21;212:5 <b>Super (1)</b> 136:21 <b>supplemental (1)</b> 155:11 <b>support (1)</b> 152:15 <b>suppose (1)</b> 120:25 <b>supposedly (1)</b> 172:12 <b>supposition (1)</b> 134:8 <b>Sure (30)</b> 113:5,10;120:17; 136:13;152:18; 166:25;167:2,10; 169:5;172:13;173:14; 174:6,9,11;175:7; 177:17;179:24; 181:24;182:11; 183:11;185:3;192:7; 205:24;208:7;212:6; 219:24;220:8;225:17; 233:2,7 <b>surprised (1)</b> 165:13 <b>surrounding (3)</b> 117:7;176:16; 225:24 <b>survey (6)</b> 131:22;151:11; 153:1;161:16;225:16; 226:4 <b>surveys (6)</b> 172:20,20;173:3,8, 15;175:1 <b>suspect (1)</b> 197:8 <b>swear (2)</b> 137:17;138:3 <b>swearing (1)</b> 110:6 <b>switching (9)</b> 124:8,10;127:6; 133:2;134:13,19,22, 25;186:1	<b>switchyard (3)</b> 117:14;156:4; 200:19 <b>sworn (5)</b> 110:13,22;115:11; 138:7,17 <b>system (15)</b> 128:5,17;129:4,6, 22;163:4;164:12,21; 194:23;195:22;196:4; 200:13;206:2;213:20; 230:25 <b>systems (1)</b> 152:21
<b>T</b>				
<b>Tab (5)</b> 161:7,17;170:12; 187:12;197:1				
<b>table (9)</b> 109:5;151:4; 168:17;197:2;224:24; 225:8,9,10,13				
<b>tables (1)</b> 163:9				
<b>talk (2)</b> 175:13,18				
<b>talked (4)</b> 165:25;187:1; 199:11;230:9				
<b>talking (12)</b> 135:10;165:8; 166:20;170:16,19; 174:8;178:7,18; 202:2;210:23;217:7; 219:9				
<b>talks (7)</b> 159:10;161:8,18; 167:8;168:23;176:15; 189:4				
<b>tall (1)</b> 117:4				
<b>taller (2)</b> 205:17;206:4				
<b>tank (1)</b> 121:3				
<b>target (1)</b> 145:14				
<b>taught (1)</b> 213:4				
<b>tax (3)</b> 206:22;207:3,6				
<b>team (2)</b> 207:23;215:16				
<b>teams (1)</b> 212:10				
<b>Tech (2)</b> 153:2;197:1				
<b>technically (1)</b> 119:10				
<b>techniques (1)</b> 164:5				

<p><b>technologies (3)</b> 214:22;215:10; 217:16</p> <p><b>Technology (7)</b> 111:14;214:12,15, 17;216:19;218:2; 220:19</p> <p><b>tells (1)</b> 198:22</p> <p><b>telluride (1)</b> 220:14</p> <p><b>temperature (4)</b> 151:20;226:8,20; 227:7</p> <p><b>temperatures (1)</b> 227:1</p> <p><b>temporary (1)</b> 175:2</p> <p><b>ten (5)</b> 147:10,18;148:6; 203:5;208:13</p> <p><b>tend (1)</b> 154:23</p> <p><b>term (6)</b> 152:7;160:12; 167:6,24;168:1;219:6</p> <p><b>terminology (2)</b> 163:25;177:3</p> <p><b>terms (8)</b> 118:18;119:11; 123:15;159:1;202:19; 222:12,20,21</p> <p><b>territory (1)</b> 134:1</p> <p><b>test (2)</b> 168:24;169:7</p> <p><b>testified (7)</b> 110:14;134:3; 138:8;145:25;150:4; 170:16;210:13</p> <p><b>testify (2)</b> 138:18;208:17</p> <p><b>testifying (1)</b> 208:20</p> <p><b>testimony (15)</b> 112:17;113:1,23; 114:15;115:8,11; 118:6,14;122:10; 125:18;139:10; 140:23;141:22; 143:25;235:3</p> <p><b>testing (9)</b> 146:23;147:2; 169:1,8,12,14,15,23; 170:2</p> <p><b>tests (1)</b> 170:5</p> <p><b>Thanks (4)</b> 123:23;137:4; 161:24;203:11</p> <p><b>theoretical (1)</b> 172:22</p> <p><b>theoretically (1)</b></p>	<p>174:17</p> <p><b>thereafter (1)</b> 234:5</p> <p><b>therefore (5)</b> 131:14,16;195:4; 201:10;226:23</p> <p><b>thinking (1)</b> 230:2</p> <p><b>third (1)</b> 167:7</p> <p><b>third-party (1)</b> 218:13</p> <p><b>though (4)</b> 118:1;127:17; 130:13;196:8</p> <p><b>thought (2)</b> 198:20;218:16</p> <p><b>three (11)</b> 111:25;124:24; 128:20;129:16;136:8; 173:10;175:12,23; 230:18;231:14,15</p> <p><b>throughout (7)</b> 133:25;148:18,20; 163:13;173:9;178:19; 186:16</p> <p><b>thus (1)</b> 151:20</p> <p><b>tie (1)</b> 186:15</p> <p><b>timely (1)</b> 147:24</p> <p><b>times (4)</b> 195:16,20;214:13; 229:19</p> <p><b>Title (2)</b> 108:10;111:3</p> <p><b>toad (5)</b> 153:2,11;171:2; 172:20;176:8</p> <p><b>toads (1)</b> 173:10</p> <p><b>today (13)</b> 117:3,20;120:3,23; 121:8,10;122:6,8; 123:2,19;136:10; 138:2;148:23</p> <p><b>together (3)</b> 156:16;164:8; 186:15</p> <p><b>took (2)</b> 125:6;193:1</p> <p><b>Tool (1)</b> 124:4</p> <p><b>top (4)</b> 122:25;155:22; 167:20;183:25</p> <p><b>topic (4)</b> 119:18;147:6; 199:11;221:19</p> <p><b>topography (2)</b> 119:25;120:7</p> <p><b>topping (1)</b></p>	<p>123:3</p> <p><b>TORRANCE (1)</b> 107:12</p> <p><b>total (6)</b> 128:12;148:7; 149:12;200:22,25; 204:6</p> <p><b>totally (1)</b> 163:25</p> <p><b>touched (3)</b> 170:12;223:3;224:7</p> <p><b>touching (1)</b> 213:23</p> <p><b>towards (2)</b> 150:10;154:13</p> <p><b>town (2)</b> 214:9,9</p> <p><b>Towns (2)</b> 108:25;234:13</p> <p><b>traffic (4)</b> 147:6,8;148:1; 223:20</p> <p><b>trained (1)</b> 212:10</p> <p><b>training (8)</b> 133:7,15,17,22,24; 212:16,20;213:11</p> <p><b>transcript (2)</b> 108:23;234:11</p> <p><b>transfer (1)</b> 129:2</p> <p><b>transformer (3)</b> 156:3;211:4,15</p> <p><b>transformers (1)</b> 211:18</p> <p><b>transmission (9)</b> 111:17,21;117:1, 18;119:22;120:16; 122:6;134:13;135:9</p> <p><b>trapped (1)</b> 210:21</p> <p><b>treat (1)</b> 188:10</p> <p><b>treated (1)</b> 153:15</p> <p><b>tree (3)</b> 125:19;180:11,12</p> <p><b>trees (1)</b> 179:10</p> <p><b>Tremie (2)</b> 167:13;168:3</p> <p><b>tried (1)</b> 210:25</p> <p><b>trigger (2)</b> 129:18;130:2</p> <p><b>trip (1)</b> 129:2</p> <p><b>tripping (1)</b> 128:25</p> <p><b>trout (2)</b> 151:21,23</p> <p><b>Troy (1)</b> 137:8</p>	<p><b>truck (4)</b> 157:19;182:16,23; 223:19</p> <p><b>trucks (9)</b> 123:4,12,12;133:5; 148:7,8,11,15;149:17</p> <p><b>true (7)</b> 112:13;115:6; 139:6;141:18;143:8; 194:25;203:7</p> <p><b>Trump (1)</b> 133:11</p> <p><b>try (7)</b> 157:15,22;158:3; 171:17;189:2;202:11; 217:9</p> <p><b>trying (19)</b> 157:12;161:11,21, 25;170:10;171:13; 174:9;175:3;176:19; 178:20;179:13,22; 181:15;184:7;185:22; 186:10;189:23;198:1; 206:20</p> <p><b>Tuesday (1)</b> 108:3</p> <p><b>turbine (1)</b> 217:8</p> <p><b>turn (8)</b> 121:18;151:3; 192:1,15;200:18; 211:17;213:6,6</p> <p><b>turnaround (2)</b> 182:16,23</p> <p><b>turned (1)</b> 192:7</p> <p><b>Turning (3)</b> 118:5;146:16;192:4</p> <p><b>turns (1)</b> 211:18</p> <p><b>twice (1)</b> 188:19</p> <p><b>two (29)</b> 117:2;119:3; 122:19;125:21;128:4; 129:7;130:15;132:8, 16;137:17;145:25; 146:17;155:2,12; 175:11;187:2;191:10, 13,22;204:7;206:24; 209:5,9,13;216:24,25; 223:24;224:11; 229:17</p> <p><b>type (12)</b> 122:22;158:1; 160:1;166:25;180:20; 194:8;195:1;214:19; 218:24;219:17; 225:22;235:19</p> <p><b>types (5)</b> 157:19;164:10; 168:2;218:1;221:3</p> <p><b>typical (1)</b></p>	<p>204:17</p> <p><b>Typically (14)</b> 128:18,23;152:21; 157:18;160:3,18; 161:3;164:18;187:6; 201:3;207:12;208:22; 219:13;233:8</p> <hr/> <p style="text-align: center;"><b>U</b></p> <hr/> <p><b>UI (1)</b> 203:3</p> <p><b>ultimately (3)</b> 157:7;199:23,25</p> <p><b>under (10)</b> 141:15;145:24; 160:16;167:7;168:10; 176:12;181:8;187:14; 194:24;229:24</p> <p><b>understandable (1)</b> 214:1</p> <p><b>understands (2)</b> 168:24;169:6</p> <p><b>Understood (2)</b> 233:10;235:21</p> <p><b>undertaken (1)</b> 208:24</p> <p><b>Uniform (1)</b> 108:11</p> <p><b>unintended (1)</b> 159:15</p> <p><b>union (3)</b> 158:13,18,19</p> <p><b>unions (1)</b> 158:23</p> <p><b>unit (5)</b> 146:7;195:10,18, 23;200:11</p> <p><b>United (1)</b> 201:20</p> <p><b>units (1)</b> 146:13</p> <p><b>unless (4)</b> 191:7;196:20; 208:1;224:17</p> <p><b>unlikely (2)</b> 152:16;215:5</p> <p><b>up (47)</b> 110:2;113:9;117:9, 13;132:9;147:22; 154:14;156:20; 160:18,22,24;161:25; 167:15;168:4;172:8; 173:22,22;174:18; 179:18;185:18; 186:13;187:8,25; 188:10,12;189:25; 191:7;194:3,18; 196:4,9;202:21; 205:15;207:10; 212:25;214:5;216:1, 16;218:6,7;219:23; 221:24;225:15;227:4,</p>
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<p>21;230;17;231:5 <b>update (1)</b> 150:11 <b>updated (3)</b> 113:7,11,17 <b>updates (1)</b> 155:7 <b>upgrade (2)</b> 122:17;123:11 <b>upgrades (2)</b> 122:14,22 <b>upland (1)</b> 159:12 <b>upon (3)</b> 108:12;170:12; 208:23 <b>upward (1)</b> 162:23 <b>use (25)</b> 111:6;122:11; 156:23;157:8,9,18,22, 23;164:12;165:3,9,19, 20,23;168:3,11,18; 179:5;189:20;190:14; 197:13;215:14; 219:21;229:23;230:4 <b>used (27)</b> 125:10;149:1; 153:14;155:1;158:5; 160:2,4,6,8,12;164:3, 25;165:17;166:5,9,12, 17,24;168:19;187:1; 189:5,6,11;197:12; 215:11;218:22;219:6 <b>usefulness (1)</b> 153:10 <b>USEPA (1)</b> 156:24 <b>uses (1)</b> 146:20 <b>using (8)</b> 152:4;166:18,21; 167:10;174:12; 179:12;190:25; 226:23 <b>Usually (2)</b> 154:24;163:15 <b>UTC (1)</b> 216:14 <b>utilize (1)</b> 188:2 <b>utilized (1)</b> 127:7 <b>utilizing (1)</b> 230:3</p>	<p>191:9 <b>value (8)</b> 190:12;193:9; 194:2,3,6,9,19;199:6 <b>values (1)</b> 195:17 <b>vantage (1)</b> 121:7 <b>variability (1)</b> 195:16 <b>variable (1)</b> 195:11 <b>variation (1)</b> 185:11 <b>vegetated (1)</b> 152:19 <b>vegetation (2)</b> 152:20;154:8 <b>vehicles (16)</b> 123:1,12;147:10, 15;148:22;149:5,6,7, 11,17,22,23,24,24; 150:1;157:23 <b>verbatim (1)</b> 108:23 <b>verification (1)</b> 234:21 <b>verified (1)</b> 235:11 <b>verify (1)</b> 137:20 <b>verifying (1)</b> 110:21 <b>versus (3)</b> 180:12,13;227:4 <b>vertical (1)</b> 118:18 <b>vertices (1)</b> 180:8 <b>viable (2)</b> 153:22;223:19 <b>view (3)</b> 181:6;213:24;219:4 <b>views (6)</b> 120:7,10,23;121:5; 122:2;234:1 <b>vines (1)</b> 176:20 <b>virtually (1)</b> 183:13 <b>visibility (3)</b> 119:22;120:13; 122:7 <b>visible (3)</b> 117:6,6;121:15 <b>visit (1)</b> 147:11 <b>visiting (1)</b> 120:12 <b>visual (3)</b> 117:9,20;118:7 <b>voltage (1)</b> 156:2</p>	<p><b>Volume (1)</b> 177:18 <b>volunteer (3)</b> 133:6;210:19; 212:15</p> <p style="text-align: center;"><b>W</b></p> <p><b>waiting (1)</b> 161:25 <b>walk (3)</b> 126:16;209:6,7 <b>walkover (1)</b> 131:23 <b>wall (1)</b> 223:21 <b>walled-off (1)</b> 174:24 <b>walls (2)</b> 223:8,19 <b>warmer (1)</b> 152:20 <b>water (13)</b> 121:3;151:19; 152:20;157:18;167:9, 20,21;168:5,17; 170:25;189:8,14,20 <b>Waterbury (1)</b> 107:15 <b>Watercourse (7)</b> 151:2,11;224:15; 225:9,11;226:4; 229:24 <b>watercourses (5)</b> 224:7,10,11; 225:18,21 <b>wattage (4)</b> 146:20;199:24; 227:13;228:2 <b>wattages (1)</b> 146:18 <b>Wauregan (7)</b> 108:17;147:16; 149:10;198:11,13,20; 199:3 <b>way (18)</b> 128:9;146:9,23; 167:16,18;179:16,18; 188:1;189:1;193:23; 195:8;202:12;203:15; 204:11;215:1;218:15; 221:25;225:7 <b>weaker (1)</b> 204:22 <b>weather (4)</b> 131:12,14;195:17; 196:10 <b>Weeds (1)</b> 187:16 <b>weeks (5)</b> 149:18;155:12; 163:7;170:15;193:7 <b>weight (1)</b></p>	<p>162:23 <b>welcome (3)</b> 127:20;132:2,25 <b>wells (1)</b> 168:2 <b>weren't (1)</b> 226:25 <b>west (2)</b> 119:5;120:21 <b>Western (2)</b> 126:24;224:13 <b>Wetland (32)</b> 151:2,4,10;159:11; 176:23;177:6,7,8,9; 186:9,11,12;203:16, 25;204:1,1,1,2,8,9,9, 10,10,10;224:15,25; 225:3,4,10,19;226:4; 229:24 <b>wetlands (6)</b> 159:16;176:17; 203:13,25;224:10; 230:1 <b>what's (12)</b> 125:7;141:12; 160:12;166:25; 179:23;180:7;190:19; 202:2;206:4;209:19; 212:20;219:9 <b>Whereupon (2)</b> 137:12;235:24 <b>whole (1)</b> 178:23 <b>wide (1)</b> 133:5 <b>widening (1)</b> 122:25 <b>wider (1)</b> 205:16 <b>width (1)</b> 123:15 <b>wild (2)</b> 151:20,23 <b>wildlife (1)</b> 226:2 <b>wind (1)</b> 217:8 <b>window (1)</b> 120:10 <b>winter (1)</b> 205:9 <b>wintertime (1)</b> 210:1 <b>wish (2)</b> 109:6;223:2 <b>within (15)</b> 116:19;120:18; 121:10;123:7;151:12; 162:21;172:25;179:3; 184:21;188:18; 214:15;219:5;220:2; 231:23;234:2 <b>without (5)</b></p>	<p>123:12;171:21; 175:22;186:11;234:9 <b>WITNESS (303)</b> 111:4,8,11,16,19, 22;112:6,10,15;113:5, 10,24;114:5,6,8,10, 12,20,21,23,24;115:1, 12,14,16,18,20; 116:21,24;118:12; 119:6,16,24;120:17; 122:16,24;123:14,18; 124:2,11,15,21,24; 125:9,22;126:1,22; 127:2,12,19,25;128:6, 15,22;129:3,20; 130:20;131:7,21; 132:1,13,18,25; 133:16,21;134:16; 135:11,16,19;137:5; 138:7;139:2,5,8,11, 18,20,22,24;140:1,3, 5,9,11,13,15,17,19,21, 24;141:1,3,5,7,9,11, 17,20,23;142:4,6,8, 10,12,14,16,20,22,24; 143:1,3,5,7,11,13,15, 17,19,21,23;144:1,3, 5,7,9,11,13;145:19; 146:3,22;147:20; 148:9,25;149:13,15, 25;150:12,16;151:8, 17,22;152:2,18; 153:12,23;154:16; 155:9,17,20,24; 156:12;157:3,14; 158:14,21;159:7,17; 160:3,13;161:3,15,24; 162:2,8,15;163:11; 164:7;165:2,15; 166:7;167:13,25; 168:13;169:3,11,22; 170:20;171:8,24; 172:17;173:2;174:11, 18;175:9,25;176:5; 178:3,15,24;179:24; 180:3,24;181:20; 182:2,3,8,17,19; 183:3;184:13;185:9, 16,19;186:4;187:5, 20;188:15;189:12; 190:2,22;191:12,24; 192:11,24;193:5,14, 17,22;194:7,15; 195:7;196:1,12,18,21; 197:7,11,18,21;198:3, 13,18,25;199:21; 200:5,8,21;201:11; 202:5,18;203:4,8,15, 21,24;204:5,8,15,23; 205:7,19,22,25;206:8; 207:2,5,12,21,25; 208:4,7;209:20; 210:7,24;211:19,23;</p>
<b>V</b>				
<p><b>Vallejo (2)</b> 137:19;138:1 <b>Valley (2)</b> 116:19;118:4 <b>valuable (1)</b></p>				

212:8,18;213:2,12,15; 214:8,23;215:2,8,15; 216:8,18;217:15; 218:12,25;219:11,20; 220:12,15,18;221:6, 17;222:15;223:15; 224:23;225:2,7,17; 226:1,14;227:18,24; 228:1;229:1;231:2, 12,24 <b>witnesses (7)</b> 110:2,7,13,22; 137:17;144:14; 235:24 <b>wondering (3)</b> 133:13;169:9;190:9 <b>wood (1)</b> 176:13 <b>word (1)</b> 165:7 <b>words (1)</b> 189:18 <b>work (19)</b> 117:23;122:13; 126:5;133:23;155:10; 157:8;158:23;161:5, 16;170:4;174:21; 176:22;181:18;186:1, 17;197:14;200:23; 214:8;215:6 <b>working (3)</b> 120:3;216:15;217:1 <b>works (2)</b> 193:23;227:20 <b>worst-case (1)</b> 149:12 <b>worth (1)</b> 235:19 <b>wow (1)</b> 173:17 <b>wrapping (1)</b> 164:4 <b>written (3)</b> 115:7;172:18;234:1 <b>wrong (1)</b> 228:16 <b>wrote (1)</b> 136:10	146:8;193:2 <b>yield (1)</b> 192:12 <b>yielded (1)</b> 173:10	228:7 <b>10.5 (2)</b> 161:11,20 <b>100 (3)</b> 132:15;184:21; 186:14 <b>1000 (3)</b> 113:8,12;131:3 <b>100-foot (1)</b> 159:11 <b>1080 (1)</b> 131:3 <b>11 (13)</b> 113:3,6,22;114:17; 115:6;146:9;191:9, 21;193:9;194:14,20; 204:20;205:5 <b>1110 (1)</b> 107:14 <b>115 (1)</b> 156:1 <b>12 (5)</b> 149:17;176:11; 177:23;196:25;205:6 <b>12/23/2019 (1)</b> 112:3 <b>13 (6)</b> 136:12,18;192:22; 193:4,16,17 <b>1310 (1)</b> 147:7 <b>14 (7)</b> 108:8;179:7; 192:23;193:1,12,14, 20 <b>144 (1)</b> 147:9 <b>15 (4)</b> 147:13;153:9; 165:6;179:7 <b>16 (4)</b> 108:10;118:5; 122:9;173:8 <b>164.5 (1)</b> 173:7 <b>1675 (4)</b> 113:7,8,12,13 <b>17 (2)</b> 152:12;167:7 <b>18 (8)</b> 153:7;168:9; 169:10;203:25;204:1, 8;214:15;227:17 <b>1A (2)</b> 131:22;229:14 <b>1B (2)</b> 131:23;138:25	121:18,19,19,22,23; 136:19;151:4;161:7; 175:15;197:3,25; 203:17;204:2,10; 225:8,10 <b>20 (9)</b> 107:5;109:8; 147:14,19;149:9,21, 22;203:25;204:9 <b>2004 (1)</b> 216:1 <b>2017 (1)</b> 215:17 <b>2018 (4)</b> 173:3,7,18,23 <b>2019 (12)</b> 108:19;151:2; 170:23,23;172:6,19, 19,21;173:13,22; 175:19;203:17 <b>2020 (5)</b> 108:3,8;118:6; 150:5;233:20 <b>2050 (1)</b> 216:1 <b>210.25 (1)</b> 184:2 <b>211 (1)</b> 184:1 <b>227.5 (1)</b> 183:18 <b>228 (1)</b> 183:18 <b>23 (1)</b> 179:6 <b>237 (2)</b> 198:10,20 <b>24 (1)</b> 205:1 <b>24.9 (6)</b> 145:23;146:2; 193:20,21;194:3,18 <b>25 (2)</b> 179:7;227:16 <b>253 (1)</b> 184:6 <b>254 (1)</b> 184:6 <b>257 (1)</b> 228:19 <b>257.5 (3)</b> 183:21;228:18,21 <b>258 (1)</b> 183:21 <b>259.5 (2)</b> 228:18,22 <b>260 (1)</b> 183:20 <b>27.3 (1)</b> 163:8 <b>273.75 (1)</b> 183:23 <b>274 (1)</b>	183:22 <b>285 (1)</b> 184:4 <b>286 (1)</b> 184:3 <b>28th (3)</b> 126:18;139:16; 230:12 <b>29 (3)</b> 197:2,25;198:4	<b>3</b>	<b>3 (13)</b> 112:21;113:2; 114:4;115:6,10,24; 136:19;175:17; 184:10,11,24;193:11; 205:4 <b>3.1 (1)</b> 224:10 <b>3.2 (1)</b> 163:5 <b>3:52 (1)</b> 235:25 <b>30 (5)</b> 179:1;190:23; 202:22;215:9;234:2 <b>30,000 (1)</b> 222:20 <b>300 (3)</b> 118:8;119:13;228:4 <b>34 (1)</b> 147:7 <b>35 (1)</b> 125:20 <b>36.9 (1)</b> 197:3 <b>390 (1)</b> 199:15 <b>3-inch (3)</b> 183:24;185:8,15
<b>Y</b>	<b>Z</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	
<b>year (9)</b> 173:4,19;184:21; 188:19;190:23; 192:25;195:16;205:2; 217:21 <b>years (14)</b> 121:14;155:2; 171:21,25;172:3; 175:21;191:10,13,22; 202:22;203:5;208:13; 215:9;226:17 <b>yesterday (2)</b>	<b>zero (1)</b> 197:20 <b>zone (1)</b> 186:10	<b>0 (1)</b> 205:1 <b>001 (1)</b> 126:18 <b>0011 (1)</b> 179:6 <b>002 (1)</b> 127:3 <b>008 (1)</b> 179:6 <b>009 (1)</b> 179:6 <b>06103 (1)</b> 107:6 <b>06702 (1)</b> 107:15	<b>1 (18)</b> 108:3;112:1,5,9,12, 13;115:24;118:11,14; 136:18;145:21; 175:14;192:19;197:2; 204:1,10;224:24; 225:9 <b>1,000 (1)</b> 198:9 <b>1.3.2 (1)</b> 161:8 <b>1.50 (2)</b> 146:10;193:11 <b>1.7 (1)</b> 222:22 <b>1/28/2020 (1)</b> 112:23 <b>1/7/2020 (1)</b> 112:20 <b>1:34 (1)</b> 137:13 <b>1:39 (1)</b> 137:13 <b>10 (11)</b> 117:5;120:5; 147:14,18;149:9,21, 22;155:1;204:20; 230:18;231:5 <b>10,000 (1)</b>	<b>2</b> <b>2 (22)</b> 112:17;113:14; 114:3;115:4,9,24;	<b>4</b>	<b>4 (3)</b> 108:3;177:18;205:4 <b>4.1.2 (1)</b> 165:6 <b>4.1.7 (1)</b> 167:7 <b>4.1.9 (1)</b> 168:10 <b>4.2.1 (2)</b> 168:22;169:5 <b>4.5 (1)</b> 176:13 <b>40.18 (3)</b> 126:19,20;201:20 <b>410 (1)</b> 199:14 <b>4-18lab (1)</b> 108:22

<p><b>45 (1)</b> 183:7 <b>47 (1)</b> 153:6 <b>49 (3)</b> 128:13,14;199:20 <b>49.2 (1)</b> 146:2</p>	<p><b>7 (3)</b> 118:6;139:17; 144:16 <b>7th (1)</b> 192:18</p>			
<p><b>5</b></p>	<p><b>8</b></p>			
<p><b>5 (3)</b> 108:19;152:25; 233:19</p>	<p><b>8 (7)</b> 141:13;144:16; 153:6;162:2,9; 203:25;204:9 <b>85 (2)</b> 109:8;117:3</p>			
<p><b>5.9 (1)</b> 163:8</p>	<p><b>9</b></p>			
<p><b>50 (15)</b> 107:13;108:15; 129:15;145:24;146:2; 150:19;179:19;194:1; 200:12;201:21; 202:13,15;203:2; 206:15;224:3 <b>50-foot (3)</b> 203:13;204:12; 224:1 <b>55 (1)</b> 125:20</p>	<p><b>9 (7)</b> 137:21;142:1; 144:16;150:5;153:6; 204:1,10 <b>9.82 (1)</b> 201:21 <b>90,000 (1)</b> 205:2 <b>95 (1)</b> 109:8 <b>96 (4)</b> 109:8;200:19,21; 202:12 <b>9th (3)</b> 223:5,13,16</p>			
<p><b>6</b></p>				
<p><b>6 (3)</b> 124:16;194:22; 224:9 <b>6.15 (1)</b> 159:9 <b>6.16 (1)</b> 159:9 <b>6.2 (1)</b> 156:20 <b>6.3 (1)</b> 156:20 <b>60 (3)</b> 124:18,20;156:10 <b>67 (1)</b> 109:8 <b>6799 (1)</b> 118:25 <b>68 (1)</b> 184:5 <b>6800 (1)</b> 121:11 <b>6801 (1)</b> 118:16 <b>6802 (2)</b> 118:16,18 <b>6805 (1)</b> 122:3 <b>6807A (1)</b> 113:18</p>				
<p><b>7</b></p>				