In The Matter Of:

STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

> Docket No. 483 June 14, 2018

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1	STATE OF CONNECTICUT
2	CONNECTICUT SITING COUNCIL
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4	Docket No. 483
5	Application from United Illuminating Company for a
6	Certificate of Environmental Compatibility and Public
7	Need for Pequonnock Substation Rebuild Project That
8	Entails Construction, Maintenance and Operation of
9	115/13.8-Kilovolt (kV) Gas Insulated Replacement
10	Substation Located On an Approximately 3.7-acre Parcel
11	Owned by PSEG Power Connecticut, LLC, at 1 Kiefer
12	Street In Bridgeport, Connecticut
13	
14	Regular Hearing held at the Bridgeport City
15	Hall, Council Chambers, 45 Lyon Terrace, Bridgeport,
16	Connecticut, Thursday, June 14, 2018, beginning at 3:00
17	p.m.
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19	Held Before:
20	ROBIN STEIN, Chairman
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1 Appearances: 2 Council Members: 3 JAMES J. MURPHY, JR. 4 Vice Chairman 5 6 LARRY LEVESQUE, 7 PURA Designee 8 9 ROBERT HANNON, 10 DEEP Designee 11 12 MICHAEL HARDER 13 DR. MICHAEL W. KLEMENS 14 ROBERT SILVESTRI 15 EDWARD EDELSON 16 DAVID LYNCH 17 Council Staff: 18 MELANIE BACHMAN, ESQ., 19 20 Executive Director and 21 Staff Attorney 22 23 MICHAEL PERRONE, 24 Siting Analyst 25

Appearances:(cont'd) For the Applicant, UIL Holdings Corporation: MURTHA CULLINA 85 Asylum St 29th Floor, Hartford, Connecticut 06103 By: BRUCE McDERMOTT, ESQ. Bmcdermott@murthalaw.com 203-772-7787 For the Intervenor, PSEG: BROWN RUDNICK, LLP 185 Asylum Street Hartford, Connecticut 06103 By: KYLE JOHNSON, ESQ. Kjohnson@brownrudnick.com 860-509-6570

1 THE CHAIRMAN: Good afternoon. I'd like 2 to call to order the meeting of the Connecticut Siting Council today, Thursday, June 14, 2018, at 3 4 approximately 3 p.m. My name is Robin Stein. I'm chairman of 5 the Connecticut Siting Council. Other members of 6 the Council present are Senator James Murphy, our 7 Vice Chairman; Mr. Hannon, designee from the 8 9 Department of Energy and Environmental Protection; Mr. Levesque, designee from the Public Utilities 10 Regulatory Authority; Mr. Silvestri; Dr. Klemens; 11 Mr. Edelson; Mr. Harder; and Mr. Lynch. 12 Members of the staff present are Melanie 13 Bachman, our Executive Director and staff 14 15 attorney; and Michael Perrone our citing analyst. This hearing is held pursuant to the 16 17 provisions of Title 16 of the Connecticut General Statutes and of the Uniform Administrative 18 Procedure Act upon an application from United 19 20 Illuminating Company for a certificate of 21 environmental compatibility and public need for a 22 Pequonnock Substation rebuild project that entails 23 construction, maintenance and operation of 115/13.8 kilovolts gas insulated replacement 24 25 substation located on an approximately 3.7 acre

1 parcel owned by PSEG Power Connecticut, LLC, at 1 2 Kiefer Street in Bridgeport, Connecticut. The application was received by the Council on 3 April 26, 2018. 4 As a reminder to all, off-the-record 5 communication with a member of the Council or a 6 member of the Council's staff upon the merits of 7 8 the application is prohibited by law. The parties and interveners to the 9 proceeding are as follows. The applicant, UI 10 representative Attorney Bruce McDermott; 11 12 intervenor PSEG Power Connecticut, LLC, Attorney 13 Kyle Johnson. We will proceed in accordance with the 14 15 prepared agenda, copies of which are available 16 here next to the podium. Also available are 17 copies of the Council's citizen guide to Siting council procedures. 18 At the end of this afternoon's 19 evidentiary session we will recess and resume 20 21 again at 6:30 p.m. for the public comment session. 22 The 6:30 public comment session will be reserved 23 for the public to make brief oral statements into the record. 24 I wish to note that the applicant or 25

1 interveners, including their representatives and 2 witnesses are not allowed to participate in the public comment session. I also wish to note for 3 those of you who are here and for the benefit of 4 your friends and neighbors who are unable to join 5 us for the public comment session, that you or 6 they may send written statements to the Council 7 8 within 30 days of the date hereof, and such written statements will be made part of the record 9 as if spoken at the hearing. 10 11 A verbatim transcript will be made of 12 the hearing and deposited with the city clerk's office in Bridgeport for the convenience of the 13 public. 14 At this point is there any public 15 official who wishes to make a statement at this 16 17 time? 18 19 (No response.) 20 21 THE CHAIRMAN: I wish to call your 22 attention to those items shown on the hearing 23 program marked as Roman number 1D, items one through 85. 24 Does the applicant have any objection to 25

the items that the Council has administratively 1 2 noticed? MR. McDERMOTT: No objection, Mr. 3 Chairman. 4 Thank you. Accordingly 5 THE CHAIRMAN: the Council hereby administratively notices these 6 existing documents, statements and comments. 7 8 Attorney McDermott, will you please 9 present your witness panel for the purposes of taking the oath? 10 11 MR. McDERMOTT: Yes. Thank you, Mr. Chairman. 12 Bruce McDermott from the law firm of 13 Murtha Cullina on behalf of the applicant, United 14 15 Illuminating Company. I'm joined by Nick Cicale who is counsel at UIL Holdings Corporation, as 16 17 well as Sam Volet, also of Murtha Cullina. 18 So again good afternoon, Mr. Chairman, members of the Council, Attorney Bachman and 19 20 Mr. Perrone. We have all the witnesses who we believe 21 22 will be needed to testify sitting at the dais, and 23 I'll begin with introductions to my immediate right which is Mr. Ron Rossetti who's the manager 24 of electric capital projects. 25

Next to him is Mr. Richard Pinto, 1 2 project manager for substation projects and the project manager for the Pequonnock substation 3 project. 4 Next to him is Mr. Todd Berman who's an 5 associate and senior project manager with Fuss & 6 7 O'Neill. And finally at the end of the row is 8 Samantha Marone who's the manager of public 9 outreach for UI. Behind me is Mr. Robert Sazanowicz, who 10 11 is the lead engineer for substation projects, 12 followed by MeeNa Cullen-Corson who's the 13 transmission line engineer for projects for UI. 14 Mr. David Bradt is next who's the director of transmission planning. And finally next to him is 15 16 Dr. Bailey who's the principal scientist at 17 Exponent. And with that all the witnesses are 18 available for swearing in, Attorney Bachman. 19 20 21 22 23 24 25

1 DAVID BRADT, 2 ΜΕΕΝΝΑ CULLEN-CORSON, SAMANTHA 3 MARONE, MICHAEL LIBERTINE, 4 RICHARD PINTO, 5 RONALD ROSSETTI, 6 7 ROBERT SAZANOWICZ, 8 WILLIAM BAILEY, 9 TODD BERMAN, called as witnesses, being first duly sworn 10 11 by the Executive Director, were examined and 12 testified under oath as follows: 13 14 THE CHAIRMAN: Continue with the 15 exhibits that you have filed, verification. 16 MR. McDERMOTT: Thank you, Mr. Chairman. 17 I'll try to accomplish all this through Mr. Pinto. 18 Mr. Pinto, are you familiar with UI 19 20 Exhibit 1, which is the application for a 21 certificate of environmental compatibility and 22 public need that was filed by the company on 23 April 26th of 2018? 24 THE WITNESS (Pinto): I am. 25 MR. McDERMOTT: And do you have any

1 changes or revisions to that application? 2 THE WITNESS (Pinto): I do not. MR. McDERMOTT: And on behalf of the 3 company do you adopt that as a full exhibit here 4 today? 5 THE WITNESS (Pinto): Yes. 6 7 MR. McDERMOTT: And similarly Mr. Pinto, 8 are you familiar with applicant's Exhibit 9 Number 2, which is the letter that was filed by Murtha Cullina regarding the posting of the 10 sign -- signs, excuse me, plural, that was dated 11 12 June 16, 2018 -- June 6, 2018? 13 THE WITNESS (Pinto): Yes. 14 MR. McDERMOTT: And you're familiar with 15 the posting of the signs? I am. 16 THE WITNESS (Pinto): 17 MR. McDERMOTT: And do you have any changes to that filing? 18 THE WITNESS (Pinto): I do not. 19 MR. McDERMOTT: And do you adopt it here 20 today? 21 22 THE WITNESS (Pinto): Yes, I do. 23 MR. McDERMOTT: And then regarding 24 Applicant's Exhibit Number 3, which is UI's responses to the Council's interrogatories dated 25

1 June 7, 2018, are you familiar with that, that 2 filing? THE WITNESS (Pinto): I am. 3 MR. McDERMOTT: And do you have any 4 changes to any of those interrogatory responses? 5 THE WITNESS (Pinto): I do not. 6 7 MR. McDERMOTT: And do you adopt that on 8 behalf of the company here today? 9 THE WITNESS (Pinto): I do. MR. McDERMOTT: And then regarding UI 10 Exhibit 4A, Dr. Bailey, that is a copy of your CV. 11 12 Are you familiar with that document? 13 THE WITNESS (Bailey): Yes. MR. McDERMOTT: And do you have any 14 15 changes to that document? 16 THE WITNESS (Bailey): I have no 17 amendments to it. 18 MR. McDERMOTT: Okay. Thank you. And do you adopt it here today as a full exhibit? 19 THE WITNESS (Bailey): Yes. 20 21 MR. McDERMOTT: Thank you. And then Mr. 22 Berman, are you familiar with Exhibit 4B, which is 23 a copy of your resume? THE WITNESS (Berman): 24 I am. 25 MR. McDERMOTT: And do you have any

changes or revisions to that document? 1 2 THE WITNESS (Berman): I do not. MR. McDERMOTT: And do you adopt it as a 3 4 full exhibit here today? THE WITNESS (Berman): Yes, I do. 5 MR. McDERMOTT: 6 Thank you. 7 With that Mr. Chairman, I move that 8 Exhibits 1 through 4A and B be admitted as full 9 exhibits. 10 THE CHAIRMAN: Does anyone, the 11 intervenor have any objection? 12 MR. JOHNSON: No objection. 13 THE CHAIRMAN: Okay. The exhibits are 14 admitted. MR. McDERMOTT: Thank you very much 15 Mr. Chairman. 16 I do note that I believe an official 17 from the City of Bridgeport is --18 THE CHAIRMAN: I was going to note that, 19 20 but thank you. 21 MR. McDERMOTT: Thank you. THE CHAIRMAN: Is it Mr. Coleman? 22 23 WILLIAM COLEMAN: Yes. 24 THE CHAIRMAN: Would you like to speak at this point? 25

WILLIAM COLEMAN: Yes. Thank you all very much. I'm Bill Coleman. I'm the Deputy Director for the City's Office of Planning and Economic Development. And I'm here on behalf of the City, on behalf of Mayor Ganim, on behalf of the director of our office Thomas Gill, to speak in favor of the application, UI's application for a certificate of environmental compatibility and public need for the Pequonnock substation rebuild project.

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We've had occasions to talk on a number of times with officials from UI about this project and others. And it's one that we see very much as being compatible with the City's overall efforts to make itself -- in and of itself more resilient in the wake of some of the storm damage we've experienced.

We've had a bit of a dubious distinction 18 of being hit pretty hard by the various storms, 19 and then by virtue of that being given some 20 21 federal money in a considerable amount of 22 \$50 million or so, to focus on a pretty broad 23 ranging green infrastructure project in the southern end of the city. There will be berms. 24 There will be some swales to absorb water. 25

So all I mean to say, by sharing that in 1 2 a broader context with you is that we see this project very much in keeping with that. 3 It's certainly important for us to keep our 4 neighborhood safe and the residents that live 5 there safe, but if we don't have our critical 6 infrastructure likewise in a safe position 7 8 vis-a-vis these kinds of storms we're probably 9 missing a big component of the overall picture. So we feel very gratified that UI has 10 taken the progressive approach that it has with 11 12 regard to this substation, and I want to make sure that we let you all know that we're very 13 supportive and appreciative of it. 14 15 And that would be my statement. If you have any questions -- I'm having a bit of deja vu. 16 17 You should be the city council. You look like you should be the city council. We're glad you're 18 Thank you. 19 here. 20 THE CHAIRMAN: We thought the city 21 council would have a special place for us because 22 by the time I look across I get confused as to who 23 I'm supposed to be addressing -- but we're not the city council -- so thank you. 24 25 WILLIAM COLEMAN: We appreciate all your

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1 work in the city. We know you've done a number of 2 projects for us, particularly in the green energy 3 sector. So thank you. And thank you, all the folks at UI. 4 5 THE CHAIRMAN: Okay. We'll now begin cross-examination starting with staff, 6 Mr. Perrone. 7 8 MR. PERRONE: Thank you Mr. Chairman. 9 Turning to the very end of the application, there's a notice of an April 12 public meeting 10 with South End residents. What kind of input did 11 12 UI receive at that meeting? 13 THE WITNESS (Marone): We received a whole litany of questions from them. They were 14 15 very interested in the project. They were looking for ways that we could employ or engage South End 16 17 neighbor folks with the project and things that we were doing. 18 We have a whole list of questions that 19 20 they asked us. We provided them with answers on 21 May 23rd to all those questions. 22 MR. PERRONE: Moving to the front of the 23 application on page FR-1, where it discusses the purpose of the facility, to improve reliability of 24 service to customers in the Bridgeport area. 25

My question is, which portions of the 1 2 Bridgeport area are served by the existing Pequonnock substation, generally speaking? 3 THE WITNESS (Rossetti): Generally 4 speaking, it's the south and the west portion of 5 the Bridgeport, town of Bridgeport -- or city of 6 7 Bridgeport. 8 MR. PERRONE: Does the existing 9 Pequonnock substation serve any other municipalities? Any part of Stratford? 10 11 THE WITNESS (Rossetti): No, it does 12 It's entirely served in Bridgeport. not. 13 MR. PERRONE: And on page 1-6 of the application there's discussion about, under 14 extreme cases such as Hurricane Sandy, the 15 existing substation had to be preemptively 16 17 deenergized. In a case like that where it's 18 deenergized, are basically all the customers 19 served by it out of service? Or could you offload 20 some of it to another substation? 21 22 THE WITNESS (Pinto): When a station is 23 preemptively deenergized all the customers are without power. 24 MR. PERRONE: And turning to the 25

1 response to Council interrogatory 10 where it gets 2 into capacity, I understand the proposed transformers. There's 2 of them, and they're each 3 72 MVA. So is the 72 MVA based on 1 transformer 4 so that if 1 is out of service you could still run 5 as high as 72? 6 7 THE WITNESS (Pinto): That is correct. 8 MR. PERRONE: And how long could you ran at 72 MVA? 9 THE WITNESS (Pinto): It's typically a 10 24-hour load cycle. 11 12 MR. PERRONE: Also in the case of a failed transformer, would you bring a mobile 13 transformer in, in the interim? 14 THE WITNESS (Pinto): If the loading on 15 the station is below the 72 MVA it may not be 16 17 necessary to bring the mobile in. If it's, you 18 know, summertime and we expect heavy loads we would likely bring the mobile sub in. 19 20 MR. PERRONE: Also in response to number 21 ten there's some forecast data. I see the loading 22 for 2027. Do you have the loading for 2017 or 23 2018, the forecast number so I have the beginning point of the forecast? 24 25 THE WITNESS (Pinto): The loading for

1 2017 is roughly 26 megawatts. That's the actual 2 measured load. MR. PERRONE: Actually, do you have the 3 forecast number, not the actual? 4 THE WITNESS (Pinto): I do not have the 5 forecast for 2017. 6 Okay. Do you have a 2018 7 MR. PERRONE: 8 forecast number? 9 THE WITNESS (Pinto): I do not have the 2018 forecast number. We did the ten-year 10 11 projection. 12 MR. PERRONE: Okay. That's fine. 13 The Council received comments from the Department of Energy and Environmental Protection 14 dated June 6th. And on page 1 on the third 15 16 paragraph it talks about how the project is 17 consistent with and even exceeds the design requirements of PA 18-82. 18 Does UI agree with that? 19 THE WITNESS (Pinto): Yes. 20 21 MR. PERRONE: Okay. Next I'd like to 22 get into some cost information. I understand the 23 grand total for the project is in excess of 24 125 million. Could you break that down into, say, three categories? Transmission, distribution or 25

1 other? 2 THE WITNESS (Pinto): The cost that we're looking at today at a 50-25 level estimate 3 in total is roughly \$175 million of which 4 130 dollars million of that would be transmission 5 and 40 million would be distribution. 6 7 MR. PERRONE: So you're at a grand total 8 of about 170 right now? 9 THE WITNESS (Pinto): Approximately. MR. PERRONE: Okay. And as I was 10 looking at the PURA review of the United 11 12 Illuminating Company's storm resiliency plan initially they had about 31 million on the 13 14 distribution side. 15 So that number went up? 16 THE WITNESS (Pinto): No, that 30 --17 that 30 million dollars of the -- 30 -- 31 million dollars of the 41 million-dollar distribution is 18 part of that resiliency plan. 19 20 MR. PERRONE: Okay. Do you have an 21 approximate cost of the project at the alternative 22 site, 375 Main Street? Or an estimate if it's a certain 23 percentage different? 24 25 THE WITNESS (Pinto): I will tell you

that it is -- the transmission would have to be 1 2 extended from the -- further from the current location and also the distribution would have to 3 be extended. 4 The alternate -- the alternate site is 5 roughly, I would say, around 20 to 25 million 6 7 dollars more, subject to check, because you have 8 to increase. There's three 115-kV cables that 9 have to be extended, and 17 distribution feeders that have to be somehow tied into the existing 10 11 system. 12 THE CHAIRMAN: I have a follow-up 13 question from Mr. Edelson. 14 MR. EDELSON: I must have missed 15 something. I thought the number we had was 125 million? 16 17 THE WITNESS (Pinto): The application states in excess of 125 million. 18 MR. EDELSON: And so the 170 you're 19 20 saying is the revised figure? THE WITNESS (Pinto): That's the 50-25 21 level estimate. Correct. 22 23 MR. EDELSON: Thank you. 24 MR. PERRONE: I understand one of the other alternatives that was looked at was 25

1 rebuilding this substation in place. Did you have 2 a cost number on that? THE WITNESS (Pinto): I do. 3 MR. PERRONE: 4 Okay. 5 THE CHAIRMAN: I wouldn't -- oh, I'm sorry. Go ahead. 6 7 THE WITNESS (Pinto): We build in place. 8 The total for both transmission and distribution 9 is roughly 270 million dollars of which 197 million -- excuse me, 201 million would be 10 transmission, and roughly 70 million would be the 11 distribution. 12 13 I think Mr. Lynch has --THE CHAIRMAN: That was my question. 14 MR. LYNCH: 15 THE CHAIRMAN: You got the answer? 16 MR. LYNCH: He answered it. 17 THE CHAIRMAN: Okay. 18 MR. PERRONE: And could you tell us why the total went up from 125 plus to 170? 19 THE WITNESS (Pinto): For the rebuild in 20 21 place there's a significant amount of work that 22 needs to get done. We would have to keep the 23 station energized as we're doing the work. In the proposed project we could build a project then cut 24 25 and energize pieces of it over in sequence.

1 When you try to rebuild in place we 2 would have to keep the transmission system energized and the distribution in order to keep 3 the lights on for the customers. 4 MR. PERRONE: 5 Just maybe two more cost questions. Back to the proposed project, could 6 you explain roughly why the numbers increased from 7 8 125 to 170? 9 THE WITNESS (Pinto): In the application we have since -- we got better estimates. 10 From on the application, it was actually developed to 11 12 be -- we were in the process of getting, we have RPs -- RFPs out for equipment and material. 13 So we have used those numbers with the adjusted to come 14 up with the 1 -- roughly 170. 15 MR. PERRONE: On page ES-7 I understand 16 17 you're utilizing a GIS substation because of 18 insufficient space, versus an air insulated substation. Did your cost increase by having to 19 qo to a GIS substation? 20 21 THE WITNESS (Pinto): GIS is generally a 22 bit more expensive than AIS equipment, but the 23 minimum requirements for the AIS is roughly two and a half to three times the size for a GIS type 24 25 substation.

MR. PERRONE: Was there a certain delta 1 2 where if it wasn't AIS it would have been, say, 10 million less, or something like that? 3 THE WITNESS (Pinto): But the minimum 4 requirements, one of the issues is demand is 5 not -- that sized property is not available in 6 local -- the local area. 7 8 MR. PERRONE: Okay. Onto some 9 construction topics. Roughly where would your distribution getaways be located on the footprint? 10 THE WITNESS (Pinto): On the footprint 11 12 there's -- there's actually one on the northeast 13 corner and one on the northwest corner just adjacent to the PDC enclosures, just south of 14 Ferry Access Road just inside the fence line. 15 There would be a manhole either side of that. 16 17 From there we would -- there would be a distribution duct bank heading east and one 18 heading west to tie into the existing system. 19 MR. PERRONE: On page 3-2 there's 20 21 mention of a backup station service generator. 22 Could you tell us about that, the fuel type and 23 kilowatts if you know? THE WITNESS (Pinto): It would be -- it 24 would be sized to handle the 24-hour full load of 25

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the station, which estimated right now is 250 kW, 1 2 and it would be diesel. MR. PERRONE: And would it contain 3 proper containment measures for fuel, oil, coolant 4 in case of leakage? 5 THE WITNESS (Pinto): The gen -- the 6 generators today are self contained. There the 7 8 fuel tanks are -- are part of the station service 9 generator. Okay. And turning to 10 MR. PERRONE: response to Council Interrogatory Number 5, I 11 understand the closest residence -- there's 12 actually two of them, equal distance. But just so 13 we're looking at the same thing, is that roughly 14 the corner of Main Street and Whiting Street? 15 16 THE WITNESS (Rossetti): That is 17 correct. 18 MR. PERRONE: Okay. And that's W-h-i-t-i-n-g. 19 20 And I understand they're equal distance. 21 Do you have an estimate on that distance? 22 THE WITNESS (Rossetti): It's somewhere 23 between 700 and 800 feet. 24 MR. PERRONE: And I understand 25 construction access would be Ferry Access Road.

Would you use any other access locations for construction, like the main access at Atlantic Street?

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4 THE WITNESS (Pinto): We would likely 5 not use the main excess at Atlantic Street. It 6 would be Kiefer Street, the -- the gate on the 7 west side of the property and also Ferry Access 8 Road.

9 MR. PERRONE: Could you tell us about 10 construction laydown or staging areas, where you 11 might be thinking they would be located?

12 THE WITNESS (Pinto): The staging areas, 13 whatever we could stage on the property we would 14 stage on the property. We're also looking at 15 available properties in the area.

16 Other projects we have used, I believe 17 it's 370 Main. It's the Bridgeport hub property 18 right at -- on main street where we're looking at 19 that as well as use for laydown.

20 MR. PERRONE: And back to access. If 21 this project is approved and the substation is in 22 service I understand you have several gates to the 23 substation.

24Would there be a primary entrance gate?25THE WITNESS (Pinto): The primary

1 entrance gate would be fair -- off of Ferry Access 2 Road. MR. PERRONE: And looking at the 3 footprint where the access comes in, would that be 4 5 paved? THE WITNESS (Pinto): Correct. 6 7 MR. PERRONE: And then the rest of the 8 substation footprint, would that be like a crushed 9 stone or traprock? THE WITNESS (Pinto): Generally it's a 10 one-inch grade stone that we top -- top off the 11 12 surface with. 13 MR. PERRONE: I understand from Council Interrogatory Response 16 no trees over six inches 14 diameter would be removed. Does that also take 15 into account your overhead transmission work? 16 17 THE WITNESS (Pinto): Correct. 18 MR. PERRONE: Okay. And as far as the timing and the decommissioning, obviously you have 19 to move the circuits over, but would much of the 20 21 existing Pequonnock substation remain in place 22 until after the replacement substation is in 23 service? 24 THE WITNESS (Pinto): That is correct. We would not decommission until the last feeder 25

1 circuit is cut over.

2 MR. PERRONE: Okay. Next are more 3 environmental questions. And I understand you have a groundwater depth of about five to 4 nine feet. Would you have a dewatering plan? 5 THE WITNESS (Berman): Yes. Certainly 6 7 there would be a dewatering plan. The site 8 development will be done under a Connecticut DEP 9 General permit for stormwater and de -dewatering. 10 11 MR. PERRONE: And how would you handle 12 any potentially contaminated groundwater? 13 THE WITNESS (Berman): We're, you know, again we'll be working with DEP and most likely 14 15 have some type of treatment system to address 16 that. 17 MR. PERRONE: As far as the two power transformers, is it correct that the insulating 18 oil does not contain PCBs? 19 20 THE WITNESS (Pinto): That is correct. 21 MR. PERRONE: Okay. And the 22 transformers will have their own containment 23 system? 24 THE WITNESS (Pinto): That is correct. 25 MR. PERRONE: Okay. I also understand

1 the soils at the site, 99.9 percent are listed as 2 urban land. So is it correct to say that there are no prime farmland or statewide important 3 farmland soils at the site? 4 THE WITNESS (Berman): That is correct. 5 The response to question 6 MR. PERRONE: 7 number 20, there's some information regarding the 8 northern long-eared bat. Would you expect any 9 impact to the northern long-eared bat? THE WITNESS (Berman): We do not. 10 MR. PERRONE: Moving onto the Peregrine 11 12 falcon, I understand we have a Fuss & O'Neill 13 letter with BMPs, and then DEEP took a look at that and responded with their follow-up letter. 14 15 THE WITNESS (Berman): That is correct. 16 MR. PERRONE: With respect to DEEP's 17 follow-up letter, does UI agree with those BMPs? 18 THE WITNESS (Berman): Yes. MR. PERRONE: Okay. So you would be 19 20 able to comply with those? THE WITNESS (Berman): Correct. 21 22 MR. PERRONE: One more on the bird 23 I understand for our admin notice list topic. there's an important bird area, Stratford Great 24 25 Meadows to the east. Would that important bird

1 area be impacted by the proposed project and its 2 structures? THE WITNESS (Berman): I don't have any 3 information on that on -- on impacts associated 4 with that area specifically. 5 6 MR. PERRONE: Okay. Next I'd like to 7 move onto EMF briefly. 8 When we were speaking about the nearest 9 home, because the nearest residence is also referenced in the EMF report on page 6, 480 feet 10 to the southwest. Are we basically speaking about 11 12 the same thing, the corner of Main and Whiting 13 Street? 14 THE WITNESS (Pinto): Yes. 15 MR. PERRONE: Okay. And on page 33 of the EMF report it notes, at structure and 16 17 dwellings along Main Street, for instance, calculated magnetic fields before and after 18 operation of the project would differ by about .2 19 milligauss. Is that about right for the two 20 closest homes? 21 22 THE WITNESS (Bailey): Excuse me, can 23 you restate the page again? 24 Page 33 of the EMF report. MR. PERRONE: 25 THE WITNESS (Bailey): Okay. And this

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1 is concerning -- on my 33 is the electric fields. 2 MR. PERRONE: Magnetic fields. So in 3 the center of page 33 there's a sentence, at structures and dwellings along Main Street, for 4 instance, calculated magnetic fields before and 5 after operation of the project differ by about 6 0.2 milligauss. And my question is, is that 7 8 approximately the case for the two closest homes. 9 THE WITNESS (Bailey): Yes. MR. PERRONE: Would you consider that a 10 significant change in magnetic fields. 11 12 THE WITNESS (Bailey): Yes, that's roughly about one fifth of what the average 13 magnetic field level is in the center of a home 14 15 not near any appliance. MR. PERRONE: So one fifth? So would 16 17 their background level would be about one milligauss. 18 THE WITNESS (Bailey): The background 19 20 levels generally throughout a developed area would 21 be less than four milligauss, but if you go within 22 homes, if you're not near a particular appliance 23 or source of wiring, then the average field is about one milligauss, but it can vary from one 24 25 house to another.

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1 But the average for a thousand homes 2 across the United States is about one milligauss. 3 MR. McDERMOTT: Excuse me, Mr. Perrone? MR. PERRONE: Sure. 4 MR. McDERMOTT: Can I just ask you to 5 6 repeat the question? I thought you asked Dr. 7 Bailey if it was a significant change, and I 8 wasn't sure I heard. 9 MR. PERRONE: I did. MR. McDERMOTT: And did you say, yes, 10 Dr. Bailey, it is a significant change? 11 12 THE WITNESS (Bailey): I'm sorry. An 13 insignificant change. 14 MR. McDERMOTT: No, he's asking if it 15 was a significant change and you said, yes. 16 THE WITNESS (Bailey): No. I'm sorry. 17 I'm having trouble hearing here with the chamber, but it would be a -- .2 milligauss would be an 18 insignificant change. 19 20 MR. PERRONE: Thank you for the clarification. 21 22 And lastly, regarding that 23 0.2 milligauss delta on page 33, is that based on average load conditions? 24 25 THE WITNESS (Bailey): Yes.

1 MR. PERRONE: Okay. Thank you very 2 much. That's all I have. THE CHAIRMAN: Thank you. We'll now go 3 to questions by members of the Council, starting 4 with Senator Murphy. 5 Thank you, Mr. Chairman. 6 MR. MURPHY: 7 As has been pointed noted out, the 8 acoustics in this room are less than desirable. 9 But the cost of this project has increased from 125 to 170. Did I hear that 10 correctly? 11 12 THE WITNESS (Pinto): That -- that is 13 the current updated cost estimate. 14 MR. MURPHY: Does any portion of that increase in cost include an increase in the 15 acquisition of any real estate, or was that fixed 16 17 before you went in? THE WITNESS (Pinto): 18 That is negotiated, but the -- in the estimate that 19 was -- we carried a fixed price. 20 21 MR. MURPHY: There was a fixed price That's part of the, added to 125? 22 beforehand. 23 THE WITNESS (Pinto): It's not -- when I meant fixed price we carry the same estimate for 24 the land acquisition in the original estimate and 25

1 the current updated estimate. 2 MR. MURPHY: So if I follow what you're saying, is the price of the real estate that you 3 estimated before you fix it at 125 is the same 4 price as at 170? 5 THE WITNESS (Pinto): Correct. 6 We 7 didn't change the -- the real estate portion of 8 the estimate. We're still in design, you know, 9 for -- for the project and you know, as we get bids in and as we fine tune the design the 10 estimate will fluctuate. 11 12 MR. MURPHY: The increase from 125 to 170, is any remedial work included in that 13 14 increase? 15 THE WITNESS (Pinto): There's soil remediation -- no, not in the increase. 16 17 MR. MURPHY: Not in the increase? So the remedial estimate for the 125 continues to be 18 the same as in the 170? 19 20 THE WITNESS (Pinto): What we carried in 21 the original estimate, what we had in out revised 22 estimate that was the same. 23 MR. MURPHY: So it's the same in both lists, so to speak? 24 THE WITNESS (Pinto): These numbers have 25

been refined. There's certain things in the 1 2 estimate, original estimates what we are today. Basically speaking, what is 3 MR. MURPHY: it that jacks it from 125 to 170? And you may 4 have answered this, but it's really tough to hear 5 in this room. 6 THE WITNESS (Pinto): Sorry about that. 7 The original estimate, again was an estimate and 8 we've gotten better numbers. And we've --9 MR. MURPHY: Unfortunately they're 10 higher, of course. 11 12 THE WITNESS (Pinto): But it also could go down as we, you know, clearly define the 13 project and get better designed. So that's, again 14 that's a 50-25 out west of it as well. 15 MR. MURPHY: Possibly we could get a 16 17 filing from them with the new breakdown with the 170 at this point in the assignment? 18 I'm sure that's readily available, 19 Mr. McDermott. It should be no problem. 20 It's 21 just that we really should really see what the 170 22 consists of, having seen a ballpark number of 125, 23 and it's a substantial difference percentagewise. I think at this point, Mr. Chairman, I 24 25 have no other questions.

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1 THE CHAIRMAN: Thank you. 2 Mr. Edelson. MR. EDELSON: My first question might 3 just be a grammatical one. The very bottom of 4 page 2-1 in the report, and this is talking about 5 some of the new structures that are needed. 6 7 On the very last line it's referring to 8 one of these structures may be installed on City 9 of Bridgeport property. By the use of the word "may," it sort of implied that if not there, 10 somewhere else -- but I wasn't clear reading what 11 12 the alternative was. So either I misunderstood the purpose of the statement or there's something 13 else to be thought of? 14 15 THE WITNESS (Pinto): 2-1, you said? 16 MR. EDELSON: 2-1. 17 THE WITNESS (Pinto): Okay. I believe 18 the tower that's being referenced there is the one on the north side of the Metro-North right-of-way, 19 and it borders both CDOT property and City of 20 21 Bridgeport property. 22 And depending on the location it could 23 be on CDOT property or City of Bridgeport property. It kind of straddles the property 24 25 lines.

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1 MR. EDELSON: Okay. So it's either the 2 City of Bridgeport or CDOT? THE WITNESS (Pinto): Correct. 3 Once final placement is done it could be --4 MR. EDELSON: It's not that you're 5 without a site. You definitely know where it's 6 7 going to be approximately? 8 THE WITNESS (Pinto): Correct. 9 MR. EDELSON: It's just a question of a couple feet this way or that way on the border? 10 11 THE WITNESS (Pinto): Correct. 12 MR. EDELSON: The existing plant, how 13 old is that, the existing substation? 14 THE WITNESS (Pinto): The existing substation was commissioned in 1956. 15 16 MR. EDELSON: So it's been out there 17 over 60 years or so? THE WITNESS (Pinto): Correct. 18 MR. EDELSON: Now the forecast that you 19 showed in terms of looking at the flood levels --20 21 or I should say, the capacity, that was ten years. 22 When you were looking at flood levels, you know, 23 most of us know these terms hundred-year floods, 500-year floods. These are not set in stone. 24 25 These numbers can move around. They're

statistically based. And the more flooding we have, the higher a hundred-year flood could be when we go back and look at that same statistic ten years from now.

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So my question is, from what we know of sealevel rise you're making a move that seems to me to gain you something on the order of three feet.

9 I'm wondering what you're planning 10 horizon is for this particular substation to be 11 online without any further modifications? And why 12 looking, you know, we're looking now really to the 13 end of this century that I assume you're thinking 14 this substation should be able to still be 15 running.

I'm wondering how you came to the 16 17 conclusion that a three-feet difference is 18 sufficient and why not more feet? Why wouldn't you want to be at a higher level, a higher 19 elevation and make that investment now? 20 21 THE WITNESS (Pinto): Right. We 22 designed this substation to the hundred-year flood 23 level plus three feet, and a foot of that is future sealevel rise. The FEMA plus -- the 24 hundred-year plus two is the ASCE recommendation 25

for a critical facility.

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2 MR. EDELSON: For a facility that's going to last through the end of this century? 3 Because a lot of these things I think are made --4 you folks really deal in longer time periods than 5 6 many other people. THE WITNESS (Pinto): That's correct. 7 8 MR. EDELSON: And it's difficult. I mean, nobody has got a magic ball here, 9 Right?

10 but we are seeing some numbers that kind of look 11 at even higher figures. 12 I don't know if you saw the report -- I

13 think it was in yesterday's paper about, you know, 14 Antarctica is basically melting at three times I 15 think the rate that they were just three years 16 ago, or four years ago.

17 So I'm just -- but I guess the answer 18 you're saying to me is you just relied on, not any 19 internal guidelines, but guidelines that come from 20 external sources and relying on them?

21THE WITNESS (Pinto): Relying on22industry -- industry standards, you know, for this23design.

24MR. EDELSON: Okay. I guess I'm25expressing a little nervousness there and if

you're going to make such a move, you know, this is \$170 million that the ratepayers are eventually going to pay for and I'd rather -- well, we want to make sure it's the right investment to get the right level of safety.

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And again, when I look at the pictures 6 of the existing substation during Storm Sandy, I 7 mean, I don't really know the height of the fence, 8 but it looks like it was a couple feet on that 9 chain-link fence. So I'm thinking that in and of 10 itself would say to me, you almost have three feet 11 right there of water from Storm Sandy, and that's 12 13 five years ago now.

I mean, things keep moving, but rather 14 15 that dwell on that, let me turn to the D and M plan. Which I understand you haven't put, you 16 17 know, a pencil to paper yet to really put in a D 18 and M plan. But given the nature of the materials you're using, are you willing to commit that all 19 hazardous materials, tanks, barrels, anything that 20 21 would be holding chemicals of any nature would be 22 removed from that site?

23THE WITNESS (Berman): Yes, is the24answer to your question. You know, any -- any25site activities are going to be completely

compliant with the Connecticut RSR. So to the 1 2 degree we found either a reportable condition, or something that needed to be removed? Absolutely. 3 MR. EDELSON: Okay. And to me that 4 would be very important to spell that out in the D 5 6 and M plan when you come forward to that, come forward with that. 7 8 And I guess my last question -- and I 9 don't want to belabor this, because I don't expect you to give me a course in transmission 10 technology, but maybe on interrogatory ten which 11 talks about the transformers. It appears to me 12 that the proposed transformers you characterize as 13 30/40/50 megawatts and the ones that exist are 14 42/56/70. 15 16 I would have thought the numbers would 17 either be about the same or higher. Is there some reason that they're actually lower when we're 18 talking about a transformer? 19 THE WITNESS (Sazanowicz): 20 So we size the transformers based on the loads available. 21 22 MR. EDELSON: It's hard to hear. 23 THE WITNESS (Sazanowicz): We size the transformers based on the forecasted load values. 24 When we looked at the load and saw that it was 25

significantly lower than it used to be, we 1 2 identified that we didn't need to put in transformers that were as large as were existing. 3 MR. EDELSON: The load is lower now? 4 THE WITNESS (Sazanowicz): 5 That's 6 correct. 7 MR. EDELSON: Than when the existing 8 plant was designed? 9 THE WITNESS (Sazanowicz): Yeah, that's 10 correct. 11 THE WITNESS (Pinto): Well, the reason 12 for a lot of that load, the Pequonnock substation 13 the distribution portion of that used to feed the station's service for the Bridgeport Harbor 14 Station, or the FD fans and ID fans associated 15 with generator units. That was a tremendous 16 17 amount of load. They now take their station service off 18 of the transmission system. So the distribution 19 system, the load on distribution has significantly 20 21 dropped because of that. 22 MR. EDELSON: Okay. It sounds like a 23 good answer to me. 24 Thank you very much, Mr. Chairman. 25 THE CHAIRMAN: Thank you.

1 Mr. Levesque? 2 MR. LEVESQUE: No questions. 3 THE CHAIRMAN: Okay. Mr. Hannon? 4 MR. HANNON: Yes, I do. Thank you. This time at least hopefully it will 5 6 help because I wrote down the page number to make 7 it easier for everybody. On page ES-2, you talk 8 about UI and PSEG have entered into an MOU 9 regarding UI's purchase of the site which has long been used for various industrial purposes. 10 Will this property be subject to the 11 12 Property Transfer Act? 13 THE WITNESS (Berman): Yes, it will. MR. HANNON: And have any types of 14 environmental studies been undertaken on this 15 site? Or is this perhaps shooting what you're 16 17 going for. 18 THE WITNESS (Berman): It's actually a little bit of the opposite. So the -- the site 19 20 overall has been very well characterized really 21 going back to 2004. Sitewide DEEP has already granted an engineering control variance. 22 That was 23 in 2013. So the site has been very well-characterized. 24 25 Right now we're going through a due

1 diligence process that you'd say is pretty typical 2 for a transaction of this type. And no real wild cards have been identified thus far and we know 3 that, you know, post transaction, you know, the 4 property will be going through the Connecticut 5 6 Transfer Act. And subsequently the site development will have to be, you know, compliant 7 8 with RSRs, with the RSRs. 9 MR. McDERMOTT: Mr. Hannon, I'm sorry to interrupt, but I believe the site -- Mr. Berman 10 can correct -- is also currently in the transfer 11 12 act. Is that correct Mr. Berman? 13 THE WITNESS (Berman): Correct. 14 15 MR. HANNON: Now none of that, what you just said, is in the report. Correct? Because I 16 17 didn't see anything associated with the review in 18 the report. That's why I was asking in the first place. So it sounds like there's a bunch of work 19 20 that is currently or already has been done? 21 THE WITNESS (Berman): There is. 22 There's ongoing work right now that you would call 23 characterization work, not remedial work. MR. HANNON: Okay. On page ES-5 that 24 25 talks about to connect to the new substation, all

1 three of the underground cables will be aligned 2 across PSEG or UI. I'm not sure what that means. I mean, is it some of it may be PSEG 3 Some of it may be UI property. 4 property? And if it's PSEG property I'm assuming there's going to 5 be easements associated with that? 6 7 THE WITNESS (Pinto): That is correct. 8 With the purchase of the property our properties 9 would be adjacent to one another. So where it comes from the -- crossing the Pequonnock River it 10 currently enters UI property. To get into the 11 12 new -- the new proposed site it would have to cross PSEG property as well. 13 MR. HANNON: Okay. This next one is 14 15 sort of a combination. It's page 1-4 and 2-5. It talks about the fixed overhead lines located at 16 17 PSEG property that connects the substation to PSEG unit number three, and on 2-5 it states, three 18 monopoles will be installed on PSEG property to 19 connect to Bridgeport Harbor Station Number 3. 20 21 The new substation length, or connection 22 length is approximately 1,050 feet. My question 23 is associated with that. One is, I didn't see anything about the new power unit that's being 24

built. So where would that be connecting? Would

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it be this station, or another station? 1 2 THE WITNESS (Pinto): Yeah, the new unit five that PSEG is building is actually being 3 interconnected into Singer substation. 4 MR. HANNON: 5 Okay. Thank you. And then based on the table that's on page 7-1 it talks 6 about the construction plans call for a completion 7 date roughly between October and December of 2021. 8 Is that correct? 9 THE WITNESS (Pinto): That is correct. 10 MR. HANNON: Okay. My understanding is 11 that by July 1, 2021, Bridgeport Harbor Unit 12 Number Three is supposed to close. So why would 13 you be closing - or why would you be running lines 14 15 through a closed powerplant? THE WITNESS (Pinto): Actually the 16 17 interconnection for -- that goes over to PSEG for the unit three, also there's a -- I believe it's 18 called unit four. It's the jet that is also tied 19 to that interconnection. 20 21 MR. HANNON: Okay. I read that by being 22 Bridgeport Harbor Station Unit three, that's the 23 coal plant, which to my understanding, that there's an agreement to close that by July 1, 24 25 2021. That's why I'm asking?

1 THE WITNESS (Pinto): Right. What I'm 2 saying is that connection that we have there today supplies/interconnects unit three and unit four, 3 and unit four will remain. 4 MR. HANNON: Okay. 5 Thank you. On page 1-4 it says, during Hurricane Sandy water levels 6 rose to within inches of the control room floor. 7 8 What's the elevation of the control room floor? 9 THE WITNESS (Pinto): The control room floor is approximately ten feet. 10 11 MR. HANNON: Okay. So basically the 12 same as what the old hundred year flood elevation 13 was? 14 THE WITNESS (Pinto): Correct. 15 MR. HANNON: Okay. On page 3-6 it and 16 talks about the steel pipe will be installed in 17 the trench in lengths of 30 to 40 feet welded and 18 x-rayed at the connection to detect any weld defects. 19 20 Who's going to be responsible for 21 operating the x-ray equipment? Is that going to Is that a contractor? 22 be UI? 23 THE WITNESS (Pinto): That would be an 24 outside contractor. They're specialized in doing that type of work. 25

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1 MR. HANNON: And UI will guarantee that 2 they have their equipment license within the State of Connecticut? Because it's not on one of the 3 items that's listed for state permit, and I 4 believe it has to be registered for an ionizing 5 radiation permit. 6 7 So you may just want to double check on 8 that? 9 THE WITNESS (Pinto): We will. MR. HANNON: On page 3-6 it talks about 10 the HPGF lines. The trench is backfilled with 11 12 additional bedding material. And then on page 3-8 it talks about the XLPE trench will be backfilled 13 with high-strength concrete to protect conduits. 14 What's the difference between the two materials 15 and why different types of backfill? 16 17 THE WITNESS (Pinto): Right. The -- the 18 pipe type cables, the HPGF is typically a sand that you put around the tables. The high-strength 19 concrete around the XLPE duct bank is just that. 20 21 It provides strength to the duct bank itself. 22 Then there's available fill that fills up to the 23 top, the top of the elevation which is essentially -- does essentially the same for the 24 thermal heat dissipation on the cables. 25

1 MR. HANNON: Okay. Thank you. On 2 page 3-12 it says, UI will install low-level LED lighting. What do you mean by low-level LED 3 lighting? 4 THE WITNESS (Pinto): Standard outdoor 5 6 type task lighting. 7 MR. HANNON: But I mean, low level? 8 Does that mean the height of the tower, or the 9 wattage in the bulbs? I'm just not sure what it 10 means. 11 THE WITNESS (Pinto): The height of it 12 is typically 12 to 15 feet up. It's just task 13 lighting around the yard for nighttime work. 14 MR. HANNON: Okay. On page 5-1 it talks about the new substation and the 115-kilovolt line 15 interconnects -- or interconnections will be 16 17 located entirely within upland areas affected by previous industrial users. As a result 18 environmental effects are expected to be minor. 19 Are you talking about environmental 20 effects of the new substation? 21 22 THE WITNESS (Berman): Yes. 23 MR. HANNON: Okay. And I mean, we had talked a little bit earlier about potential soil 24 contamination, but you're already dealing with 25

that issue. So I don't need to ask that one. 1 And 2 I'm okay on the next one. On page 10-1 it talks -- you have your 3 acronyms. One that I did not see there, and it's 4 on some of the design pages, is TOC. I'm assuming 5 that's top of concrete? 6 7 THE WITNESS (Pinto): That is correct. 8 MR. HANNON: Okay. So for example, 9 where the transformers are being constructed the ground level is twelve, but you're putting in a 10 concrete structure that's at least five feet above 11 12 that. Correct? 13 THE WITNESS (Pinto): Correct. If the top -- if that's what's identified as top of 14 15 concrete on the drawing. 16 MR. HANNON: Okay. And sort of tying in 17 with that in appendix A1, and it was map PEQ-PR01, you identified the GIS building and the control 18 building, but north of the two transformers 19 there's a box that says, PCD. What's that? 20 21 THE WITNESS (Pinto): That's the power That's the distribute --22 distribution center. 23 that's the distribution feeders leaving the 24 station. 25 MR. HANNON: Okay.

1 On map PEQ-PR-SK4, I'm not sure what 2 structure that is, what building that is? THE WITNESS (Pinto): The one with the 3 height of 33, roughly 33 feet, that's the GIS 4 enclosure. The one with the height of 14 feet is 5 the GIS control room. 6 7 Okay. Because I have a MR. HANNON: 8 question then going to the next page, which is 9 It only shows a one-foot elevation, PEQ-SK-PDC2. it looks like, between the ground at the bottom of 10 the structure. My understanding is all of these 11 12 are supposed to be at least three feet above the 14-foot elevation which would put it at 17 feet, 13 but that's not what this design is saying. 14 15 THE WITNESS (Pinto): Which drawing is 16 that? 17 MR. HANNON: PEQ-SK-PDC2. And it's the 18 same thing with PDC1. So that structure there, it shows -- at least it appears to be a one-foot 19 elevation difference between the ground and the 20 21 top of the concrete, but yet you're calling for at 22 least a 17-foot high. So I would think that the 23 concrete should be three feet. THE WITNESS (Pinto): All the equipment, 24 the base of the equipment will be at elevation, 25

FEMA plus 100 it should 17 -- FEMA plus 100 plus 1 2 3, which would be 17. Okay. And the reason I'm 3 MR. HANNON: asking here is because this looks like a one-foot 4 high concrete wall, and the previous was 5 three feet in concrete. So that's why I'm asking. 6 And then my final issue is when plans 7 were being put together for this project, did UI 8 go back and look at what was in the record for 9 Bridgeport Harbor Unit Five? And the reason I'm 10 asking is because there appears to be a 11 12 significant difference between the elevations that are being proposed for the substation versus those 13 elevations that were being proposed for the 14 15 powerplant, and that does have me a bit concerned. Again, here you're looking at a base 16 17 elevation of 14 feet for the ground and then going 18 up 3 feet. The powerplant has a retaining wall built at an elevation of at least 20 feet. 19 There, soil level inside that frame is, I think 16-6. 20 That's the elevation of the runways. 21 They're 22 putting their buildings in at 18.5 feet. So I'm 23 just kind of curious as to why such a difference in that information? 24 I mean, I went back and looked at the 25

Bridgeport Harbor Unit Number Five application to just double check some of the numbers to see if we're talking consistency here, because it's on basically the same piece of property -- but there appears to be a significant difference.

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And one of the other issues that came up 6 in the finding of facts as it relates to the 7 8 powergenerating plant is it talks about the elevation according to the federal quadrennial 9 energy review. Sea levels under the high-end 10 scenario could rise about 32 inches, or about 2.7 11 12 feet by 2060. So that's kind of why I'm a little concerned in terms of the elevations that you're 13 going in at, versus the elevations for the 14 15 powerplant.

16 So I don't know if you want to respond 17 to that, but that's the question I have, or an 18 issue that I have.

MR. McDERMOTT: Mr. Hannon, maybe I can ask the panel just to address the analysis that the company undertook. I don't want to presuppose that PSEG got it right and UI has gotten it wrong. So I think maybe the panel could just explain the analysis that the company undertook in arriving at their plans. And I will throw that to Mr. Pinto or Mr. Rossetti or Mr. Brant.

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THE WITNESS (Bradt): So I'm probably going to repeat what Rich already said, but our philosophy has been to take the updated FEMA maps that were updated in 2013, I believe it was. And then we applied the current standard which is the ASCE-24 says that electrical substation facilities should be built to the hundred-year plus two feet, and then there's a -- there's a 500-year flood level comparison also. But in this, at this site the hundred-year plus two-foot level is limiting.

And then we did look at sealevel rise 13 There's a lot of different 14 predictions. 15 predictions out there that range from inches to feet, to several feet over the next 50 years or 16 17 century. And looking for direct guidance we could 18 not get that, and we wanted to make sure that the region was comfortable with paying for the 19 additional costs. 20

21 So what we -- where we landed was we had 22 conversations with DEEP, ISO New England and other 23 stakeholders involving cost recovery. And where 24 we landed was we elected to use one foot of sea 25 level rise, which is the minimum recommendation

that FEMA says that you should use. 1 2 They say, if you have -- if you have a 3 sealevel rise study, you're -- they recommend that you add that to current standards, or at a minimum 4 add one foot. 5 So because we did not have any kind of 6 consensus document, any kind of single number to 7 use we defaulted to the one-foot level. And we 8 had a number of conversations with the State of 9 Connecticut on that and also ISO New England, and 10 that's -- that's where we had consensus. 11 12 MR. HANNON: Yeah, because I think one of the things -- is it here? I thought the 13 500-year flood elevation is up to what? 14 I think 15.4 feet, 15.5, something like that. 15 So again, the numbers start getting 16 17 pretty close. And I know the siting Council has 18 looked at other projects looking more of the 500-year flood elevation to try to make sure that 19 20 all of the required electronic components, all the 21 critical elements are going to be above that, and 22 it's usually been one to two feet. 23 So this is why I'm a little concerned just based on some of the issues that the Council 24 has been looking at over the last several years? 25

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1 THE WITNESS (Pinto): The FEMA plus 3 is 2 essentially equal to the 500 plus 1. It's fifteen nine plus a foot is sixty-nine and the FEMA one 3 hundred is seventeen. So the 500 plus one or the 4 FEMA plus -- hundred plus three is essentially the 5 same. 6 MR. HANNON: Does that take into 7 consideration increases in water elevation? 8 9 THE WITNESS (Pinto): That we used that one for, like, Dave had mentioned we had used the 10 one foot for future sealevel rise. 11 12 MR. HANNON: Okay. I do not have any other questions. 13 THE CHAIRMAN: Mr. Silvestri? 14 15 MR. SILVESTRI: Thank you, Mr. Chairman. But first off, I'm going to apologize 16 17 for any repetition of questions because I'm having a difficult time with acoustics here. 18 My first question for you. In addition 19 20 to flooding of the existing Pequonnock substation, 21 is salt spray a concern and another reason for the 22 relocation? 23 THE WITNESS (Pinto): It is not actually part of our plan for it, but it is of concern. 24 25 Any substation along the coast, adverse weather,

we've had it happen at Pequonnock and we've had it
 happen at other stations. The salt spray is of
 concern, but that was not taken into consideration
 here.

MR. SILVESTRI: Just a related question to that. When you mentioned the rebuild in place option, how would that addresses salt spray?

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8 THE WITNESS (Pinto): If it was a 9 rebuild in place it would actually be the type of 10 equipment is has, that type of equipment, and it 11 would not address salt spray.

12 MR. SILVESTRI: Let me move onto 13 reference Council Interrogatory Number 14. This 14 talks about SF6. The first question I have for 15 you is, how much SF6 would be used in the proposed 16 substation?

17 THE WITNESS (Pinto): We currently don't
18 have a vendor onboard, but I can -- can use a
19 reference. Our existing GIS substation at Grant
20 Avenue has approximately 20,000 pounds of GIS -21 excuse me, SF6.

22 MR. SILVESTRI: Does that amount trigger 23 anything for risk management plans with EPA or 24 with the State?

THE WITNESS (Pinto): We monitor how

1 much VAS we have on our property, not just that, 2 our substations, but all of our facilities. We monitor on a yearly basis and we document any 3 stuff we use, the stuff that is calculated against 4 losses. 5 MR. SILVESTRI: But the actual quantity 6 on site, does that trigger anything? 7 8 THE WITNESS (Berman): I don't know, is I would have to look at the 9 the answer. characteristics of SF6 against the tier-two 10 requirements, but I'm not prepared to answer that 11 12 right now. 13 MR. SILVESTRI: Does the company have an SF6 handling plan? 14 THE WITNESS (Pinto): 15 Yes. MR. SILVESTRI: Does the plan include 16 17 leak detection monitoring specifically for inside the GIS building? 18 THE WITNESS (Pinto): Our design has a 19 20 gas density monitoring system which it alarms the 21 levels of gas in each of the gas zones within the 22 GIS equipment. It's alarmed physically at the 23 station and back at our control. MR. SILVESTRI: If something happened 24 25 with a leak you would know it before anybody went

into that building? 1 2 THE WITNESS (Pinto): We would actually see it trending. Certainly we would see it 3 trending and monitor it. And we would address it 4 before it gets to be a severity. 5 MR. SILVESTRI: Thank you. Going back 6 7 to Mr. Perrone's question about the diesel 8 generator -- and this was one of the ones I had a 9 hard time hearing -- what the size, or the proposed size of the generator? 10 11 THE WITNESS (Pinto): They're sized to 12 handle the 20 -- our 24-hour load cycle at the 13 station. Right now it's up at around a 2050 kW 14 generator. 15 MR. SILVESTRI: And how large would the 16 fuel tank be to go along with that? 17 THE WITNESS (Pinto): I don't have that answer with me. 18 MR. SILVESTRI: You're proposing a 19 20 aboveground or belowground tank? THE WITNESS (Pinto): Aboveground tank. 21 22 They're self-contained units. 23 MR. SILVESTRI: All right. Again going back to Council's interrogatory number eight and 24 also a question follow-up from Mr. Hannon that I 25

1 also had a hard time hearing. The current grade 2 for the land of the proposed substation is twelve feet. Is that correct? 3 THE WITNESS (Pinto): On the proposed 4 5 property? 6 MR. SILVESTRI: Right now, yes. THE WITNESS (Pinto): It ranges ten to 7 8 twelve feet. Correct. 9 MR. SILVESTRI: So the proposal will raise the entire grade and not just the tops of 10 foundations. Correct? 11 12 THE WITNESS (Pinto): Correct. There the grade will be increased gradually. 13 14 MR. SILVESTRI: Then going back to the 15 building, specifically drawing SK-PDC2, I'm not 16 sure when I look at that drawing what the 17 elevation of the base of the building is. Could you tell me what that elevation is? 18 THE WITNESS (Pinto): The elevation of 19 the base of the buildings, again is at the FEMA 20 21 100 plus three, which would be elevation 17, 22 NAVD-88. 23 MR. SILVESTRI: Okay. Thank you. Let me turn your attention to section 24 25 three on page 3-5. There's a statement at the

1 bottom of the page about concrete and concrete 2 trucks. Will the project have an area to wash out these trucks? 3 THE WITNESS (Pinto): Yes, that will be 4 identified in the D and M plan. 5 6 MR. SILVESTRI: Okay. Thank you. Also on the page there's mention about a Petro Barrier 7 8 gravity drain system for the transformer 9 containment. Could you explain how that works, where the loader would go and if a discharge 10 permit is required? 11 12 THE WITNESS (Sazanowicz): The transformers have a full oil containment system. 13 It's a concrete pit that will capture any oil that 14 has leaked from that unit. The Petro Barrier is a 15 product that's used that in the event that we do 16 17 have rainwater that fills up into that pit, we can safely drain that rainwater and the Petro Barrier 18 will block any oil contaminants from getting out 19 of it. 20 MR. SILVESTRI: So the two related 21 22 questions, where does it go? Where does the water 23 go and is a discharge permit needed? THE WITNESS (Sazanowicz): I don't have 24 25 that answer.

1 THE WITNESS (Berman): So the answer is, 2 I don't -- with respect to the discharge from rainwater, you know, that -- that accumulated in 3 the containment and then went out after the Petrol 4 Barrier. Would that be subject to a unique 5 permit? I -- I would have to look at that. 6 7 It's not, you know, the whole site will 8 be subject, naturally, to Connecticut DEEP 9 permitting. That is a line item that we have to think about separately -- or not separately. You 10 know, that would be part of the discussion, I'm 11 12 sure, with DEEP. MR. SILVESTRI: One other followup on 13 that. Would the discharge be manual or automatic? 14 15 THE WITNESS (Berman): Manual. So it --16 manual. 17 MR. SILVESTRI: So somebody would be 18 there to operate whatever the system may be? Okay. All right. 19 20 If I could have you do turn to page 3-8, there's discussion about the use of fluidized 21 22 thermal backfill, or FTB. How does FTB differ 23 from flowable fill? THE WITNESS (Pinto): It's the same. 24 25 MR. SILVESTRI: It's the same? Okay.

1	Thank you.
2	When we drove into the proposed site we
3	kind of have a little paved road that's over
4	there, and we parked on the right side. If you
5	look at the left as we drove in there, there's a
6	manhole cover. Do you know what that manhole
7	cover is for?
8	THE WITNESS (Pinto): I do not.
9	MR. SILVESTRI: Okay. Related to that
10	then, the City of Bridgeport maintains, I would
11	think, stormwater sewers and catchbasins on Main
12	Street, Kiefer Street maybe on Singer. Do you
13	know if any of those flow through your proposed
14	property out to the harbor?
15	THE WITNESS (Pinto): I do not.
16	MR. SILVESTRI: So somewhere along the
17	line I would think before you start construction
18	you would need to identify what that manhole is,
19	probably where the cities sewers are, too?
20	THE WITNESS (Pinto): We have done a
21	subsurface investigation. I just don't have that
22	answer readily available with me.
23	MR. SILVESTRI: All right. Going back
24	to a question that Mr. Hannon had asked you as
25	well. With the line for unit three and unit

1 three's proposed retirement, that line would still 2 connect to unit four to the proposed substation? THE WITNESS (Pinto): Correct. 3 MR. SILVESTRI: Okay. All right. 4 Now moving on. Assuming that the new substation is 5 constructed and it's operational, but something 6 7 went amiss such that you would need to bring in a 8 mobile transformer, how would that mobile transformer come into the substation? 9 THE WITNESS (Pinto): The way it's 10 designed, it would come in from either Ferry 11 12 Access Road or Kiefer Street. There's a paved area and it would line up underneath the stream 13 bus between the GIS enclosure and the high side of 14 15 the transformers. 16 MR. SILVESTRI: Okay. Would that mobile 17 transformer be off either road, either Ferry Access or Kiefer? 18 THE WITNESS (Pinto): Correct. 19 MR. SILVESTRI: And it would be on the 20 21 property, not there. 22 THE WITNESS (Pinto): It would be off 23 the road. It would be on the property. MR. SILVESTRI: If I could have you look 24 25 at drawing PEQ-PR01?

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When I look at this, I see retaining 1 2 walls on both the north and the south sides of the proposed substation property. Can you explain the 3 function of those walls? 4 THE WITNESS (Pinto): What was that 5 6 drawing again, please? 7 MR. SILVESTRI: PEO-PR01. 8 THE WITNESS (Pinto): That's to retain 9 the -- the soil that we're raising the elevation with. 10 MR. SILVESTRI: Well, you wouldn't need 11 them on the east and west sides? 12 13 THE WITNESS (Pinto): I believe on the east and west sides it would be soil up to the 14 corners and back down to grade. 15 16 MR. SILVESTRI: So any access that you 17 would have going into the substation I would think would be from either the east or west side, and 18 not going over that retaining wall. 19 Is that correct? 20 21 THE WITNESS (Pinto): That is correct. 22 MR. SILVESTRI: Okay. A couple other 23 questions for you relating to elevation. There's a program out there, Resilience Bridgeport and it 24 25 lays out an approach to protecting against climate change, storm surge and even rainfall flooding. And I've also heard it called Rebuild By Design. Okay? The South End neighborhood was reviewed for a pilot project that was seeking to elevate Singer Street, to build basically a waterfront berm and establish other flood mitigation measures.

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7 So my question to you is, how does your 8 proposal to construct on Kiefer Street fare with 9 Resilient Bridgeport and the potential to elevate 10 Singer Street?

11 THE WITNESS (Pinto): If you're 12 referring to the Resilient Bridgeport project that I'm aware of, they have several options. 13 They haven't -- they don't have a final plan yet, but 14 15 if they elevate Singer Street that would put us actually inside -- or outside of the protected 16 17 area. But with our design we would be above the 18 hundred-year plus three, or the 500 plus one flood elevation. 19

20 MR. SILVESTRI: Yeah, my concern 21 again -- this is one of the proposals they had, 22 that Singer Street gets elevated. You're below 23 that.

24So is there a chance that somehow25flooding occurs within the area of your proposed

substation? Water can't go anywhere because you have a berm behind you at Singer Street and then there's problems.

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4 THE WITNESS (Pinto): Right. We've been 5 working with the Resilient Bridgeport Project. 6 They are well aware of our project. We're aware 7 of theirs as well. So we'll work out engineering 8 with them.

9 MR. SILVESTRI: The last question I have, and it's also related to elevation. 10 The Connecticut Institute for Resilience and Climate 11 12 Adaptation published new sealevel rise projections and new planning recommendations back in October 13 of 2017. How does the proposed elevations for the 14 Kiefer Street substation, the new substation 15 compare to the institute's projections and 16 17 recommendations?

18 THE WITNESS (Berman): So we actually 19 have a very good response from Connecticut DEP on 20 exactly that point. There's a -- I believe it's 21 part of the record already, a June 6th letter to 22 the Council from DEEP indicating that -- well, 23 I'll just read from it.

24We note that the proposed substation25design which elevates all substation components --

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three feet above base flood elevation of 14 feet 1 2 is consistent with and in fact exceeds the design requirements of Section 9 of Public Act 1882. 3 Right now the sealevel rise estimates 4 out of CIRCA are out in draft, but those are the 5 sealevel rise estimates that Public Act 1882 will 6 7 rely on. So you know, DEEP has already kind of 8 weighed in on that. 9 MR. SILVESTRI: Okay. Mr. Chairman, I think I'm set with my question, although I wish I 10 did get a couple answers back on some of the 11 12 questions I asked. 13 Thank you. 14 THE CHAIRMAN: Thank you. Dr. Klemens? 15 DR. KLEMENS: 16 Thank you, Mr. Chairman. 17 Again, I also had trouble hearing a lot of the conversation, particularly the questions 18 coming from my colleagues toward you. 19 I understand I'm going to echo some of 20 the concerns Mr. Hannon had about the elevation of 21 22 this structure. Would you say that this proposal 23 is really driven by resiliency as the primary 24 goal? 25 THE WITNESS (Pinto): There the project

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1 is designed for both flood resiliency and also 2 asset condition issues. DR. KLEMENS: Well, as I understand the 3 asset condition issues are in large part due to 4 the old substation being flooded. 5 Correct? THE WITNESS (Pinto): No. 6 The asset condition issues are -- is separate than the 7 flooding. The asset condition issues, there's --8 we've seen and have evidence of significant 9 settling of the foundations both on the control 10 room and 115-kV steel box structure. 11 12 There's evidence that either we have disconnect switches that get misaligned soon after 13 we install them because of the site settling. 14 15 DR. KLEMENS: Now there was a discussion I believe, Mr. Brant, about the cost factor of 16 17 this design. Mr. Hannon spoke about the 18 protection of the PSEG plant, I believe, with a 20-foot retaining wall around it. So my questions 19 are twofold. 20 21 If we have a storm surge and the water 22 started coming in, would the fact that you have a 23 large structure with -- this is similar to what Mr. Silvestri was talking about on Singer Street. 24 What would the effect be of that enclosed area, 25

that island as the water moves around it? Would 1 2 it artificially raise the water levels around your 3 structure? Am I being clear what I'm asking? 4 A storm surge comes in, hits the 20-foot 5 enclosed PSEG station. Does that create a larger 6 amount of water surging into your substation? 7 8 THE WITNESS (Pinto): I believe we had a 9 response to that question in one of the interrogatories. And subject to check, I believe 10 it was insignificant because it's flooding from 11 Long Island Sound and not, like, a river type 12 flooding. 13 DR. KLEMENS: Not flooding coming down 14 15 the river? Okay. What would the cost differential be --16 17 because we talk a lot about cost to ratepayers -the differential be if we were to either raise 18 that station higher, the substation, or put a wall 19 around it similar to the PSEG station, the power 20 station? 21 22 I mean, this is an expensive project and 23 we're talking about containing costs, but percentagewise how much more cost would that be to 24 25 do it analogous to what they did at the

powerplant?

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2 THE WITNESS (Pinto): I don't have a figure with me, but putting a wall around the 3 property would be pretty significant. There would 4 have to be flood type gates, because we still need 5 6 to access the property with our mobile sub. 7 The PSEG property where the generator is, I believe it's a gentle slope getting up 8 9 inside the -- inside of the wall, if you want to call it. But we don't have the luxury of a lot of 10 land of having a gradual slope getting into 11 12 So we need floodgates, so it's a pretty things. 13 significant endeavor to put a wall around that 14 property.

DR. KLEMENS: You said you could not find any consensus on flood projections and you went with the 500-year flood plus one, but admittedly there are other projections that are more severe, correct? More dire for sealevel rise?

THE WITNESS (Bradt): So I just want to separate the two numbers. The 500 year, the standard that we use that we applied is ASE-24. And it says for an electrical substation that supplies critical facilities, which this facility

does. You should construct it to the hundred-year 1 2 plus two, or the 500-year. So that was our -- our base calculation elevation. 3 And then it also -- there is a 4 recommendation somewhere in that document that 5 says, you should also add something to account for 6 sealevel rise. 7 8 So the place that we have difficulty getting consensus was on what exactly -- how much 9 should we include to account for that sealevel 10 rise prediction? So that's how we went from the 11 hundred-year plus two as required by the standard, 12 which is approximately equal to the 500-year 13 within inches. 14 15 So it's a hundred-year plus two, and then we defaulted to the FEMA minimum 16 17 recommendation. They said that if you can do your own calculation of sealevel rise or have some 18 site-specific study, or FEMA recommends you add at 19 least one foot. 20 DR. KLEMENS: At least one foot? 21 22 THE WITNESS (Bradt): Yes. 23 DR. KLEMENS: How many feet have you added? 24 THE WITNESS (Bradt): We added exactly 25

one foot.

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2 DR. KLEMENS: So you're already at the very minimum of what FEMA is recommending? 3 THE WITNESS (Bradt): That's correct. 4 DR. KLEMENS: And how long do you 5 anticipate the life of this facility to be? 6 7 THE WITNESS (Bradt): Fifty years. 8 That's a typical expectation that we would have 9 for a substation of this type. DR. KLEMENS: Don't you feel using the 10 precautionary principle minimum that using the 11 12 minimum that FEMA asks is probably not prudent, and doing something more for such a critical piece 13 of infrastructure would make sense over the 14 15 longterm? 16 THE WITNESS (Bradt): So as an 17 engineer I would tend to be very conservative. So I would -- I would prefer to add margin on top of 18 standards, however we are -- we are limited by 19 cost recovery considerations. So that's where we 20 21 ended up. 22 We -- we did a lot of work on this, this 23 precise subject and the consensus that we came to was that with the State of Connecticut and with 24 ISO New England, who's going to be paying for a 25

significant share of this project cost -- I shouldn't say ISO New England. The New England stakeholders.

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The consensus that we came to is the -the one foot of sealevel rise was considered, I would say, reasonable and that the cost to do this would be regionalized because it was considered a reasonable design.

9 DR. KLEMENS: So if were to raise it 10 another foot, what would the cost be and who would 11 bear that cost?

12 THE WITNESS (Bradt): So I don't have 13 that, but it would be -- a possible outcome of 14 that would be that the State of Connecticut, if we 15 were ordered by Siting to add additional margin, 16 that additional cost would be paid by Connecticut 17 ratepayers. That's a likely outcome.

Now of course, you know, we would file
this with ISO New England. And there's a TCA
determination. It's a processed total cost
allocation process that we submit this through.

But one of the questions they ask is, you know, we are asked to justify our design, justify its pudency. And then a question that they will ask is, were you willing to do anything additional beyond that as a result of siting. So something like this would very likely end up being localized.

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DR. KLEMENS: But you can't even give a guestimate as to what that would mean per ratepayer on this security?

7 THE WITNESS (Bradt): I -- I could not 8 do that here. I understand that it would be a 9 relatively small cost in the case of a new 10 construction substitution, but -- so it would be a 11 cost that we would have to calculate. I'm not 12 sure what -- exactly what that would be.

MR. McDERMOTT: Mr. Rossetti and I have exchanged notes and we will take that on as a homework assignment and report back to the Council either at the 6:30 hearing, or as a late file exhibit, but we will get you a cost to increase the height by one foot.

19DR. KLEMENS: Two feet. One foot and20two feet.

21 MR. McDERMOTT: One foot and two foot.
22 Okay. Thank you.
23 DR. KLEMENS: Thank you.
24 I have no further questions,
25 Mr. Chairman. Thank you.

1 THE CHAIRMAN: Mr. Harder? 2 MR. HARDER: Thank you, Mr. Chairman. Coming into the hearing I didn't have 3 any questions on the elevation issue, but I have 4 one question now. It's an interesting issue. 5 My question is, I see you have designed 6 to -- I'm not sure exactly how to put it with all 7 the discussion here, but the 500-foot flood level 8 9 plus one foot. That gives you one design or one elevation, I guess, on which to build the 10 facility. And I assume there's other provisions, 11 not just the elevation, but certain other aspects 12 of the system and the equipment, and the 13 facilities are designed a certain way because of 14 15 that issue. My question is -- I guess there's two 16 17 questions that come to mind. One is, is the 18 facility designed with the possibility or the potential for retrofitting should sealevel rise 19 become more of an issue, or when sealevel rise 20 21 becomes more of an issue without having to build a 22 new facility? 23 In other words, when you go to a 500-feet -- or 500-year flood year plus one, and 24 is there kind of a baseline system design that 25

accomplishes that? But is there maybe a baseline 1 2 plus, or a premium baseline that calls for building in the potential for retrofitting without 3 having to, you know, redesign the whole facility? 4 And is there an element of that that you're 5 6 proposing? 7 I don't know if that's clear or not, 8 but --THE WITNESS (Pinto): So I understand 9 your question, so we've designed -- just for 10 11 clarity, the design flood elevation is a 12 hundred-year plus three, which equals the 500 plus 13 one. 14 So what that means is the top of the concrete in the GIS enclosure, the control 15 enclosure and the PDC enclosure would all be at 16 17 that elevation. The equipment would actually be 18 mounted, you know, on the concrete floor. So an effort to try to raise that 19 equipment later on, you know, it's pretty much 20 21 infeasible because you've got control cables. It 22 would be a lot of work to try to raise that 23 equipment down the road, and that type of 24 consideration has not been taken in the current 25 design.

1 I think that was your question. 2 Correct? It sounds like it. 3 MR. HARDER: I quess the other thought or question in light of the 4 question one in the Council raised on constructing 5 a seawall is, if Bridgeport Harbor started lapping 6 at the hundred-year plus three or 500 plus one 7 elevation on a regular basis, or it got to the 8 point where, you know, you had to think about what 9 you were going to, do you have any idea at this 10 point what you would do? 11 12 Do you think you would have to construct a wall? Or would you have to do what you just 13 said, it would be a significant undertaking to 14 move equipment up and raise the elevation of 15 equipment and whatever else would be entailed? 16 17 THE WITNESS (Pinto): I believe if that, 18 you know, was to happen we would have to take a look at putting a wall around the facility. 19 I mean, I know you're kind 20 MR. HARDER: 21 of guessing to some extent now, but do you think 22 that would probably be the most likely first step 23 to take, or solution to look at? THE WITNESS (Pinto): We would 24 probably -- we would look at both solutions. 25 We

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1 would look at, you know, putting a wall around the 2 facility and what kind of effort it would take to raise the equipment, rather than rebuilding it. 3 MR. HARDER: Okay. All right. 4 Thank 5 you. 6 A couple other questions, or a couple of 7 areas first on the issue of control. I think in a 8 couple places in the application there's mention or discussion, or comments made that erosion 9 controls in some record would be removed after the 10 site is stabilized. 11 12 Could you define what's meant in this context by stabilized? 13 THE WITNESS (Berman): Well, I think the 14 definition of stabilized, I -- I think it's drawn 15 from the 2002 Connecticut guidelines for soil and 16 17 sediment control, but you know, vegetated, just if 18 there is was open soils they would be vegetated. The site is going to be covered with crushed 19 stone, you know. And stabilized requires three 20 months of careful observation to confirm that 21 22 there is not sediment or soil runoff. 23 MR. HARDER: Okay. So you would have a good growth, a protective growth of vegetation? 24 25 THE WITNESS (Berman): To the degree

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there's -- I don't think the final plan has a lot of vegetated area and it, but to the degree there were open soils, absolutely.

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MR. HARDER: Right. 4 Okay. The reason I ask that question is at least in one other 5 situation the proposal or the applicant, or their 6 consultant indicated by stabilized they meant 7 application of mulch and seed and other controls 8 9 without necessarily having a good growth of vegetation. So I'm glad that was your answer. 10

11 The only other question or area I had a 12 question on was on the issue of site 13 contamination. I'm glad that the site is subject 14 to the Property Transfer Act. I think that will 15 address a lot of the issues.

Although, one questions I do have is, is it the entire site that is subject? It's not going to be carved up into sub parcels such that some areas would not be subject to the transfer act, but are still going to be part of the project?

THE WITNESS (Berman): So let me -- let me address the question this way. The parcel that United Illuminating is acquiring would be subject to this transfer act. I can't really speak to

1 other transactions or other carveouts that might 2 happen. 3 MR. HARDER: Okay. But the property that UI is acquiring includes the entire 4 substation. Is that correct? 5 THE WITNESS (Berman): That is correct. 6 7 MR. McDERMOTT: Okay. Mr. Harder, just 8 to be clear the property that UI is acquiring 9 actually includes property beyond the substation also. 10 11 Right. So the substation MR. HARDER: 12 at a minimum? 13 MR. McDERMOTT: Right. 14 MR. HARDER: Okay. Thank you. 15 Will the site grading -- do you know if 16 the site grading and the process of grading the 17 site and any other work, will that expose any 18 previously inaccessible soil that might be or is contaminated? 19 20 THE WITNESS (Berman): So the characterization -- here's how I'll answer that. 21 22 Because the wrap is not implemented there's 23 probably no soils which are officially already characterized as isolated. 24 25 Could you restate the question? I want

1 to make sure I answer it exactly correctly. 2 MR. HARDER: I'm just wondering. Ι don't want to necessarily -- I don't want to use 3 terms that have a meaning under the RSRs, but 4 maybe aren't as broad as I'm intending. 5 I just want to make sure that in the 6 process of grading, regrading and excavating that 7 8 you're not going to be exposing soils that are contaminated and leaving them in a situation or at 9 an elevation perhaps that renders them accessible 10 when now they're not accessible? 11 12 THE WITNESS (Berman): I understand. So 13 the answer to your question is, you know, A, we have done due diligence to understand the 14 characteristics of the soils on the property now. 15 To the degree that conditions were encountered 16 17 such that there were soils that needed to be 18 isolated from a runoff perspective, absolutely that would be done, you know, pursuant to best 19 20 management practices. 21 MR. HARDER: Okay. And my final 22 question is, you had mentioned that an engineered 23 control was approved by the department in 2013, I think. Was that, or is that engineered control 24 part of the final design? Or will it be, if the 25

1 design is subject to change, part of the final 2 design of the facility? Or would that need to be modified at all? 3 THE WITNESS (Berman): There's no 4 question we're going to have to work with PSE --5 PSEG to make sure that the new substation is not 6 an island where there is no engineered control 7 8 that doesn't sort of fit in with the grid or site, 9 or the greater wrap. All those details are not yet worked out. But conceptually, no, this site 10 will fit in with the -- the existing wrap. 11 12 MR. HARDER: Okay. All right. Thank you, Mr. Chairman. That's all the 13 questions that I have. 14 15 THE CHAIRMAN: Thank you. 16 Mr. Lynch? 17 MR. LYNCH: Thank you, Mr. Chairman. 18 Most of the questions I had have been discussed, but I'd like to get a clarification on 19 a few of them. 20 21 Mr. Berman, you mentioned that you're 22 getting all the DEP permits that are needed 23 under -- that was section nine. Does that also included army corps permits for the area? 24 25 THE WITNESS (Berman): Yeah, I don't --

1 we don't have any filling activities that I think 2 would be subject to Army Corps permitting. Okay. And there's been a 3 MR. LYNCH: lot of discussion on the flooding in the 4 hundred-year floodplain and so on, and the damage 5 that it can do. Having lived through a few of 6 them, my question is really a simple one. 7 8 The federal government kind of requires residences and commercial institutions to have 9 flood insurance. Does that apply to utilities 10 also, or do you self insure, or buy into the 11 reinsurance market? 12 MR. McDERMOTT: Everyone is looking at 13 me for some reason on this one. 14 15 So the company is self insured for the first \$2 million, and then after that the company 16 17 does have insurance. But I'm not sure that's 18 current info, but I will take that as a homework assignment. 19 I think it's 20 MR. LYNCH: Okay. 21 Mr. Rossetti, you threw out a lot of numbers to 22 Mr. Perrone earlier on the cost of the project, 23 and as I added them up it went from 125 million almost to a billion dollars. Could you break that 24 25 down again for me? I couldn't really hear a lot

1 of what you were saying? 2 THE WITNESS (Pinto): So the current estimate is, I mean, from my numbers it's 3 \$170 million. 140 of that -- excuse me, 4 \$130 million is transmission. \$40 million of that 5 is distribution. 6 7 MR. LYNCH: That part I got. Then you 8 threw in a construction something for 200 million 9 or something? THE WITNESS (Pinto): I believe that 10 200 million was constructing the facility off --11 12 at a different location. It's not to promote this project. It was an alternative project. 13 MR. LYNCH: Okay. As far as the old 14 substation is concerned -- we'll call it the old 15 one, what currently -- you reference that it has 16 17 problems, misalignment, so on and so forth. With 18 all the stress bearing caused by the current old substation, is that in any way affecting your 19 20 system now? 21 THE WITNESS (Pinto): Can you clarify 22 what you mean by affecting? We've had issues with 23 we were switching out equipment and we could not operate a switch. And we had to make alternate 24 plans and switch out more than what we needed to 25

operate that switch, because it would not operate. 1 2 It was either stuck in position or we could not get it closed. And we had to take an 3 hour just to do emergency maintenance on it to 4 actually get a switch closed. We've had several 5 instances, you know, over the years like that. 6 7 MR. LYNCH: Then let me ask you in a 8 simpler way. Does the status of the current 9 station cause any of the outages within your 10 system? THE WITNESS (Pinto): Distribution 11 outages? 12 No. 13 MR. LYNCH: Transmission? THE WITNESS (Pinto): It has not caused 14 15 any transmission outages. 16 MR. LYNCH: And I'm going to come to the underground cables. I know they're going to be 17 extended into the new substation. My question 18 is -- it's more of a curiosity question. 19 20 There's two different types, the XLPE 21 and HPGF. If you could have designed the system 22 to have just one type of cable, which one would 23 you have selected? THE WITNESS (Cullen-Corson): The XLPE 24 25 cables are a newer type design for the

1 transmission industry. So with this project I 2 guess we would obviously look at extending using the crossing -- or using the crossing polyethylene 3 for the -- crossing polyethylene circuits and then 4 the high-pressure gas filled for those circuits as 5 well. 6 Which one is more 7 MR. LYNCH: cost-efficient? I was under the assumption that 8 9 XLPE is more expensive. THE WITNESS (Cullen-Corson): That, I'm 10 not sure of. 11 12 MR. LYNCH: And now we'll go to 13 Dr. Bailey for a second. With these underground cables and previous underground cable transmission 14 15 systems that we've gone through that you've been around for, they still emanate a magnetic field. 16 17 Now is that driven by the amount of voltage going 18 through these lines, or is it one type of cable is superior to the other? 19 20 THE WITNESS (Bailey): The -- the field 21 from underground lines is purely, yeah, driven by 22 the flow of currents in the magnetic field. And 23 the electric field would be totally shielded by the grounded coverings on the cables themselves, 24 25 and the earth itself. So the only emission above

ground would be the 60 hertz magnetic field. 1 2 MR. LYNCH: Now would that magnetic field spread out, or just go, you know, vertical? 3 THE WITNESS (Bailey): It would go in 4 all directions around the cable. Think of a, sort 5 of a circular area around the cable both in the 6 air and in the ground. 7 Depending upon the design of the cables 8 9 it will -- it will be highest directly over the cables and then attenuate rapidly with distance. 10 If those cables are -- are not coalesced together 11 in one bundle, then field would decay somewhat 12 more slowly, but the typical configuration is to 13 put the conductors close together to maximize --14 minimize construction impacts and also that has 15 the effect of maximizing mutual cancellation of 16 17 the magnetic field. 18 MR. LYNCH: Now because they're underground emitting a magnetic field, you know, 19 20 whatever they are, you know, 3, 4 feet as opposed 21 to being 60 feet in the air, is that a more 22 potential danger -- or not danger. I'm after 23 another word. You know, to gain this? THE WITNESS (Bailey): The strength of 24 the magnetic field of overhead lines and under --25

underground lines of the -- of the same, carrying 1 2 the same currents might well be, for a person 3 walking on the ground above the cable or underneath the overhead line, it might well be 4 higher for the underground line. 5 And if you go 25 feet away from the 6 centerline, however, that condition could well be 7 8 reversed under the circumstances in that the magnetic field from the underground line decays 9 more rapidly with distance in most cases. 10 MR. LYNCH: Thank you. Now also 11 12 referenced in the DEP letter was a note indicating that there was nesting of the Peregrine falcon. 13 Has that been researched? 14 15 THE WITNESS (Berman): So we have a fairly robust exchange with DEEP on the Peregrine 16 17 falcon. Could you point me to where on the DEEP 18 letter? MR. LYNCH: It's on page 2, and it's the 19 20 second paragraph. 21 THE WITNESS (Berman): Right. What's 22 described there is very consistent with our last 23 correspondence from DEEP and the people that administer the Natural Diversity Database. 24 25 You know, for the period from April 1 to

1 June 30th that would be the nesting period that 2 we'll have an ornithologist observing for the 3 potential for nesting Peregrines. MR. LYNCH: Would that also include --4 certainly they're on a costal area -- the osprey? 5 THE WITNESS (Berman): No. At this time 6 we -- we don't anticipate including the osprey in 7 that endeavor. 8 9 MR. LYNCH: Why not? THE WITNESS (Berman): Well, it's 10 not a -- it's not a species that was flagged on 11 the Natural Diversity Database finding. 12 It's nothing that we, you know, we've also contacted 13 the U.S. Fish and Wildlife Service, and neither 14 15 agency flagged the osprey as a species of unique concern. 16 17 MR. LYNCH: Okay. Thank you. 18 And lastly, the fence surrounding the new facility is 14 feet high. Is that normal for 19 the surrounding fence for a substation? 20 21 THE WITNESS (Rossetti): Yes, that's 22 correct. Actually, our standard is 14 feet high 23 with a 2-inch mesh, and then 1 foot of barbed wire on top of that. 24 25 MR. LYNCH: Now I've have noticed, not

1 necessarily in UI's area, that -- but in 2 Eversource's, they're also putting a screening inside the -- I don't know what it's called, 3 because that's something that UI would be 4 considering for security purposes. 5 6 THE WITNESS (Rossetti): Yes, that's -they're called opaque slats. And we've actually 7 used those at a couple of our substations already, 8 9 and that is the plan for this substation as well. Typically that would be a light gray color. 10 MR. LYNCH: Okay. Thank you. 11 12 That's all, Mr. Chairman. Thank you. THE CHAIRMAN: Thank you. 13 Obviously, you have heard the concern by 14 15 most of the Councilmembers regarding the issue of potential sea level rise elevation. From what I 16 17 read you looked at one other site, 375 Main 18 Street. Is that correct? THE WITNESS (Pinto): That is correct. 19 20 THE CHAIRMAN: It probably is somewhere 21 here, a map showing that, but how is that relative 22 to this site as far as proximity to the sea? 23 THE WITNESS (Pinto): Well, it's a block further west than the proposed site. 24 25 THE CHAIRMAN: And was the reason you

chose the alternative you did based primarily on 1 2 cost? THE WITNESS (Pinto): It's more costly 3 to -- to build on that site. Correct. 4 THE CHAIRMAN: And did you estimate the 5 cost of that, of the alternative site? 6 Am I 7 correct, 200 million? Or did I just make that up? 8 THE WITNESS (Pinto): I don't have the number for the 375 Main Street, but there's no --9 as far as getting further, it's the same, roughly 10 the same elevation as the -- the proposed site. 11 12 So we had the same issues, if you're thinking 13 about --THE CHAIRMAN: It will just take the 14 15 water a little longer to get there. So the question is, did you look at other sites more 16 17 inland? Was there any other --THE WITNESS (Pinto): You did an 18 analysis to move the facility within a half mile 19 radius of the proposed site. And the size of 20 21 parcel was not available, but we did estimate it 22 if we were to have to move it, sort of, a half 23 mile within that radius. And that's where that number really takes off. 24 25 And I believe that's in the range of the

260, 260 million dollars to get there, because 1 2 you've got to extend all that transmission, all that distribution. You've got a new transmission 3 wire to raise, you know, depending on where it is 4 if it's not directly around the railroad. 5 MR. McDERMOTT: Mr. Chairman, I will --6 if I could interrupt? I will say that on 7 8 page 9-12 of the application for 375 Main Street the estimated cost is indicated, at least in the 9 application to be a plus 20 million more than 10 development at the 1 Kiefer Street site. 11 So --12 THE CHAIRMAN: Is that before or after you increased it to 170? 13 14 MR. McDERMOTT: That would --15 THE CHAIRMAN: I mean, I guess you don't have to answer that. 16 17 THE WITNESS (Pinto): Well, I will say 18 that the project -- in the application project cost it's always identified as in excess of, you 19 know, the \$125 million. And that was trying --20 21 trying to put a band on the cost of the project. I know there's been a lot of discussion 22 23 on it, but again as we get into more detailed engineering the estimates, you know, will get 24 25 better.

THE CHAIRMAN: Well, I just share others' concerns. My guess is if FEMA were to revise their 2013, which doesn't seem like a long time ago, based on the most recent information we might be talking about, you know, a different number.

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7 And I just think we're talking about, 8 particularly 50 years out, having a resilient 9 infrastructure. I'm not sure we want to put it 10 that close to, you know, flooding. And I think 11 whatever it's called, pennywise and pound foolish. 12 I think to consider -- and I guess you're going to 13 do that as a homework assignment.

My grandson would be very happy to know 14 15 that kids are not the only ones that have homework assignments, but you know, look into what the cost 16 17 of raising it. I mean, the minimum sounds like 18 just cost, and I'm not sure that councilmembers are really satisfied without looking at 19 alternatives to -- and I don't know what that 20 21 number is.

Is it another foot that would give us a better sense? And I'm, as usual, I'm disappointed with a sister agency that didn't, I think look a little harder at that. So we will appreciate and

I guess we have no choice but to schedule 1 2 another -- there will be another hearing, which I quess is what? On the 30th? 3 July 24th. I thought I was going to be 4 on vacation, but timed it wrong. So there will be 5 time for that, but I hope you take it very 6 7 serious. We're serious. Somebody -- I don't have eyes in the 8 9 back of my head, but I do hear. Yes, sir? 10 DR. KLEMENS: I was thinking about the 11 12 response you gave me concerning the 20-foot wall and the incoming water. And you characterize that 13 as flooding caused by Long Island Sound, and 14 therefore the rise would be minimal. 15 After you answered that I went and 16 17 looked at map. There's the Pequonnock River. 18 There's the Yellow Mill Channel, two streams that are coming down and meeting just above the site. 19 20 So what happens when you have heavy rain 21 as we have in storms, and we have an incoming tide 22 and the riverine water starts to back up in the 23 mouth of the harbor? That no longer is just Long Island Sound flooding there. You are having a 24 riverine component to your flooding. Correct? 25

THE WITNESS (Pinto): Yeah, I mean -but I think a majority of the water would be coming from Long Island Sound as opposed to the --I think you said the Yellow Mill and the Pequonnock River.

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6 DR. KLEMENS: Does that in any way alter 7 your assumption then about what would happen with 8 water going around that 20-foot enclosure and 9 affecting the level around your facility? If you 10 added that riverine component, that is heavy 11 rains, incoming tide during a storm, the water has 12 nowhere to go but east-west?

THE WITNESS (Pinto): Well, it would 13 certainly push -- push it out. Right? 14 I don't believe that it would increase the elevation of 15 it, but it would fan out more than -- well, 16 17 there's no wall around that facility. That would 18 make it, I guess if it's -- to better characterize it, if the floodplain went to -- I'm going to just 19 20 use an example of, let's say, Main Street today it 21 may move it out to Main Street plus something. 22 DR. KLEMENS: Thank you.

THE CHAIRMAN: Okay. We're going to recess now and resume at 6:30, at which time we'll commence the public comment session.

1	CERTIFICATE
2	
3	I hereby certify that the foregoing 96 pages are a complete and accurate computer-aided transcription of my original verbatim notes taken
4	of the Regular Hearing in Re: 483, APPLICATION FROM UNITED ILLUMINATING COMPANY FOR A CERTIFICATE
5	OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR PEQUONNOCK SUBSTATION REBUILD PROJECT THAT ENTAILS
6	CONSTRUCTION, MAINTENANCE AND OPERATION OF 115/13.8-KILOVOLT (KV) GAS INSULATED REPLACEMENT
7	SUBSTATION LOCATED ON AN APPROXIMATELY 3.7-ACRE PARCEL OWNED BY PSEG POWER CONNECTICUT, LLC, AT 1
8	KIEFER STREET IN BRIDGEPORT, CONNECTICUT, which was held before ROBIN STEIN, Chairman, at the
9	Bridgeport City Hall, Council Chambers, 45 Lyon
10	Terrace, Bridgeport, Connecticut, June 14, 2018.
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15	Robert G. Dixon, CVR-M 857 Notary Public
16	BCT Reporting 55 Whiting Street, Suite 1A
17	Plainville, CT 06062 My Commission Expires: 6/30/2020
18	My Commission Expires. 0/50/2020
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