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STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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Docket No. 508

The United Illuminating Company (UI) application for a Certificate of Environmental Compatibility

and Public Need for the Milvon to West River

existing 115-kilovolt (kV) electric transmission lines from the railroad catenary structures to new

steel monopole structures and related

modifications to facilitate interconnection of the rebuilt 115-kV electric transmission lines at UI's

existing Milvon, Woodmont, Allings Crossing, Elmwest and West River substations along approximately 9.5 miles of the Connecticut

Department of Transportation's Metro-North

Railroad corridor traversing the municipalities of Milford, Orange, West Haven and New Haven,

Connecticut.

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Railroad Transmission Line 115-kV Rebuild Project that consists of the relocation and rebuild of its

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Reporter: Lisa L. Warner, CSR #061

VIA ZOOM AND TELECONFERENCE

Public Hearing held on Thursday, April 28, 2022, beginning at 2 p.m., via remote access.

JOHN MORISSETTE, Presiding Officer

1	Appearances:
2	Council Members:
3 4	KENNETH COLLETTE, Designee for Commissioner Katie Dykes, Department of Energy and Environmental Protection
5	QUAT NGUYEN, Designee for Chairman Marissa Paslick Gillett, Public Utilities Regulatory
6	Authority
7	ROBERT SILVESTRI DANIEL P. LYNCH, JR. LOUANNE COOLEY
9	MARK QUINLAN
10	Council Staff: MELANIE BACHMAN, ESQ. Executive Director and Staff Attorney
11	
12	MICHAEL PERRONE Siting Analyst
13	LISA FONTAINE Fiscal Administrative Officer
14	
15	For the Applicant, The United Illuminating Company:
16 17	MURTHA CULLINA LLP One Century Tower
18	New Haven, Connecticut 06510-1220
19	
20	For Party, City of Milford: HURWITZ, SAGARIN, SLOSSBERG & KNUFF, LLC 147 North Broad Street
21	New Milford, Connecticut 06460
22	BY: JOHN W. KNUFF, ESQ.
	Zoom co-host: Aaron Demarest
23	**All participants were present via remote access.
24	
25	***(Inaudible) - denotes breaks in speech due to interruptions in audio or echo.

MR. MORISSETTE: This remote public hearing is called to order this Thursday, April 28, 2022, at 2 p.m. My name is John Morissette, member and presiding officer of the Connecticut Siting Council. Other members of the Council are Kenneth Collette, designee for Commissioner Katie Dykes of the Department of Energy and Environmental Protection, Quat Nguyen, designee for Chairman Marissa Paslick Gillett of the Public Utilities Regulatory Authority, Robert Silvestri, Louanne Cooley, Mark Quinlan, and Daniel P. Lynch,

Members of the staff are Melanie
Bachman, executive director and staff attorney;
Michael Perrone, siting analyst; and Lisa
Fontaine, fiscal administrative officer.

Jr.

If you haven't done so already, I ask that everyone please mute their computer audio and/or telephones now. Thank you.

This hearing is held pursuant to the provisions of Title 16 of the Connecticut General Statutes and of the Uniform Administrative Procedure Act upon an application from The United Illuminating Company for a Certificate of Environmental Compatibility and Public Need for

the Milvon to West River Railroad Transmission Line 115-kV Rebuild Project that consists of the relocation and rebuild of its existing 115-kilovolt electric transmission lines from the railroad catenary structures to new steel monopole structures and related modifications to facilitate interconnection of the rebuilt 115-kV electric transmission lines at UI's existing Milvon, Woodmont, Allings Crossing, Elmwest and West River substations along approximately 9.5 miles of the Connecticut Department of Transportation's Metro-North Railroad corridor traversing the municipalities of Milford, Orange, West Haven and New Haven, Connecticut. The application was received by the Council on February 28, 2022.

The Council's legal notice of the date and time of this remote hearing was published in The New Haven Register on March 26, 2022. Upon this Council's request, the applicant erected signs at conspicuous locations along the route so as to inform the public of the name of the applicant, the type of facility, the remote public hearing date, and contact information for the Council, including the website and phone number.

The locations are as follows: The

Milford Train Station located at 1 Railroad Avenue in Milford.

The intersection of Marsh Hill Road and Metro-North Railroad in Orange.

The UI operations building located at 100 Marsh Hill Road in Orange.

The West Haven Train Station located at 20 Railroad Avenue in West Haven.

And the West River Substation located at 255 Ella T. Grasso Boulevard, also known as Route 10 in New Haven.

As a reminder to all, off-the-record communication with a member of the Council or a member of the Council's staff upon the merits of this application is prohibited by law.

The parties and intervenors to the proceedings are as follows: The applicant is The United Illuminating Company represented by Attorney Bruce McDermott of Murtha Cullina LLP. The party, the City of Milford, is represented by John W. Knuff, Esq. and Sara Sharp, Esq. of Hurwitz, Sagarin, Slossberg & Knuff, LLC.

We will proceed in accordance with the prepared agenda, a copy of which is available on the Council's Docket No. 508 webpage along with

the record of this matter, the public hearing notice, instructions for public access to this remote public hearing, and the Council's Citizens Guide to Siting Council Procedures. Interested persons may join any session of this public hearing to listen, but no public comments will be received during the 2 p.m. evidentiary session.

At the end of the evidentiary session, we will recess until 6:30 p.m. for the public comment session. Please be advised that any person may be removed from the remote evidentiary session or the public comment session at the discretion of the Council. The 6:30 p.m. public comment session is reserved for the public to make brief statements into the record. I wish to note that the applicant, parties and intervenors, including their representatives, witnesses and members, are not allowed to participate in the public comment session.

I also wish to note for those who are listening and for the benefit of your friends and neighbors who are unable to join us for the remote public comment session that you or they may send written statements to the Council within 30 days of the date hereof, either by mail or by email,

and such written comments will be given the same weight as if spoken during the remote public comment session.

A verbatim transcript of this remote public hearing will be posted on the Council's Docket No. 508 webpage and deposited with the City Clerk's Office of the Milford, New Haven and West Haven City Halls and the Town Clerk's Office of the Orange Town Hall for the convenience of the public.

Please be advised that the Council's project evaluation criteria under the statute does not include consideration of property values.

The Council will take a 10 to 15 minute break at a convenient juncture at around 3:30 p.m.

We'll now move onto the agenda item under administrative notice taken by the Council. I wish to call your attention to those items shown on the hearing program marked Roman Numeral I-B, Items 1 through 109 that the Council has administratively noticed. Does any party or intervenor have an objection to the items that the Council has administratively noticed?

Attorney McDermott.

MR. McDERMOTT: Mr. Morissette, no

1 objection from the United Illuminating Company. Thank you. 2 3 MR. MORISSETTE: Thank you, Attorney 4 McDermott. 5 Attorney Knuff or Sharp? 6 MR. KNUFF: Yes. Thank you, Mr. 7 Morissette, I'm present. 8 MR. MORISSETTE: Thank you. Do you 9 have any objection to the items that the Council 10 has administratively noticed? 11 MR. KNUFF: No objection. 12 MR. MORISSETTE: Thank you, Attorney Knuff. Accordingly, the Council hereby 13 14 administratively notices these items. 15 (Council's Administrative Notice Items 16 I-B-1 through I-B-109: Received in evidence.) 17 MR. MORISSETTE: We'll now continue 18 with the appearance by the applicant. Will the 19 applicant present its witness panel for purposes 20 of taking the oath. Attorney Bachman will 21 administer the oath. 22 Attorney McDermott. 23 MR. McDERMOTT: Thank you, Mr. 24 Morissette. Good afternoon, Council members, 25 Attorney Bachman and Council staff.

McDermott from Murtha Cullina on behalf of the applicant, The United Illuminating Company.

The panel that the company is presenting today consists of Correne Auer, environmental permitting and compliance specialist; Todd Berman, manager of environmental programs and projects; Aziz Chouhdery, professional engineer, lead engineer, project unit high voltage lines; Benjamin Cotts, Ph.D., P.E., principal engineer from Exponent; Shawn Crosbie, senior project manager; Michael Libertine, LEP, vice president from All-Points Technology Corporation; Samantha Marone, manager, outreach and engagement, planning and coordination; Annette Potasz, real estate projects; MeeNa Sazanowicz, transmission line standards. The panel is ready to be sworn by Attorney Bachman, Mr. Morissette.

MR. MORISSETTE: Thank you, Attorney McDermott.

Attorney Bachman.

MS. BACHMAN: Thank you, Mr. Morissette. If the witnesses could please just raise your right hand.

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1 CORRENE AUER, 2 TODD BERMAN, 3 AZIZ CHOUHDERY, BENJAMIN COTTS, 5 SHAWN CROSBIE, 6 MICHAEL LIBERTINE, 7 SAMANTHA MARONE, 8 ANNETTE POTASZ, 9 MEENA SAZANOWICZ, 10 having been first duly sworn (remotely) by 11 Ms. Bachman, testified on their oaths as 12 follows: 13 MR. MORISSETTE: Thank you, Attorney 14 Bachman. 15 Attorney McDermott, please begin by 16 verifying all the exhibits by the appropriate 17 sworn witnesses. 18 MR. McDERMOTT: Thank you, Mr. 19 Morissette. I believe I can be as efficient as 20 possible in this exercise. 21 DIRECT EXAMINATION 22 MR. McDERMOTT: Mr. Crosbie, as project 23 manager did you prepare or assist in the 24 preparation of Exhibit Number 1, which is the 25 company's application including the bulk exhibits

1	that are identified in the hearing program?
2	THE WITNESS (Crosbie): Yes.
3	MR. McDERMOTT: And do you have any
4	changes or revisions to anything contained in
5	Exhibit 1?
6	THE WITNESS (Crosbie): No.
7	MR. McDERMOTT: Mr. Crosbie, perhaps
8	you could speak up a little.
9	THE WITNESS (Crosbie): No, I have no
10	changes at this time.
11	MR. McDERMOTT: And do you adopt
12	Exhibit 1 as a full exhibit in this proceeding?
13	THE WITNESS (Crosbie): Yes.
14	MR. McDERMOTT: Regarding Exhibit 2,
15	the applicant's letter to the Council regarding
16	life cycle costs, dated May 7, 2022, did you ask
17	that that letter be prepared?
18	THE WITNESS (Crosbie): Yes.
19	MR. McDERMOTT: And are you familiar
20	with the contents of that letter?
21	THE WITNESS (Crosbie): Yes.
22	MR. McDERMOTT: And do you adopt that
23	letter as an exhibit in this proceeding?
24	THE WITNESS (Crosbie): I do, yes.
25	MR. McDERMOTT: And regarding

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   Applicant's Exhibit Number 3, which is the
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   responses to the City of Milford's
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   recommendations, dated April 11, 2022, did you
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   prepare or assist in the preparation of that
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   document?
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               THE WITNESS (Crosbie): Yes, I did.
7
               MR. McDERMOTT: And do you have any
   changes or revisions to that document?
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               THE WITNESS (Crosbie): No, I do not.
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               MR. McDERMOTT: And do you adopt that
11
   as an exhibit here today?
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               THE WITNESS (Crosbie): Yes, I do.
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               MR. McDERMOTT: Regarding Applicant's
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   Exhibit Number 4, which is a sign posting
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   affidavit signed by you, dated April 19, 2022, did
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   you prepare -- did you sign that affidavit?
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               THE WITNESS (Crosbie): Yes, I did.
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               MR. McDERMOTT: And do you have any
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   changes or revisions to it?
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               THE WITNESS (Crosbie): No, I do not.
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               MR. McDERMOTT: And do you adopt that
22
   as an exhibit here today?
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               THE WITNESS (Crosbie): Yes, I do.
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               MR. McDERMOTT: And regarding
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   Applicant's Exhibit Number 5, which are the
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1 responses to the Siting Council interrogatories, 2 Set One, dated April 21, 2022, do you have any 3 changes or revisions to that document? 4 THE WITNESS (Crosbie): Yes, I do. 5 MR. McDERMOTT: And what is that 6 change? 7 THE WITNESS (Crosbie): On the 8 Connecticut Siting Council Interrogatory Number 40 9 there's a reference to where increases were made 10 for foundation reveal heights. On the second to 11 last line there's reference to an increase from 1' 12 foot to 2'-10". The correction should be made to 13 read from 1' to 2'-8". 14 MR. McDERMOTT: Thank you, Mr. Crosbie. 15 And with that, do you have any other further 16 changes to Applicant's Exhibit Number 5? 17 THE WITNESS (Crosbie): No, I do not. 18 MR. McDERMOTT: And do you adopt that 19 as an exhibit here today? 20 THE WITNESS (Crosbie): Yes, I do. 21 MR. McDERMOTT: And regarding 22 Applicant's Exhibit Number 6, which is the virtual 23 tour of the project that was filed with the Siting 24 Council on April 21, 2022, did you oversee the 25 preparation of that video?

1 THE WITNESS (Crosbie): Yes, I did. MR. McDERMOTT: And is that video true 2 3 and accurate today? 4 THE WITNESS (Crosbie): Yes, it is. 5 MR. McDERMOTT: And do you have any 6 changes or revisions to it? 7 THE WITNESS (Crosbie): No, I do not. 8 MR. McDERMOTT: And do you adopt it as 9 an exhibit here today? 10 THE WITNESS (Crosbie): Yes, I do. 11 MR. McDERMOTT: And finally regarding 12 prefile testimony that you filed on April 21, 2022 13 regarding the Exhibit Number 6, the virtual tour 14 of the project, are you familiar with that 15 document? 16 THE WITNESS (Crosbie): Yes, I am. 17 MR. McDERMOTT: Do you have any changes 18 or revisions thereto? 19 THE WITNESS (Crosbie): No, I do not. 20 MR. McDERMOTT: And do you adopt it as 21 an exhibit? 22 THE WITNESS (Crosbie): Yes, I do. 23 MR. McDERMOTT: Thank you. And Dr. 24 Cotts, regarding Applicant's Exhibit Number 8 25 which in part contains your curriculum vitae,

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   you're familiar with that, I assume. Do you have
   any changes or revisions to what was filed with
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   the Council on April 21, 2022?
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               THE WITNESS (Cotts): I do not.
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               MR. McDERMOTT: And do you adopt that
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   as an exhibit?
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               THE WITNESS (Cotts): Yes, I do.
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               MR. McDERMOTT: Thank you. And Mr.
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   Libertine, regarding part of Applicant's Exhibit
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   Number 8, which is your resume, you're familiar
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   with that document, I assume?
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               Mr. Libertine?
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               (No response.)
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               MR. McDERMOTT: Mr. Libertine, I think
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   you might be on mute. We were doing so well too.
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               THE WITNESS (Libertine): Is this any
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   better?
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               MR. McDERMOTT: That is much better.
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               MR. MORISSETTE: There you go.
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               THE WITNESS (Libertine): Okay. Great.
21
   Super. Sorry about that. Yes, I'm familiar with
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   it.
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               MR. McDERMOTT: And any changes or
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   revisions to that document?
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               THE WITNESS (Libertine): No.
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1	MR. McDERMOTT: And do you adopt that
2	as an exhibit here today?
3	THE WITNESS (Libertine): I do.
4	MR. McDERMOTT: Thank you. And with
5	that, Mr. Morissette, the company would move that
6	Applicant's Exhibits 1 through 8 be admitted as
7	full exhibits in this proceeding.
8	MR. MORISSETTE: Thank you, Attorney
9	McDermott.
10	Does any party or intervenor object to
11	the admission of the applicant's exhibits?
12	Attorney Knuff.
13	MR. KNUFF: No objection.
14	MR. MORISSETTE: Thank you. The
15	exhibits are hereby admitted, and also the
16	Council's administrative notices are also admitted
17	for the record.
18	(Applicant's Exhibits II-B-1 through
19	II-B-8: Received in evidence - described in
20	index.)
21	MR. MORISSETTE: Thank you. We'll now
22	begin with cross-examination of the applicant by
23	the Council starting with Mr. Perrone.
24	CROSS-EXAMINATION
25	MR. PERRONE: Thank you, Mr.

1 Morissette. 2 Turning to the response to Council 3 Interrogatory 1, there are ten abutters from which 4 the certified mail receipts were not received and 5 notices were resent to them via first class mail. 6 And my question is, on what date were the notices 7 resent? 8 THE WITNESS (Crosbie): Thank you for 9 that question, Mr. Perrone. I'm going to refer 10 the answer to that question to Ms. Sam Marone. 11 THE WITNESS (Marone): I'm going to 12 have to look that up. I don't have the date right 13 here. 14 MR. McDERMOTT: Someone has got their 15 microphone on. 16 Ms. Marone, your response to Mr. 17 Perrone's question regarding the mailing? 18 THE WITNESS (Marone): I'm going to 19 have to look that up and get back to you. 20 MR. PERRONE: I'll continue in the 21 meantime. 22 THE WITNESS (Marone): Thank you. 23 MR. PERRONE: Mr. Crosbie, regarding 24 the sign posting affidavit, in addition to being 25 visible from the -- to the general public, were

1 any of the signs also visible to passenger train 2 traffic as the trains are passing by? 3 THE WITNESS (Crosbie): Yes, they were. 4 MR. PERRONE: Okay. Turning to the 5 response to Council Interrogatory Number 2, parts 6 2 through 4, it mentions encroachments. And could 7 the company elaborate on the nature of the encroachments and how, if any, these encroachments 8 9 would impact the project. 10 THE WITNESS (Crosbie): Thank you for 11 that question, Mr. Perrone. If you'll give us a 12 moment. 13 MR. PERRONE: Sure. 14 (Pause.) 15 THE WITNESS (Crosbie): So I'm going to 16 defer this answer to Ms. Sam Marone and the answer 17 to that question. 18 THE WITNESS (Marone): Thank you, 19 There are 16 encroachments along the route 20 that would impact our ability to build the 21 project. And so we're coordinating with CT DOT 22 and MNR as they are in their right of way to work 23 with the customers to have those removed. 24 Mr. Perrone, while you MR. McDERMOTT: 25 have Ms. Marone's attention, she can respond to

1 your first question regarding the notices. Do you 2 want to do that at this point? 3 MR. PERRONE: Yes, please. THE WITNESS (Marone): The ten first 4 5 class letters were mailed on April 12, 2022. 6 MR. PERRONE: And I believe, back to 7 the encroachments, those would be addressed by UI? 8 THE WITNESS (Marone): They're being 9 addressed by Connecticut Department of 10 Transportation as they exist in their right of 11 way. 12 MR. PERRONE: Okay. Moving on to page 13 3-14 of volume 1 of the application, it notes that 14 legacy wood pole structures owned by DOT formerly used to support railroad communication wires UI 15 16 will remove. And my question is, is there an 17 agreement between DOT and UI in connection with 18 the removal of the legacy wood pole structures? 19 THE WITNESS (Crosbie): Thank you, Mr. 20 Perrone. Excuse me, this is Shawn Crosbie. Thank 21 you, Mr. Perrone for that question. I'm going to 22 defer that question to MeeNa Sazanowicz, one of 23 our engineers. 24 THE WITNESS (Sazanowicz): Thank you, 25 Mr. Perrone and Mr. Crosbie. My name is MeeNa

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   Sazanowicz. And we worked with the CT DOT and
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   Metro-North's teams on recurring biweekly
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   meetings, and this has been one of the topics that
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   we have discussed with them and confirmed that
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   they are abandoned and we'll work with them and
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   have them removed.
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               MR. PERRONE: Do you know approximately
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   the total number of legacy wood poles to be
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   removed?
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               THE WITNESS (Sazanowicz): I do not
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   have that number at this moment, but we can get
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   that.
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               MR. PERRONE: Do you have a rough cost
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   of the removal?
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               THE WITNESS (Sazanowicz): I do not
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   have that at this moment.
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               MR. PERRONE: Okay.
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               MR. McDERMOTT: Ms. Sazanowicz, is that
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   something we can either provide today or as a
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   Late-File for the Council?
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               THE WITNESS (Sazanowicz): Yes.
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               MR. McDERMOTT: Yes to which part?
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               THE WITNESS (Sazanowicz): To both,
24
   both the poles and removal.
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               MR. McDERMOTT: Okay. And can we do
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1 that during the hearing today? 2 THE WITNESS (Sazanowicz): We should be 3 able to get an answer, yeah. 4 MR. McDERMOTT: Okay. We'll offer that 5 during the hearing, Mr. Perrone. Thank you. 6 MR. PERRONE: Sure. Moving on to 7 response to Council Interrogatory Number 7, which 8 is the second page of that answer, it discusses 9 how the project could potentially support the 10 transmission, to support a wind project of 804 11 megawatts. And my question is, do you know 12 roughly where the wind project would interconnect 13 in Connecticut transmission wise? 14 THE WITNESS (Crosbie): This is Shawn 15 Crosbie. I'm going to defer that answer to MeeNa 16 Sazanowicz. 17 THE WITNESS (Sazanowicz): Thank you. 18 My name is MeeNa Sazanowicz. Yes, the 19 interconnection for that proposed project that you have mentioned, Mr. Perrone, is in Barnstable, 20 21 Massachusetts. 22 MR. PERRONE: With a connection in 23 Mass., how would the proposed project support 24 that? 25 THE WITNESS (Sazanowicz): With the

interconnecting transmission grid there would be potential for power flows and service also to the Connecticut customers on the UI transmission lines.

MR. PERRONE: Moving on to the response to Council Interrogatory 14 where it notes the design wind speed is rated for a category 3 hurricane. And my question is, what is the minimum wind speed for a category 3 hurricane?

THE WITNESS (Sazanowicz): Mr. Perrone, the wind speed for a category 3 hurricane is 130

MR. PERRONE: And also in the response to Interrogatory 14 at the end it also mentions UI includes a heavy ice loading. Do you run the category 3 wind speed with no ice and perhaps a lower wind speed with a certain ice loading also?

MR. McDERMOTT: Mr. Chouhdery, do you

have the answer for that?

miles per hour.

THE WITNESS (Chouhdery): Yes. I'm

Aziz Chouhdery. And we designed the transmission

line both summer and winter loading case. So we

analyzed the line design during the winter and

heavy ice. So hurricane loading, there's no ice

during the hurricane wind loading.

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25 MR. PERRONE: Sure.

question one more time, please?

In order to

THE WITNESS (Crosbie): Mr. Perrone,

MR. PERRONE: Moving on to the response to Council Interrogatory 26, there's discussion about bonnets and shield wire. My question is, is there an agreement between Metro-North/DOT and UI in connection with the bonnets and shield wire to be transferred in these locations?

THE WITNESS (Crosbie): This is Shawn There's not a specific, at this moment, Crosbie. agreement with UI, CT DOT and Metro-North for this work, but as mentioned, we have ongoing biweekly meetings with Connecticut DOT and Metro-North to discuss these topics. There is an overall agreement for UI facilities on the Connecticut DOT and Metro-North corridor though.

MR. PERRONE: Moving on to UI's response to Milford recommendations, they're dated April 11, 2022, and the response is labeled "R-MILFORD-1," and it mentions to underground between P905N to P912N it would include transition stations with a large visual impact. Could you describe what the transition station looks like?

this is Shawn Crosbie. Could you repeat the

1 underground one segment between P905N and P912N 2 there would be transition stations at both ends of 3 the segment, correct? 4 THE WITNESS (Crosbie): This is Shawn 5 Crosbie. Yes, that is correct. 6 MR. PERRONE: Visually what would a 7 transition station look like in terms of its 8 height and its footprint? 9 THE WITNESS (Crosbie): So its 10 footprint would be estimated somewhere around a 11 half acre to an acre, and it would consist of a 12 fenced in switchyard where there would be a 13 transition between the underground to overhead 14 transmission system. You would have terminals 15 that could range up to 20 to 40 feet in height, if 16 not taller, to align with the above-ground 17 infrastructure that transition from underground to 18 overground into. 19 MR. PERRONE: In terms of height, would 20 it be comparable to the overhead structures, your 21 tallest structure? 22 THE WITNESS (Crosbie): Yes, it would. 23 MR. PERRONE: Okay. Also on that topic 24 related to the Milford portion, could the Milford 25 portion of the project be built along the south

1 sic 2 3 Mr 4 not 5 unc 6 tra 7 to 8 box

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THE WITNESS (Sazanowicz): Thank you,
Mr. Perrone. This is MeeNa Sazanowicz. We did
not do a full investigation of that. However,
undergrounding on the south side of the railroad
tracks would need to have either, if we're going
to go underground under the tracks, a jack and
bore section or we would have to cross the tracks
twice to move the facilities from the north side
to the south.

MR. PERRONE: If you were to cross the tracks and kept an overhead configuration and kept the segment to the south, could that be done and how would that affect visibility?

THE WITNESS (Sazanowicz): I believe,
Mr. Perrone, this is MeeNa Sazanowicz again, we
would have to do some further due diligence on the
south side of the railroad tracks to determine if
an underground facility could be placed on the
south side. But if possible, the current overhead
transition structures would be the same or perhaps
taller for clearances if they have to cross over
the existing Metro-North wires.

MR. PERRONE: And just to be clear, I'm asking about a scenario where it's kept all

overhead where you cross the tracks and head to the south side of the tracks in an overhead manner in the vicinity of Milford, would that be feasible and how would that affect visibility?

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie. The visibility, there would be additional structures which would have further visibility impacts on the south side similar to the north side.

MR. PERRONE: Moving on to Council
Interrogatory Number 40, this is the one where the concrete foundations are elevated in certain areas due to sea level rise concerns from 1' to 2'-8".

And my question is, do you know how many structures required that elevation beyond 1' or at least the general area where they're located?

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie again. We're going to look

MR. PERRONE: Okay. Now moving on to the cost topic, response to Council Interrogatory 31. The entire project, the 295 million, is expected to be regionalized. Do you have dollar numbers or percentages of the total cost to be

borne by Connecticut ratepayers?

into that and get that answer for you.

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie. We do not have at this time the exact numbers for the cost to be borne by Connecticut ratepayers.

MR. PERRONE: Do you have an estimated percentage for Connecticut?

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie again. The Connecticut ratepayers would be about less than 1 percent of the overall 295 million estimated total cost. So for a dollar value we're somewhere in the range of half a million dollars or \$500,000.

MR. PERRONE: And also with that, as an all transmission related PTF project, would individual UI ratepayers bear the same portion of the cost as a non-UI Connecticut ratepayer?

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie again. Can you give us one minute or one second on that to answer that question? (Pause) This is Shawn Crosbie again. We're going to need to get back to you. We'll get back to you during this session with an answer to that. Can you repeat the question one more time just so we understand it clearly?

MR. PERRONE: Sure. So for the dollar

amount for Connecticut, is it spread out evenly across all Connecticut ratepayers regardless of if they're in UI's territory or not?

Okay. Moving on, also on the cost topic, the ISO RSP March 2022, the asset condition list, that has a regionalized project cost. If you add up all eight rows on that, it comes out to about 197 million. And with the entire project regionalized, could you explain the difference between the 197 million on the asset condition list and the 295 million projected project cost?

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie. The first part of the question that you ask, can you please just ask that one more time? I'm not sure I follow the exact location where you're looking at.

MR. PERRONE: Sure. The ISO New England asset condition list has this project listed. I believe there's eight rows. And if you add up all of the costs, it comes out to approximately \$197 million. And my question is, how do you reconcile that number with the project cost of 295 million?

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie again. I believe the

document from ISO New England you're referencing
was from 2019, and since then we've evaluated the
project based on present day costs.

MR. PERRONE: Okay. So those costs would have to be adjusted to 2022 costs?

THE WITNESS (Crosbie): Yes, that's correct.

MR. PERRONE: But adjusted to 2022, would you expect that to come out relatively close to the 295?

THE WITNESS (Crosbie): Yes.

MR. PERRONE: Next I'm going to get into the accuracy of the cost numbers. I know some of them have a certain band or tolerance around them. Moving on to 33, response to Council Interrogatories 33 and 34, there were some cost estimates for the alternatives, Alternatives 2, 3 and 4, and they were based on 2018 numbers from a Black & Veatch report. And we had asked UI to adjust those numbers to 2022 dollars.

Anyway, my question is, now that those alternative cost numbers for Alternatives 2, 3 and 4 have been adjusted to 2022 dollars, can we now compare them to the 295 on an apples-to-apples basis?

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie. Yes, I believe we can.

MR. PERRONE: And as far as the accuracy band, is the cost for Alternative 2, the adjusted cost, is that within the plus 200 slash minus 50 percent accuracy range?

I can put that a different way. For the response to Council Interrogatory 33, Alternatives 3 and 4 adjusted to 2022, those have a plus 200 slash minus 50 percent accuracy range. My question is, does that accuracy range also apply to the adjusted Alternative 2?

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie. To give you an accurate answer I'd like to be able to discuss with my team and get back to you on that.

MR. PERRONE: Sure. Okay. And the last question on the cost topic. So we have an accuracy band around all the numbers that we're comparing. As far as the 295 million proposed project cost, what is your accuracy band around that number?

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie. I believe we're at plus or minus 25 percent.

MR. PERRONE: Now I'm going to move on
to a technical question. I understand as far as
the conductors they're going to be in a vertical
configuration. I understand some transmission has
a horizontal configuration, some has a delta. My
question is, why was vertical selected for this
project?

THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie. I'm going to refer that answer to MeeNa Sazanowicz.

THE WITNESS (Sazanowicz): The current configuration is vertical because we are installing double circuit monopoles, so you have one circuit on one side and the other on the other.

THE WITNESS (Chouhdery): This is Aziz Chouhdery. I want to add something. For horizontal configuration we need a larger footprint for double circuit and we need almost double of the current right of way. So we selected a vertical configuration to go in the right of way.

MR. PERRONE: Thank you. Moving on to visual and aesthetics. In response to Council Interrogatory 24, the structures will have a

galvanized steel finish rather than weathering steel. Could you explain from a visual and an aesthetic standpoint how a galvanized steel finish would or would not fit in with the project area?

THE WITNESS (Chouhdery): Yes. This is Aziz Chouhdery. Galvanized structures look like close to a silver color, shiny, but weathering steel looks like brown, brownish color.

MR. PERRONE: As far as the one-mile visual study area around the project, how was the one-mile study area selected?

THE WITNESS (Libertine): This is Mike Libertine. Can you hear me?

MR. PERRONE: Yes.

THE WITNESS (Libertine): Okay. Great. We selected one mile primarily due to two factors. One is the length of the transmission corridor and the second is really the extent of views. The existing corridor itself today is visible anywhere from about a half mile to three-quarters of a mile from the centerline of the poles themselves. The project, as it's proposed today, will extend slightly further but not much. It's fairly similar because we do have freestanding poles at this point. So doing some recon in the field and

driving the area, it was felt as though that was sufficient in terms of being able to provide representation of the overall visibility of the project.

MR. PERRONE: Also on the visibility topic, in the response to Council Interrogatory 47, and that was the existing visibility of existing catenaries. And at the end of the response it mentions that the heights of 21 existing structures were not included. Even with those not included, does this viewshed still give an approximation to the existing conditions?

THE WITNESS (Libertine): It does. The reason we actually qualified that, Mr. Perrone, was because the question asked about the UI structures solely, and so we wanted to make sure we provided the correct answer. What I can tell you is that, because we do have some fairly tall monopoles that are freestanding today, the existing and proposed conditions from an overall footprint standpoint of visibility is going to be very similar because we do have some fairly tall poles today. So yes, to answer your question, it is consistent.

MR. PERRONE: Consistent with the

1 existing conditions? 2 THE WITNESS (Libertine): That is 3 correct, yes. 4 MR. PERRONE: Thanks. And moving on to 5 the response to Council Interrogatory 43, which is related to Charles Island, my question is, is 6 7 Charles Island inhabited, in other words, are there any homes on that island that UI is aware 8 9 of? 10 THE WITNESS (Auer): Thank you, Mr. 11 Perrone. This is Correne Auer talking. We're not 12 aware of any people living or any homes on the 13 island. 14 MR. PERRONE: And my next question is 15 wildlife related. On page 5-22 it mentions that 16 the northern long-eared bat is identified as a 17 federally listed threatened species. My question 18 is, is the northern long-eared bat currently under 19 review by U.S. Fish and Wildlife for possible 20 reclassification potentially being changed to endangered? 21 22 THE WITNESS (Auer): This is Correne 23 Auer talking again. Yes, I believe you're

MR. PERRONE: Moving back to the

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correct.

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response to Council Interrogatory Number 2, this is related to the noise topic. In the response to Council Interrogatory Number 2, part 4, towards the bottom it mentions how the rebuilt lines would have larger conductors which would potentially reduce noise. My question is, how would larger conductors reduce noise?

THE WITNESS (Chouhdery): This is Aziz Chouhdery. Usually the smaller conductors, there's a process called the Corona Effect which creates noise on the transmission line during bad weather. So smaller conductors have more noise than larger conductors usually have less ice. So on some transmission lines we use more than one conductor it's called a bundled conductor, then we have smaller conductors. So in this project we are using a bigger conductor to minimize noise and also it has more capacity to transfer power.

MR. McDERMOTT: Mr. Perrone, I believe Dr. Cotts was trying to get in also. Maybe he could further that response.

THE WITNESS (Cotts): Yes, Mr. Perrone.

I would actually just agree with what

Mr. Chouhdery said. The larger conductor results

in a lower electric field at the surface of the

conductor which results in a lower potential for the phenomenon called Corona which creates audible noise. So the larger conductors or a bundled conductor will generally reduce that noise level compared to a smaller conductor.

MR. PERRONE: Related to that Corona effect, would the proposed project create any radio or TV interference?

THE WITNESS (Cotts): The same phenomenon that creates the audible noise, this Corona Effect, would also create radio noise. Similarly, a larger conductor will reduce that. Generally speaking, for 115-kV transmission lines the conductors are generally large enough and the voltage is low enough that Corona Effects are very rarely, if ever, an issue for either audible noise or radio noise.

MR. PERRONE: Thank you. And also another technical topic. In the comments from the Department of Energy and Environmental Protection, paragraph 3 of the DEEP comments, would the proposed transmission project create electromagnetic interference that would impact the operation of railroad signals.

THE WITNESS (Cotts): This is Ben Cotts

I'll take a first pass at this and see if again. someone from UI has something to add. I don't know that -- I haven't necessarily done a specific study on the signaling of the railroad; however, what I can tell you is that the effect where that would occur is either through the electric fields or the magnetic fields from the transmission line, and that would primarily be the electric and magnetic fields at the location of the railroad tracks. And in this particular case, the grouping of the two transmission lines together on a single pole and moving that pole to the north side of the tracks ends up reducing both the maximum electric field and the maximum magnetic field. To the extent that if there were no signaling issues before, then the electric and magnetic fields at the railroad tracks would reduce as a result of the project and so there would be no issue with that in the future either.

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MR. LYNCH: Excuse me, Mr. Morissette.

MR. MORISSETTE: Yes, Mr. Lynch.

MR. LYNCH: An emergency staff meeting was called between our office and the D.C. office so I'm going to have to be leaving. I just wanted to let you know.

1 MR. MORISSETTE: Very good. Thank you, 2 Mr. Lynch. 3 (Whereupon, Mr. Lynch left the remote 4 hearing.) 5 MR. MORISSETTE: Mr. Perrone, please 6 continue. 7 MR. PERRONE: Thank you. One last 8 technical question going back to the noise topic. 9 Would the project comply with DEEP noise control 10 standards? 11 THE WITNESS (Crosbie): Mr. Perrone, this is Shawn Crosbie. I want to go back to your 12 13 last question on the Corona Effect on Metro-North 14 signal and feeders, any interruption there. I believe that was the basis of the question. 15 16 we've had five projects constructed and completed 17 along the Connecticut DOT and MNR corridor, and to 18 our knowledge to date there's been no interference 19 with any of those MNR operations. 20 MR. PERRONE: Okay. 21 THE WITNESS (Chouhdery): I would like 22 to say, this is Aziz Chouhdery, according to the 23 acceptable noise level in residential areas it's 24 55 dBA daytime and 45 dBA nighttime. So the lines

will be meeting this criteria.

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1 MR. PERRONE: Thank you. That's all I 2 have. 3 THE WITNESS (Chouhdery): Usually 4 transmission lines 115-kV and below don't create 5 much noise. So 230-kV and above, those 6 transmission lines have noise issues, in my 7 experience. 8 MR. MORISSETTE: Very good. Thank you, 9 Mr. Perrone. Just to follow up to make sure we understand what the homework assignments are. We 10 11 have an open question on the number of poles and 12 the cost to remove those distribution poles within 13 the CT DOT right of way, I believe that's still 14 pending. 15 We have the UI versus Connecticut 16 ratepayer regional cost question that's still 17 open. 18 And we have the estimation bands for 19 Alternative 2 whether it's plus 200 to minus 50 20 percent. 21 Those are the three open items I have. 22 Did I get that correct, Mr. Perrone? 23 MR. PERRONE: Yes. Thank you. 24 MR. MORISSETTE: Very good. Thank you. 25 So Attorney McDermott, we have those three open

1 items. Hopefully, we can answer them before the 2 end of today; if not, we'll have to take 3 Late-Files. 4 That's fine. MR. McDERMOTT: Thank 5 you, Mr. Morissette. We are planning on using the 6 Council's upcoming break to finalize the 7 responses, but we've been chatting amongst 8 ourselves as others have been testifying to try to 9 get answers today on those. 10 MR. MORISSETTE: Great. Thank you. 11 We'll now continue with cross-examination by Mr. 12 Silvestri followed by Mr. Nguyen. 13 Mr. Silvestri, good afternoon. 14 MR. SILVESTRI: Thank you, Mr. 15 Morissette. Good afternoon, all. 16 And Ms. Potasz, nice to see you again. 17 I will try not to duplicate Mr. 18 Perrone's questions, but the first one I'm going 19 to start off with is more of a clarification on an 20 answer that was provided to him. To start, the 21 design of the double circuit brace posts that you 22 have that support the transmission lines, is there 23 a technical or nontechnical term for that design? 24 THE WITNESS (Chouhdery): This is Aziz 25 Chouhdery. So do you want clarification of the

term brace posts?

MR. SILVESTRI: I don't know if there's anything else to call it.

THE WITNESS (Chouhdery): Brace post is insulator type. It looks like, you know, "V" you can say inverted, if you turn it to right side, it looks like that. But we can show you something during this presentation in pictures how it looks like. This is a type of installation we use for transmission line design compared to steel pole where we don't have enough right of way. The benefit of that is to minimize the conductor load so it will use suspension load from the pole and we need more electrical clearance and right of way. So just to minimize load we use a brace post insulator as compared to steel pole design.

MR. SILVESTRI: Thank you. I am familiar with what they look like. I was just curious if there was a technical name for it.

THE WITNESS (Chouhdery): Yes, technical name.

MR. SILVESTRI: Because the reason I ask, when I look at other double circuit poles I could reference near Trumbull Junction Substation, say north of the North Haven Substation on

Washington Avenue, or even around State Street area New Haven, there's a different design there which I'm going to call it a T-shaped or multiple T-shaped. So I was curious why this design differs from what I've seen for existing double circuits. What I'm hearing is that you're more compact; is that correct?

THE WITNESS (Chouhdery): Yes. We use brace posts in areas where we don't have enough right of way, narrow right of way, just to minimize conductor load and impact on the adjacent properties. So once we have longer span, we use different type of design. You will have seen suspension five years later.

MR. SILVESTRI: Understood. And when you say brace posts, that's what I mentioned as the multiple T-shaped, if you will, correct?

THE WITNESS (Chouhdery): Yes.

Basically one unit, one unit horizontally and one is like a "V" going up. This is, one longer unit you can save 4 feet, like this long. When we have suspension insulator we have smaller distance. We add them to make instead of single, but this one, brace posts, basically these are the two insulators joined together.

MR. SILVESTRI: Understood. Thank you. Now, if I could reference back to the Baird Substation to Barnum Substation transmission line project that was completed in June 2021, that removed the existing transmission lines from the catenary structure and the project then installed the new poles for the reconductored line on both sides of the railroad. If I read that correctly, I believe there were 31 poles on the north side and 30 on the south side. But the point I want to get at is the setbacks from the catenary structures range from 15 feet to 20 feet. So the question I have is why are the proposed setbacks on this new project on the order of 25 feet?

THE WITNESS (Chouhdery): Actually, once we have a smaller setback, we need more circuits, we have to increase the number of poles. So more in line with land impact than construction cost. So wherever we have the option available, we have right of way, we try to keep line away from existing infrastructure just for operation maintenance. Like for MNR wires we need 15 feet clearance from the MNR wires. So these are different factors we consider to determine the spacing between the lines.

THE WITNESS (Chouhdery): Yes.

MR. SILVESTRI: Okay. Now, with the catenary structures being proposed -- I'm sorry, with the poles being proposed next to the catenary

MR. SILVESTRI: I think I got you on that one. Thank you. Generally speaking, would the proposed new poles need to be installed directly adjacent to the catenary supports or would they be offset?

THE WITNESS (Chouhdery): As I said, 35 feet offset, but we try to match the existing catenary structure to have minimum impact on the adjacent properties, so we don't want to have a catenary structure and what I will call in between middle of that one. Wherever possible, we try to mimic the existing catenary structure. However, some locations where on other ground, some other infrastructure on the ground, we have those spans longer which doesn't match exactly with the catenary structures.

MR. SILVESTRI: So if I understood correctly, you would prefer the poles to be closer to the catenary structures rather than being in between the individual catenary structures, would that be correct?

structure, going back to what Mr. Perrone asked you about weathered steel, visually would weathered steel blend in better visually with the existing catenary structures rather than having just the bare steel, if you will?

THE WITNESS (Chouhdery): You can see the existing catenary structures, they are galvanized steel structures, and that's why they have a longer life. So galvanized structures have a longer life span and also slightly lower cost. So that's the reason most of the transmission lines you would see similar. At the Baird project you mentioned, you would see similar structures we would likely use on this project.

MR. SILVESTRI: When you say longer life, approximately how long do the galvanized poles last compared to the weathered steel poles?

THE WITNESS (Chouhdery): Well, I don't

have an exact figure, but it's around 10 to 15 years because galvanized structures they resist corrosion. And weathered steel, you know, the problem is the corrosion, we need much thicker steel. We have to account for the future, creating more cost, and that's the reason we prefer to use galvanized structures.

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your response. Speaking of ballasts and the railroad corridor, do you anticipate finding soil

MR. SILVESTRI: Okay. Thank you for

MR. SILVESTRI: Thank you. I want to go back in time for my next question. Back in the early 1990s United Illuminating and CL&P at that time partnered to install a new 115-kV line on the north side of the railroad and that ran approximately from Pequonnock Substation down to Ely Avenue Junction, I believe, in Norwalk. The way that was proposed, the new pole structures were located in the railroad ballast so that no structure would be placed in an inland wetland. The question I have here, could this project do the same locating the new poles within the ballast and not in any inland wetland?

any structures -- our priority is to avoid spotting any structure in the wetland. We have environmental, we do an environmental study, and we will avoid putting any structure in the wetland wherever possible. And in this project we don't have structures on wetlands and we plan to -- we don't plan to have structures in the ballast as the other project you mentioned.

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contamination such as PCBs, petroleum, heavy metals, et cetera, when you put foundations in; and if so, how will contamination be handled? THE WITNESS (Auer): Thank you, Mr. Silvestri. This is Correne Auer. Prior to construction we've done some due diligence work with some sampling or waste characterization of the soils in the majority of the locations where we will be drilling. And there was some historical fill that has some contaminant levels in it, and we've gone ahead and precharacterized the soil into four different categories so we have the proper means for management of soil and disposal. We also have a materials management plan for the contractors to follow during construction for the management of the soils.

MR. SILVESTRI: Let me continue with a brief follow-up on that. Should you find contamination, is it possible to use that as backfill or does it have to come off site?

THE WITNESS (Auer): There are some cases where the soil can be reused under a beneficial reuse program, so it depends on the characteristics of the soil.

MR. SILVESTRI: Very good. Thank you.

I would like to go now to the project schedule that's in volume 1 on page 4-2, and I'm looking at Figure 4-1 on that page. And the question I have, it seems that certain segments will be energized upon completion. The question I have is, how will these new segments be connected to the existing catenary structures for energizing, you know, how do you actually tie in the new part to the old part?

THE WITNESS (Crosbie): Mr. Silvestri, thank you very much. This is Shawn Crosbie. So the project is designed by segment, and segment is defined by substation to substation. So our substation furthest to the east, which is West River Substation, the proposed construction sequence would go to our Elmwest Substation, which is the next substation to the west. My understanding is that there's no interconnection with the catenaries. All the structures will be set back off the existing catenaries either predominantly on the north side and then some on the south side to align with current substation configurations.

MR. SILVESTRI: So if I understood, Mr. Crosbie, it's a substation to substation

1 energizing project or portion? 2 THE WITNESS (Crosbie): Yes, it is, 3 that's correct. 4 MR. SILVESTRI: Very good. Thank you. 5 The application also stated that no expansion of 6 existing substations is required, but my question 7 is will there be any modifications or additions to 8 the equipment within the substation for this 9 project? 10 THE WITNESS (Chouhdery): I don't have 11 that answer right now, but we will get you that 12 answer. 13 MR. SILVESTRI: Okay. Thank you. 14 MR. McDERMOTT: Mr. Silvestri, could I 15 jump in here? 16 Ms. Sazanowicz, do you have something 17 to add to that? 18 THE WITNESS (Sazanowicz): Yes. Mr. 19 Silvestri, there will not be any equipment 20 additions or replacements within the substation However, to transition the conductors over 21 yard. 22 to the proposed 1590 ACSS, there will be some 23 hardware attachments on some of the takeoff 24 structures within the substation. 25 MR. SILVESTRI: Very good. Thank you.

1 All right. Now I'd like to turn to volume 1 again 2 looking at page 9-11 and 9-12. There's two 3 figures there, there's Figure 9-1 and Figure 9-2. 4 It appears that the height of the double circuit 5 post is the same as the height of the single 6 circuit post from Alternative 2 on both sides of 7 the railroad. Is that correct that the heights 8 would be the same for Alternative 1 and 9 Alternative 2? 10 THE WITNESS (Crosbie): Mr. Silvestri, 11 this is Shawn Crosbie. One second while we get to 12 those pages. 13 MR. SILVESTRI: Sure. No problem. 14 THE WITNESS (Sazanowicz): I believe, 15 Mr. Silvestri, based on the conceptual design for 16 both Alternatives 1 and 2, which they're the 17 single circuit and double circuit structures, they 18 would be approximately the same. Obviously, 19 structure heights would change based on the 20 underlying topology and clearances that need to be 21 maintained by the conductors. 22 MR. SILVESTRI: I appreciate -- go 23 ahead. 24 THE WITNESS (Chouhdery): Aziz 25 Chouhdery. I'd like to add. The single circuit

structures you saw, they are facing toward the catenary structure. So we have to keep our transmission line connector higher than the catenary structure in order to get this. That's why the similar heights.

MR. SILVESTRI: Okay. So it's safe to say there would be similar heights, although there might be a little bit of adjustment one way or another based on clearances?

THE WITNESS (Chouhdery): Yes.

MR. SILVESTRI: Very good. Thank you. If we could stay with volume 1 and turn a couple pages ahead. I'm going to page 9-14 at this point. And it states that "new UI and industry standards have been developed." Could you describe what those standards are? This is at the very top of 9-14, third line is what I'm actually looking at.

THE WITNESS (Sazanowicz): So the new industry and UI standards that are referenced are the updated NESC, which is the minimum design code that's used by United Illuminating, and UI also has their own standards based on that NESC code so that also gets updated.

MR. SILVESTRI: A general follow-up

question for you. Will these standards now impact other segments of the transmission lines on the railroad or other UI transmission lines?

THE WITNESS (Sazanowicz): So per the NESC, there is a grandfather clause. So based on the update of the NESC and UI standards, we would not need to make additional updates to any of the other UI facilities that are not along the railroad. The other facilities that are on the railroad have been updated within the last ten years or so, and they have followed these updated UI and NESC standards.

MR. SILVESTRI: Very good. Thank you for your response. Turning to the interrogatory response for number 38, I just want to get a verification on that. Will notifications to the FAA be required for any cranes that would be used to set in the poles?

THE WITNESS (Sazanowicz): Yes.

MR. SILVESTRI: Very good. Thank you. Turning to wildlife for a minute or so, the Peregrine falcon is listed by the state as a threatened species. I'm aware of nesting in the Bridgeport area, particularly under highway bridges. And was there any detection of this

1 falcon within the areas proposed for construction? 2 THE WITNESS (Libertine): This is Mike 3 Libertine, Mr. Silvestri. Good afternoon. 4 MR. SILVESTRI: Good afternoon. 5 THE WITNESS (Libertine): There has 6 been some field walks looking for different 7 species and the bird surveys and inventory. To 8 the best of our knowledge, we have not seen any 9 that are in the construction zone or proximate to 10 it. 11 MR. SILVESTRI: Thank you, Mr. 12 Libertine. 13 THE WITNESS (Libertine): You're 14 welcome. 15 MR. SILVESTRI: My next question now 16 goes back to UI's response on April 11, 2022 to 17 the City of Milford's recommendation. And if you 18 could turn to the view from 1 Darina Place in 19 Milford, I have a couple questions on the 20 simulations that are there. So first off, Pole 21 912 North has what seemed to be six lines that 22 connect just below the midpoint of the structure. 23 Could you tell me what those lines are? 24 THE WITNESS (Crosbie): Mr. Silvestri, 25 this is Shawn Crosbie. Just give us one moment to get to that.

MR. SILVESTRI: No problem. What I'm looking at, the view from 1 Darina Place, it has the CSC proposed design listed in the lower left corner.

THE WITNESS (Crosbie): Thank you for that reference. Mr. Silvestri, this is Shawn Crosbie again. I believe those are MNR signal and feeder wires.

MR. SILVESTRI: All right. And if I look at the CSC proposed design and then turn to the alternate design which has Pole 910 North, they connect back to the catenary structure on the railroad where the first picture that I referenced doesn't. Is there a back and forth between UI's proposed poles and the catenary structures or how does that actually work out?

THE WITNESS (Crosbie): Mr. Silvestri, this is Shawn Crosbie again. Can you give me a moment or two? I believe this element needs us to reference back to a potential answer that we provided to the City of Milford just to make sure we provide a clear answer.

MR. SILVESTRI: Okay. Mr. Crosbie, the other thing I'd like you to look at in the process

is the response to Interrogatory 26 where it talks about the railroad wires being located on the south side of the tracks between First Avenue and the West River in West Haven, but it doesn't talk about anything in Milford. So that's where I'm looking at the shield wire and what Metro-North actually has in relation to UI's proposed poles.

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THE WITNESS (Sazanowicz): Silvestri, you are correct in stating that there are some locations on the new double circuit monopoles where UI will be carrying the Metro-North feeder and signal wires, and that is for clearance issues in close proximation of the new pole to the existing Metro-North facilities.

In reference to, I believe you said Interrogatory 26 that was submitted, there are certain sections of the railroad such as street crossings where when UI takes off its bonnet and shield wire there will not be lightning shielding for the Metro North wires. So in those locations we will be installing a short bonnet and shielding wire to provide adequate shielding for the Metro-North signal wires.

MR. SILVESTRI: Thank you for your So even though UI is proposing to take response.

the transmission lines off the railroad, there's still going to be some interaction and some type of wires, be they shield or otherwise, between the railroad and UI's proposed poles, correct?

THE WITNESS (Sazanowicz): In some locations. The majority of the Metro-North wires will stay on the Metro-North facilities.

MR. SILVESTRI: Very good. Thank you. Is UI aware of any expansion of the railroad that could impact the proposed locations of these new poles?

THE WITNESS (Crosbie): Mr. Silvestri, at this time UI is not aware of any expansion, but we are aware of two potential projects that Connecticut DOT may perform during our proposed schedule time frame. And we, as mentioned before, have continued biweekly meetings with Connecticut DOT and MNR to discuss these aspects or ad hoc meetings with those project teams for those projects.

MR. SILVESTRI: Thank you, Mr. Crosbie.

Now, the last topic I have concerns clearances,

and I hope I don't get convoluted with what I'm

going to try to put across. But we discussed

clearances already from the railroad lines

1 basically, shall we say, in a horizontal 2 direction. Now, vertically there is a clearance 3 threshold from the ground or ground structures; am 4 I correct on that? 5 THE WITNESS (Sazanowicz): Yes. 6 THE WITNESS (Chouhdery): Yes. 7 MR. SILVESTRI: Okay. Do you have an 8 approximate distance of what that clearance would 9 be from either the ground or any type of ground 10 structure? THE WITNESS (Chouhdery): This is Aziz 11 12 Chouhdery. Basically once we design the line, we 13 design the line, check the clearance, maximum 14 operating temperature, then we maintain 23 feet 15 clearance from conductor to ground minimum. 16 is the minimum we have. 17 MR. SILVESTRI: Very good. And again, 18 that's because of line "slag," if I could use that 19 term? 20 THE WITNESS (Chouhdery): Yes. 21 MR. SILVESTRI: So if it were feasible 22 to reduce the overall height of the structures, 23 more poles would be required to basically have 24 less line slag, am I correct on that so far? 25 THE WITNESS (Chouhdery): Yes. The

1 conductor will sag, and it changes with some 2 pressure. Once there is less a load, current 3 flowing in, more load in the line, the sags 4 increase, and there's less load then the connector 5 goes up. So it's moving, it's not a static 6 It goes up and down like this one, sag. position. 7 MR. SILVESTRI: Understood. Thank you. 8 Now, I'll try to get this one across the best way 9 I can. If we put aside any major crossings such 10 as a river crossing or in the case of Milford 11 Cemetery, I'm trying to get a handle on how much 12 the height of the structures could be reduced by 13 how many additional structures might be needed, 14 and coupled with that, what the costs might be 15 that go along with it. And you kind of hinted a 16 little bit in the response to Interrogatory 28, 17 but I'm looking to see if there's any ballpark 18 figures on reducing height and how many additional 19 structures might be required to do so. 20 THE WITNESS (Sazanowicz): Mr. 21 Silvestri, this is MeeNa Sazanowicz. I think we 22 will have to get back to you with more details on 23 that question.

MR. SILVESTRI: That's fair enough. I realize that's a loaded question, but I think you

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1 have an idea what I'm trying to get across and 2 whatever you could provide at a later time would 3 be appreciated. Thank you. 4 Mr. Morissette, that's all the 5 questions that I do have at this time, and I thank 6 you, and I thank the panel. 7 MR. MORISSETTE: Thank you, Mr. 8 Silvestri. I think it's a good time to take a 9 quick ten minute break. So actually we'll take an 10 11 minute break and we'll see everybody back here 11 at 3:30 and we will continue with 12 cross-examination by Mr. Nguyen and following Mr. 13 Nguyen will be Ms. Cooley. Thank you, everyone. 14 We'll see you at 3:30. 15 (Whereupon, a recess was taken from 16 3:20 p.m. until 3:30 p.m.) 17 MR. MORISSETTE: Thank you, everyone, 18 we're back. Is the court reporter back with us? 19 THE COURT REPORTER: Yes, I am. Thank 20 you. 21 MR. MORISSETTE: Very good. Thank you. 22 Okay. Before we move on to Mr. Nguyen and Ms. 23 Cooley, I want to make sure that I have the last 24 question that Mr. Silvestri asked and is still 25 pending. Mr. Silvestri, could you repeat that

question one more time?

MR. SILVESTRI: Sure thing, Mr.

Morissette. What I was looking at is putting
aside any major crossings such as river crossings
or the cemetery in Milford, I'm trying to get a
handle on how much the height of the structures
could be reduced by adding additional structures
and what the associated cost might be to do that.

MR. MORISSETTE: Very good. Thank you.

MR. McDERMOTT: Mr. Morissette, this is Bruce McDermott. We did have some success during the break of ticking off a few of the homework assignments. That one I'm told by the engineers will need a little time and effort, and maybe we could just take that and either do that as a Late-File or we can address that at the next hearing. But the cost part of that is going to take a little bit more of an effort than we can just give right now during the hearing.

MR. MORISSETTE: Very good. Thank you for that. Do you want to go through the other open ones or do you want to wait until we complete with the Council's questioning?

MR. McDERMOTT: Mr. Morissette, it's your hearing. I'm happy to do it whenever it's

1 convenient for you. 2 MR. MORISSETTE: Why don't we hold off 3 momentarily. We may have some additional items 4 that we need to clean up come the end of the 5 hearing today. 6 MR. McDERMOTT: Thank you. 7 MR. MORISSETTE: Thank you. Okay. 8 We'll continue with cross-examination by Mr. 9 Nguyen followed by Ms. Cooley. 10 Mr. Nguyen. 11 MR. NGUYEN: Thank you, Mr. Morissette. 12 Good afternoon, everyone. 13 To the extent that the company will get 14 back with the cost and the cost allocation, I just 15 want to confirm with the company witness that in 16 terms of the cost or cost recovery it would be 17 subject to review by PURA, the Public Utility 18 Regulatory Authority? 19 MR. McDERMOTT: Mr. Nguyen, Bruce 20 McDermott. I'm sorry, in terms of a rate case or 21 what --22 MR. NGUYEN: For example, a rate case. 23 I just want to confirm, is the company aware that 24 there is any cost recovery for --25 MR. MORISSETTE: Maybe we could

1 approach it in a slightly different manner, Mr. 2 Nguyen. 3 MR. NGUYEN: Yes. 4 MR. MORISSETTE: If we could address it 5 into how does the company plan on obtaining cost 6 recovery overall for the project. 7 MR. NGUYEN: Yes, that would be fine. 8 So the question is, the company indicated that 9 there's a percentage to distribution ratepayers. 10 Would the company seek that cost recovery through 11 the PURA process? 12 THE WITNESS (Crosbie): This is Shawn 13 Crosbie. For the distribution work, yes, that is 14 okay. 15 MR. NGUYEN: I'm sorry? 16 THE WITNESS (Crosbie): Mr. Nguyen, 17 this is Shawn Crosbie. Yes, for distribution 18 work, correct. 19 THE WITNESS (Sazanowicz): And if I 20 might add, Mr. Crosbie. Mr. Nguyen, the 21 transmission line costs would be appropriated 22 through ISO New England and the OATT process as these are pool transmission funds, assets. 23 24 MR. NGUYEN: Yes. Thank you. Now, at 25 the end of the project there will be 9.5 miles of

1 conductors essentially will be removed, including 2 all the structures. But for the purpose of my 3 question related to conductors, what would be the 4 company's plans to dispose or recycle those 5 conductors? 6 THE WITNESS (Crosbie): Mr. Nguyen, 7 this is Shawn Crosbie. Right now the scope of the 8 project related to the, for the management of the 9 conductor would be up to the contractor. UI would 10 obviously like to see that recycled as it would be 11 an option ultimately left up to the contractor. 12 MR. NGUYEN: And would the company 13 expect any net salvage value? 14 THE WITNESS (Crosbie): I would presume 15 If it's recycled, it would be evaluated by 16 the contractor and how they provide their estimate 17 for the construction on the project, yes. 18 MR. NGUYEN: So in terms of contractor work, would the entire project be delegated to 19 20 contractors that would perform the work? 21 THE WITNESS (Crosbie): Mr. Nguyen, 22 this is Shawn Crosbie. For the construction of 23 the project, yes, that would be for contractors. 24 MR. NGUYEN: Would there be any

in-house work that would be performed by UI

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employees?

THE WITNESS (Crosbie): Mr. Nguyen, could you help me understand when you say in-house work what you're referring to?

MR. NGUYEN: UI employees, that would be performed by UI employees.

THE WITNESS (Crosbie): Shawn Crosbie.

Yes, UI would do some of the work in support.

MR. McDERMOTT: I'm sorry, Mr. Nguyen,
I want to make sure Mr. Crosbie is answering your
question. Are you referring to construction work,
design work, or what kind of component of the
project specifically are you interested in knowing
about because I think there's many layers here.
Thank you.

MR. NGUYEN: Yes. I'm referencing design work, construction work. I'm just trying to get a picture of, you know, how many percent of the entire project would be performed by contractors and the percentage by UI employees.

THE WITNESS (Crosbie): Mr. Nguyen, this is Shawn Crosbie. So UI would at a minimum oversee the entire project, all aspects, design, construction, and closeout more tightly. The contractors would be performing the construction

1 of the project. We also have support from outside 2 engineering firms for the detailed engineering. 3 We also have our own engineering team reviewing 4 plans, overseeing that aspect, along with any of 5 our permitting. We do have our permitting team 6 self-performing some of that with support from an 7 outside contractor. 8 MR. NGUYEN: So there would be a number 9 of entities or teams that would perform this work? 10 THE WITNESS (Crosbie): Yes, sir, 11 that's correct. 12 MR. NGUYEN: In terms of service 13 continuity, would the five substations remain in 14 service during the construction upgrade? 15 THE WITNESS (Crosbie): Mr. Nguyen, 16 this is Shawn Crosbie. Yes, the substations will 17 remain in service. 18 MR. NGUYEN: Would there be any 19 interruption expected? 20 THE WITNESS (Crosbie): This is a Shawn 21 Crosbie again. No, there's no interruption that 22 we would expect. 23 MR. NGUYEN: And in terms of the 24 traffic controls during the construction, is there

any plan for traffic controls, if any?

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THE WITNESS (Sazanowicz): Ms. Cooley,

THE WITNESS (Crosbie): Mr. Nguyen, this is Shawn Crosbie again. Yes, the traffic controls are needed throughout the construction as our contractor would define their means and methods based on what we've proposed as a project in our design process. We would work with either the local municipalities or the state to define those traffic control plans.

MR. NGUYEN: Okay. I believe that's all the questions I have, Mr. Morissette. Thank you.

MR. MORISSETTE: Very good. Thank you, Mr. Nguyen. We'll now continue with cross-examination by Ms. Cooley followed by Mr. Ouinlan.

Ms. Cooley.

MS. COOLEY: Thank you, Mr. Morissette. I just have a few questions. My first refers to Council Interrogatory Number 12 which shows some examples of physical degradation due to age from some of these transmission structures. Are these photos from structures that are on the existing line right now or were those just examples of the kind of --

this is MeeNa Sazanowicz. Yes, those are from the existing structures, yes.

MS. COOLEY: Okay. And what percentage of the structures show this kind of damage, is this something that's common throughout the line?

THE WITNESS (Sazanowicz): Ms. Cooley, yes, based on our field inspections we did notice corrosion on the structures, yes, throughout the line.

MS. COOLEY: And how old are these structures?

THE WITNESS (Sazanowicz): The existing catenary structures were built in the 1910s. The UI infrastructure was put into place starting in the 40s.

MS. COOLEY: Okay. So quite a long time. Okay. Then the next question I have refers to Council Interrogatory Number 40 we've had a couple of questions on. And the question that I have is, I think there was an open question perhaps, or maybe I just missed the answer, about how many of these poles will be in the 100 and 500 year flood zones.

THE WITNESS (Crosbie): Ms. Cooley, this is Shawn Crosbie. We're still looking into

getting an exact number to define exactly 100 year and 500 year flood plain and now those are represented by the number of structures there. So we're going to provide an answer, I believe, as Mr. McDermott responded to Mr. Morissette on, at the end of the session, if that's okay.

MS. COOLEY: Great. And then I have a question about the, just a clarification, on the letter from DEEP from April 21st on the fourth page, the third paragraph, the analyst is questioning about, I believe wants to clarify the length in miles of the corridor that are in the 100 year flood plain and in the 500 year flood plain.

THE WITNESS (Auer): Yes, Ms. Cooley.

This is Correne Auer speaking. Yes, the statement there is correct.

MS. COOLEY: Okay. So that would be an additional 1.22 miles in the 500?

THE WITNESS (Auer): Correct.

MS. COOLEY: So they're additive, okay, yes. All right. And then I just have one other question too about from volume 1, section 4 of the application on page 4-3 where you're talking about construction work hours. Because of the nature of

the project along railroad tracks, it's going to take some, out of regular hours, work hours time, but I don't, I'm not seeing where you've made any kind of an estimate about how many 24-hour days you anticipate on the project or how many days where you'd have nonstandard work hours. Do you have any sense of that or at least a percentage of the construction time that would be done on out of regular work hours?

THE WITNESS (Crosbie): Ms. Cooley, this is Shawn Crosbie. I believe right now some of the out of standard work hour activities would be the four track crossings that we have going from the north side to our substations that are located on the south, which I believe there are four, four track crossings currently which will require out of norm work hours to work and coordinate with Metro-North. And then as we have dialogue with our contractor for this work and they define their means and methods, other nonstandard activities, if we're pulling our conductor through longer segments where we would have to work longer hours, that may occur, but we would work with Metro-North to coordinate those efforts.

MS. COOLEY: Do you have --

MR. McDERMOTT: I'm sorry, Ms. Cooley. I was just going to make sure Mr. Crosbie is answering your question about if you had an estimate on the number of 24-hour days for the project or the number of nonstandard work hour days the project might be incurring, if you can say. Her question was what percentage of the project might be 24 or nonstandard.

THE WITNESS (Crosbie): Ms. Cooley, this is Shawn Crosbie again, I would respectfully ask to follow back up with the Council on that to give you a more exact answer, if you're okay with that. We do know, as mentioned, we have four track crossings and we're waiting to have further discussion with our contractor. Hopefully a follow-up question we can answer for you shortly.

MS. COOLEY: Okay. Thank you. Will there be any attempt to notify abutters when that work outside of regular hours will be done or the 24 hours? I notice that in some places the track, it's quite close to housing, apartment houses, houses and apartment buildings. So will there be any notification to those people that there will be 24-hour work?

1 THE WITNESS (Crosbie): Ms. Cooley, 2 this is Shawn Crosbie. I'm going to refer the 3 answer to Ms. Sam Marone to provide some 4 background on notification to our customers. 5 THE WITNESS (Marone): This is Samantha 6 Marone. Yes, throughout the duration of the 7 project any unexpected work hours, additional 8 noise, anything in line of sight that would be out 9 of ordinary we will notify the abutters and the 10 municipalities as well. 11 MS. COOLEY: Okay. Very good. I think 12 that's all I have that has not already been 13 answered. So thank you very much. 14 MR. MORISSETTE: Thank you, Ms. Cooley. 15 We'll now continue with cross-examination by Mr. 16 Quinlan followed by Mr. Collette. 17 Mr. Ouinlan. 18 MR. QUINLAN: I have no questions at 19 this time. Thank you. 20 MR. MORISSETTE: Very good. Thank you, 21 Mr. Quinlan. We'll now continue with Mr. Collette 22 and the final cross-examination will be by myself. 23 Mr. Collette. 24 MR. COLLETTE: Yes. Thank you, Mr. 25 Morissette. I just have a few questions from the

responses to Council's interrogatories just quickly starting with Council Interrogatory 5.

Would UI be able to give information on the length of that lease agreement, the length of the term, it indicates it commenced on May 5, 2007, but what the length of the term is and any potential renewals of that lease?

MR. McDERMOTT: This is Bruce
McDermott. The answer is that I told the company
they didn't have to provide that lease as an
exhibit, and we probably should have. Allow me
to, we'll take that on and get you that answer. I
have that with me. Thank you.

MR. COLLETTE: All right. Thank you.

Next, just looking at the response to

interrogatory, Council Interrogatory 7, and it's

again looking at that second page of that response

discussing the potential use to convey power from

offshore wind projects, particularly Park City

Wind. The term "potentially" there, is that

potentially because you don't know for sure that

that project will become operational, is that

potentially because you don't know exactly how

that power will be distributed? Can somebody

clarify what's meant there? And then the

1 follow-up question will be, if it is to convey 2 power from those projects, will any further 3 upgrades be required to these facilities? 4 THE WITNESS (Sazanowicz): 5 Mr. Collette, this is MeeNa Sazanowicz. The 6 "potential" is we are unsure of the potential 7 capacity of these lines to carry that wind load 8 that's coming offshore or how much of that would be carried by these conductors. 9 10 MR. COLLETTE: Okay. So would there be 11 any plans to upgrade these facilities to 12 accommodate that capacity or is it these 13 facilities will remain 115 kilovolts and if they 14 can handle additional load from that offshore wind 15 facility so be it, or how does that get 16 determined? 17 THE WITNESS (Sazanowicz): So 18 Mr. Collette, ISO New England would identify any 19 needs from that project, and then from there we 20 would determine any upgrades as needed. So far no 21 upgrades for UI have been determined as a part of 22 that project and interconnection. 23 MR. COLLETTE: Okay. Thank you. The 24 last question has to do with response to

interrogatory, Council Interrogatory 43.

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regards the mitigation pursuant to discussions with SHPO, the State Historic Preservation Office. And I just wanted to follow up on the concept of work being done on and regarding Charles Island and just have UI provide any information on any consultation that's been done with Connecticut DEEP, research on the island, placing of signage on the island and any other consultation regarding the potential wildlife impacts, the placement of any signage, and any connections to the known limited access to that island due to public safety issues associated with the fact that the area is fully covered in water sometimes during the day.

THE WITNESS (Auer): Thank you, Mr.

Collette. This is Correne Auer speaking. We do
have our historian or our cultural resource
consultant that we've been working with who has
been working with SHPO, and we determined that
this was going to be our mitigation project. And
part of that was to do field mapping and create
the signage like it's been stated. As part of the
project we've begun to look into time of year to
access the island, and there will be some
requirements or restraints due to species, like
you said. Our consultant will be working with

1 DEEP to determine if there's any other constraints 2 as far as placement of a sign or access. So 3 that's just beginning to get underway. 4 MR. COLLETTE: Okay. Thank you. Those 5 are all my questions. Thanks for other Council 6 members presenting some detailed questions. 7 clarified some of mine as well, so thank you. 8 MR. MORISSETTE: Thank you, Mr. 9 Collette. Very good. I will continue with my 10 questions. Let's start off with the Council's 11 interrogatories. I'll start with Question Number 12 6. We'll go through the interrogatories first and 13 get those out of the way. My first question 14 relating to number 6, it says that it is related 15 to Metro-North's operation. Now, based on the 16 response, it's my understanding that Metro-North 17 is interconnected to a substation in New Haven. 18 You may not be able to tell me which substation. 19 We'll start there. Can you tell me the 20 substation? 21 THE WITNESS (Sazanowicz): The 22 substation is Union Ave. 23

MR. MORISSETTE: So based on that it's being fed, Metro-North being fed by the New Haven Substation, essentially the operations of the

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1 lines that we're dealing with here today have no 2 impact on Metro-North's operation whatsoever 3 because it's independently connected to the New 4 Haven Substation, is that understanding correct? 5 THE WITNESS (Sazanowicz): Yes. 6 MR. MORISSETTE: Essentially, these 7 lines are interconnecting the five substations 8 between themselves and they are fed from other 115 9 areas unrelated to Metro-North; is that correct? 10 THE WITNESS (Sazanowicz): I'm sorry, 11 could you repeat the question? 12 MR. MORISSETTE: Essentially, the 115 13 connections between the five substations that 14 we're talking about here today are totally 15 independent of the Metro-North operations and are 16 fed from an independent source different than 17 Metro-North is fed, so there's no outages on these 18 lines that will cause Metro-North to go out? 19 THE WITNESS (Sazanowicz): Correct, 20 yes. 21 MR. MORISSETTE: Thank you. I'd like 22 to go to response 16 quickly here. I just want to 23 clarify. So bullet number one relates to 24 requiring flaggers relating to any work in the 25 Metro-North or CT DOT railroad corridor. Is that

the 25-foot limit that we're throwing around here, so if any work is within 25 feet you're requiring to have a flagger or is it some other number?

THE WITNESS (Crosbie): Mr. Morissette, this is Shawn Crosbie. If it's any work within 5 feet of the Metro-North tracks requires a flagger, and then additional Metro-North support is required in different proximities.

MR. MORISSETTE: Okay. So 5 feet for a flagger and then 10 feet for signal and feeder wires would require an outage of one track closest to the work, is that interpretation correct?

THE WITNESS (Crosbie): Mr. Morissette, this is Shawn Crosbie. I believe that is correct. It is the track that is closest to the work being performed.

MR. MORISSETTE: Okay. So both of these are totally separate from the 25 feet that was referred to in one of the responses. Okay. All right. We will move on. I'd like to go to Question 35, please. Before we do that, I'm sorry, I'm jumping around here, let's go to Question 20 and it relates to the 5 feet. So in the last sentence of the response to Question 20, so that last sentence refers to the 5 and 10 feet

that we just discussed, is that correct, it has nothing to do with the 25 feet?

THE WITNESS (Crosbie): Mr. Morissette, this is Shawn Crosbie. Could you just rephrase your question or repeat your question one more time, please?

MR. MORISSETTE: Sure.

THE WITNESS (Crosbie): Thank you.

MR. MORISSETTE: Sure. On question 20, the last sentence in the first paragraph is that "maintenance on 115-kV facilities to be done without an outage on the Metro-North signal and feeder wires," and that's because the 25 feet that you're designing to will allow you to work on those facilities because you're greater than the 5 feet and the 10 feet for flaggers and railroad track outages?

THE WITNESS (Sazanowicz): Mr.

Morissette, this is MeeNa Sazanowicz. Yes, we adequately designed the clearances taking into account working clearances as our discussions with Metro-North. So in due diligence of the design, you know, those clearances will allow for either UI or Metro-North to do their work without having to take outages on the adjacent facilities.

MR. MORISSETTE: Great. Okay. Thank
you. The 2018 asset condition report indicated 15
feet for a clearance and you've chosen to increase
it to 25 feet. And the reason for that is what?

THE WITNESS (Sazanowicz): Mr.

Morissette, this is MeeNa Sazanowicz again. So the asset condition report was based on pole spacing of 300 feet approximately for each span. This project takes into account some pole spacing at 300 while there are other spacings that are much larger. So the right of way needs for the project also incorporate those extra needs for the longer spacings as well.

MR. MORISSETTE: Great. Okay. Thank you. Now moving on to Question 35 having to do with undergrounding. Two estimates were provided, one for undergrounding within the CT DOT right of way and the other was to underground in the public roads. Now, I found that both of your estimates, 2.7 billion and 3.4 billion to be extremely high given that you have 9.5 miles of undergrounding, 11.5 miles for the public right of way, and 9.5 miles for the CT DOT which is extremely, extremely high. Can you talk about that a little bit as to why those estimates are as high as they are and

what's driving it to be in that range, considering that, you know, costs for a double circuit line you're installing at 30 million a mile for a double circuit overhead. I would think, you know, 30 to 50 million for underground would be in the ballpark that you would see for something like this. So if you could elaborate on that, I would appreciate it.

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THE WITNESS (Sazanowicz): Morissette, this is MeeNa Sazanowicz again. And those high level conceptual estimates were based also on the ampacity needs of the facilities. in order to obtain the same capacity needs for the underground circuits as for the overhead, I believe we needed two cables per phase. These also included the very specialized needs for jack and bore under the railroads to cross back and forth to interconnect into the substations, also potential additional permanent land that would be needed outside of the substation to accommodate the termination structures that will need to be placed at the substations in order to connect the underground to the terminals as well as any HDD that we would potentially need for any of the stream or water crossings as well.

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MR. MORISSETTE: And you will probably need, what, four jack and bores at a minimum?

THE WITNESS (Sazanowicz): At a minimum, yes, depending on final design, yes.

MR. MORISSETTE: Okay. And then the wetland impact areas would require some special carrier there as well?

THE WITNESS (Sazanowicz): Correct.

MR. MORISSETTE: All right. It does seem awfully high, but the point is, is that undergrounding from the 9.5 miles will be much greater than any of the overhead solutions that are being proposed.

Okay. I'd like to move to Milford
Question Number 1, please. This talked about
undergrounding from structure P905N to P912N at a
cost of 66 million. The last sentence in the
second paragraph indicates that an increase in EMF
levels based on the closer proximity of
transmission equipment to public areas. Could you
explain that for me because it's not my
understanding that you would have an increase in
EMF directly above the cable, but can you talk
about that a little bit, please? Maybe Dr. Cotts
could address that, the difference between

overhead and underground.

THE WITNESS (Cotts): Yes, this is Ben Cotts. I think you're exactly correct that the underground transmission line would be expected to have higher magnetic field levels and in the immediate vicinity right over the duct bank, but as you get a few tens of feet away, the magnetic field levels from the underground duct bank would likely be lower than they are for an overhead transmission line which falls off more slowly with distance. So I think your understanding there is correct, and perhaps the wording there is not as clear as it could have been.

MR. MORISSETTE: Yes, I agree. Thank you. Thank you for that clarification. I'd like to go to the response to Milford Number 3. I'm a little confused by the heights that were provided. If I look at the drawing, project mapping and drawing tables, if you could clarify for me, it's right after the cross section dash 14 page there's a table. Maybe I'm looking in the wrong spot, you can clarify for me, but there's a table with structure heights. So I look at your structure heights in the question, so, for example, P908N, it says 130 feet, but the table says 135. And

1 then, for example, P912N, the question says 130, 2 the table says 95. What am I missing here? 3 THE WITNESS (Crosbie): Mr. Morissette, 4 this is Shawn Crosbie. If you'll give us a minute 5 just to cross reference those references you have. 6 MR. MORISSETTE: No problem. Thank 7 you. 8 THE WITNESS (Crosbie): So the 9 reference is to Milford. (Pause) 10 Mr. Morissette, this is Shawn Crosbie 11 again. 12 MR. MORISSETTE: Yes. 13 THE WITNESS (Crosbie): Could you 14 please refer us to the exact table you're 15 referencing? I believe it's within the 16 application. 17 MR. MORISSETTE: Yes. So in the drawings, volume 2, project mapping and drawings, 18 19 right after drawing XS-14, the next page has a 20 table. List the proposed structures by cross 21 section reference. So the table on the left-hand 22 side provides distances and structure height that 23 are inconsistent with the response, the question 24 here, unless I'm looking at the wrong place for

these structure heights. If you could direct me

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to the correct place, that would be helpful.

MR. KNUFF: Mr. Morissette, perhaps I could be of assistance. This is John Knuff, for the record, on behalf of the city. The question posed was, you know, we created in parenthesis what we believed our interpretation of the height was. It is possible that we have the incorrect number in the question. So to the extent that your question goes to the inconsistency between the question and the table that is found at sheet 16 of 16 in the cross section diagrams, that could have been my fault or my office's fault and not the problem from UI. If the inconsistency you're referring to is in their answer, then I'll allow UI to reply.

MR. MORISSETTE: Okay. I understand now. Thank you for that. That's very helpful. So the table, I should be looking at the table referred to on sheet 16 of 17 for any proposed heights, is that correct, Mr. Crosbie?

THE WITNESS (Crosbie): Yes, Mr.

Morissette, that is correct.

MR. MORISSETTE: Great. All right.

Now that we've got that straightened out. So

these are the proposed heights, and any deviations

will be to these proposed heights because I have additional questions on height to follow up on Mr. Silvestri's comments and questions. So I'll come back to that. But keep that in mind that I think this height table is going to be very useful.

Okay. So now that we got that clarified.

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Okay. What I'd like to do is to go to or talk about the asset condition report which was part of Question 13, Question 13 provided as an exhibit the asset condition report of 2018. Now, that report, which was very helpful, we thank you for providing that, basically says that 100 percent failure of the structures using category 3 loading and other criterias that UI now incorporates in their design. So it looks like two things, it looks like the structural integrity failure and it looks at UI equipment support failure. And under the new criteria of NESC 2012, UI criteria and hurricane cat 3 criteria they all fail, 100 percent fail, and that's based on existing conditions. It's not based on adding additional equipment to it, is that correct, or it's not based on if you were to add additional replacement of the conductors that are on the bonnets it would cause additional loading, it

would also increase the height, but that's not what this is saying. This is saying existing conditions, if you didn't do anything, they fail.

THE WITNESS (Sazanowicz): Mr.

Morissette, this is MeeNa Sazanowicz. That is correct.

MR. MORISSETTE: Okay. So if you did do all that, increase the height of the conductor, add additional, add the new bonnets, that would further cause stress on the structural integrity of the CT DOT structures, the catenaries, correct?

THE WITNESS (Sazanowicz): Mr.

Morissette, yes, under the UI loading conditions that UI assessed these structures to, yes, that's correct, we cannot increase the existing load at the UI structure.

MR. MORISSETTE: So those catenaries are, they're in really bad condition and UI is basically taking their equipment off. And my question is, you probably can't answer it, maybe you know or you don't is, when you take the transmission equipment off the catenaries does the structural integrity of the catenaries become passable, I'll call it, is it now structural integrity, does it have it or does it still fail?

1 THE WITNESS (Sazanowicz): Mr. 2 Morissette, this is MeeNa Sazanowicz again. 3 team did not review the structure once the UI 4 facilities were removed. The structures were, 5 again, reviewed based on UI criteria and not -- UI 6 and NESC load cases and not under any other codes 7 that may be relevant to the overall catenary 8 structure. 9 MR. MORISSETTE: Very good. So CT DOT's codes, their criteria may be completely 10 11 different than UI's codes and they are carrying 12 much less equipment on the catenaries once the 13 transmission lines are removed? 14 THE WITNESS (Sazanowicz): 15 Morissette --16 MR. MORISSETTE: So it just kind of 17 raises the question, I would think eventually CT 18 DOT is going to want to replace those catenaries. 19 Has there been any indication from CT DOT as to if 20 and when they may do that? 21 THE WITNESS (Sazanowicz): Mr. 22 Morissette, we have not had any discussions with 23 CT DOT or Metro North about any replacements. 24 MR. MORISSETTE: Very good. I can't 25 expect you to answer for CT DOT. So is there a

desire for UI to get out of that CT DOT right of way, and is there a desire for from a CT DOT perspective to get UI out of that right of way?

THE WITNESS (Sazanowicz): Mr.

Morissette, this is MeeNa Sazanowicz again. No, there is no urgency for either of the utilities to be separate outside of the existing right of way. We do agree to separate as much as possible our utilities so that we are able to perform maintenance without encumbering the other risk outages.

MR. MORISSETTE: Okay. Let's move on to, I'd like to talk about EMF a little bit. So Dr. Cotts, basically the shift in the line to the north moves the EMF to the northern edge of the right of way and the company utilized four BMPs to reduce or lower EMF from the existing conditions today by doing four things, increasing the distance to 25 feet, increasing the height -- and this goes back to Mr. Silvestri's questions on the height that I'll get back to -- and then using the vertical configuration of the conductor. My question is, which of the, between the height and the vertical configurations of the conductor provide the greatest reductions in EMF?

THE WITNESS (Cotts): Yes, this is Ben Cotts. And it's an excellent question and it certainly is an interplay between all of these different aspects. As a rule of thumb, the reduction in magnetic field level due to height would be something on the order of 5 to 10 percent reduction for the first 5 feet in increased height, and then additional increases above that would give lower percent reductions, if that makes sense. So you kind of get more bang for your buck for the first increase in height and then the effect gets less as the conductors get higher above the ground.

But I think overall the largest reduction that came from the rebuild of the project is the colocating of the two structures on the same pole, and that is because when you put them on the same pole you have closer proximity between the phased conductors of the adjacent circuits. And this works because there are two transmission lines that are constructed on the same pole so that you can orient your phases of the conductors on the left side in a reverse order from what they are on the right side. So you may have A, B, C top to bottom on one side, and you

can go to C, B, A top to bottom on the other. And that's one of the other items you raised there, that's point number 4, that's the optimum phasing.

And with the transmission lines on the same structure, you get a much greater optimization effect, essentially, mutual cancellation of magnetic field levels when you have two lines on opposite sides of same structure and you can make that phasing. So there are reductions from each of these aspects, but I think the optimum phasing and the colocating of the transmission lines on the same structure are probably the largest of those effects.

MR. MORISSETTE: Very good. Thank you. So by doing all of that, the overall EMF within the right of way, the CT DOT right of way is reduced, however, the edge of the northern right of way is increased, but it's approximately equal to the existing condition at about 100 feet. Is that correct?

THE WITNESS (Cotts): Yes, I think that's a very good summary that you provided there. And I always do like to say a picture is worth a thousand words. If you wanted to refer to a picture that I think really clarifies this well,

1 that would be in Appendix C of the EMF report. I 2 guess I should say attachment C of Appendix E just 3 to make sure we get enough alphabet soup here. 4 And the figures there, C-1, C-2 and C-3 kind of 5 provide that graphic. I'm happy to share my 6 screen if you think that would be helpful or, for 7 instance, you want to refer to Figure C-2. It's 8 on PDF page 38 of Appendix E. 9 MR. MORISSETTE: I see it. Thank you. 10 I did find that very helpful in determining. So 11 what I'm trying to get my arms around, Dr. Cotts, 12 is that we're getting the biggest bang for our 13 buck in the vertical configuration and the 14 optimization of phasing. THE WITNESS (Cotts): So with the dual 15 16 circuit, putting the two circuits on the same 17 structure, yes. 18

MR. MORISSETTE: So if we start going in and reducing heights, we're basically going to have some impact to increase EMFs along the edge of the right of way?

THE WITNESS (Cotts): Yes, that is correct.

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MR. MORISSETTE: Okay. That's what I thought. Okay. I'm wondering if we could go to,

1 let's go to this is -- I'm off the EMF topic at 2 this point, but I would like to talk about 3 abutters. DEEP's letter dated April 21st on page 4 2 at the bottom in the third paragraph up 5 indicates that there are areas in structure 904 6 where the new line may be as close as 50 feet to 7 the nearest home. Is it possible to provide that 8 distance to confirm what that actual distance is 9 going to be to the nearest home of structure 904? 10 THE WITNESS (Crosbie): Mr. Morissette, 11 this is Shawn Crosbie. If you let us table the 12 answer to that question, and when we have our 13 follow-up to the questions we can provide that, 14 give us some time to get that information for you. 15 MR. MORISSETTE: Great. Thank you. 16 Milford's questions talked about 17 undergrounding from P908 to -- P908N to -- did I 18 get that right? Anyway, they talk about 19 undergrounding, how much it would cost to 20 underground. My question is, if we ordered you to 21 go underground, can you tell me -- I don't recall 22 what the answer to this is -- is that there's an 23 additional cost that UI will incur to underground, 24 and I think it's, what, 66 million. Well, 25 actually it's 66 million minus the original cost

of 9 million for overhead. So that additional cost, because the Council ordered you to do that, is that recoverable or does UI take that on the chin?

MR. McDERMOTT: Actually, Mr.

Morissette, if I could jump in and say if there's an alternative of whether it's regionalized or not regionalized, I think that would be a helpful way to put the question to the panel.

MR. MORISSETTE: Very good. Thank you. So would that be regionalized or not regionalized, the increase in cost to go underground based on the Siting Council's order?

THE WITNESS (Crosbie): Mr. Morissette, this is Shawn Crosbie. I just want to add one item. So the 66 million minus the 9 million reference, that cost does not include, as referenced in the answer, any relocation of existing underground utilities or additional potential engineering studies that would need to be done formalized. So those costs could increase, and my understanding is that those costs would be localized for the undergrounding.

MR. MORISSETTE: Okay. That's what I thought. My recollection wasn't quite clear on

that, but I thought that was the case. So
anything above 9 million would be localized to
Connecticut rates.

Okay. One other question relating to the double circuit design. Now, the original circuits are on the catenary in two separate positions, one in the south, one in the north. Does ISO consider that a double circuit or two single circuits?

THE WITNESS (Chouhdery): This is Aziz Chouhdery. They are considered two single circuits.

MR. MORISSETTE: Two single circuits?
THE WITNESS (Chouhdery): Yes.

MR. MORISSETTE: So if one goes out, there's no impact on -- so now that you're having both circuits on the same structures, is there any concern about losing both circuits by losing one structure relating to the substations? They're not critical infrastructure, I would imagine, so --

THE WITNESS (Chouhdery): Well, if a structure failed, then both circuits would be out. But we design the structure so that even in a broken wire condition circumstance, so let's say

1 there's a broken wire, then the other circuit will 2 be still in service. 3 MR. MORISSETTE: Let me make sure I 4 understood that. So if you lose one tower and it 5 takes both circuits out between two substations, 6 all right --7 THE WITNESS (Chouhdery): Yes. 8 MR. MORISSETTE: -- essentially are you 9 being fed from the other side of each of the 10 substations so it doesn't have an impact? 11 THE WITNESS (Chouhdery): All the 12 substations are interconnected from both sides. 13 There's not one source. So it has power coming 14 from both sides. So the transmission is 15 interconnected. But if one tower fails and one 16 structure fails, then both circuits will be out of 17 service. 18 MR. MORISSETTE: Both circuits between 19 the substations? 20 THE WITNESS (Chouhdery): Between the substations will be out. But there will be 21 22 alternate supply from other ends. 23 MR. MORISSETTE: So the other 24 substations will still be operational because 25

they'll be fed from the other direction?

1 THE WITNESS (Chouhdery): I understand 2 that all the transmission is interconnected. So 3 if there's a failure from one side, it can be fed 4 from the other side, but not really at full 5 capacity but there will be power. 6 MR. MORISSETTE: Great. Thank you. 7 Thank you for that clarification. 8 THE WITNESS (Crosbie): I apologize. 9 This is Shawn Crosbie. 10 MR. MORISSETTE: Yes, Mr. Crosbie. 11 THE WITNESS (Crosbie): Sorry for 12 interrupting. Just correct terminology. So it's 13 a double circuit on the existing catenaries, not a 14 single circuit, sir. 15 MR. MORISSETTE: Okay. So they are 16 considered double circuits. So you're basically 17 going from double circuit to double circuit, so 18 you have the same situation as we described; is 19 that correct? 20 THE WITNESS (Crosbie): Correct, but the lines on the station aren't directly 21 22 connected. 23 MR. MORISSETTE: I'm sorry, could you 24 repeat that? I'm sorry. 25 THE WITNESS (Crosbie): So they're

double circuit towers but the lines on the stations are not directly connected. They're on one catenary as a double circuit. I'll just rephrase it for the record.

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MR. MORISSETTE: Okay. Very good. Okay. What I'd like to do is to go back to Mr. Silvestri's question, and I believe the question was relating to reducing the height of structures and when reducing the height of the structures you would then add additional poles. I want to expand on that a little bit. So the height of the structures that you have in your design incorporate, if I heard correctly, you have 23 feet from the highest point on the catenary where the Metro-North or CT DOT equipment will be located 23 feet up to the lowest conductor. Okay. So that's a minimum. And then you have your clearances, you may have other obstructions in the right of way that will require you to go higher to make sure your clearances are correct, but your minimum is 23. So let's talk about that for a second. Is that correct, that's the lowest point that you can go with no obstructions?

THE WITNESS (Sazanowicz): Mr.

Morissette, this is MeeNa Sazanowicz. Let me turn

on my camera. The minimal ground radio clearance for Metro North wires is 15 feet and not 23 feet above the ground.

MR. MORISSETTE: Oh, so it's 15 feet, all right. So what I'm getting at is along the same lines that Mr. Silvestri was -- what's driving the height because you do have some pretty tall structures that you're proposing. And we heard from Dr. Cotts that the higher you go, the better impact you have on EMF, so if you start lowering it you'll increase EMF on the edge of the right of way. So is there any other factors that are driving the height besides obstructions and clearances to obstructions and then clearances to Metro-North?

THE WITNESS (Sazanowicz): Mr.

Morissette, yes, these structures and the line clearances are based on 2156 ACSS Bluebird conductor. So in the future if the lines need more capacity in this area, we are able to reconductor the facilities without having to install new poles.

MR. MORISSETTE: That's right, I had forgotten about that. So you are actually having greater clearances built into your design because

you're building in for future upgrades.

I'm wondering if you could provide a

Late-File that talks about what determines the

structure height and what the resulting structure

height would be and if there are areas where the

structure height is higher than -- are there areas

where the structure height is higher than required

or is it pretty much driven by clearances,

Metro-North and obstructions in the code for 2156?

THE WITNESS (Sazanowicz): Mr.

Morissette, that's correct.

MR. MORISSETTE: So if we looked at each one of them, I'm wondering if you could provide a Late-File to explain that a little bit more in detail so that we have something in the record.

THE WITNESS (Berman): Mr. Morissette, this is Todd Berman from United Illuminating.

MR. MORISSETTE: Yes, Mr. Berman.

THE WITNESS (Berman): Maybe I can shed a little light on that. So Milford has a handful of kind of unique features that when we were looking at the tradeoffs of pole height versus multiple poles, it was very well suited for the design we came up with. Specifically I'm talking

about a very long span over the cemetery and then just a short distance from that another very long set of two spans at the Indian River, right. And you can't really go from long spans to shorter ones, you know, it has to transition. So there were quite a few unique sites in Milford that really made taller poles and longer spans a good fit on the design.

MR. MORISSETTE: They are taller in those areas to allow you to span these sensitive areas without adding additional poles within that area?

THE WITNESS (Berman): That is exactly correct.

MR. MORISSETTE: All right. I am going to ask for a Late-File though to just kind of put that on paper so we at the Council understand what's driving the height of the structures. And then we have the open question of Mr. Silvestri, lowering the height and adding additional poles what those costs would be.

MR. McDERMOTT: Mr. Morissette, Bruce McDermott. To be clear, this is essentially a white paper about the project, not a specific segment of it in terms of what factors, you know,

1 best engineering practices, if you will, go into 2 the determination of the structure heights? 3 MR. MORISSETTE: Yes, that would be helpful. 4 5 MR. McDERMOTT: Thank you. 6 MR. MORISSETTE: What's your minimum 7 criteria, how do you determine your structure 8 height. Thank you. 9 Mr. Silvestri, does that help your 10 question that's pending? 11 MR. SILVESTRI: That would, Mr. 12 Morissette. Again, I wasn't so focused on Milford 13 as I was the whole stretch of the line that's 14 being proposed to be moved off the catenary 15 structures. So, you know, something like that 16 would definitely help out of the deal. 17 I would probably add to that too the 18 EMF issue that you brought up as well because if 19 we drop the height what is the new EMF value that 20 might go along with that. 21 MR. MORISSETTE: Yes, a percentage of 22 what the increase that we'd expect to see would in 23 general terms be helpful. I agree. 24 MR. SILVESTRI: Very good. 25 MR. MORISSETTE: Very good. Thank you.

1 Okay. That concludes my line of questioning for 2 this afternoon. So we have some homework 3 assignments. Let's see if we can knock a few of 4 these off. 5 Attorney McDermott. 6 MR. McDERMOTT: Thank you, Mr. 7 Morissette. I think in fact we can. 8 MR. SILVESTRI: Mr. Morissette? 9 MR. MORISSETTE: Yes, Mr. Silvestri. 10 MR. SILVESTRI: Do we have time for one 11 follow-up question from me? 12 MR. MORISSETTE: Certainly. Why don't 13 we run through. We have a little bit of time and 14 we'll run through and see if anybody else has any 15 follow-up questions. 16 MR. SILVESTRI: Very good. 17 MR. MORISSETTE: Before I get to you, Mr. Silvestri, we'll go to Mr. Perrone. 18 19 MR. SILVESTRI: Thank you. 20 MR. MORISSETTE: Attorney McDermott, 21 hold on one moment and we'll come back to you. 22 MR. McDERMOTT: Of course. 23 MR. MORISSETTE: Thank you. Mr. 24 Perrone, any follow-up questions? 25 MR. PERRONE: No, I don't. Thank you.

1 MR. MORISSETTE: Thank you, Mr. 2 Perrone. 3 Mr. Silvestri, any follow-up? 4 MR. SILVESTRI: Thank you, Mr. Morissette. I wanted to go back to the responses 5 6 to Milford and looking at, again, the view from 1 7 Darina Place. If you could pull up that rendering 8 of the alternate design. The question I have is, 9 in the foreground we have the triangular-shaped 10 monopole with the double circuit which is Pole 912 11 North. And as you go down toward the right of 12 that, it goes to Pole 911 North that has a 13 different configuration. And I was curious why 14 the change in configuration of the pole. 15 THE WITNESS (Chouhdery): This is Aziz 16 Chouhdery. The pole you see in the triangle 17 configuration is, we call it a dead end structure, 18 and we brace poles. The next one is the dead end 19 structure. We terminate the conductor on that 20 pole. So that's why it's a different design. 21 MR. SILVESTRI: You terminate the 22 conductor to the substation? 23 THE WITNESS (Chouhdery): That pole. 24 The next one you see, the other pole you see with 25 a different configuration is a dead end structure.

1 THE WITNESS (Crosbie): He's asking why 2 is it a dead end structure. 3 THE WITNESS (Chouhdery): We have to 4 terminate the conductor. We cannot pull the 5 conductor all the way. We have to see a suitable location where we can have our equipment pulling, 6 7 getting tension on equipment to pull the conductor 8 because this is a built up area. So that's the 9 reason. (Inaudible) 10 MR. SILVESTRI: I think you got me more 11 confused, actually. If you have a dead end 12 structure --13 THE WITNESS (Chouhdery): Yes. 14 MR. SILVESTRI: -- my understanding is 15 that the lines stop there. 16 THE WITNESS (Chouhdery): They stop and 17 then start again at the other end. So it is 18 actually one conductor dead end. We have a jumper 19 connection where we start again. 20 MR. MORISSETTE: On that same pole? 21 THE WITNESS (Chouhdery): Yes, same 22 pole. On the other side you see the insulator. 23 It starts at the other end again. 24 MR. SILVESTRI: The rendering is tough 25 to see because of the trees in the way, but I

1 think I understand what you're trying to say. 2 THE WITNESS (Sazanowicz): Mr. 3 Silvestri, I may also add Pole 911 --4 MR. MORISSETTE: You just broke off. 5 We didn't quite hear you. Sorry. I'm sorry, could you repeat the response? We didn't quite 6 7 hear you. 8 THE WITNESS (Sazanowicz): Yes. This 9 is MeeNa Sazanowicz. Pole 911 is also a dead end 10 due to the line angle. 11 MR. SILVESTRI: I'm trying to blow that 12 up. A little bit tough to see, but thank you. 13 Thank you for your response. 14 Thank you, Mr. Morissette. 15 MR. MORISSETTE: Thank you, Mr. 16 Silvestri. 17 Mr. Nguyen, any follow-up questions? 18 MR. NGUYEN: No follow-up. Thank you. 19 MR. MORISSETTE: Thank you. 20 Cooley, any follow-up? 21 MS. COOLEY: No follow-up. Thank you. 22 MR. MORISSETTE: Thank you. Mr. 23 Quinlan, any follow-up questions? 24 I did have one. MR. QUINLAN: 25 just wondering if you could have some type of

1 combination of lower smaller poles in some areas 2 and then moving up to the higher poles where you 3 have to do the longer spans. Did you get that? 4 MR. McDERMOTT: This is Bruce 5 I did not, so I'm just going to say McDermott. 6 for the panel we kind of lost you for a few words. 7 MR. MORISSETTE: Thank you. Mr. 8 Quinlan, you were a little choppy there. If you 9 could repeat the question. 10 I think he's dropped off. All right. 11 We'll come back to Mr. Quinlan. 12 Mr. Collette, any follow-up questions? 13 MR. COLLETTE: No follow-up questions. 14 Thank you. 15 MR. MORISSETTE: Thank you. 16 MR. QUINLAN: I'm sorry, something 17 happened to my phone. Did you get that question? 18 MR. MORISSETTE: No, we did not. Thank 19 you for coming back. We lost you. If you could 20 repeat that, Mr. Quinlan, that would be helpful. 21 Thank you. 22 MR. QUINLAN: Okay. I was just 23 wondering if you could do some type of combination 24 of lower poles in certain areas and then moving up 25 to the higher poles where you had to do the longer

spans. Did you get that?

MR. MORISSETTE: Yes, we got it. Thank you.

MR. McDERMOTT: That's the pause we're trying to figure out who's answering rather than we didn't hear you.

MR. QUINLAN: Okay. No one responded.

THE WITNESS (Berman): Mr. Quinlan,
this is Todd Berman. And I think I should start
off by saying that every pole is custom designed
from a height perspective, every single one. So
it's not like there's default X and then high
default Y. Every single pole is custom spec'd on
height. So every pole affects the poles to the
sides of it. It's a complex decision-making
matrix, right, of span length and pole height, but
there aren't really kind of defaults.

MR. QUINLAN: Okay.

THE WITNESS (Chouhdery): This is Aziz Chouhdery. I would like to add to that. So every pole is custom designed. So the pole height is determined by the span length and sag on it and electrical clearance. So wherever we have smaller spans, you will see that we have pole sizes not taller or higher. So once we have longer spans,

1 some spans we have longer spans because of longer 2 than the catenary structure so that's why we have 3 to use taller poles on some adjacent, any building 4 or any other obstacle we want to keep clear. 5 other factor we have the taller pole, what we are 6 discussing, once we are closer to the catenary 7 structures we have to keep our conductor height 8 higher than the MNR wires. So if we have the 9 lower structure during the high wind load 10 otherwise we'd be very close to the MNR wires 11 because there could be an electrical clearance 12 issue between the MNR structure wires. So that's 13 the reason we have kept our wires higher than the 14 existing MNR catenary structure wires. 15 (Inaudible) already elevated 10 to 12 feet from 16 the ground, so other pole already 10 feet below 17 the grade level. This is all heights added to the 18 inspector heights. 19 MR. MORISSETTE: Very good. Mr. 20 Quinlan, are you all set? 21 MR. QUINLAN: I'm all set. Thank you. 22 MR. MORISSETTE: Very good. Thank you. 23 Okay. Back to Attorney McDermott. 24 Thank you, MR. McDERMOTT: 25 Mr. Morissette. Mr. Crosbie, in response to a

question I actually answered from Mr. Collette
regarding the lease that the company has with the
DOT, have you had a chance to review the lease and
can you provide the, I guess he was looking for
the term of the lease and if there were any
renewal periods in that lease.

THE WITNESS (Crosbie): Yes. The term of the lease is currently a 30-year term plus two 15-year extensions, so a total of 60 years. The lease that is currently active was born in May of 2003.

MR. McDERMOTT: Thank you. Ms. Auer, there was a question from Mr. Silvestri regarding the Pequonnock Ely Avenue project and the use of ballasts. In responding to it, the company indicated that there were no structures going to be placed into wetlands. Do you have a correction to the company's initial answer on that?

THE WITNESS (Auer): I do. Thank you. We will have ten poles that will be located in the wetlands on the project.

MR. McDERMOTT: Thank you.

Ms. Sazanowicz, there was a homework assignment regarding legacy wood poles and the number of those poles. Have you had a chance to determine

those numbers?

THE WITNESS (Sazanowicz): Yes,
Mr. McDermott. There are 92 legacy poles that
will be removed at a total cost of \$2.3 million
approximately.

MR. McDERMOTT: Thank you. Mr.

Morissette, there was a homework assignment
regarding Interrogatory Response Number 40. We
have not been able to pin down a final response on
that, so we'll either -- oh, late breaking news, I
think we have a response for that one also.

THE WITNESS (Auer): Thank you, Mr.

McDermott. Yes, we will have eight will have
increased foundation reveal to that 2' 8" inch
height that are associated with Title 8 influenced
100 year floodplains from the Wepawaug Indian and
West River floodplains.

And to follow up on another comment as well, there will be eight monopoles located in the 100 year floodplain and five poles will be located in the 500 year floodplain.

MR. McDERMOTT: Thank you. Mr.
Crosbie, a question regarding the costs and
whether there would be different cost impact to UI
customers versus non-UI customers. Have you

determined an answer to that question?

a transmission project, the costs will be regionalized and the cost sharing will be that -- give me one second. The costs are allocated to each transmission owner based on the share of the load in the region, so specific cost increases for UI or Eversource customers are not determined. The costs are just regionalized based on the share of the load in the region by the transmission owners.

MR. McDERMOTT: Thank you. And then regarding question or Interrogatory Response

Number 33 and the estimated cost in 2022 dollars with a plus 200 minus 50 percent accuracy range, sorry, I can't exactly remember what the question was but --

THE WITNESS (Marone): Alternative 2.

MR. McDERMOTT: Regarding Alternative

2. Thank you, Ms. Marone. Do you have a response to that question, Mr. Crosbie?

THE WITNESS (Crosbie): Yes. Thank you. The response provided in Interrogatory 34 to the Council, the dollars for 2022 on Alternative 2 is at a plus 50 minus 25 percent.

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MR. McDERMOTT: To the panel, any other questions I've missed that we have answers to? I believe Mr. Collette's question regarding the -- I can't actually remember whose question it was, not Mr. Collette -- how many 24-hour days. That's an open question.

THE WITNESS (Crosbie): Yes, that's correct, that's an open question.

I believe Mr. Morissette asked on structure 904 there was reference in the Connecticut DEEP letter, dated April 21, 2022, the closest house in terms of feet from structure 904 is approximately 90 feet.

Thank you. And I MR. McDERMOTT: apologize, that question about the 24 hours was Ms. Cooley's question. Okay. So I think those are all the homework assignments we have at this time, Mr. Morissette. And we do have at least one Late-File that we'll submit prior to the next hearing and be prepared to discuss that regarding your question about the structure heights.

MR. MORISSETTE: Very good. I didn't hear what the response for the percentage of 24-hour work days was.

> MR. McDERMOTT: Exactly. That was a

1 question for Ms. Cooley. We have that as a -- we 2 were just not able to get to that during the time 3 in the second part of the hearing. 4 MR. MORISSETTE: Okay. 5 MR. McDERMOTT: And we'll take that as 6 further homework. 7 MR. MORISSETTE: Okay. So we have 8 three open questions. We have one, the 24 hour, 9 percent of 24-hour work days. We have Mr. 10 Silvestri's question relating to height versus 11 reduction in tower heights and adding new 12 structures and the costs associated with it, and 13 then we have the follow-up question on the 14 fundamental components of determining what a 15 structure height will be. So we have three open 16 items. 17 MR. QUINLAN: I was wondering if I 18 could follow up on one of the answers they just 19 gave. 20 MR. MORISSETTE: Certainly, Mr. 21 Quinlan. Go right ahead. 22 MR. QUINLAN: It's still a little 23 unclear. You said Connecticut's share of the 24 load. And approximately how much is that? As I

understand it, it's about 25 percent of the New

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1 England load, is that correct, to the cost 2 allocation? 3 THE WITNESS (Crosbie): Mr. Quinlan, I 4 would ask if you give us some time to provide that 5 answer and speak with our group that handles that 6 determination. 7 MR. QUINLAN: Okay. If you could do 8 that, then we'd get a better understanding of how 9 much the cost is coming to Connecticut ratepayers. 10 Thank you. 11 MR. MORISSETTE: Very good. Thank you, 12 Mr. Ouinlan. So we have four homework 13 assignments. 14 Attorney McDermott, we're all set 15 there? 16 MR. McDERMOTT: I agree with the count 17 you have, Mr. Morissette. We're all set. 18 MR. MORISSETTE: Very good. Okay. 19 That concludes our hearing for today. We will 20 recess until 6:30 p.m., at which time we will 21 commence with the public comment session of this 22 remote public hearing. And we will have a 23 continuation on May 24, 2022 to review the 24 Late-Files and the cross-examination by the City

of Milford and the city will also be on the stand

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as well. So thank you, everyone, have a good evening, and we'll see everyone at 6:30 to those who are going to participate. Thank you. (Whereupon, the witnesses were excused б and the hearing adjourned at 4:53 p.m.)

CERTIFICATE FOR REMOTE HEARING

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I hereby certify that the foregoing 115 pages are a complete and accurate computer-aided transcription of my original stenotype notes taken before the CONNECTICUT SITING COUNCIL of the REMOTE PUBLIC HEARING IN RE: Docket No. 508, The United Illuminating Company (UI) application for a Certificate of Environmental Compatibility and Public Need for the Milvon to West River Railroad Transmission Line 115-kV Rebuild Project that consists of the relocation and rebuild of its existing 115-kilovolt (kV) electric transmission lines from the railroad catenary structures to new steel monopole structures and related modifications to facilitate interconnection of the rebuilt 115-kV electric transmission lines at UI's existing Milvon, Woodmont, Allings Crossing, Elmwest and West River substations along approximately 9.5 miles of the Connecticut Department of Transportation's Metro-North Railroad corridor traversing the municipalities of Milford, Orange, West Haven and New Haven, Connecticut, which was held before JOHN MORISSETTE, PRESIDING OFFICER, on April 28, 2022.

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

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	Mr. Collette	71
18	Mr. Morissette	75
19	Mr. Quinlan	106,113
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1	Index: (Cont'd)	
2	APPLICANT'S EXHIBITS (Received in evidence)	
3	EXHIBIT DESCRIPTION	PAGE
5	II-B-1 Application for a Certificate of Environmental Compatibility and Public	16
6	Need filed by The United Illuminating Company, received February 28, 2022, and attachments and bulk file exhibits	
7	including: Bulk Filing (1):	
8	a. City of Milford 1) Zoning regulations including	
9	the 2019-2020 zoning regulation amendments; 2) Zoning Map;	
11	3) 2012 Plan of Conservation and Development;	
12	4) Inland Wetlands and Water Courses regulations; and	
13	5) Connecticut Inland Wetlands Soils Map	
14	b. Town of Orange:1) Zoning Regulations;2) Zoning Map;	
15	3) 2015 Plan of Conservation and Development;	
16 17	4) Inland Wetlands and Water Courses Regulations; and	
18	5) Connecticut Inland Wetlands Soils Map c. City of West Haven:	
19	1) Zoning Regulations; 2) Zoning Map;	
20	3) 2017 Plan of Conservation and Development;	
21	4) Inland Wetland and Water Courses Regulations; and 5) Connections Thland Wetlands	
22	5) Connecticut Inland Wetlands Soils Map	
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24		
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1	Index: (Cont'd)
2	EXHIBIT DESCRIPTION d. City of New Haven:
	1) Zoning Ordinance;
3	2) Zoning Map;
4	3) 2015 Plan of Conservation and Development;
_	4) Inland Wetlands and Water
5	Courses Regulations; and 5) Connecticut Inland Wetlands
6	Soils Map
7	e. Conservation and Development
	Policies: The Plan for Connecticut 2018-2023 (revised draft)
8	f. South Central Region: Plan of
9	Conservation and Development 2018-2028
	2010-2028
10	Bulk Filing (2)
11	a. The October 2021 Municipal Consultation Filing
	(October 2021 MCF) submitted
12	to the Chief Elected Officials of the Municipalities on
13	October 28, 2021;
14	b. An outreach log listing
	communications between UI and representatives from the
15	municipalities and a summary of
16	the Company's municipal outreach; c. A list of UI initiatives to inform
	the public about the project;
17	d. UI's presentations for the meetings
18	with Milford, Orange and West Haven held after submission
19	of the October 2021 MCF;
19	e. UI presentation for the February28, 2022 virtual Public
20	Information Meeting and a copy of
21	the letter sent to abutting
	property owners informing them of the public meeting
22	f. A postcard inviting the public to
23	a Virtual Open House; and g. Copies of the web content of UI's
24	project page, which can be accessed
24	at www.UIRailroadTLineUpgrades.com (the website includes Open House
25	and Project Overview videos).

1	Index: (Cont'd)	
2	EXHIBIT DESCRIPTION I	PAGE
4	2 Applicant's Letter to the Council regarding Life Cycle Costs, dated March 7, 2022	16
6	3 Applicant's responses to City of Milford's recommendations, dated April 11, 2022	16
8	4 Applicant's sign posting affidavit, dated April 19, 2022	16
9	5 Applicant's responses to Council interrogatories, Set One, dated April 21, 2022	16
11 12	6 Applicant's virtual tour of project, received April 21, 2022	16
13	7 Applicant's prefiled testimony of Shawn Crosbie, dated April 21, 2022	16
14 15	<pre>8 Applicant's witness resumes, received April 21, 2022</pre>	16
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