

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE  
STATE OF CALIFORNIA



**FILED**  
10/03/19  
01:43 PM

ADMINISTRATIVE LAW JUDGES RAFAEL L. LIRAG and  
ELAINE LAU, co-presiding

Application of Pacific Gas and  
Electric Company for Authority,  
Among Other Things, to Increase  
Rates and Charges for Electric and  
Gas Service Effective on January 1,  
2020. (U39M)

) EVIDENTIARY  
) HEARING  
)  
)  
)  
) Application  
) 18-12-009  
)  
)  
)

REPORTER'S TRANSCRIPT  
San Francisco, California  
September 27, 2019  
Pages 1227 - 1371  
Volume - 13

Reported by: Doris Huaman, CSR No. 10538  
Carol A. Mendez, CSR No. 4330

I N D E X

WITNESSES:

PAGE

SANDRA CULLINGS

Direct Examination By Mr. Gallo	1234
Cross-Examination By Mr. Roberts	1240
Examination By ALJ Lirag	1274
Cross-Examination By Mr. Hawiger	1281
Cross-Examination By Ms. Liotta	1307

ROBERT EARLE

Direct Examination By Ms. Stough	1315
Cross-Examination By Mr. Lindl	1316
Cross-Examination By Ms. Zimney:	1344
Redirect Examination By Ms. Stough	1364

Exhibits:

Iden.

Evid.

56	1229	1230
57	1229	1230
26-A	1238	
26-B	1238	
58	1239	
59	1240	
60	1240	
58		1310
59		1310
60		1310
65	1312	1313
61	1314	1365
62	1314	1365
63	1314	1366
64	1314	

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28

SAN FRANCISCO, CALIFORNIA

SEPTEMBER 27, 2019 - 9:30 A.M.

\* \* \* \* \*

ADMINISTRATIVE LAW JUDGE LIRAG: Let's  
go on the record first.

Good morning, everyone. We're  
resuming the evidentiary hearings after I  
guess a well-deserved break for everyone.

Today we'll have the testimony and  
cross-examination of Ms. Cullings and  
Mr. Earle. But before that, let's take care  
of exhibits presented by Mr. Reid.

These are exhibits for which no  
cross has been scheduled; is that correct? I  
will ask Mr. Gallo.

MR. GALLO: Yes, Your Honor.

ALJ LIRAG: All right. So let's  
identify them right now.

First is Exhibit 56 and this will be  
the Direct Testimony of Jan Reid. This will  
include Attachments A, B and C and D. So,  
it's just one exhibit with four attachments  
and that -- the whole lot is Exhibit 56.

(Exhibit No. 56 was marked for  
identification.)

ALJ LIRAG: Next is Exhibit 57 and this  
is the rebuttal testimony of Mr. Reid.

(Exhibit No. 57 was marked for  
identification.)

1 ALJ LIRAG: Mr. Reid, is there move to  
2 have these admitted into the record?

3 MR. REID: I so move.

4 ALJ LIRAG: All right. Any objection?

5 MS. GANDESBERY: No objection, your  
6 Honor.

7 ALJ LIRAG: Thank you. Hearing  
8 none, Exhibits 56 and 57 are received into  
9 the record.

10 (Exhibit No. 56 was received into  
11 evidence.)

12 (Exhibit No. 57 was received into  
13 evidence.)

14 ALJ LIRAG: Let's go off the record.

15 (Off the record.)

16 ALJ LIRAG: All right. Let's go back  
17 on the record.

18 While we were off the record, there  
19 was some discussion presented by Mr. Gondai  
20 regarding recent developments between the  
21 issues of concern with NDC and PG&E.

22 And, Mr. Gondai, do you want to  
23 elaborate on what's going on?

24 MR. GONDAI: Thank you, your Honor.  
25 Tadashi Gondai with the National Diverse  
26 Coalition.

27 After extensive negotiations and  
28 discussions, NDC and PG&E have now reached an  
agreement in principal and we're prepared

1 today to waive our cross-examination requests  
2 for their witnesses next week and we expect  
3 to present a more formalized document, likely  
4 a joint stipulation or a jointly-sponsored  
5 exhibit sometime next week.

6 ALJ LIRAG: All right. The only  
7 drawback for that is I guess we'll miss you  
8 at the hearings from now on.

9 MR. GONDAI: Yeah. I regret that as  
10 well, Sir.

11 ALJ LIRAG: Please keep us updated via  
12 e-mail, copying the service list on any  
13 latest developments if things change.  
14 Otherwise, we'll expect you and PG&E or  
15 either party to file whatever is needed.

16 MR. GONDAI: Great. I just want to let  
17 you know that we do have our testimony  
18 available today but if you prefer, we can  
19 have that moved jointly with the finalized  
20 document, if that's more clean for the  
21 record.

22 ALJ LIRAG: Let's take care of it  
23 today, just so, while you're here.

24 MR. GONDAI: And I do believe that  
25 PG&E is waiving their cross-examination of  
26 our witness.

27 ALJ LIRAG: Is that correct,  
28 Ms. Gandesbery?

1 MS. GANDESBERY: Yes, your Honor. We  
2 are proposing to present a Joint Exhibit with  
3 the stipulation.

4 ALJ LIRAG: All right. Would you  
5 rather do that at some other time? You can  
6 present Mr. Gondai's exhibit in lieu of  
7 Mr. Gondai presenting it himself. Does that  
8 work?

9 MR. GONDAI: Yeah. I think that makes  
10 sense like to keep the relevant exhibits  
11 together and enter them at once.

12 MS. GANDESBERY: And Mr. Gondai I think  
13 will come when we have the joint exhibits.

14 MR. GONDAI: Yeah. I would like to be  
15 here.

16 ALJ LIRAG: All right. We'll see you  
17 one more time then. That works. We'll  
18 address your exhibit at a later time.

19 So, we'll have Ms. Cullings and  
20 cross from TURN, FEA and I guess it's  
21 Mr. Roberts substituting for Mr. Sher today.

22 MS. SHEK: Yes, your Honor. I will  
23 also be accompanying Mr. Roberts here.

24 ALJ LIRAG: All right. And Ms. Shek.  
25 Mr. Reid.

26 MR. REID: Yes. Were we off the record  
27 when you accepted my direct and rebuttal  
28 testimony?

1 ALJ LIRAG: I am 99 percent sure that  
2 we were on the record.

3 MR. REID: I see.

4 ALJ LIRAG: Before we start formally,  
5 let me just thank Mr. Ken Arnold for keeping  
6 us up-to-date with the daily schedule and  
7 sending us whatever we need. All right. I  
8 hope that works for your immediate  
9 supervisor.

10 (Laughter.)

11 ALJ LIRAG: All right. So we'll head  
12 off.

13 We'll start with Ms. Cullings and I  
14 have convinced Judge Lau to preside.

15 ALJ LAU: Good morning, everyone.

16 Ms. Cullings, can you raise your  
17 right hand?

18 SANDRA CULLINGS, called as a witness  
19 by Pacific Gas and Electric Company,  
20 having been sworn, testified as  
follows:

21 THE WITNESS: I do.

22 ALJ LAU: Thank you. You may lower  
23 your right hand. Please give us your name,  
24 spelling your last name and the business  
25 organization and address.

26 THE WITNESS: Sandra Cullings. Last  
27 name is C-u-l-l-i-n-g-s.

28 ALJ LAU: Ms. Cullings, can you make

1     sure your microphone is on?

2             THE WITNESS: Sandra Cullings. Last  
3     name is C-u-l-l-i-n-g-s. I work in  
4     Distribution Operations and my work address  
5     is 1858 Gateway Boulevard, Concord.

6             ALJ LAU: Mr. Gallo, can you start your  
7     direct examination?

8             MR. GALLO: Yes, thank you, your Honor.

9                     DIRECT EXAMINATION

10     BY MR. GALLO:

11             Q     Good morning, Ms. Cullings.

12             A     Good morning.

13             Q     Ms. Cullings, I'd like to confirm  
14     the testimony you are sponsoring in this  
15     proceeding in what has been marked for  
16     identification as hearing Exhibit 16,  
17     formerly Exhibit PG&E-4, Volume 1. Are you  
18     sponsoring all of Chapter 6, Electric  
19     Distribution Maintenance and the workpapers  
20     for Chapter 6 presented in hearing  
21     Exhibit 18, formerly Exhibit PG&E-4,  
22     Workpapers Chapter 1 through 10?

23             A     Yes, I am.

24             Q     And in what have been marked as  
25     hearing Exhibits 20 and 21, formerly PG&E  
26     Exhibit 18, Volume 1 and Volume 2, are you  
27     sponsoring all of Chapter 6 and Attachment A,  
28     Rebuttal Testimony on Electric Distribution



1 Maintenance, and the documents in hearing  
2 Exhibit 21 that relate to your sponsored  
3 Exhibit PG&E-18 Rebuttal Testimony?

4 A Yes, I am.

5 Q And finally -- no, excuse me, not  
6 finally. In what have been marked as hearing  
7 Exhibits 26 and 27, formerly PG&E Exhibit 14  
8 and Exhibit 29, PG&E's Errata Volume 1 and 2,  
9 are you sponsoring pages 14-197 to 14-199 and  
10 29-65 to 29-68?

11 A Yes, I am.

12 Q And finally are you sponsoring your  
13 Statement of Qualifications?

14 A Yes, I am.

15 Q And were these materials prepared  
16 by you or under your supervision?

17 A Yes, they were.

18 Q And do you have any changes,  
19 corrections or additions to make at this  
20 time?

21 A Yes. I do have corrections for the  
22 Prepared Testimony and the Rebuttal Testimony  
23 for the Electric Distribution Maintenance  
24 Chapters in hearing Exhibits 16 and 20.

25 In hearing Exhibit 16, formerly  
26 PG&E Exhibit 4, Chapter 6, I have some  
27 corrections to the prepared testimony on  
28 pages 6-45.

1                   Specifically, in the sentence that  
2 starts on line 5, of page 4 -- I'm sorry --  
3 of page 6-45, which begins with: "The new  
4 standards also added additional safety  
5 requirements," replace the words "the new  
6 standards also added" with the words "PG&E  
7 also published guidance emphasizing."

8                   At the end of that, it's the same  
9 sentence, after the words "primary conductor"  
10 insert a comma and the words "which had  
11 typically not been done in existing  
12 installations."

13                   Strike the entire next sentence,  
14 which starts on page 6-45, line 8, and says,  
15 "Prior to this new standard, the conduit only  
16 ran to the secondary."

17                   In hearing Exhibit 20, formerly  
18 PG&E Exhibit 18, Chapter 6, I have some  
19 corrections to my rebuttal testimony on page  
20 6-15, specifically.

21                   On line 24 after the words "2016  
22 engineering standards" insert "and guidance  
23 or surge arrester grounding."

24                   On line 25, strike the words "which  
25 included" and replace them with the words  
26 "and emphasized" and replace the word  
27 "ground" with the words "ground wire."

28                   On line 26, after the word

1 "primary" insert a comma and the words "which  
2 had typically not been done in existing  
3 installations."

4 Those are all of my corrections.

5 MR. GALLO: And, your Honor, I sent  
6 copies of the corrections to counsel that  
7 were questioning Ms. Cullings yesterday. We  
8 have also distributed to you and to opposing  
9 counsel this morning in redline form. And we  
10 have additional copies if anyone else is  
11 interested.

12 Q Also one last thing. I noticed,  
13 Ms. Cullings, on the hearing Exhibit 20, the  
14 first correction I believe that there was a  
15 typo and it should say insert "and guidance  
16 on surge arrester grounding" instead of "and  
17 guidance or surge arrester grounding." Is  
18 that correct?

19 A Yes.

20 ALJ LIRAG: All right. Judge Lau will  
21 address these new errata documents.

22 ALJ LAU: So while we were off the  
23 record, PG&E served two --

24 ALJ LIRAG: No. We're still on the  
25 record.

26 ALJ LAU: Yes. While we were off the  
27 record, PG&E served two documents to us.  
28 These two documents are the Redline of --

1 Redline Version of the corrections that  
2 Ms. Cullings just identified. And so we have  
3 for us the first exhibit, hearing exhibit --  
4 we are identifying these exhibits.

5 First exhibit is Exhibit 26-A. That  
6 is the Redline Version of Pacific Gas &  
7 Electric's Exhibit PG&E-04, Chapter 6,  
8 Electric Distribution Maintenance.

9 (Exhibit No. 26-A was marked for  
10 identification.)

11 ALJ LAU: We are also identifying a  
12 second document and that will be  
13 Exhibit 27-A.

14 ALJ LIRAG: Sorry, Judge Lau. Let's  
15 just make it 26-B, so they're all together.

16 ALJ LAU: So the second document is  
17 Exhibit 26-B. That is PG&E's Exhibit 18,  
18 Chapter 6, Rebuttal Testimony on Electric  
19 Distribution Maintenance Redline.

20 (Exhibit No. 26-B was marked for  
21 identification.)

22 ALJ LIRAG: So we just numbered it  
23 according to the two volumes of the erratas  
24 and we can just add these to there. So it  
25 will be 26-A and 26-B, in case you were  
26 wondering about the numbering.

27 MR. GALLO: Thank you, your Honor.

28 ///

1 BY MR. GALLO:

2 Q And, Ms. Cullings, thank you for  
3 your corrections. Are the facts contained in  
4 these exhibits, as corrected, true and  
5 correct to the best of your knowledge?

6 A Yes, they are.

7 Q And do the opinions expressed  
8 therein represent your best professional  
9 judgment?

10 A Yes, they do.

11 MR. GALLO: Thank you.

12 Your Honor, Ms. Cullings is now  
13 available for cross-examination.

14 MR. HAWIGER: Can I ask one question  
15 off the record?

16 ALJ LAU: Off the record.

17 (Off the record.) ]

18 ALJ LAU: Let's go back on the record.

19 While we were off the record, the  
20 parties distributed cross-examination  
21 exhibits, and now we are going to identify  
22 them. The first exhibit is Exhibit 58. That  
23 is a cross-examination exhibit by Public  
24 Advocates Office entitled Materials  
25 Supporting Public Advocates Cross-Examination  
26 of Sandra Cullings, Exhibit PG&E-04, Chapter  
27 6, Electric Distribution Maintenance.

28 (Exhibit No. Exhibit 58 was marked  
for identification.)

1           ALJ LAU: The second exhibit is Exhibit  
2 59, the cross-examination exhibit of Public  
3 Advocates Office titled PG&E Response to Data  
4 Request Public Advocates-PG&E-199-TCR,  
5 Question 21, Revision 1, dated September 25,  
6 2019.

7                   (Exhibit No. Exhibit 59 was marked  
8 for identification.)

9           ALJ LAU: The third exhibit is Exhibit  
10 60, that is a TURN cross-examination exhibit  
11 titled PG&E Data Responses to TURN-DRA-096  
12 and DR 010, Questions 3, 7, 21, surge  
13 arresters.

14                   (Exhibit No. Exhibit 60 was marked  
15 for identification.)

16           ALJ LAU: Now we begin with the  
17 cross-examination from Mr. Tom Roberts of the  
18 Public Advocates Office.

19           MR. ROBERTS: Thank you, your Honors.

20                   CROSS-EXAMINATION

21 BY MR. ROBERTS:

22           Q    Good morning, Ms. Cullings. My  
23 name is Tom Roberts, and I'm a senior  
24 utilities engineer with the Public Advocates  
25 Office.

26           A    Good morning.

27           Q    I'm going to ask questions about  
28 electric distribution maintenance. You were

1 not the original witness but are now PG&E's  
2 sole sponsor for electric distribution  
3 maintenance, Chapter 6 of Exhibits 4 and 18,  
4 correct?

5 A Correct.

6 Q And you have exhibit that's now  
7 been marked 58 and 59 and a package of -- a  
8 reference exhibit; is that correct?

9 A Correct.

10 Q These exhibits include PG&E data  
11 request responses from the original PG&E  
12 witness Jeffrey Deal and others. Have you  
13 seen each of these responses?

14 A I have.

15 Q And are you familiar with them?

16 A Yes.

17 Q Now, we understand that one  
18 response has been changed, which is one of  
19 the cross-exhibits; is that correct?

20 A Correct.

21 MR. GALLO: Objection, your Honor.  
22 Could we have a specific document reference.

23 MR. ROBERTS: That is Exhibit 59.

24 BY MR. ROBERTS:

25 Q I'll start with a general. In  
26 general, do you agree with the responses  
27 provided by your predecessors and the people  
28 who responded to these data requests?

1           A     I do.

2           Q     Okay. Now I'm going to start by  
3 talking through some terminology that I'll be  
4 using during the cross-examination that we  
5 used in Exhibit Cal Advocates-08, and I'd  
6 like you to confirm that those will work for  
7 this discussion. The first is SAG, S-A-G,  
8 will be used for the surge arrester grounding  
9 program previously authorized in the 2017 GRC  
10 as an expense program. Is that understood?

11          A     Understood.

12          Q     NESAR, or N-E-S-A-R, will be used  
13 for the non-exempt surge arrester replacement  
14 program, which is proposed in this GRC as  
15 maintenance activity type or MAT 2AR. Is  
16 that understood?

17          A     Can you tell me that acronym one  
18 more time, please.

19          Q     NESAR, N-E-S-A-R.

20          A     Okay. Thank you.

21          Q     And then PG&E has a second program  
22 in this GRC to replace non-exempt equipment  
23 under a different MAT code, which is 2AP, as  
24 in Paul, correct?

25          A     Correct.

26          Q     And I'll refer to that as the MAT  
27 2AP program and try to use views to further  
28 distinguish it as we get to it.



1                   Are you familiar with the details  
2 of these programs and PG&E's forecast for  
3 them?

4                   A     I am.

5                   Q     Are you familiar with them in terms  
6 of the scope of work performed under them in  
7 the past currently and as forecast in this  
8 GRC?

9                   MR. GALLO:  Objection.  Both vague and  
10 overbroad.

11                  ALJ LAU:  Overruled.

12                  You may continue, Mr. Roberts.  Can  
13 you re-ask the question.

14                  MR. ROBERTS:  Sure.

15                  BY MR. ROBERTS:

16                  Q     Are you familiar with these three  
17 programs in terms of the scope of work  
18 performed in the past?

19                  A     To best of my ability, yes.

20                  Q     And to how they are performed  
21 currently?

22                  A     To the best of my ability, yes.

23                  Q     And as they are forecast in the  
24 current case?

25                  A     Correct.

26                  Q     Okay.  Thank you.  Now I have a  
27 number of questions relative to the exhibit  
28 marked 58, and we put some time into

1 structuring these questions to hopefully  
2 elicit a yes or no answer. So to the degree  
3 possible, if you can do that, we'd greatly  
4 appreciate it.

5 I'm going to start with detailed  
6 questions about distribution poles and the  
7 equipment on them to help everybody  
8 understand the scope of the SAG and NESAR  
9 programs. This will set a foundation for the  
10 discussion of program costs, which will come  
11 later on.

12 If you can turn -- if you can  
13 please turn to page 1 of -- and we will be in  
14 Exhibit 58 until we switch. So the page  
15 numbers will all be from Exhibit 58. Page 1  
16 of Exhibit 58, please. Let me know when  
17 you're there.

18 A I am there.

19 Q Okay. This is the image we found  
20 from Wikipedia as an image of a utility pole,  
21 and we thought it would be a good exhibit to  
22 give an overview of the equipment in question  
23 and for us to discuss.

24 Now, understanding that PG&E has  
25 many different poles with lots of  
26 configurations and different equipment, is  
27 this figure generally accurate in terms of --  
28 particularly in terms of the labeled items as

1 an example of a PG&E distribution pole?

2 A We did respond, I believe, to the  
3 data request and agreed that it was generally  
4 correct.

5 Q Thank you. The one thing that I  
6 found kind of different is if you look at  
7 Item D, if this utility pole and the  
8 transformer on it were serving more than one  
9 customer, you would see multiple wires there  
10 at the single line, per D, for the secondary  
11 conductors; is that correct?

12 A I believe so, yes.

13 Q And Item F, as labeled, down below,  
14 it says, that's a lighting arrester. Is that  
15 the same as the surge arresters that are  
16 subject to the NESAR program?

17 A That term can be used  
18 interchangeably, correct.

19 Q Thank you. And Item E, it's  
20 labeled below as a fuse cutout, but what I  
21 see at E is both a fuse cutout, which holds a  
22 fuse element, and the fuse element itself.

23 Do you see the same?

24 A I am not a technical engineer. So  
25 I cannot say that.

26 Q So you're not familiar with the  
27 difference between a fuse cutout and a fuse  
28 element?

1 A Not necessarily, no.

2 Q Do you know if the MAT 2AP program,  
3 which focuses on fuse -- fuses, will replace  
4 fuse cutouts, fuse elements or both?

5 A My understanding is it's fuse  
6 cutouts.

7 Q But you're not familiar if that  
8 would also replace the fuse element at the  
9 same time?

10 A I am not.

11 Q Now, for overhead circuits, are  
12 service transformers and the surge arresters  
13 always located near the top of the pole  
14 between the primary and secondary conductors?

15 A I'm sorry. You said that very  
16 quickly. Can you --

17 Q Sure. For overhead circuits, as  
18 opposed to underground, are service  
19 transformers and surge arresters always  
20 located near the top of the pole between the  
21 primary and secondary conductors?

22 A Yes.

23 Q And are surge arresters and fuses  
24 typically installed higher than the  
25 distribution transformer, as shown on page 1?

26 A Yes.

27 Q If you can now turn to page 3.  
28 Pages 3 through 11 provide an excerpt from

1 CPUC General Order 95. Are you familiar with  
2 this General Order and the rules within it?

3 A Yes. From an overarching  
4 perspective, yes.

5 Q And this document contains the  
6 rules governing overhead electric lines,  
7 correct?

8 A Correct.

9 Q If you can please turn to page 8.  
10 The title of this table indicates it's a  
11 table of allowable vertical clearances,  
12 correct?

13 A I do not see that -- I do not see  
14 that title here.

15 ALJ LIRAG: Let me interrupt,  
16 Mr. Roberts. Let's go off the record for a  
17 while.

18 (Off the record.)

19 ALJ LIRAG: Let's go back on the  
20 record.

21 BY MR. ROBERTS:

22 Q If you look at the top of the page,  
23 table 1, it says, "Table 1, basic minimum  
24 allowable vertical clearances of wires." And  
25 then it continues. Do you see that?

26 A I do.

27 Q Okay. If you look in the row  
28 marked 3 and go over to column D, it

1 indicates a height of 20 feet. Do you see  
2 that?

3 A I do.

4 Q And then one column over to column  
5 E says "25," correct?

6 A Correct.

7 Q Is that indicating that for a  
8 low-voltage secondary conductor it must be 20  
9 feet above the ground and for higher -- I'm  
10 sorry. Let me stop there. Does it indicate  
11 that?

12 A I apologize, but I am not an  
13 engineering expert. So I do not feel  
14 comfortable actually saying that. I don't  
15 know.

16 Q Would you know then if it's common  
17 that a distribution transformer would be  
18 located between 20 and 25 feet above the  
19 ground?

20 MR. GALLO: Objection as to "common."  
21 It's vague.

22 ALJ LAU: Mr. Roberts, the witness said  
23 she's not really sure about the  
24 specification. Can you rephrase your  
25 question.

26 MR. ROBERTS: I think the question is  
27 the question, and if she can't answer it, I  
28 think that's a fine response.

1 ALJ LAU: Yeah. You can just say you  
2 don't know how to answer it.

3 THE WITNESS: Okay.

4 BY MR. ROBERTS:

5 Q So is it correct that a  
6 distribution transformer is typically between  
7 20 to 25 feet above the ground?

8 A I do not know.

9 Q Now, if you can turn to page 12.  
10 This is PG&E's response to Public  
11 Advocates-59, Question 4 with attachment. If  
12 you could please go to page 13. ]

13 And read line 7 aloud.

14 A Arresters need to be mounted  
15 close to the equipment. They are to  
16 protect with the leads as short as  
17 practical.

18 Q This was the 2016 PG&E document  
19 based on the date at the top, correct?

20 A Correct.

21 Q I'll ask this question: But is  
22 this guidance generally true such that we can  
23 assume that surge arresters are typically  
24 located in close proximity to the  
25 transformers they protect?

26 A I'm sorry. I don't understand your  
27 question.

28 Q Well, this line 7 makes a statement

1 and I'm just wondering if that means that in  
2 general we can infer that that statement  
3 applies to PG&E's assets as a whole?

4 A Yes. This is the standard that we  
5 follow from 2016.

6 Q Okay. Now, if you can please turn  
7 to page 36, pages 36 through 39 provides  
8 PG&E's response to Public Advocates 199,  
9 Question 12, with Attachment 2. I think we  
10 have covered this, but this exhibit says it's  
11 from a different witness Tanya Moniz-Witten.  
12 And I would just like to confirm that you're  
13 the right person to answer this question.

14 A To the best of my ability, I will.

15 Q Now to page 38. Is it correct that  
16 this figure shows a single or common ground  
17 condition that is to be corrected through the  
18 SAG and NESAR programs?

19 A Correct.

20 Q And this figure appears to show  
21 surge arresters mounted to the body of the  
22 transformer, correct?

23 A Correct.

24 Q Is there a fuse in this figure or a  
25 fuse cutout?

26 A I don't know.

27 Q Okay. And then turning the page --  
28 to Figure 2 on page 39, this figure shows the



1 desired grounding condition, correct?

2 A That is correct.

3 Q And, as labeled, it shows a conduit  
4 for the transformer ground that runs on the  
5 right side of the pole and a ground for the  
6 surge arrester that runs on the left side of  
7 the pole. Do you see that?

8 A I do.

9 Q And it's a little hard to see, but  
10 you can tell that the gray conductors, they  
11 end at different heights, with the ground  
12 wire being below the transformer and the  
13 surge arrester wire conduit extending above  
14 it; is that correct?

15 A Correct.

16 Q And in this figure, you can see  
17 where surge arresters are mounted on a  
18 crossarm as labeled. Can you tell us what  
19 the devices behind the surge arresters are?

20 A I cannot.

21 Q Will there be anybody available  
22 that would be able to answer the question of  
23 what -- or to answer what those devices are?

24 ALJ LAU: Ms. Gandesbery, can you  
25 answer that question?

26 MS. GANDESBERY: I would need to confer  
27 with Mr. Gallo.

28 ALJ LAU: Maybe we can take it up after

1 -- during break as to who is the appropriate  
2 witness to your question.

3 MR. ROBERTS: Okay. Because the  
4 question of what a fuse is, is going to come  
5 up multiple times in this examination and the  
6 assumption was that the witness would know  
7 what that was.

8 ALJ LIRAG: Let's go off the record and  
9 Mr. Gallo can confer with Ms. Gandesbery if  
10 there is a quick solution.

11 MS. GANDESBERY: Thank you.

12 (Off the record.)

13 ALJ LAU: Let's go back on the record.

14 Mr. Gallo, can you clarify who is  
15 the appropriate witnesses or witness to  
16 Mr. Roberts' questions?

17 MR. GALLO: Yes. Your Honor, we  
18 believe that Mr. Calvert would -- Mr. Steve  
19 Calvert who has already appeared and who will  
20 be appearing again next Friday is an  
21 appropriate person to discuss the technical  
22 background that Mr. Roberts is asking about.

23 ALJ LAU: Okay. Mr. Roberts, do you  
24 have some more questions for Ms. Cullings?

25 MR. ROBERTS: I do.

26 ALJ LAU: Okay.

27 BY MR. ROBERTS:

28 Q All right. Let's turn to page 40.

1 And this is PG&E's Response to Public  
2 Advocates 243, Question 1. And this does say  
3 that Ms. Cullings was the witness to this  
4 response. And this -- the response and  
5 attachments to this data request take the  
6 bulk of this exhibit and run from 40 to 81,  
7 and I would like to start on page 50.

8 This document is PG&E's Current  
9 Standard for Grounding Wooden Poles and it's  
10 dated 7/31/15, correct?

11 A That is correct.

12 Q I'm sorry. I couldn't hear.

13 A I'm sorry. That is correct.

14 Q And then on page 66, this is a  
15 bulletin dated 12/31/15, correct?

16 A Correct.

17 Q And this updates the standard that  
18 we just looked at on page 50; is that  
19 correct?

20 A It clarifies several documents and  
21 that is one of them, correct.

22 Q Okay. And as far as document  
23 standardization at PG&E, is it typical that a  
24 standard -- portions of a standard can be  
25 updated by a bulletin between full revisions  
26 of a standard, as is seen here. So this  
27 bulletin modifies some portions of the  
28 adopted standard, but not necessarily all of

1       them.

2               MR. GALLO:  Objection.  Overbroad as to  
3       typical PG&E practices.

4               ALJ LAU:  Can you clarify, Mr. Roberts,  
5       a bit?

6       BY MR. ROBERTS:

7               Q     I can break it down to two  
8       questions.

9               The first is:  In general,  
10       company-wide, does PG&E use documents called  
11       a bulletin, or utility bulletin in this case,  
12       to update standards documents in between full  
13       revisions of standards documents?

14              A     I'm not from Standards, so I don't  
15       feel comfortable answering.

16              Q     In this particular case, does this  
17       utility bulletin update portions of the  
18       standard that we showed on page 50?

19              MR. GALLO:  Objection.  Asked and  
20       answered.

21       BY MR. ROBERTS:

22              Q     Okay.  Yes.  All right.  Now if you  
23       can turn to page 68, and I will note that  
24       Figure 1 on page -- excuse me, Figure 2 on  
25       page 69 is an expanded version of the lower  
26       part of Figure 1 on page 68.  So, if  
27       something is not clear, you have both items  
28       in front of you, hopefully.

1           A    I'm sorry.  It's page 68?

2           Q    Yes.  68.  So for Figure 1, does  
3   this show you all the equipment subject to  
4   the SAG and NESAR programs, including surge  
5   arresters, transformers, ground wires,  
6   conduit and ground rods --

7                   (Interruption by court reporter.)

8           Q    Surge arresters, transformer,  
9   ground wire, ground wire conduit and ground  
10   rods.

11           ALJ LAU:  And, Mr. Roberts, sometimes  
12   for the benefit of our court reporters you  
13   may want to slow down in your questioning.  
14   Thank you.

15           THE WITNESS:  It does.

16           BY MR. ROBERTS:

17           Q    Thank you.  Now this drawing shows  
18   that there are two ground rods per ground  
19   wire.  Do you see that?

20           A    I do.

21           Q    Has that standard of having two  
22   ground rods per wire been in place since  
23   1974?

24           A    I do not believe so.

25           Q    How about since 2008?

26           A    Yes.  We did the revision of two  
27   grounds in 2008.

28           Q    Okay.  Now I would like to discuss

1 the scope of work required for the SAG  
2 program only. And here if we can go to  
3 page 69, looking at Figure 2, I think it's a  
4 little more clear.

5 This shows items of a ground wire,  
6 grounds wire conduit and ground rods for what  
7 says service ground, which is for the  
8 transformer, on the lower right side of this  
9 figure; is that correct?

10 A That is correct.

11 Q In this SAG program is any work  
12 required to modify or replace the elements of  
13 that grounding chain from the transformer to  
14 the ground rod?

15 A What do you mean "the elements?"

16 Q So the ground wire, the ground wire  
17 conduit and the ground rods, does any of that  
18 system need to be modified as part of the SAG  
19 program?

20 MR. GALLO: Objection, your Honor. The  
21 examiner is using a diagram of a current  
22 correct application in an attempt to describe  
23 a situation that existed before the  
24 correction. It's really difficult for the  
25 witness to do using that.

26 ALJ LAU: If she doesn't know, she can  
27 just respond she doesn't know.

28 Ms. Cullings, can you answer?

1 THE WITNESS: Can he ask it again,  
2 please?

3 BY MR. ROBERTS:

4 Q As part of the SAG program, is any  
5 modification work required for the  
6 transformer ground wire, ground wire conduit  
7 or ground rods?

8 A I'm sorry?

9 Q So maybe I will ask it another way.  
10 There are two grounds wires that  
11 are your new standard grounding system for a  
12 distribution pole, correct?

13 A Correct.

14 Q So you have to add one in places  
15 where there's currently only one ground wire  
16 existing. And so what I'm trying to get  
17 through with a couple of questions here by  
18 breaking it down is it seems apparent that  
19 you would have to add a new ground wire  
20 conduit and two new ground rods for the surge  
21 arrester. So is it correct that you do need  
22 to add it for that?

23 A You would add it for the  
24 transformer or the surge arrester, depending  
25 on how the crew actually did work. But, yes,  
26 it's additional -- additional ground and the  
27 conduit would be needed, yes.

28 Q If you had in this new standard to

1 extend the ground wire conduit above the  
2 transformer, wouldn't it make sense to  
3 replace that ground wire and conduit as  
4 opposed to the one going to the transformer?

5 A It was the determination of the  
6 crew actually doing the work, so I can't  
7 confidently say they choose one or the other.

8 Q Okay. Would you be able to leave  
9 one of the wires in place and the two ground  
10 rods?

11 A Potentially, but it depends on the  
12 actual condition of the soil because it  
13 depends -- I think I'm going to stop there.  
14 It depends on the condition of the soil.

15 Q Okay. If you can turn to page 51,  
16 in Table 1, it lists ground rod as being 5/8"  
17 diameter and 8-feet long. Do you see that?

18 A I do.

19 Q And so this is the current standard  
20 and that is the call out for how long a  
21 ground rod would be, correct?

22 A It's a call out for how long the  
23 ground rod is, yes.

24 Q Okay. And now if you can turn to  
25 page 60, in Figure 2, we also see that the  
26 ground rods are 8-feet long and that there  
27 are two per ground. Do you see that?

28 A Yes.



1           Q   And then on the next page 61, it  
2   shows an alternative method in Figure 3 for  
3   grounding. And that diagram appears to show  
4   that the alternative method would allow the  
5   use of three, 3-foot long ground rods. Do  
6   you see that?

7           A   Correct, yes.

8           Q   Is part of the reason why you would  
9   do that is because it can be very difficult  
10   to drive an 8-foot ground rod into certain  
11   types of soils?

12          A   Yes.

13          Q   Okay. The preferred method would  
14   provide 16 feet of total rod length in the  
15   ground versus 9 feet total in the alternative  
16   method. Do you see that?

17               Let me rephrase. In Figure 2,  
18   there are two 8-foot ground rods. Do you  
19   agree that that would provide 16 feet of  
20   ground rod length in the ground under the  
21   preferred method?

22          A   That is correct.

23          Q   And for the alternative method, you  
24   would have three 3-foot rods that would  
25   provide 9 total feet of length in the ground;  
26   is that correct?

27               MR. GALLO: Objection, your Honor.  
28   Mischaracterizes the diagram. There's two

1 sets of three rods and two sets of two rods.

2 ALJ LAU: Sustained, Mr. Roberts. Can  
3 you just describe it as is?

4 MR. ROBERTS: Certainly.

5 Q Both diagrams show that there is a  
6 grounding system for each of the two ground  
7 wires coming down the pole. In the preferred  
8 method, there are two ground rods per ground  
9 wire, as we discussed before. And in the  
10 alternative method, there are three ground  
11 rods per ground wire. Do you agree with  
12 that?

13 A Correct.

14 Q Okay. So you answered the question  
15 with the total length for the preferred  
16 method. So, since each ground wire is a  
17 separate ground path, in the alternative  
18 method, it appears that there is a total  
19 length of 9 feet in the ground, which is the  
20 sum of the three rods per ground wire that  
21 are 3-feet long. Do you agree?

22 A I believe you're mischaracterizing  
23 that they're all three feet. It can be it's  
24 no less than that, but it certainly can be  
25 above that and more than that.

26 Q Okay. So assuming it was very  
27 tough soil and you were just able to get the  
28 minimum amount in, would that be 9 feet of

1 total length?

2 A So you're -- ask me that one more  
3 time.

4 Q If per this drawing, the minimum  
5 ground rod length were used in a particular  
6 installation, that would provide 9 feet of  
7 ground rod length in the ground, correct?

8 A If we are only to get to the three  
9 feet, yes.

10 Q Okay. Now, I understand you had  
11 said before you're not an engineer, but does  
12 9 feet of ground rod length provide the same  
13 current path as 16 feet of ground rod length?

14 A I do not know.

15 Q Okay. It would make sense that the  
16 driving of -- okay.

17 If you can go back to page 68 and  
18 so still focused on the SAG program, I would  
19 like to discuss how the work would be  
20 performed. Is a bucket truck required to  
21 reach the transformer and surge arresters?

22 A I believe it is.

23 Q Okay. So, for example, I haven't  
24 seen PG&E linemen climbing the pole like they  
25 used to do with the boots and the strap. So  
26 they would normally use a bucket truck today?

27 A Correct.

28 Q Okay. Is the bucket moved by the

1 technician in the bucket? Do they control  
2 the height and movement of that boom?

3 A I don't know.

4 Q Does the cost of each SAG  
5 installation include picking up materials  
6 from a warehouse, getting the materials and  
7 crew to the jobsite?

8 A And this is for the grounding  
9 program again?

10 Q Yes, for the SAG program.

11 A One more time, please.

12 Q Sure. Does the cost of each SAG  
13 installation include picking up materials  
14 from a warehouse?

15 A Potentially we would have them  
16 jobsited for the contractor. So that is what  
17 is confusing me.

18 Q In other words, they could be  
19 delivered directly to the jobsite?

20 A Directly to contractor. The  
21 contractors have their own yards.

22 Q So are you stating that this work  
23 would be done by a contractor and not PG&E  
24 personnel?

25 A This work has been done by both.

26 Q Okay. So, if you can generalize,  
27 materials for this job need to be stored  
28 somewhere.

1           A    Correct.

2           Q    And they need to get to the jobsite  
3 and somebody will do that?

4           A    Yes.

5           Q    The crew also needs to get to the  
6 jobsite which could be in a remote location  
7 or it could be a block away?

8           A    Correct.

9           Q    And then once we get the truck and  
10 the materials and the crew to the jobsite,  
11 they need to set up the truck to allow it to  
12 safely lift up to that height, correct?

13          A    Correct.

14          Q    And then they would do -- I guess  
15 when we talked about the scope of work, it  
16 was a little unclear about what's going to be  
17 done, but they would decide how they would  
18 separate a single ground wire system and  
19 provide two separate ground wire systems,  
20 correct?

21          A    Correct.

22          Q    Does PG&E have any linemen that are  
23 certified to work on secondary voltage  
24 systems only and not primary systems?

25          A    I'm not sure I understand the  
26 question.

27          Q    When you -- well, maybe turning  
28 back -- no. I won't do that.

1 MR. GALLO: Your Honor, could I ask  
2 what the relevance, that we have had a lot of  
3 preliminaries. We are already at time for  
4 Mr. Roberts. I would appreciate it if we  
5 could actually move on to the substance of  
6 his claims.

7 MS. SHEK: Your Honor, we are  
8 discussing the SAG program and now moving  
9 towards the NESAR program. So we are delving  
10 into the request for PG&E in this rate case.

11 ALJ LIRAG: All right. How far are you  
12 into your cross for today?

13 MR. ROBERTS: We're in the slow part,  
14 about two-thirds of the way through.

15 ALJ LIRAG: All right. So do you think  
16 you have laid down a foundation to get into  
17 the I guess the substance of what you're  
18 going to get to fairly soon?

19 MR. ROBERTS: Well, your Honor, the  
20 substance of ORA's testimony was related to  
21 the amount of work and the change in unit  
22 cost between the SAG program initially and  
23 then PG&E said it changed and then they've  
24 got a separate unit cost now for the NESAR  
25 program.

26 ALJ LIRAG: All right. Let's proceed,  
27 bearing in mind that Ms. Cullings is not an  
28 engineer and so she's not able to answer a

1 lot of the technical questions that are being  
2 asked. So maybe if you can generalize some  
3 of the more technical questions, it will be  
4 easier for Ms. Cullings to answer. It will  
5 also get us to where we are trying to get to.

6 MR. ROBERTS: Or if you want, I could  
7 --

8 ALJ LIRAG: If you can think of a  
9 stipulation for a lot of your questions and  
10 she can just say, "I don't know" then that  
11 would also work. But I'll leave it for you  
12 and Ms. Shek. Or if you want, we'll give you  
13 a minute to confer and to determine how best  
14 to proceed. Does that work?

15 MS. SHEK: Thank you.

16 ALJ LIRAG: Let's go off the record.  
17 (Off the record.)

18 ALJ LAU: Back on the record.

19 Mr. Roberts, would you proceed,  
20 please?

21 BY MR. ROBERTS:

22 Q Yes. I would like you to turn to  
23 page 81. And this shows PG&E's response to  
24 Data Request TURN 10, Question 16. And this  
25 is the original response, which to our  
26 knowledge isn't in the record yet, so we  
27 wanted to discuss it here.

28 And if you can please turn to

1 page 86, the table there shows costs and  
2 volumes of unit per year. Is it correct that  
3 unit costs can be calculated from this table  
4 by dividing costs by volume?

5 A To get an overall unit cost,  
6 correct.

7 Q Okay. And now turning to page 88,  
8 this is PG&E's response to Data Request 59,  
9 Question 19, with an attachment.

10 Does the last paragraph of this  
11 response which starts with:

12 The status quo indicates that  
13 modifying the grounds without  
14 replacing surge arresters is the  
15 least-cost alternative.

16 A The status quo alternative was the  
17 least-cost, correct.

18 Q And in the bulleted items above  
19 that, it says that the status quo is to  
20 continue grounding modifications only. Do  
21 you see that?

22 A Yes.

23 Q Okay. Thank you.

24 Now, turning to page 89, pages 89  
25 to 94 are response to ORA 60, Question 4, and  
26 the response itself indicates that the  
27 attachment that was provided was used by PG&E  
28 management to approve the NESAR program,



1 correct?

2 A That is correct.

3 Q I mention that because the title on  
4 the next page is slightly different, but it  
5 is the same program. ]

6 Now, turning to page 90, we'll be  
7 looking at the boxes on the right-hand side  
8 of this page. The first thing is in the  
9 first box, it shows a unit cost of \$2,350.

10 Do you see that?

11 A I do.

12 Q And going down to the bottom box,  
13 it says that it saves veg clearing activities  
14 at these locations by approximately \$78 per  
15 pole. Do you see that?

16 A I do.

17 Q Do you happen to know, is that  
18 figure per year or -- there's no time element  
19 there. So I'm just wondering how often do  
20 you save the \$78?

21 A I can't say on an annual basis  
22 because I believe our vegetation management  
23 witness has looked into that as far as the  
24 applicability in our program.

25 Q And when I saw that figure, I  
26 thought I wish I could get that deal because  
27 I got some quotes for trees, and it was  
28 thousands of dollars. But you're not the

1 witness on vegetation management to  
2 understand that?

3 A No.

4 Q Okay. And then above that it shows  
5 the cost of an exempt surge arrester to be  
6 \$200, correct?

7 A Yes, \$200.

8 Q Do you know if that value is still  
9 accurate if you were to have to buy these  
10 non-exempt surge arresters today?

11 ALJ LAU: Let's go off the record while  
12 you look.

13 (Off the record.)

14 ALJ LAU: Let's go back on the record.

15 Mr. Roberts, did you want to clarify  
16 your question regarding whether it's an  
17 exempt on non-exempt surge arrester?

18 MR. ROBERTS: Yes.

19 Q The question I asked should have  
20 asked is the price for an exempt surge  
21 arrester shown on this page \$200?

22 A And we submitted the actual costs  
23 in a data response that I was trying to find.  
24 That's what I wanted to reference back to.

25 Q I understand that. We might come  
26 back to that, but just for page -- it looks  
27 like it's 90 -- this does show that the  
28 exempt -- because I had said "non-exempt"

1     incorrectly. This price here is for an  
2     exempt surge arrester?

3             A     Yes. That price says that there,  
4     correct.

5             Q     Now, if you could turn to page 93,  
6     the box at the bottom left, it says that this  
7     financial analysis includes assumptions of  
8     financial impacts due to wildfire risk to the  
9     status quo and alternative A options.

10            Does that mean that these financial  
11     impacts for wildfire risks are not included  
12     for alternative B, which is capital  
13     replacement of surge arresters as shown  
14     above?

15            A     I'm sorry. Can you repeat that.

16            Q     Certainly. There's a statement  
17     made, that bottom bullet in the box at the  
18     lower left, about the inclusion of financial  
19     impacts due to financial risk, but it only  
20     talks about the status quo and alternative A  
21     options. However, the analysis has 3  
22     alternatives including alternative B for  
23     capital replacement of surge arresters. So  
24     I'm wondering does that statement not apply  
25     for the capital replacement of surge  
26     arresters?

27            A     I don't believe it does, and that's  
28     why we revised the cost -- the economic

1 analysis for our request.

2 Q And that -- I wasn't aware of a  
3 revised economic analysis. Was that provided  
4 in response to discovery?

5 A Yes. It was.

6 Q Do you happen to know the response  
7 number?

8 A It was Public Advocates-59,  
9 Question 19.

10 Q Thank you. Finally, the last page,  
11 page 94, is redacted in full. Do you know  
12 what information was on that page, in  
13 general?

14 A I do not.

15 Q And do you know if Public Advocates  
16 asked for a redacted version of this  
17 document?

18 A I am not aware.

19 Q Okay. Now I'm going to turn to the  
20 document that is reference exhibit --  
21 reference documents -- was that marked?

22 MS. SHEK: It is not marked. It is  
23 just the reference documents.

24 BY MR. ROBERTS:

25 Q So these are data request responses  
26 that are already included in the workpapers  
27 of Exhibit ORA-08. These haven't been  
28 marked, but they will be later. So if you

1 can turn to page 2 of that stack of reference  
2 documents.

3 MR. HAWIGER: Excuse me. Could you  
4 just identify the title -- like the title  
5 page or -- I'm trying to find this.

6 MS. SHEK: It's cross-examination  
7 reference document.

8 MR. HAWIGER: Okay. Thank you.

9 MR. GALLO: And similarly, I think we'd  
10 appreciate it if you could identify, rather  
11 than by page number of your exhibit, if you  
12 could also include the DR name.

13 MR. ROBERTS: Certainly. Okay.

14 Q So this page includes PG&E's  
15 response to Public Advocates-199, Question 23  
16 and the statements made here about cost  
17 estimates that I'd like to understand.

18 Is it correct that a cost estimate  
19 from PG&E's internal estimating team would be  
20 more accurate than the expert judgement of a  
21 program manager or subject-matter expert?

22 MR. GALLO: Objection. Vague and  
23 overbroad.

24 ALJ LAU: Let's have Mr. Roberts finish  
25 his question before I can rule on it.

26 MR. ROBERTS: I can rephrase it.

27 Q The answer seems to be implying a  
28 relationship between a cost estimate from

1 PG&E's internal estimating team and the  
2 judgment of a program management or  
3 subject-matter expert. In a certain way, I'm  
4 trying to understand if there is a  
5 relationship in that the internal estimating  
6 team might provide more accurate estimates  
7 because they have gone deeper into the  
8 project?

9 MR. GALLO: Objection. Compound.  
10 Argumentative.

11 ALJ LAU: Can you clarify your  
12 question.

13 BY MR. ROBERTS:

14 Q Is there a distinction between a  
15 cost estimate provided by the internal  
16 estimating team and a subject-matter expert?

17 MR. GALLO: Objection. Overbroad.

18 ALJ LAU: Can you clarify what's a  
19 subject-matter expert.

20 MR. ROBERTS: That's what their  
21 response said. So --

22 MR. GALLO: No. It's a foundational  
23 issue, your Honor, that Mr. Roberts keeps  
24 asking the question as a general question.  
25 If he can be a little more specific, I'd  
26 appreciate it.

27 MS. SHEK: He can narrow it to this  
28 question.

1 ALJ LIRAG: Yes. I was going to  
2 sustain and say cost estimate between one  
3 set -- one group versus another group is very  
4 broad. Could you narrow down what  
5 specifically, perhaps their methods or along  
6 those lines.

7 MR. ROBERTS: Sure.

8 ALJ LIRAG: Mr. Hawiger.

9 MR. HAWIGER: May I just comment. I  
10 think -- presumably Mr. Roberts is trying to  
11 save time from having the witness just read  
12 the answer. Both of those terms are right  
13 there on the page in the answer. I mean, if  
14 we have to ask the witness to read every  
15 answer before he can ask a question regarding  
16 those same terms, it would definitely expand  
17 the cross.

18 ALJ LIRAG: Ms. Cullings, are you  
19 familiar with this -- it's a  
20 cross-examination -- it's just reference  
21 documents, but it's from ORA's -- or CAL PA's  
22 testimony. Are you familiar with these?

23 THE WITNESS: Yes.

24 ALJ LIRAG: So we can skip the question  
25 about then having to read the answer. And so  
26 she's familiar with the answer.

27 MR. ROBERTS: Okay.

28 ALJ LIRAG: Just direct her to what

1 number it is, and we can go directly to the  
2 question.

3 MR. ROBERTS: Okay.

4 ALJ LIRAG: And so we would have you  
5 ask more specifically, you know, the  
6 difference between what exactly are you  
7 talking about the estimate is to that.

8 BY MR. ROBERTS:

9 Q So this -- PG&E had an actual cost  
10 estimate of 23 -- \$2,350, as shown here,  
11 correct?

12 A Correct.

13 Q And that actual cost estimate was  
14 provided by an internal estimating team,  
15 correct?

16 A Correct.

17 Q Is that number more or less  
18 accurate than a cost estimate that the  
19 subject-matter experts that work on this  
20 project could provide?

21 MR. GALLO: Objection. Incomplete  
22 hypothetical.

23 MR. ROBERTS: I'll stop on that one.

24 EXAMINATION

25 BY ALJ LIRAG:

26 Q Do subject-matter experts provide  
27 an estimate or no?

28 A They do. The internal estimating



1 actually uses a tool that has other overheads  
2 and everything built into it. So I think  
3 that's the difference.

4 Q What is the relationship between  
5 the estimate from the subject-matter experts  
6 versus the internal team? Does one estimate  
7 occur first?

8 A I can't say on timing.

9 Q All right. But CAL PA is correct  
10 that there are two set of estimates, but it's  
11 the internal team's estimate that is being  
12 used. Is that correct or no?

13 A Again, I don't understand you mean  
14 there's 2.

15 Q I asked if the subject-matter  
16 experts also make some sort of estimates  
17 regarding that project, and I believe you had  
18 answered yes. And so how is that used?

19 A That's used as --

20 Q For guidance perhaps?

21 A Yes. Just to get an idea and a  
22 ballpark.

23 Q So it's used perhaps also by the  
24 internal estimating team?

25 A They do review it.

26 Q They refer to it?

27 A They see it.

28 Q But generally, it's just used as a

1 reference?

2 A Not in all cases, but in this one,  
3 it is.

4 ALJ LIRAG: All right. I'll let  
5 Mr. Roberts proceed if he has any further  
6 questions along those lines?

7 MR. ROBERTS: Yes, very close to the  
8 end.

9 Q If you can turn to your rebuttal  
10 testimony, page 6-12.

11 A Okay.

12 Q And starting at line 3, it says  
13 that the surge arrester grounding was not  
14 identified as a top safety risk.

15 Do you see that?

16 A I do.

17 Q Was surge arrester grounding  
18 identified as any type of safety risk in  
19 RAMP?

20 A The surge arrester replacement  
21 program was identified as a mitigation in our  
22 RAMP filing.

23 Q The grounding and not the  
24 replacement of surge arresters?

25 A No. The actual surge arrester --  
26 the non-exempt surge arrester replacement  
27 program was identified as mitigation.

28 Q Are you certain that it was the

1 entire program including replacement and/or  
2 modification of ground wires and not just the  
3 replacement of the surge arresters  
4 themselves?

5 A I'm referencing my testimony on  
6 6-25 that starts on line 7 that said, "the  
7 two mitigations," and it said, "The  
8 non-exempt surge arrester replacement program  
9 is mitigation."

10 Q Thank you. Now, if you can turn to  
11 page 6-14 of your rebuttal, and at line 11,  
12 it says that PG&E considers the grounding  
13 portion of -- and doesn't say, but it's the  
14 NESAR program to be mandatory.

15 Do you see that?

16 A I do.

17 Q Does that mean that PG&E does not  
18 consider the surge arrester replacement  
19 portion of NESAR to be mandatory?

20 A The grounding portion is  
21 compliance-related. The replacement of the  
22 non-exempt arrester is not  
23 compliance-related.

24 Q Thank you. For the grounding  
25 portion of the NESAR program, can you tell us  
26 where in your testimony or in the record of  
27 this case there is a CPUC or other document  
28 which ordered PG&E to engage in a program to

1 proactively modify surge arrester grounding?

2 A We do not have a mandate from the  
3 Commission to move forward. However, we have  
4 talked to SED in both -- when we started the  
5 grounding program in 2014 and when we changed  
6 the program to the surge arrester program in  
7 2017. We have actually gone to SED on both  
8 of those occasions to let them know we were  
9 doing it.

10 Q Okay. Thank you for that. But  
11 that is different than SED through the  
12 Commission issuing an order telling you that  
13 you had to do it, correct?

14 A Correct.

15 Q Okay. And are there any CPUC or  
16 other documents which ordered PG&E to replace  
17 surge arresters?

18 A I'm sorry. What do you mean  
19 "replace surge arresters"?

20 Q So you asked for funding for a  
21 program to replace non-exempt surge arresters  
22 with exempt surge arresters. I believe you  
23 said that that's not a mandated item?

24 A Correct.

25 Q Okay.

26 ALJ LIRAG: Let's do another time  
27 check, Mr. Roberts. We're assuming that  
28 you're almost done. Otherwise, I think folks

1 can use a break.

2 MR. ROBERTS: Yes. I have one more  
3 page out of --

4 ALJ LIRAG: Let's probably take a  
5 break. That won't take a short time. So  
6 I'll let Judge Lau call the break.

7 ALJ LAU: Let's go off the record.

8 (Off the record.)

9 ALJ LAU: Let's go back on the record.  
10 Mr. Roberts, you may proceed with  
11 your line of questioning.

12 MR. ROBERTS: Okay.

13 Q I just wanted to return to a  
14 question previously asked on page 90 of  
15 Exhibit 58 about the cost of an exempt surge  
16 arrester. And I had asked if the price shown  
17 of \$200 was still approximately accurate.

18 A So it ranges from about \$215 to  
19 \$250.

20 Q Thank you. And if you could go to  
21 the reference documents, page 3. This is the  
22 response to Public Advocates 199, Question  
23 26. Now, from the perspective of the MAT 2AP  
24 program, which is focused on fuses, is it  
25 correct that that program will replace all  
26 non-exempt equipment on a pole except for  
27 surge arresters?

28 A Correct. That's what it says here

1 as well.

2 Q Okay. And so a pole that is the  
3 target of the MAT 2AP program would not be  
4 exempt from vegetation clearance requirements  
5 if it had surge arresters on that same pole,  
6 correct?

7 A If it still had non-exempt  
8 equipment, you're correct.

9 Q Then if you turn the page, it's the  
10 response to Public Advocates-199, Question  
11 28. The response to this data request seems  
12 to indicate that you're not able to say how  
13 many poles that are subject to program MAT  
14 2AP would have this condition that they have  
15 surge arresters and therefore would not be  
16 non-exempt at the completion of that program;  
17 is that correct?

18 A That's correct. We have not  
19 tracked that.

20 Q And now, finally, if you can go to  
21 page 613 of your rebuttal testimony, line 8.  
22 Looking at that sentence, I'm going to  
23 paraphrase it to say that for the program --  
24 for the NESAR program, which is MAT 2AR, that  
25 program will not replace fuses on the pole  
26 where they are replacing non-exempt surge  
27 arresters; is that correct?

28 A That is correct.

1           Q   And do you know the overlap, for  
2           example, how many of the poles that are  
3           targeted for NESAR that would have fuses on  
4           them and, therefore, would not be exempt from  
5           vegetation management at the completion of  
6           NESAR?

7           A   No. From the last data response we  
8           just reviewed, we haven't tracked the fuse  
9           locations versus the surge arrester program  
10          locations.

11          MR. ROBERTS: Okay. That completes our  
12          questions. Thank you.

13          MS. LIOTTA: I'm going to defer to  
14          Mr. Hawiger.

15          ALJ LAU: Mr. Hawiger, do you have  
16          questions?

17          MR. HAWIGER: Yes. Thank you very  
18          much.

19          ALJ LAU: You may proceed with your  
20          cross.

21                           CROSS-EXAMINATION

22          BY MR. HAWIGER:

23           Q   Good morning, Ms. Cullings.

24           A   Good morning.

25          ALJ LAU: Mr. Hawiger, do you mind  
26          using the microphone. Thank you.

27          BY MR. HAWIGER:

28           Q   I am Marcel Hawiger on behalf of

1 The Utility Reform Network.

2 Let me ask you first some questions  
3 about your qualifications. What is your  
4 current position at PG&E?

5 A Currently I oversee our project  
6 management office in what the organization  
7 calls the internal work execution team, which  
8 has a focus on our distribution wildfire  
9 activities and reporting.

10 Q What is the project management  
11 office?

12 A So we are the central point of kind  
13 of all of the data requests and all of the  
14 data for those activities. We're centralized  
15 for consistency.

16 Q When did you start this position?

17 A January of this year.

18 Q Looking at -- your statement of  
19 qualifications is contained in -- I'm afraid  
20 I don't know the exhibit number. It was PG&E  
21 27, I believe, the --

22 ALJ LAU: Was that received or  
23 identified?

24 MS. GANDESBERY: With PG&E -- it's been  
25 marked as Exhibit 52, your Honor.

26 ALJ LAU: It's PG&E-52. That was  
27 received into evidence.

28 MR. HAWIGER: Thank you.



1           Q    Am I correct, looking at your  
2           statement of qualifications, that your  
3           primary expertise is in the management of  
4           large programs?

5           A    Correct.

6           Q    And the original -- and you are  
7           not -- you are not an engineer, correct?

8           A    Correct. I am not.

9           Q    And the original sponsor of this of  
10          chapter was Mr. Deal, right?

11          A    Correct.

12          Q    And Mr. Deal is an engineer,  
13          correct?

14          A    Correct.

15          Q    Why did you take over the testimony  
16          for distribution maintenance?

17          A    Approximately three weeks ago,  
18          Mr. Deal got another job to oversee all of  
19          our distribution control centers, and it was  
20          felt that the size of the job he was taking  
21          and supporting the GRC was -- it was too  
22          heavy of a lift.

23          Q    Is this the distribution control  
24          center within the electric distribution  
25          planning and reliability department?

26          A    It's under electric distribution.

27          Q    Let me ask you to turn in your  
28          rebuttal testimony first to page -- and

1 that's Exhibit 20 -- to page 6-6 and looking  
2 at your Answer 10. You discuss that the  
3 scope of work for electric distribution  
4 maintenance will increase due to the  
5 increased number of capital overhead  
6 notifications there at line 9.

7 Do you see that?

8 A I do.

9 Q And by "capital overhead  
10 notifications," are you referring to the  
11 increase in corrective action tags discussed  
12 by Mr. Singh in Chapter 2(a)?

13 A Correct.

14 Q What is the increase in the number  
15 of corrective action tags? What is the  
16 number of corrective action tags identified  
17 by PG&E?

18 A In relation to this and to --

19 Q I'm sorry. When you say "an  
20 increase," can you just quantify that  
21 increase?

22 A So -- that we are still working  
23 through the overall work plan and what those  
24 numbers are, and I do not have those.

25 Q Would you agree, subject to check,  
26 that Mr. Singh discusses corrective action  
27 tags identified through the WISP of  
28 approximately 177,000?

1 MR. GALLO: Your Honor, I believe  
2 Mr. Singh would be a more appropriate witness  
3 for this line of questioning.

4 ALJ LAU: Sustained.

5 BY MR. HAWIGER:

6 Q Well, let's put aside what  
7 Mr. Singh said. Can you offer any estimate  
8 by what you mean by the number of -- the  
9 increased number of capital overhead  
10 notifications?

11 A The only thing I can share is the  
12 team that's putting that work plan together,  
13 because that's not -- is still working  
14 through those details and that information.  
15 And I don't have anything more to share.

16 Q But I think I -- did I hear you  
17 correctly that capital overhead notifications  
18 are the same as corrective action tags?

19 A It's an easy tag, which is an  
20 electric corrective tag, correct.

21 Q You don't know what portion of the  
22 tags identified by Mr. Singh are included in  
23 the work for electric distribution --  
24 distribution maintenance?

25 A Because the team has not finished  
26 their plan, I do not.

27 Q What is the typical number of  
28 overhead notifications addressed by

1 distribution maintenance in a year?

2 MR. GALLO: Objection. Vague as to  
3 "typical."

4 ALJ LAU: Mr. Hawiger, can you qualify  
5 what do you mean by "typical."

6 MR. HAWIGER: Sure.

7 Q What is the number of distribution  
8 overhead notifications addressed by electric  
9 distribution maintenance in 2018?

10 A Well, if you go back to our  
11 workpapers and we just look at 2AA, overhead  
12 capital, you can see that -- I'm just going  
13 to use a range over the years -- it's about  
14 12,000, give or take.

15 Q When you prepare your rebuttal  
16 testimony in this section, do you have any  
17 idea whether that number of additional  
18 overhead notifications will be doubling,  
19 tripling, quadrupling or any quantification  
20 of the number of overhead notifications that  
21 you address typically that you just  
22 described?

23 A Unfortunately I do not have the  
24 breakdown of how much would be overhead  
25 capital that -- from the risk basis that  
26 they've laid out in this plan that they are  
27 still refining today. I do not. ]

28 Q Have you evaluated how much of the

1 distribution maintenance staff time will be  
2 occupied with addressing this increased  
3 number of capital overhead notifications?

4 A I don't understand. I don't  
5 understand that question "distribution staff  
6 time." What do you mean?

7 Q Well, presumably there's a sum  
8 number of distribution of staff that do the  
9 distribution maintenance work, correct?

10 A "Staff" meaning what?

11 Q Employees? Tell me, who does the  
12 electric distribution maintenance work for  
13 PG&E?

14 A I guess I'm trying -- is it back  
15 office staff in processing, linemen to do  
16 work? That is what I don't understand, where  
17 you're separating.

18 Q However you would define the  
19 employees or staff that are necessary to  
20 address capital overhead notifications?

21 A I do not know how much it would  
22 increase or change that. I don't know.

23 Q Is it possible that PG&E's -- the  
24 amount of staff time or labor time spent on  
25 the activities that you have forecast in this  
26 rate case will be reduced because of the need  
27 to address the increased number of capital  
28 overhead notifications?

1 MR. GALLO: Objection. Vague as to  
2 "reduction." What activities are you --

3 ALJ LAU: Mr. Hawiger, can you define  
4 it a little bit more for the witness?

5 MR. HAWIGER: Your Honor, I'm speaking  
6 of all the activities that are sponsored as  
7 work in this chapter for electric  
8 distribution maintenance. Presumably, I'm  
9 not sure, do I need to establish the  
10 foundation that there are people who do the  
11 work that, you know, results in the costs?  
12 The witness can -- I think it's a fair,  
13 general question.

14 ALJ LIRAG: I think the questions were  
15 fairly, I wouldn't say simple, but fairly  
16 understandable also with regards to staff.  
17 If you're unsure, you can answer and then  
18 qualify your answer based on your  
19 understanding of the question.

20 So let's have Mr. Hawiger repeat the  
21 question and then let's have Ms. Cullings  
22 answer it.

23 BY MR. HAWIGER:

24 Q Well, just as an example, let me  
25 ask you to look at that table that you have  
26 on the very previous page of your rebuttal  
27 page 6-4 and that table shows there are three  
28 primary categories of preventive maintenance

1 work that are at issue in this chapter,  
2 correct?

3 A Correct.

4 Q My question is: Will the need to  
5 address the increased overhead notifications  
6 result in a potentially-reduced ability to  
7 perform the work that is forecast for these  
8 categories for electric distribution  
9 maintenance?

10 A Because we were saying that there's  
11 actually more work and we were putting that  
12 in a memo account that we would use for --  
13 have work for that -- I guess base funding  
14 for lack of a better term. So we would  
15 actually anticipate actually using all of the  
16 base funding with the work that we forecast  
17 today.

18 Q My question is not so much about  
19 accounting. I understand you're going to  
20 record the additional work in a memo account,  
21 but just in terms of the staff, are you  
22 testifying that you had enough staff to do  
23 all of the work you forecast, plus all of  
24 this additional work?

25 A So another team actually does --  
26 the team that I think you're asking, not  
27 myself, to levelize the plan and review that  
28 and that's not me or my team.

1           Q    I guess I'm confused.  When you say  
2   "another team," you mean you're not  
3   responsible for evaluating the staffing  
4   necessary to do the work that's forecast in  
5   this chapter?

6           A    That's correct.  My team does not  
7   do the resourcing for that.

8           Q    So you have no idea whether you  
9   have enough staff to do this work plus the  
10  additional work; is that right?

11          MR. GALLO:  Objection.  Argumentative.

12          ALJ LAU:  Overruled.

13                Ms. Cullings, do you have any  
14  estimate of labor allocation needed to  
15  perform the work?

16          THE WITNESS:  No.  Not as far as how  
17  many people we would need to do that, I do  
18  not.

19          BY MR. HAWIGER:

20                Q    I guess my question is:  Is there  
21  any witness who can testify as to the ability  
22  of PG&E to complete the work forecast in this  
23  chapter plus the additional work that is  
24  expected as described in your testimony?

25          MR. GALLO:  Your Honors, I believe that  
26  Mr. Singh addresses the WSIP program in his  
27  rebuttal testimony and he's probably a better  
28  witness for this line of questioning.



1 ALJ LIRAG: When is Mr. Singh due up  
2 next?

3 MR. GALLO: He is part of the Community  
4 Wildfire Safety Program next Friday.

5 ALJ LIRAG: All right. Any issues  
6 reserving that line of questioning,  
7 Mr. Hawiger, for Friday?

8 MR. HAWIGER: I'm sorry. Not at all,  
9 your Honor.

10 ALJ LIRAG: All right.

11 BY MR. HAWIGER:

12 Q Thank you. Let me ask you then to  
13 turn further in your testimony to page 6-23  
14 in your rebuttal testimony. And I have some  
15 questions concerning the various statements  
16 in your Answer 38 that starts at that page  
17 and continues to next page.

18 Is it correct that the surge  
19 arrester grounding program was authorized in  
20 the 2017 rate case?

21 A Correct.

22 Q And actually I'm going to ask you  
23 to turn to a table in your direct testimony  
24 and I apologize. I don't know the number of  
25 that exhibit.

26 ALJ LIRAG: Let's go off the record to  
27 figure that out.

28 (Off the record.)

1 ALJ LAU: Let's go back on the record.

2 BY MR. HAWIGER:

3 Q Ms. Cullings, could you turn in  
4 your direct testimony, Exhibit 16, to page  
5 6-49? And looking at that table, line number  
6 5 shows the spending on the surge arrester  
7 program, correct -- on the surge arrester  
8 replacement program?

9 A Line 5 of Table 6-13, correct?

10 Q Correct.

11 A Yes.

12 Q Now, when you say surge arrester  
13 replacement program in that table, are you  
14 describing the combination of surge arrester  
15 grounding, I think is what Mr. Roberts  
16 referred to as the SAG program, together with  
17 the replacement of non-exempt surge  
18 arresters?

19 A Correct. That is the new surge  
20 arresters replacement program.

21 Q Okay. Thank you. And that table  
22 shows that PG&E -- excuse me. There was a  
23 forecast and is that forecast based on the  
24 authorization in the last rate case?

25 MR. GALLO: Objection. Vague.

26 ALJ LAU: Can you ask your question  
27 again, Mr. Hawiger?

28 BY MR. HAWIGER:

1 Q Let me withdraw that please.

2 Am I correct that this table, for  
3 example, shows that -- the actual costs, and  
4 are those costs capital costs on the  
5 preferred row 5?

6 A Yes. Those are capital costs.

7 Q And so the 41 million and 71  
8 million for 2018 and 2019 were PG&E's  
9 forecast for the capital costs for this  
10 program when you filed the rate case; is that  
11 correct?

12 A That is correct.

13 Q By the way, what is the useful life  
14 of a surge arrester for depreciation  
15 purposes?

16 MR. GALLO: Objection. This witness is  
17 not the depreciation witness.

18 MR. HAWIGER: Your Honor, could I  
19 request that -- I don't mind counsel  
20 objecting if he has a valid evidentiary  
21 objection, but the witness can answer if she  
22 is an expert witness if she doesn't know. I  
23 believe counsel is just coaching the witness.

24 ALJ LAU: Overruled.

25 Ms. Cullings, if you don't know,  
26 please just please let Mr. Hawiger know.

27 THE WITNESS: I don't know.

28 ALJ LIRAG: All right. And moving

1 forward with that line of questioning,  
2 Mr. Gallo, maybe first check if Ms. Cullings  
3 looks like she is able to answer and then if  
4 she looks like she's puzzled and not able to  
5 answer, then maybe that's when you should --

6 MR. GALLO: Yes, your Honor. I'm  
7 sorry. We discussed it before so I knew the  
8 answer already. I apologize.

9 ALJ LIRAG: All right. Let's move  
10 along with that guideline. All right.

11 Please proceed, Mr. Hawiger.

12 BY MR. HAWIGER:

13 Q But you would agree that the costs  
14 for this program, given it's a capital  
15 program, they're treated as capital costs and  
16 depreciated over time, some period of time?

17 A That's correct.

18 Q Let me ask you to turn back to your  
19 rebuttal testimony, Exhibit 20, and look at  
20 page 6-20. I'm sorry. That's the wrong page  
21 number. Just a moment, please. 6, page  
22 6-30, please.

23 One moment, your Honor. Could I  
24 have a moment off the record, your Honor?

25 ALJ LAU: Let's go off the record.

26 (Off the record.)

27 ALJ LAU: Let's go back on the record.

28 ///

1 BY MR. HAWIGER:

2 Q Okay. Thank you. I'm sorry. Let  
3 me ask you to go back to where you were  
4 before, the table in your direct testimony,  
5 Exhibit 16, Table 6-13 on page 6-49.

6 So the forecast capital costs for  
7 2018 and 2019 for the surge arrester  
8 replacement program, they total about  
9 \$117 million or so in capital; is that right?

10 A Correct.

11 Q And that number was not included in  
12 the revenue requirement in the last rate  
13 case, correct?

14 A It was funded as an expense in the  
15 last rate case.

16 Q And is it correct that PG&E is  
17 requesting in this case that this amount  
18 shown in the table be rolled into rate base  
19 starting in 2020?

20 A Correct.

21 Q And that means PG&E will collect  
22 over time starting in 2020 the return of and  
23 the return on the investment, correct?

24 A Correct.

25 Q Now, the expense that was  
26 authorized for this surge arrester  
27 replacement program for the grounding program  
28 in the last rate case -- I'm sorry the

1 replacement program including the grounding  
2 and replacement was about 20 million a year;  
3 is that correct?

4 A I'm sorry. One more time. I'm  
5 confused on the question.

6 Q What was the -- let me just ask  
7 you. Do you know the amount of test year  
8 expense authorized for the surge arrester  
9 replacement program in the last rate case?

10 MR. GALLO: Objection, your Honor.  
11 Mischaracterizes the record. I believe the  
12 expenditure is for the surge arrester  
13 grounding program in the 2017 GRC.

14 ALJ LAU: Mr. Hawiger, are you just  
15 asking for 2017 test year capital or  
16 expenditure for the surge arrester?

17 MR. HAWIGER: Well, I'm sorry if  
18 there's a confusion.

19 I believe Ms. Cullings testified  
20 that last time it was authorized as an  
21 expense.

22 ALJ LAU: Right.

23 MR. HAWIGER: And I just want to know  
24 what that expense that was authorized last  
25 time was.

26 ALJ LAU: Ms. Cullings, do you know the  
27 amount of authorized expense for the surge  
28 arrester program?

1 THE WITNESS: I believe it was around  
2 \$20 million a year. We have the specifics in  
3 the testimony but it was around \$20 million a  
4 year.

5 ALJ LIRAG: I think, Ms. Cullings, you  
6 need to speak up a little bit more. Maybe it  
7 will help if you pretend you're angry at  
8 Mr. Hawiger.

9 (Laughter.)

10 BY MR. HAWIGER:

11 Q And it's correct that PG&E  
12 collected that 20 million in the rates but  
13 did not use those expenses for the surge  
14 arrester program, correct?

15 A My expertise isn't rates and how we  
16 collect, so I can't say that.

17 Q But you would agree that starting  
18 in 2017 PG&E changed the accounting to  
19 capitalize the cost of that program, correct?

20 A Correct.

21 Q Let me ask you to turn to what has  
22 been identified as Exhibit 60 and that was  
23 the cross-examination exhibit that I  
24 distributed earlier.

25 ALJ LAU: Can we go off the record for  
26 a second? Let's go off the record.

27 (Off the record.)

28 ALJ LAU: Let's go back on the record.

1                   Sorry, Mr. Hawiger.

2                   MR. HAWIGER: That's quite okay.

3                   ALJ LAU: You may proceed when you're  
4 ready.

5                   MR. HAWIGER: Thank you, your Honor.

6                   Q Let me ask you: First of all, do  
7 you have an estimate of how many  
8 non-transformer mounted surge arresters there  
9 are on your system?

10                  A I'm sorry. What are we talking  
11 about?

12                  Q I'm sorry. Let me start. Would  
13 you agree that there are approximately 90,000  
14 non-exempt surge arresters that PG&E has  
15 identified?

16                  A The 90,000 is representative of  
17 locations where the grounding from the  
18 transformer and the surge arrester have  
19 issues. There's obviously more surge  
20 arresters in the system than that.

21                  Q Right. Okay. And those are surge  
22 arresters that are mounted on transformers;  
23 is that correct?

24                  A It's a mix.

25                  Q It's a mix. Some are mounted on  
26 transformers and some are not?

27                  A That's correct.

28                  Q And of that 90,000, do you have an



1 estimate of how many are not mounted on the  
2 transformer?

3 A We do not.

4 Q Do you have any sense, ballpark,  
5 would it be more or less than 10,000?

6 A I do not. I do not.

7 Q And do you not because -- does PG&E  
8 have that information?

9 A I'm not aware that we have that  
10 detail, no.

11 Q Did you say you're not aware  
12 whether you have it or not?

13 A That we have that detail.

14 Q That you don't have it?

15 A Correct.

16 Q Now, I understand your testimony --  
17 let me just if I may summarize, is that you  
18 believe that there are deficiencies in  
19 combining replacing the non-exempt surge  
20 arresters at the same time as you are  
21 correcting the grounding deficiencies. Is  
22 that generally true?

23 A That's correct.

24 Q But just to be clear, there is no  
25 technical engineering barrier from doing just  
26 the grounding correction without replacing  
27 the surge arrester?

28 A Probably "technical engineering

1 barrier" is not a correct phrase for me.

2 Q Are you aware of any barrier to  
3 doing one without the other?

4 A I am not.

5 Q Let me ask you to turn in your  
6 rebuttal testimony to page 6-22. And in  
7 Answer 35, you discuss the risk posed by  
8 non-exempt surge arresters and you conclude  
9 at the end, lines 20 to 23, that vegetation  
10 management under the poles does not eliminate  
11 that risk. Do you see that?

12 A I do.

13 Q Now the vegetation management that  
14 you're referring to, are those the clearance  
15 requirements conducted pursuant to the Public  
16 Resources Code 4292?

17 A Correct.

18 Q And is it correct that those  
19 requirements apply to certain poles that are  
20 termed subject poles by PG&E?

21 A I'm not clear on the vegetation  
22 management definition of that.

23 Q I'm just talking about just the  
24 PRC. Do you know whether the vegetation  
25 management rules under the PRC apply to  
26 clearance around only certain poles?

27 A Correct. It is only certain poles.

28 Q And there are about 120,000 of

1 those poles, correct?

2 A I'm sorry. I don't know what you  
3 mean.

4 Q Okay. You don't know. You don't  
5 know how many of those poles subject to those  
6 clearance requirements are on the system?

7 A I do not know.

8 Q How do you know that the vegetation  
9 clearance requirements aren't sufficient to  
10 eliminate risk due to non-exempt equipment?

11 A I believe in that same paragraph we  
12 cite the example that, you know, winds can  
13 blow the particles outside that perimeter and  
14 obviously potentially cause a fire.

15 Q Is it correct that PG&E has a  
16 database of all the ignitions that have  
17 occurred from the middle of 2014 through the  
18 end of 2018?

19 A That's correct.

20 Q And how many ignitions in total are  
21 there?

22 A I'm sorry. Ignitions in total?

23 Q In that database from the middle of  
24 2014 to the end of 2018?

25 A I do not know that.

26 Q Let me ask you to turn to -- was  
27 that Exhibit 60? And look at -- the number,  
28 the pages are hand-numbered at the bottom for

1 our convenience. And there's pages 5 and 6  
2 that contain the response to TURN Data  
3 Request 10, Question 3. Do you see those?

4 A I do not.

5 ALJ LAU: Let's go off the record.  
6 (Off the record.)

7 ALJ LAU: Let's go back on the record.  
8 Mr. Hawiger, can you lead us to  
9 where you're looking at?

10 BY MR. HAWIGER:

11 Q If you could look at Exhibit 60 and  
12 their response to TURN Data Request 10,  
13 Question 3, which is contained on  
14 hand-numbered pages 5 and 6. Are you  
15 familiar with this data response?

16 A I just saw it last evening when you  
17 sent it.

18 Q Okay. So I don't want to push  
19 this. So it does appear that it was produced  
20 by witnesses Pender and Singh, even though  
21 the question was regarding testimony in your  
22 chapter, original direct chapter, and also is  
23 repeated in this rebuttal. Are you saying --  
24 who is the better witness to ask questions  
25 regarding the risk reduction and risks of  
26 non-exempt -- replacing non-exempt equipment  
27 on subject poles?

28 A You mean the risk as far as --

1     you're correct. I would not be the  
2     appropriate witness on the exact actual risk  
3     assessment.

4             Q     Well, you testified that there is a  
5     risk, remaining risk that wind can blow  
6     particles outside the perimeter. What is the  
7     perimeter, by the way?

8             A     As far as that reference to that  
9     statement, the perimeter was the 10 feet that  
10    we were clearing for the 4292. That's what  
11    that statement meant.

12            Q     And, well, I have a number of  
13    questions about that risk and I just want to  
14    ask: Should I ask you or should I ask  
15    Mr. Singh and Mr. Pender?

16            MR. GALLO: I think we should see what  
17    the questions are and what the witness'  
18    knowledge is.

19    BY MR. HAWIGER:

20            Q     Okay. Do you keep track of which  
21    poles are associated with ignitions?

22            A     I am not a hundred percent. I  
23    believe they do in that database. I'm  
24    familiar we have it, but not how they track  
25    the data in it and to the level.

26            Q     Is it correct that in the response  
27    to some other data requests, you identified  
28    that there were 20 ignitions due to surge

1     arresters -- excuse me, due to non-exempt  
2     equipment in Tier 2 areas?

3             A     What response are you looking at?

4             Q     Let's go to the same Exhibit 60,  
5     the first response to TURN's Data Request 96  
6     at pages 1 through 3.

7             A     Okay.

8             Q     And this response was completed by  
9     you, correct?

10            A     Correct.

11            Q     And let me ask you to turn to that  
12     second page that has the answers. And in  
13     Part B, you discuss that there were 20  
14     ignitions owing to surge arresters and how  
15     they were divided between the rural and urban  
16     settings. Do you see that?                     ]

17            A     Yes.

18            Q     And I guess this is why I started  
19     with the database, because that response  
20     refers to a database of ignitions, correct?

21            A     Correct.

22            Q     And so that's -- do you know how  
23     many ignitions in total were in that database  
24     that the 20 ignitions were a part of?

25            A     I do not.

26            Q     Let me just ask you, would you  
27     accept, subject to check, that there were  
28     about 2,000 total ignitions in that database?

1           A    Okay.

2           Q    When you did this response, how did  
3 you know -- did you complete this response,  
4 Ms. Cullings?

5           A    I received only the 20 that refer  
6 to the question, not the whole database. So  
7 that's why I don't know how many is in the  
8 database.

9           Q    So you don't know whether this  
10 database contained ignitions just in  
11 high-fire threat district areas or all  
12 ignitions?

13          A    Correct.

14          Q    And yet in Part C -- in Part C, you  
15 would indicate that two of the ignitions were  
16 in high-fire threat district Tier 2 areas.

17               Do you see that?

18          A    Yes.

19          Q    Do you know whether PG&E in their  
20 database keeps track of whether an ignition  
21 from a non-exempt piece of equipment occurred  
22 on a pole that is a subject pole subject to  
23 the clearance requirements or not?

24          A    I do not know that level of  
25 granularity from the database.

26          Q    So when you testify in your  
27 rebuttal that there is still a risk because  
28 there could be a spark that could be blown by

1 a wind, is that based on any information, or  
2 is that just a sort of commonsense  
3 observation that you're making?

4 A We've actually responded to, I  
5 believe, other data requests that it's -- the  
6 professional understanding and expertise  
7 that, yes, that that is what could occur.

8 Q In your opinion, should PG&E  
9 attempt to eliminate all causes of all  
10 ignitions in your entire service territory  
11 with sort of the same level of effort?

12 A I'm sorry. Can you repeat the  
13 question.

14 Q In your opinion, should PG&E  
15 attempt to eliminate all ignitions in the  
16 entire service territory with the same level  
17 of prioritization, let me say?

18 A Obviously I'm not the one that  
19 would prioritize the work, and I'm way out on  
20 all of those against each other. So I am not  
21 the right one there.

22 MS. HAWIGER: I will save some of these  
23 questions for Mr. Singh.

24 And may I have a moment off the  
25 record?

26 ALJ LAU: Let's go off the record.

27 (Off the record.)

28 ALJ LAU: Let's go back on the record.



1           MR. HAWIGER: So let me just -- just to  
2 be clear, given the response to TURN Data  
3 Request 10, Question 3 was prepared by  
4 Witnesses Pender and Singh, am I correct that  
5 they would be more appropriate witnesses to  
6 ask regarding the contents of the ignition  
7 database and their risks posed by non-exempt  
8 equipment versus the clearance  
9 requirements -- the risk reduction of  
10 clearance requirements?

11           A Well, certainly on the ignition  
12 database, that would be correct.

13           Q But regarding the risk reduction  
14 due to clearance requirements, you may be the  
15 more appropriate witness?

16           A I will certainly answer to the best  
17 of my ability in what we said obviously in  
18 the rebuttal in other data responses.

19           MR. HAWIGER: I think I will -- thank  
20 you very much, Ms. Cullings. I will reserve  
21 other questions for other witnesses. Thank  
22 you.

23           ALJ LAU: FEA.

24                           CROSS-EXAMINATION

25 BY MS. LIOTTA:

26           Q Good morning, Ms. Cullings. I'm  
27 Rita Liotta with FEA.

28           A Good morning.

1 Q I would like to refer you to your  
2 rebuttal testimony, page 7.

3 A Do you mean 6-7?

4 Q Yes. So if you could see,  
5 beginning on line 9, where it states that,  
6 "FEA notes that PG&E's recorded costs for  
7 electric distribution maintenance expense  
8 fluctuated from year to year between 2013 and  
9 2018." Do you agree that those costs  
10 fluctuated for that time period?

11 A Correct. They did.

12 Q Thank you. And in that same  
13 paragraph, it states that, "FEA notes that  
14 PG&E's 2018 recorded costs were approximately  
15 1 million dollars less than its 2018  
16 forecast." And do you agree that the  
17 spending was 1 million dollars less than  
18 forecast for that time?

19 A Correct.

20 Q So with respect to FEA's  
21 recommended use of a four-year average, would  
22 it be fair to say that your rebuttal  
23 testimony basically states that that is  
24 inappropriate because the 2020 forecasts are  
25 based on known work and program-specific  
26 trends?

27 A That's correct.

28 Q One last question. Was the 2018

1 forecast based on known work and specific  
2 trends?

3 A It was.

4 MS. LIOTTA: Thank you. I have no  
5 further questions for this witness.

6 ALJ LAU: I have a couple questions,  
7 Judge Lirag. Ms. Cullings, what was your  
8 relation with Mr. Deal before he moved onto  
9 his new role?

10 A I was his witness assistant.

11 Q And so you helped him prepare the  
12 testimony and the rebuttal testimony?

13 A That's correct.

14 ALJ LAU: Okay. Mr. Gallo, do you have  
15 any redirect?

16 MR. GALLO: No thank you, your Honor.

17 ALJ LAU: Okay. Ms. Cullings, you can  
18 step down from the witness stand, but I  
19 believe that there may be a chance that you  
20 have to reappear.

21 THE WITNESS: Thank you.

22 ALJ LAU: Let's take a recess.

23 ALJ LIRAG: Let's do the exhibits  
24 first.

25 ALJ LAU: Let's see.

26 Let's go off the record.

27 (Off the record.)

28 ALJ LAU: Let's go back on the record.

1                   Is there a motion to move Exhibit 58  
2 and 59 into the record?

3           MS. SHEK: Yes, your Honor. We'd like  
4 to move Exhibits 58 and 59, the Public  
5 Advocates cross-exhibits from today.

6           ALJ LAU: Is there any objection?

7                   (No response.)

8           ALJ LAU: Hearing none, Exhibit 58 and  
9 59 are moved into the record.

10                   (Exhibit No. 58 was received into  
11 evidence.)

12                   (Exhibit No. 59 was received into  
13 evidence.)

14           ALJ LAU: Is there a motion to move  
15 Exhibit 60 into the record?

16           MR. HAWIGER: Your Honor, I would move  
17 Exhibit 60 into -- I'd like to move --  
18 request that Exhibit 60 be moved into the  
19 record with the caveat that at least one of  
20 the responses was prepared by a different  
21 witness and will be used again. But if PG&E  
22 has no objection, I'd like to move it into  
23 the record right now.

24           MR. GALLO: No objection, your Honor.

25           ALJ LAU: Any other objections?

26                   (No response.)

27           ALJ LAU: Hearing none, Exhibit 60 is  
28 moved into the record.

                  (Exhibit No. 60 was received into  
evidence.)

1 ALJ LAU: We will take a 1 hour and 25  
2 minute recess. We will resume at 1:15.

3 Off the record.

4 (Whereupon, at the hour of 11:50  
5 a.m., a recess was taken until 1:25  
p.m.)

6 \* \* \* \* \*]

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

1 AFTERNOON SESSION - 1:25 P.M.

2

3 \* \* \* \* \*

4 ALJ LAU: Let's go on the record.

5 During the break, we have had some  
6 cross-examination exhibits distributed. We  
7 will first identify Exhibit 65. That is a  
8 cross-examination exhibit from TURN titled  
9 PG&E Corporation Bankruptcy -- sorry.

10 ALJ LIRAG: Let's go off the record.

11 (Off the record.)

12 ALJ LAU: Let's go back on the record.

13 So it's titled PG&E Corporation  
14 Bankruptcy Plan Financing Summary, dated  
15 September 17, 2019.

16 (Exhibit No. 65 was marked for  
17 identification.)

18 ALJ LIRAG: Let's go ahead and take  
19 care of it.

20 ALJ LAU: Is there a motion to move  
21 this into the record?

22 MS. GOODSON: Yes, your Honor. TURN  
23 seeks to move this into the record.

24 ALJ LAU: And are there any objections?

25 MS. GANDESBERY: No objection, your  
26 Honor.

27 ALJ LAU: Hearing none, Exhibit 65 is  
28 moved into evidence.

1 (Exhibit No. 65 was received into  
2 evidence.)

3 ALJ LIRAG: Let's also say that we're  
4 back from our lunch break. And then please  
5 proceed.

6 ALJ LAU: Yes, we are back from our  
7 lunch break. So we have Mr. Robert Earle on  
8 the witness stand.

9 Mr. Earle, can you raise your right  
10 hand?

11 ROBERT EARLE, called as a witness by  
12 Pacific Gas and Electric Company,  
13 having been sworn, testified as  
14 follows:

15 THE WITNESS: I do.

16 ALJ LAU: You may lower your right hand  
17 now. Can you please state your name,  
18 spelling your last name, and give us your  
19 business address?

20 THE WITNESS: My name is Robert Earle,  
21 E-A-R-L-E. Business address is 1388 Haight  
22 Street, No. 49, San Francisco, California  
23 94117.

24 ALJ LAU: Before me are several  
25 cross-examination exhibits for Mr. Earle --  
26 or actually, there are several exhibits  
27 including cross-examination exhibits. We  
28 will now identify them. Exhibit 61 is titled  
Opening Testimony of Robert Earle on behalf

1 of the Coalition of California Utility  
2 Employees, dated July 26, 2019.

3 (Exhibit No. 61 was marked for  
4 identification.)

5 ALJ LAU: Exhibit 62 is Rebuttal  
6 Testimony of Robert Earle on behalf of the  
7 Coalition of California Utility Employees,  
8 September 4, 2019.

9 (Exhibit No. 62 was marked for  
10 identification.)

11 ALJ LAU: We have several  
12 cross-examination exhibits. Exhibit 63 is  
13 cross-examination exhibit from Joint CCAs.  
14 It's CUE response to Joint CCAs Data Request  
15 1.

16 (Exhibit No. 63 was marked for  
17 identification.)

18 ALJ LAU: Exhibit 64 is also another  
19 cross-examination exhibit from the Joint CCAs  
20 excerpt from opening testimony of Robert  
21 Earle in R.17-06-026.

22 (Exhibit No. 64 was marked for  
23 identification.)

24 ALJ LAU: Ms. Zimney, would you begin  
25 your direct examination -- or Ms. Gandesbery.  
26 Oh. Sorry.

27 ALJ LIRAG: Wrong way.

28 ALJ LAU: Sorry. Ms. Stough, can you



1 begin your direct examination.

2 MS. STOUGH: Thank you, your Honor.

3 DIRECT EXAMINATION

4 BY MS. STOUGH:

5 Q Good afternoon, Dr. Earle. I'd  
6 like to confirm the testimony you're  
7 sponsoring in this proceeding. Are you  
8 sponsoring your opening testimony on behalf  
9 of the Coalition of California Utility  
10 Employees, CUE for short, which has been  
11 marked today for identification as Hearing  
12 Exhibit 61?

13 A I am.

14 Q And your rebuttal testimony on  
15 behalf of CUE, which has been marked today  
16 for identification as Hearing Exhibit 62?

17 A I am.

18 Q Is this testimony true and correct  
19 to the best of your knowledge?

20 A Yes.

21 Q Do the opinions expressed in this  
22 testimony reflect your best professional  
23 judgment?

24 A Yes.

25 Q And do you adopt this testimony as  
26 your own?

27 A Yes.

28 MS. STOUGH: Thank you.

1           Your Honor, Dr. Earle is available  
2 for cross-examination.

3           ALJ LAU: Is Mr. Lindl or Ms. Zimney  
4 going to go first?

5           MR. LIN DL: It's up to you.

6           MS. ZIMNEY: You're welcome to go  
7 first.

8           MR. LINDL: Sure. I'll go first.

9           ALJ LAU: Mr. Lindl, you may proceed.

10          MR. LINDL: Thank you, your Honor.

11                       CROSS-EXAMINATION

12 BY MR. LINDL:

13          Q Good afternoon, Dr. Earle.

14          A Good afternoon.

15          Q My name is Tim Lindl. I'm the  
16 counsel for the Joint CCAs.

17                So I'm going to ask you questions  
18 today regarding three points -- or three  
19 parts of your rebuttal testimony. The first  
20 addresses the hydroelectric non-bypassable  
21 charge that PG&E is proposing in this case,  
22 the allocation of PG&E's excess liability  
23 insurance costs, and the third is the  
24 allocation of costs from the Community  
25 Wildfire Safety Program or CWSP. Okay?

26                PG&E is proposing a non-bypassable  
27 charge for certain costs related to their  
28 hydroelectric generation resources; is that

1 right?

2 A That's right.

3 Q And the costs that are included in  
4 that proposed non-bypassable charge -- or I  
5 might refer to that as an NBC -- stem from  
6 FERC licenses or decommissioning orders,  
7 management of related watershed lands and  
8 compliance with requirements of conservation  
9 easements. Is that right?

10 A That sounds right.

11 Q Those costs include costs for  
12 recreational facilities, fish and wildlife  
13 habitat protection and land conservation; is  
14 that right?

15 A That's my understanding, yes.

16 Q In your opinion, would those  
17 environmental mitigation costs exist if PG&E  
18 had not owned its hydroelectric plants?

19 A Okay. I wouldn't necessarily term  
20 them environmental costs, but if we just  
21 refer to them maybe as NBC costs, I think  
22 that -- it's my understanding that -- that --  
23 I don't -- well, let me put it this way: I  
24 don't quite know exactly what the regulatory  
25 framework is that causes them to incur these  
26 costs, whether it's owning, whether it's  
27 owning and operating or whether it's  
28 operating but -- not trying to be

1 difficult -- but some nexus of them -- of  
2 them -- of -- of owning and operating would  
3 be my understanding of why they incur these  
4 costs.

5 Q So if PG&E did not own or operate  
6 these hydroelectric plants, they wouldn't  
7 incur these costs?

8 A I wouldn't -- I -- I wouldn't think  
9 so, but I'm also not an expert on how these  
10 FERC licenses work, what the transfer of  
11 responsibilities might be. My understanding  
12 is that PG&E had this essentially Legacy  
13 generation, and over time different  
14 requirements were put on them that involved  
15 these NBC costs.

16 Q These NBC costs, they are currently  
17 recovered through PG&E's volumetric  
18 generation rates; is that right?

19 A My understanding is they are  
20 recovered through their rates. I guess I'd  
21 like clarification on what you mean by  
22 "volumetric." Because sometimes that term is  
23 used in different ways.

24 Q Do you agree that PG&E currently  
25 recovers these costs through its generation  
26 charges?

27 A That's my understanding, yes.

28 Q Thank you. You provided testimony

1 on CUE's behalf in the power charge  
2 indifference adjustment, or PCIA, docket,  
3 right?

4 A That's correct.

5 Q Do you have a good handle on the  
6 PCIA and how it works?

7 A At the current time, no.

8 Q You did for that docket, but you  
9 don't any longer?

10 A I have not been following that  
11 docket.

12 Q Okay.

13 A Not in the recent months.

14 Q Okay. So I'm going to step through  
15 just a few questions here, maybe 5 or 6,  
16 about how the PCIA works, and if you don't  
17 recall, feel free to answer "I don't know."

18 The first one is -- let's just  
19 actually get a little more basic. So  
20 departed consumers like community choice  
21 aggregator customers, they pay PG&E's  
22 distribution system rates, but they don't pay  
23 PG&E's generation rates, right?

24 A That's my understanding, yes.

25 Q CCA consumers do pay the PCIA,  
26 though, correct?

27 A Correct.

28 MS. GANDESBERY: Your Honor, I object

1 to this line of questioning. It's outside  
2 the scope of the proceeding.

3 ALJ LAU: Can you narrow down to your  
4 questions quickly, Mr. Lindl.

5 And it's sustained.

6 ALJ LIRAG: Can you elaborate a little  
7 bit, Ms. Gandesbery, on why you believe it's  
8 outside the scope.

9 MS. GANDESBERY: The PCIA is not at  
10 issue in this general rate case.

11 ALJ LIRAG: Do you have a response,  
12 Mr. Lindl?

13 MR. LINDL: Yes, I do, your Honor. One  
14 of the key justifications for this charge by  
15 PG&E, by CUE and other parties is that there  
16 are fewer and fewer customers covering PG&E's  
17 generation costs. The PCIA's purpose is to  
18 reduce those costs for bundled generators to  
19 make sure all of PG&E's customers are paying  
20 their fair share for generation costs that  
21 were incurred on their behalf.

22 If there is an existing charge, like  
23 the PCIA, that does a substantial amount of  
24 the same work that this new proposed  
25 non-bypassable charge would do, that's  
26 directly relevant to whether or not the hydro  
27 non-bypassable charge should be adopted.

28 So what the PCIA is, what it

1 includes, whether it includes the same costs  
2 as the proposed -- the proposed hydro  
3 non-bypassable charge would include, all that  
4 is important to this case.

5 And one more point I would raise,  
6 your Honor, if you'll allow me, is that PG&E  
7 itself discusses the PCIA in their exhibit --  
8 in their rebuttal testimony, Exhibit 19, page  
9 810, lines 14 through 20, CUE raises the PCIA  
10 in their response to our discovery Question  
11 1.2(a) and what has now been entered -- or  
12 marked as Exhibit 63. The Joint CCAs  
13 discussed the PCIA on page 31 of Tom Beach's  
14 testimony, which hasn't been entered into the  
15 record yet.

16 So I'll stop there. I think it's  
17 pretty relevant to whether the hydro NBC  
18 should be adopted.

19 ALJ LAU: All right. Let's continue,  
20 and if there is any questions that are  
21 outside scope, then Ms. Gandesbery can  
22 object.

23 MR. LINDL: Okay. Thank you, your  
24 Honor.

25 Q Okay. So the purpose of the PCIA,  
26 Dr. Earle, do you agree that its purpose is  
27 to ensure customer indifference to other  
28 customers leaving PG&E's generation service?

1           A    My understanding is its purpose is  
2   to preserve indifference between bundled and  
3   unbundled customers.

4           Q    Thank you. Do you agree that the  
5   PCIA rate is set by comparing the forecasted  
6   total costs of PG&E's generation portfolio to  
7   the market value of that generation  
8   portfolio?

9           MS. GANDESBERY: I object. This is out  
10  of scope, and there's no foundation for  
11  this --

12          MR. LINDL: Let me --

13          ALJ LAU: You want to rephrase your  
14  question?

15          MR. LINDL: Sure. I'll start in a  
16  different place, and we'll hopefully end up  
17  in the same spot.

18          Q    Okay. When the PCIA is calculated,  
19  are total generation costs part of that  
20  calculation?

21          MS. GANDESBERY: Objection. No  
22  foundation. Out of scope.

23          ALJ LAU: Sustained.

24                Can you, Mr. Lindl, tie your PCIA  
25  references to the case -- to the scope of  
26  within this case.

27          MR. LINDL: Sure.

28          Q    Let's go to Exhibit 63, which is



1 your response to our Question 1.2(a). All  
2 right. Dr. Earle, there I ask -- or the  
3 Joint CCAs ask you -- I'm sorry. Do you have  
4 that in front of you?

5 A I do. Thank you.

6 Q And these are -- do you recognize  
7 this as your responses to our Data Request 1?

8 A I do.

9 Q And you prepared these or caused  
10 these to be prepared?

11 A Yes.

12 Q Thank you. In response to Question  
13 1.2(a), which states, "Do you agree that PG&E  
14 currently recovers the costs it or TURN  
15 proposes to include in the hydro NBC through  
16 PG&E's volumetric charges?" You respond, "It  
17 is Dr. Earle's understanding that PG&E  
18 currently attempts to recover the costs  
19 proposed to be recovered through the NBC  
20 through generation charges and the PCIA."

21 Is that right?

22 A That's correct.

23 Q All right. Earlier you agreed that  
24 the hydro NBC costs include costs for  
25 recreational facilities, fish and wildlife  
26 habitat protection and land conservation,  
27 right?

28 A Yes.

1           Q    Are those cost generation costs  
2   that are included when the PCIA is  
3   calculated?

4           A    As of when I was involved in this  
5   issue and submitted the testimony you've  
6   included, my understanding is they would be.

7           MR. LINDL:   Okay.   One moment, please,  
8   your Honor.

9           ALJ LAU:   Off the record.

10                  (Off the record.)

11           ALJ LAU:   Let's go back on the record.

12   BY MR. LINDL:

13           Q    Do you agree that the PCIA recovers  
14   the above-market costs of PG&E's generation  
15   portfolio?

16           MS. GANDESBERY:   Objection.   No  
17   foundation.

18           ALJ LAU:   Sustained.

19           MR. LINDL:   Your Honor, it's the same  
20   issue.   If the PCIA is covering these costs,  
21   then it goes to whether or not the hydro  
22   non-bypassable charge should be adopted.

23           ALJ LAU:   When you ask your line of  
24   questioning, can you please relate it to  
25   scope.

26           MR. LINDL:   Okay.

27           ALJ LIRAG:   Actually, it would help if  
28   you would relate it to one of PG&E's

1 requests, or if it's not that, one of the  
2 Joint CCAs proposals in this GRC proceeding.  
3 That way we're more clear that you're not  
4 just asking a random question but it's tied  
5 to something specific that had been proposed  
6 in the proceeding.

7 MR. LINDL: Sure. Happy to do that.

8 ALJ LIRAG: How about that?

9 MR. LINDL: Will do so.

10 ALJ LIRAG: All right.

11 MR. LINDL: Thank you, your Honor.

12 ALJ LAU: Do you want a couple minutes?

13 MR. LINDL: No. I'm ready to go.

14 ALJ LAU: Okay.

15 BY MR. LINDL:

16 Q Dr. Earle, can you please turn to  
17 your rebuttal testimony on page 17. Taking a  
18 look at lines 13 to 14 there.

19 A You said page 17? Which lines?

20 Q Yeah. Page 17, lines 13 to 14,  
21 please.

22 A Yes.

23 Q All right. There you state PG&E's  
24 generation costs are being spread over a  
25 shrinking customer base; is that right?

26 A Yes.

27 Q When you reference the term  
28 "generation costs" there, are you referencing

1 the above-market costs that PG&E uses to  
2 serve its -- or excuse me. Strike that,  
3 please. Are you referencing the at-market  
4 costs that PG&E uses to serve its bundled  
5 customers?

6 A I need you to define "at market."

7 Q All right. Your Honor, may I -- do  
8 you agree -- your Honor, I don't know how to  
9 define "at market" without going into what  
10 the PCIA is and how it works. It's total  
11 generation costs minus market revenues -- or  
12 minus market value. So the difference there  
13 is the above-market cost. So this is what  
14 I'm trying to get at is the PCIA takes care  
15 of all of the above-market costs. The only  
16 thing that's left for bundled customers then  
17 would be the at-market cost of resources used  
18 to serve PG&E's bundled customers.

19 ALJ LIRAG: Why don't you set a premise  
20 based on how you define it. I don't say  
21 define but on how you think the relationship  
22 is. Whether or not that is ultimately true  
23 would not -- it probably doesn't matter, but  
24 it will make you be able to ask your  
25 question.

26 And then Dr. Earle can follow along  
27 the lines of how you set the premise. It's  
28 almost like a hypothetical, but you're

1 defining something, unless that doesn't work.

2 ALJ LAU: So you can qualify what "at  
3 market" means and define it in your question,  
4 and it's up to Mr. Earle how he'd like to  
5 respond.

6 MR. LINDL: Okay. Thank you, your  
7 Honors.

8 Q Dr. Earle, by "at market," I mean  
9 the costs of PG&E's generation portfolio that  
10 are at or below the market value of those  
11 generation resources.

12 MS. GANDESBERY: Object as vague and  
13 ambiguous as to "market value of the  
14 resources."

15 MR. LINDL: Sure. The term "market  
16 value" means the price at which the resource  
17 was sold.

18 MS. GANDESBERY: From the wholesale  
19 market?

20 MR. LINDL: Let me --

21 Q Or the price afforded to the  
22 resource by the market price benchmark that  
23 is administratively set by this Commission  
24 through the energy resource and recovery  
25 account proceeding.

26 A I think I have that down. Thank  
27 you.

28 Q I'm not sure I remember the

1 question at this point.

2 A I can ask it if you'd like.

3 Q Let me start over. So looking at  
4 page 17, lines 13 to 14, you say, "PG&E's  
5 generation costs are being spread over a  
6 shrinking customer base." When you use the  
7 term "generation cost" in that sentence, do  
8 you mean the at-market cost of the resources  
9 PG&E uses to serve its bundled customers?

10 A I'm going to have to parse your  
11 definition of "at market" a bit. I'm sorry.  
12 I'll repeat. I'm going to have to parse his  
13 definition of "at market" a little bit,  
14 because I'm a little bit -- I'm a little bit  
15 turned around on this. I think what -- so  
16 I'm going to read you back what I have down  
17 for "at market," if that's okay.

18 Q Sure. ]

19 A At market is the cost of PG&E's  
20 generation portfolio at or below the market  
21 value of those resources or the price  
22 afforded by the market price benchmark where  
23 you define the market value as the price at  
24 which sold; is that right? I'm not supposed  
25 to ask questions, I guess.

26 Q All right. Let me try to rephrase  
27 this and see if we can get there a different  
28 way.

1           A    All right.

2           Q    So the term "generation costs" in  
3   that sentence, does it include the above-  
4   market costs of PG&E's generation portfolio  
5   that are shared by all of PG&E's ratepayers  
6   through the Power Charge Indifference  
7   Adjustment?

8           A    So I'm going to have to break that  
9   down because part of the core issue in the  
10   PCIA proceeding was, in fact, how the costs  
11   were being shared between bundled and  
12   unbundled customers. And there is the Phase  
13   2, I think it's Phase 2, or are we beyond  
14   Phase 2 at this point? There's another phase  
15   of the proceeding I haven't been involved in  
16   months, so I don't know what's happening  
17   there.

18                   The goal of the PCIA is to insure  
19   indifference between bundled and unbundled  
20   customers and so costs that were above-market  
21   should be shared on a fair basis between  
22   bundled and unbundled. Whether they were or  
23   not or whether they will be in the future,  
24   well, I believe in the past they weren't,  
25   whether they will be in the future, I hope  
26   they will be, but again I don't know the  
27   details of that proceeding, but the intent is  
28   yes, the above-market costs be shared so that

1 bundled and unbundled customers are treated  
2 in an equal manner with respect to those  
3 costs.

4 Q Okay. I promise I'm almost done.

5 So then, the -- because of the PCIA  
6 then these -- the PCIA-related costs are not  
7 being spread over a shrinking customer base,  
8 is that right?

9 MS. GANDESBERY: I object. That  
10 misstates his testimony.

11 THE WITNESS: Can you please repeat the  
12 question?

13 ALJ LAU: Mr. Earle, can I rephrase?

14 When you said PG&E's generation  
15 costs are being spread over a shrinking  
16 customer base, is it just the customer base,  
17 just PG&E's generation customers or does it  
18 also include these unbundled customers as  
19 well?

20 THE WITNESS: Well, it actually -- it  
21 actually -- they're four sort of categories  
22 at work here.

23 There are the bundled and unbundled  
24 customers. Then within those, if somebody  
25 puts on rooftop solar, then that's another  
26 way the customer base is shrinking. And that  
27 could be a bundled customer. It could be an  
28 unbundled customer.



1 ALJ LAU: Mr. Lindl, can you rephrase  
2 your question? I forgot what your question  
3 was.

4 MR. LINDL: I thought you did well,  
5 your Honor.

6 ALJ LAU: Okay.

7 BY MR. LINDL:

8 Q Given that the PCIA exists, are all  
9 of PG&E's generation costs being spread over  
10 a shrinking customer base?

11 A Yes.

12 Q Okay. So, your testimony -- or  
13 your testimony is that even though the PCIA  
14 is spread among both departed and bundled  
15 customers, those costs are being spread over  
16 a shrinking customer base?

17 A When we are talking about the NBC  
18 costs, yes.

19 Q Okay. Let's change gears. Let's  
20 move on to excess liability insurance. All  
21 right.

22 On page 2, lines 13 to 14 of your  
23 rebuttal testimony, which is Exhibit 62, let  
24 me know when you're ready, please.

25 A I am ready.

26 Q Okay. In there you state:

27 The JCCA recommends allocating  
28 \$353.5 million in excess liability

1 insurance premiums across all lines  
2 of PG&E business. Right?

3 A Yes.

4 Q Do you agree that that  
5 recommendation is actually the same as PG&E's  
6 recommendation in this proceeding?

7 A You'd have to point me to that.

8 Q Okay. All right. The purpose of  
9 this liability insurance is to ensure against  
10 third-party liability claims from all of  
11 PG&E's lines of business; is that right?

12 A I'm sorry. Can you repeat the  
13 question?

14 Q Sure. The purpose of this  
15 liability insurance is to ensure against  
16 third-party liability claims from all of  
17 PG&E's lines of business; is that right?

18 A I believe that's correct.

19 Q Okay. So if there was a liability  
20 claim related to PG&E's gas storage  
21 facilities or its gas pipelines or its  
22 generation facilities, it would all come out  
23 of the same pool of insurance?

24 A That's my basic understanding,  
25 though I don't have detailed knowledge of  
26 exactly how things are packaged together or  
27 not.

28 Q Understand. Thank you. And then

1 do you agree that liability insurance expense  
2 is currently classified as an administrative  
3 and general expense and functionalized as a  
4 common cost?

5 A I believe that's correct.

6 Q Do you know if this is the same  
7 approach to liability insurance that PG&E has  
8 used in it's rate cases since 2007?

9 A I don't know.

10 Q Okay. To your knowledge, was the  
11 treatment of PG&E's expenses for liability  
12 insurance programs revised after the 2010 gas  
13 pipeline explosion in San Bruno?

14 A I do not know.

15 Q What about the Aliso Canyon gas  
16 storage leak in Southern California Edison's  
17 territory?

18 A I do not know.

19 Q What about the Oroville Dam  
20 spillway issues that occurred in the winter  
21 of 2016 to 2017?

22 A I don't know.

23 Q Okay. Thank you. Can you please  
24 turn to page 6 of your rebuttal?

25 A I'm there.

26 Q Between lines 6 to 10, you discuss  
27 your trend line analysis and Cal Advocates'  
28 averaging analysis; is that right?

1           A    Correct.

2           Q    So you do not take a position as to  
3 whether or not Cal Advocates' analysis or  
4 your analysis should be adopted to allocate  
5 the access liability insurance premium costs;  
6 is that right?

7           A    I don't have a position as to which  
8 analysis yields the best number of those  
9 analyses.

10          Q    Okay. So the amount allocated --  
11 strike that please.

12                   So the appropriate amount of  
13 liability insurance attributed to wildfire  
14 risk here and therefore allocated to  
15 distribution could be 238 million, 254  
16 million or 300 million, right?

17          A    That's the range of numbers.

18          Q    Based on your testimony. Okay.  
19 Thank you.

20                   And when PG&E purchases insurance,  
21 are all of the liability risks that PG&E  
22 insures against priced together in one  
23 general coverage policy?

24          A    That I'm not sure of what the  
25 answer is.

26          Q    And looking at your response to our  
27 discovery Exhibit 63, pages 3 to 4, which is  
28 Question 1.5.

1 A Yes.

2 Q In your answer to that question,  
3 you begin stating at the bottom of page 3:  
4 Dr. Earle has not studied this issue  
5 and does not know the extent to  
6 which this is true or whether there  
7 are exceptions.

8 Is that right?

9 A That's right.

10 Q But you do quote PG&E stating:  
11 Insurers have their own unique  
12 models, methods and procedures for  
13 determining how much capacity they  
14 are willing to offer any company and  
15 the price. And the methods used to  
16 price an account generally are  
17 regarded by insurers as trade  
18 secrets.

19 Is that right?

20 A Correct.

21 Q Do you agree with PG&E's statement?

22 A I don't know the extent to which  
23 it's true. It's the little bit of evidence  
24 that I found that suggests that, you know,  
25 things are priced together, but exactly how  
26 they are, PG&E seems to find to be a little  
27 mysterious.

28 Q Okay. So do you agree that it is

1 not possible for the Commission to determine  
2 with exact precision the amount of -- the  
3 increase in liability insurance premiums  
4 attributed to wildfire risk?

5 A Impossible is a fairly strong word.

6 Q Would it is be extraordinarily  
7 difficult to do that or would it be difficult  
8 to do that?

9 A So my guess is you could probably  
10 find an insurance expert out there who, given  
11 data, could parse things out and come up with  
12 an opinion as to what they are.

13 Q So you don't know if the Commission  
14 could come up with an exact number here?

15 A Just as a blanket statement, I  
16 don't know. I mean, again, like I said, I  
17 think that the Commission or some other party  
18 given the right data, there are insurance  
19 experts out there who could opine on, "Well,  
20 gee, we think it's this much or that much."  
21 So it's just the strength of what you're  
22 saying that makes it difficult for me to  
23 really say, "Yeah, you're right."

24 Q Okay. Thanks. All right. Looking  
25 at Figure 3 here on page 6, this is your  
26 trend line analysis to determine the amount  
27 of wildfire risk that should be -- or excuse  
28 me, the amount of liability that should be

1       attributable to wildfire risk, right?

2               A     Correct.

3               Q     And how this is done is you take  
4       the years 2013 to 2017 to create a trend and  
5       then you extend that out to 2020, which is  
6       where if that trend had continued, you would  
7       have thought the wildfire -- or excuse me,  
8       you would have thought the liability  
9       insurance premium would have landed; is that  
10      right? That's the red dot?

11              A     Yeah. I should have used your  
12      words into my testimony.

13              Q     And the grayed-out above that is  
14      what PG&E is forecasting for 2010; is that  
15      right?

16              A     That's correct.

17              Q     Okay. So in this case if there --  
18      strike that. Excuse me.

19                    So if there's more than one major  
20      cause of an increase in liability for PG&E,  
21      such as, for example, the failure of a large  
22      hydroelectric dam, how would your trend line  
23      analysis incorporate there being more than  
24      one large cause of increase in liability  
25      insurance premiums?

26              A     So this is why I think that it's  
27      important to look at a variety of  
28      calculations where the underlying assumptions

1 may be a bit different. And so, Cal  
2 Advocates did it one way. I did it two other  
3 ways and I think each way has implications  
4 for how you understand different events may  
5 or may not be incorporated. But this sort of  
6 doing things with a variety of ways is  
7 sometimes referred to as sensitivity  
8 analysis. I mean these are all very simple  
9 calculations, but the idea here is to say,  
10 "Okay. If we change the hypothesis a little  
11 bit, what's the change in the answer we get?"

12 Q So that would be pretty complex to  
13 do that?

14 A Oh, well, I think in a fairly  
15 simple way, that's what I present in my  
16 testimony is saying, "Well, there's Cal  
17 Advocates' estimate saying, 'Well, let's look  
18 at the average levels.'" And then the two  
19 different ways I did it where I said, "Well,  
20 let's look at the trend line from 2013 to  
21 2017," is a second way. And the third way is  
22 to look at the trend line from 2013 to 2016.

23 Q Right. But if there was more than  
24 one cause, then you would need to do  
25 sensitivity analysis; is that what I heard  
26 you say earlier?

27 A I don't think that is what I said.  
28 I think what I was trying to explain was that



1 if you do calculations in different ways,  
2 then that helps give you some confidence  
3 because you're using different assumptions of  
4 what a good range might be.

5 Q Okay. So if there was a second  
6 cause to the increase in liability insurance,  
7 how would you parse it out using your trend  
8 line analysis between the red dot and the  
9 gray dot? How would you attribute that to  
10 more than one cause?

11 A So, if there were another cause, I  
12 think as I mentioned somewhere, not all of  
13 the costs to the year 2017 and earlier were  
14 wildfire costs. They weren't all gas costs.  
15 There was undoubtedly some mixture.

16 So, while you can't say with  
17 precision that those -- that, you know, what  
18 that mix is, it's clear before there's a mix  
19 and after there's a mix, but the big events  
20 seemed to be focused around wildfires.  
21 That's what PG&E states.

22 Q All right. Let's change gears one  
23 last time here then.

24 Let's go to the Community Wildfire  
25 Safety Program testimony in your rebuttal.  
26 All right. If you go to page 2 lines 10 to  
27 11.

28 A Yes.

1           Q    Okay.  There you state the CWSP  
2 costs should be allocated to the electric  
3 distribution function, correct?

4           A    Correct.

5           Q    And your position there is based on  
6 the cost causation principal, right?

7           A    Correct.

8           Q    So the idea there is, because  
9 PG&E's distribution system caused the  
10 wildfires, the CWSP should be allocated to  
11 the distribution function.

12           MS. GANDESBERY:  Objection.  No  
13 foundation.

14           ALJ LAU:  I believe Mr. Lindl did set a  
15 foundation as to the electric distribution  
16 costs were set to -- can you elaborate,  
17 Ms. Gandesbery?

18           MS. GANDESBERY:  We're talking -- I  
19 think the question perhaps inadvertently was  
20 talking about what has caused fires.  I think  
21 the testimony is about PG&E's programs going  
22 forward as to the wildfire hardening program.

23           ALJ LAU:  Mr. Lindl, can you ask your  
24 question again?

25           MR. LINDL:  Well, the witness had  
26 testified that the cost should be allocated  
27 to the electric distribution function based  
28 on the cost causation principal.  And so I'm

1 asking if the length there is that whether  
2 that is based on his belief that PG&E's  
3 distribution system caused the wildfires.

4 MS. GANDESBERY: I object. There is no  
5 foundation that this witness is prepared to  
6 testify about the cause of any wildfires.

7 ALJ LAU: And it is just Mister  
8 -- Dr. Earle's opinion, so I'm going to  
9 overrule that and have Mr. Lindl -- Dr. Earle  
10 answer to the best of his knowledge.

11 THE WITNESS: So my understanding of  
12 the CWSP programs that are being asked for  
13 recovery in this GRC are programs that are  
14 electric distribution programs. And so I  
15 believe there are also wildfire mitigation  
16 programs that have to do with transmission  
17 that are not part of this.

18 So, by cost causation, I mean you're  
19 doing work on the electric distribution  
20 system to prevent problems with the electric  
21 distribution system.

22 And so just like the analogy I make  
23 in my testimony, I shouldn't have to pay for  
24 my neighbor's brakes, just because it makes  
25 me safer.

26 The electric -- the programs we're  
27 talking about for CWSP that are relevant for  
28 this proceeding are programs that are

1 electric distribution programs.

2 BY MR. LINDL

3 Q If there are programs within the  
4 CWSP that address PG&E's generation  
5 resources, should those be allocated to  
6 generation?

7 MS. GANDESBERY: Objection. No  
8 foundation.

9 MR. LINDL: Okay.

10 ALJ LAU: Did you want to withdraw it?

11 MR. LINDL: I can rephrase it.

12 ALJ LAU: You can try rephrasing it.

13 BY MR. LINDL:

14 Q Sure. So if some of the  
15 firefighter teams that PG&E has deployed as  
16 part of the CWSP would work on generation  
17 resources, should the costs of those man  
18 hours be allocated to generation resources?

19 A By "work on," can you define that  
20 for me?

21 Q Work to protect from wildfire  
22 damage.

23 A It's an interesting question that I  
24 guess I have not quite -- I have not quite  
25 studied and it makes me wonder, because if  
26 you have an electric -- if you have  
27 firefighter teams or whatever function that  
28 you establish primarily for, or intentionally

1 completely for electric distribution, then it  
2 would seem to me, well, it's electric  
3 distribution that the costs should get  
4 allocated to.

5 Now, after the fact sort of saying,  
6 "Well, there's a wildfire, should we -- you  
7 know we saved some generation plant, should  
8 the generation plant be on the hook for those  
9 costs?" You know, why that should apply to  
10 PG&E generation but not to Calpine's  
11 generation, you know, I'm not sure, I mean,  
12 on that.

13 Q So, you don't know?

14 A The way you have phrased the  
15 question, the way I understand it is sort of  
16 well, after the fact; they provide services  
17 that, you know, just they were the people on  
18 the spot. How do you bill that later?

19 Q Okay.

20 ALJ LIRAG: I don't think there was an  
21 answer. Is it yes or no or you are not sure?

22 THE WITNESS: I guess given his  
23 question, I'm not sure.

24 ALJ LIRAG: All right. Thank you.

25 MR. LINDL: I don't have any further  
26 questions, your Honor.

27 Thank you, Doctor.

28 THE WITNESS: Thank you.

1 ALJ LAU: PG&E, do you have any  
2 questions for Dr. Earle?

3 MS. ZIMNEY: We do. Thank you.

4 CROSS-EXAMINATION

5 BY MS. ZIMNEY:

6 Q Good afternoon, Dr. Earle.

7 A Good afternoon.

8 Q Today I will be asking you some  
9 questions about your recommendation in  
10 Section 4-C of your testimony which is  
11 hearing Exhibit 61 and this is your  
12 recommendation to reject PG&E's proposal to  
13 close 17 of its customer service offices or  
14 CSOs.

15 And first I wanted to discuss your  
16 Statement of Qualifications provided in  
17 Attachment H to that exhibit.

18 It states that your areas of  
19 expertise are in electric power sector  
20 modeling, economics of environmental  
21 mitigation, electric power and gas markets,  
22 regulatory policy and ratemaking, demand  
23 response and system optimization; is that  
24 correct?

25 A Yeah. I don't have a copy of that  
26 in front of me, but that sounds --

27 Q Would you like a moment to have one  
28 or to get a copy?

1           A    I think that's okay.

2           Q    And you have done work in  
3 electricity sector structure and regulation,  
4 market modeling, environment evaluation and  
5 corporate strategy, correct?

6           A    Correct.  Actually, if I might have  
7 a copy, that would be -- I apologize.

8           ALJ LAU:  Let's go off the record.  
9                   (Off the record.)

10          ALJ LAU:  Let's go back on the record.

11         BY MS. ZIMNEY:

12          Q    Would you like me to repeat the  
13 question?  Are you comfortable with your  
14 answer?

15          A    If you don't mind, please.

16          Q    Sure.  You have done work in  
17 electricity sector structure and regulation,  
18 market modeling, environment evaluation and  
19 corporate strategy, correct?

20          A    Correct.

21          Q    And you have published works on  
22 most if not all these matters, correct?

23          A    Correct.

24          Q    Does Attachment A of your testimony  
25 contain a complete list of your published  
26 works?

27          A    The ones that have to do with my  
28 professional résumé we're talking about here.

1 Q Sorry?

2 A I'm sorry. So you asked -- I  
3 believe the question -- well, please repeat  
4 the question.

5 Q Sure. I can repeat the question.  
6 Is the list of published works set  
7 in Attachment H, is that a complete list or  
8 are there others that aren't shown in that  
9 list?

10 A So, I believe it's the complete  
11 list that is relevant in this proceeding. I  
12 have published poetry and other things, which  
13 I don't think are relevant but --

14 Q That's wonderful. Thank you.  
15 Maybe we can clear it up in my next question.

16 So have you done any publications  
17 or research on insurance?

18 A No.

19 Q Have you done any publications or  
20 research on insurance underwriting?

21 A No.

22 Q And I didn't see anything in your  
23 list of publications about customer care or  
24 customer service on there either; is that  
25 correct?

26 A Correct.

27 Q And in your work in electricity  
28 sector structure and regulation, you don't



1 list any work done in customer service or  
2 customer care there, do you?

3 A I don't believe I do.

4 Q So turning to your -- the body of  
5 your testimony on page 38, starting at  
6 line 19, you note that:

7 Among those CS0 customers surveyed  
8 by PG&E, 40 percent of surveyed  
9 customers like the customer -- like  
10 the service offered at the CS0.  
11 Correct?

12 A I'm sorry. Which line are you  
13 looking at?

14 Q Starting at line 19 on page 38.

15 A Well, just to be exact, it's  
16 40 percent of those surveyed said they like  
17 it. It could be more that liked it, but  
18 40 percent surveyed liked it.

19 Q And then you state on page 39  
20 starting on line 5 that 40 percent of  
21 customers surveyed had never used any other  
22 payment method, correct?

23 A Yes.

24 Q Is it possible that some of these  
25 customers haven't tried other services just  
26 because they're not aware of them?

27 A I don't know, though, I think  
28 somewhere if I can turn and find the figure,

1 a high percentage do pay other utility bills  
2 other than in person. So, they seem to be  
3 aware that for other utilities there are  
4 other methods to pay bills. ]

5 Q So your testimony in this section,  
6 though, isn't that 40 percent of the  
7 customers surveyed disliked other payments  
8 methods, is it?

9 A I think what is significant is the  
10 fact that you have so many who, for their  
11 other utility bills, know that they pay them  
12 in other ways and that you have 60 percent of  
13 those who visit the CSO who have tried other  
14 methods but yet they still visit the CSO. So  
15 I think what that indicates is that there is  
16 some revealed preference at work whereby,  
17 yeah, they've tried internet or mail, maybe  
18 more than one. I think -- looking at your  
19 survey results, I think it must be some of  
20 them have tried more than one. Yet at the  
21 time they were surveyed, they were using --  
22 they weren't using the CSO.

23 Q On page 46, starting at line 17 of  
24 your testimony, you state that if everyone  
25 who receives an electronic bill also receives  
26 a paper bill, that implies over half of all  
27 customers prefer paper; is that correct?

28 A Yes.

1           Q    You then concluded that this  
2           indicates that while it may be true that  
3           PG&E's customers are moving towards  
4           increasingly using electronic methods of  
5           interacting with PG&E, there still is a  
6           substantial part of PG&E's customers who  
7           prefer more traditional methods of  
8           interacting with PG&E; is that correct?

9           A    Correct.

10          Q    How do you define "traditional  
11          methods of interacting with PG&E"?

12          A    I would say things like in person  
13          or mail but not electronic means.

14          Q    Would you consider calling more  
15          traditional methods?

16          A    Well, it's more traditional than  
17          internet.

18          Q    Do you have any data to support  
19          that customers who receive paper bills  
20          actually prefer in person or mail for  
21          interacting with PG&E?

22          A    I think the evidence is the fact  
23          that they prefer to get a paper bill. Now,  
24          what they do with the paper bill is maybe  
25          another question. But the fact that it  
26          appears that they prefer to receive a paper  
27          bill means that they are not going to be  
28          people who say, "Oh, I got a paper bill. I'm

1 going to go on the internet."

2 Q Is it possible that those who  
3 receive paper bills just don't know that  
4 there's a paperless option?

5 A You know, I -- I -- I can only  
6 speak from my own experience, which is --  
7 which is any paper bills I get these days,  
8 they almost always urge me to go paperless.

9 Q So is it possible that those other  
10 people just haven't seen that?

11 A It's possible.

12 Q Is it possible that they may know  
13 about it but just haven't taken the time to  
14 actually cancel their paper bill?

15 A That's possible.

16 Q Looking at pages 39 to 40, starting  
17 at line 18, you state that Albertsons and  
18 Vons eliminated self-checkout lanes from 96  
19 of its 352 stores in Southern California in  
20 an effort to give better one-on-one service  
21 to shoppers; is that correct?

22 A That's correct.

23 Q That was a quote from the Daily  
24 News?

25 A That was a quote from -- yeah,  
26 originally it appeared in the Orange County  
27 Register.

28 Q But your citation is to the Daily

1 News, right?

2 A That was the available citation.

3 Q In that same article, did a  
4 spokesperson for Albertsons also state, "Our  
5 focus is on providing full service and  
6 attention to our consumers, which includes a  
7 friendly checker to serve them"?

8 A I'd have to pull up the article.

9 Q Do you need a copy?

10 ALJ LAU: Let's go off the record.

11 (Off the record.)

12 ALJ LAU: Let's go back on the record.

13 BY MS. ZIMNEY:

14 Q The quote I'm looking at is on the  
15 first page of the Albertsons, Vons getting  
16 rid of most self-checkout lanes at Southern  
17 California stores. I think it's the third  
18 paragraph.

19 A Mm-hmm. I'm there.

20 Q So the spokesperson stated, "Our  
21 focus is on providing full service and  
22 attention to our customers, which includes a  
23 friendly checker to serve them." Correct?

24 A Correct.

25 Q There wasn't any mention in that  
26 article that the self-checkout was actually  
27 prohibitive to a customer's ability to check  
28 out at the store, was there?

1           A    So there are a couple of different  
2   relevant points in the article. The second  
3   is on -- the first of those is on page 2 of  
4   4. It's the second paragraph where it says,  
5   "In areas where we have more tech savvy  
6   customer base, like Northern California,  
7   there are more stores that have them,"  
8   referring to self-checkout lanes. In stores  
9   where self-checkouts aren't as popular, a  
10  division might put in more express lanes,  
11  spokeswoman Christine Wilcox said." So that  
12  has to do with Albertsons.

13               And I -- so -- can you repeat your  
14  question, because I think the first one I  
15  read was relevant, but maybe the second one  
16  won't be.

17           Q    Sure. My question was whether the  
18  article discussed the self-checkout being  
19  prohibitive to a customer's ability to  
20  complete their transaction.

21           A    I think what the article focuses on  
22  is preference, and I think the implication of  
23  the quote on page 2 is where you have a tech  
24  savvy customer base -- that's going to be  
25  easier for people who are tech savvy to do  
26  the self-checkout as opposed to areas where  
27  they are not, obviously because, well, if  
28  you're not tech savvy, then dealing with this

1 machine with a screen is going to be more  
2 difficult for you.

3 ALJ LAU: Can we do a time check?

4 MS. ZIMNEY: Yes.

5 ALJ LAU: Ms. Zimney, how many more  
6 questions or how many more minutes can you  
7 estimate?

8 MS. ZIMNEY: I can abbreviate it.  
9 Yeah. How many minutes? I would -- it  
10 depends on the length of the answers, but I  
11 would estimate like in 15.

12 ALJ LAU: Okay. Let's -- Ms. Stough,  
13 do you have much redirect?

14 MS. STOUGH: No, not at this time, your  
15 Honor.

16 ALJ LAU: Let's plow through it and  
17 see. Let's go back on the record.

18 THE REPORTER: You were on the record.

19 ALJ LAU: Ms. Zimney.

20 MS. ZIMNEY: Sorry. One moment.

21 Q Are you aware of customer service  
22 options offered by PG&E that would allow  
23 customers to continue to interact with a  
24 friendly cashier if the CSOs were to close --  
25 the proposed CSOs?

26 A I'm sorry. Can you repeat the  
27 question.

28 Q Are you aware of customer service

1 options offered by PG&E that would allow  
2 customers to continue to interact with a  
3 cashier if the proposed CSOs were to close?

4 A Yes.

5 Q What are those options?

6 A The one I'm aware of is the  
7 neighborhood payment center.

8 Q They would also be able to go to  
9 another CSO; is that correct?

10 A In theory, if they had the  
11 requisite ability to get there.

12 Q On page 41, starting on line 1 of  
13 your testimony, you discuss the shadow labor  
14 performed by phone automation. You state  
15 that amongst other issues customers must  
16 learn to navigate a menu tree, correct?

17 A I'm sorry. Can you point me to  
18 that.

19 Q Sure. Starting on line 1 on page  
20 41.

21 A Oh. Yes.

22 Q Did you also discuss customer  
23 frustration with phone automation systems?

24 A Yes.

25 Q Are you a PG&E customer?

26 A Yes.

27 Q Have you used PG&E's phone line to  
28 pay your bill or obtain other services?



1 A Yes.

2 Q Did the process -- was the process  
3 with an automated system or with a customer  
4 service representative?

5 A So if you'd like me to relate my  
6 own experience, a couple days ago I called  
7 the PG&E customer service line to find out  
8 whether, in fact, I was opted out of Clean  
9 Power SF. I apologize, but -- and I  
10 navigated through the system and ended up at  
11 the end where it was basically "all other  
12 options press 4," I think it was. And after  
13 six minutes waiting, the call dropped. So  
14 then I tried again. And I asked -- well,  
15 there's a point where you can either, I  
16 think, press a button or state what the  
17 option is, and I said, you know, "I want to  
18 find out opt-out status for Clean Power SF."  
19 And it asked me something like "Oh, you want  
20 to inquire about shutoff, right?" So I had  
21 this back-and-forth for a bit. And then I  
22 said, "Customer service," "customer service."  
23 And then after a few more minutes, I got to a  
24 person, who was quite helpful.

25 Q Thank you. So -- I'm sorry -- the  
26 original question was whether or not you had  
27 used PG&E's phone line to pay your bill?

28 A Oh. I thought you said to pay my

1 bill or for some other purpose.

2 Q I apologize. To clarify, it was  
3 for to pay your bill.

4 A I don't think I ever have.

5 Q And so you aren't familiar with  
6 that phone tree or whether there is a phone  
7 tree -- or excuse me -- a menu tree, as you  
8 described it?

9 A I'm not familiar with the menu tree  
10 for paying, though. I do remember when I  
11 called the other day there was a number of  
12 options, and one of them was "pay your bill."  
13 So at least there's one level you have to go  
14 through.

15 Q But all you know of is one level?

16 A Yeah. That's fair.

17 Q On page 41, starting at line 12,  
18 you stated that seniors may have various  
19 challenges in using self-service  
20 technologies. What did you mean by  
21 "self-service technologies"?

22 A Technologies where basically you  
23 don't have a human operator or human assist  
24 readily at hand including phone systems,  
25 internet, self-checkout.

26 Q Okay. But is it your opinion that  
27 seniors would have a problem paying a bill by  
28 mail?

1           A    I'm not stating that.

2           MS. ZIMNEY:   Just a moment.

3           ALJ LAU:   Let's go off the record.

4                   (Off the record.)

5           ALJ LAU:   Back on the record.

6   BY MS. ZIMNEY:

7           Q    To go back to your comparison to  
8   the other automated systems -- actually,  
9   strike that.   I apologize.

10                   On page 39, line 9 of your  
11   testimony, you criticize PG&E's claim that  
12   CSOs proposed for closure are no longer  
13   needed to provide efficient and  
14   cost-effective service, asking for whom the  
15   closure is efficient and cost-effective.

16                   To use an extreme example, if the  
17   CSO remained open because there was one  
18   customer who was continuing to use that CSO  
19   because he or she preferred it, could it be  
20   cost-effective to that one customer to  
21   continue using that CSO?

22           A    Yes.   But I don't think that's what  
23   we're talking about here.

24           Q    Fair.   It's noted that it was an  
25   extreme example.

26                   But that would not be  
27   cost-effective for PG&E or its ratepayers,  
28   would it?

1           A    Again, I don't think that's what  
2   we're talking about here. I think what we're  
3   talking about are CSOs that have many more  
4   than one customer that uses them that exhibit  
5   preference for using them even though they've  
6   used other methods and customers who are  
7   disproportionately poor and disadvantaged.

8           Q    Do you agree that PG&E, as a  
9   regulated utility, must balance customer  
10  preference with the cost to ensure reasonable  
11  rates for its customers?

12          A    So I did use the word "preference,"  
13  and I guess I would say is, you know, we're  
14  not -- we're not talking simply about  
15  customers saying, "Oh, well, you know, I'd  
16  like this -- I like this a little bit  
17  better." I think the real question at issue  
18  is whether it's being made more difficult for  
19  precarious and vulnerable communities to  
20  attain service and to be able to pay for  
21  service.

22                I mean, what you said is sort of  
23  motherhood and apple pie. I don't know  
24  whether that saying is still politically  
25  correct. But it's -- so, yes, balances have  
26  to be made, but I don't think that the  
27  balance that's proposed by closing the CSOs  
28  is -- actually achieves that.

1 ALJ LIRAG: Let's try to go just a  
2 little bit faster --

3 THE WITNESS: Okay. I'm sorry.

4 ALJ LIRAG: -- Dr. Earle. So when  
5 Ms. Zimney asks a question, probably just  
6 answer it without the extra explanation. If  
7 you believe it merits an extra explanation, I  
8 believe we have excellent counsel for that,  
9 to direct. And then if anything needs to be  
10 corrected, then she can go and redirect and  
11 clarify it, but --

12 THE WITNESS: Okay.

13 ALJ LIRAG: -- but I think saying, "I  
14 don't think that's related. I think we're  
15 talking about a different topic," that is  
16 slowing things down a little bit. So just  
17 answer to the best of your ability. If  
18 counsel objects to it or believes it's not  
19 related to the topic, then she'll step in at  
20 the right moment.

21 THE WITNESS: Okay.

22 ALJ LIRAG: And then the last resort,  
23 of course, is the briefs, which counsel can  
24 explain that this is what happened, but this  
25 is not related to that. All right?

26 THE WITNESS: Thank you. I apologize.

27 ALJ LIRAG: Let's proceed.

28 ALJ LAU: Let's go off the record.

1 (Off the record.)

2 ALJ LAU: Let's go on the record.

3 We're going to take a five-minute  
4 break.

5 Off the record.

6 (Off the record.)

7 ALJ LAU: Let's go back on the record.

8 Ms. Zimney, you may presume.

9 MS. ZIMNEY: Thank you.

10 Q You noted on page 20 of your  
11 testimony, lines 4 to 6, that grocery store  
12 customers don't have -- excuse me -- that  
13 don't like self-checkout can go to another  
14 store but that PG&E customers have no  
15 alternatives, correct?

16 A I'm sorry. You said page 40?

17 Q Page 40, lines 4 to 6.

18 A Yes.

19 Q But you acknowledged earlier that  
20 there are alternatives in paying by phone or  
21 by mail or by going to an NPC; is that  
22 correct?

23 A Yes. But this doesn't refer to the  
24 payment method. It refers to the fact that  
25 there is competition amongst stores in a way  
26 there isn't with a regulated monopoly.

27 Q But PG&E customers have an  
28 alternative to what -- the analogy it seems

1     you're drawing to an automated checkout  
2     system by going to an NPC or by paying by  
3     phone or paying by mail, correct, they are  
4     alternatives for payment methods?

5             A     So I'm sorry. Can you repeat the  
6     question? There's a lot in there.

7             Q     You acknowledged earlier that there  
8     are alternative payment methods for PG&E  
9     customers for paying their bills other than  
10    by paying in a CSO; is that correct?

11            A     Yes.

12            Q     And one of those is by going to an  
13    NPC?

14            A     Yes.

15            Q     Have you ever paid at an NPC?

16            A     No.

17            Q     Are you familiar with their hours  
18    of operation?

19            A     No.

20            Q     So you're not aware that they  
21    are -- that some are open nights and  
22    weekends?

23            A     No.

24            Q     Are you familiar with the fact that  
25    they are located in shopping centers?

26            A     I have not studied NPCs or their  
27    characteristics.

28            Q     Would you consider it possibly more

1 convenient for a customer to be able to pay  
2 their groceries and then also pay their PG&E  
3 bill in the same location?

4 A I'm sorry. Could you repeat that?

5 Q Would you consider it possibly more  
6 convenient for a customer to be able to buy  
7 their groceries and pay their PG&E bill in  
8 the same location more than paying at a CSO?

9 A You know, I don't know.

10 Q You mention in your testimony on  
11 page 39, line 10 that while automation may  
12 provide some benefits to some, for others it  
13 involves providing shadow labor to private  
14 enterprises.

15 How did you define "shadow labor"?

16 A So shadow labor, as I say in the  
17 next line, is labor formerly provided by a  
18 firm but is now performed by customers.

19 Q And you say to that, "PG&E should  
20 have been -- should have surveyed  
21 customers" -- excuse me. This is on page 46,  
22 starting on line 12. "PG&E should be serving  
23 customers who do not visit CSOs to learn  
24 their thoughts on high-tech options; is that  
25 correct?

26 A Well, what I say is it is not clear  
27 that the non-CSO visitors are really keen on  
28 high-tech options.



1           Q    Is PG&E's proposal regarding CSOs  
2   to transition customers -- CSO customers to  
3   high-tech options?

4           A    PG&E's proposal is to close 17  
5   CSOs.

6           Q    So you would say that it's not to  
7   transition those customers to high-tech  
8   options?

9           A    Well, amongst the options that are  
10   mentioned for customers, if those CSO  
11   disappear, are high-tech options.

12          Q    You're here representing the  
13   Coalition of California Utility Employees,  
14   correct?

15          A    Correct.

16          Q    So you represent the interest of  
17   those employees?

18          A    Correct.

19          Q    So is the concern about preserving  
20   options for customers or is it from  
21   transitioning labor from employees to those  
22   high-tech options?

23          A    The concern in my testimony is for  
24   PG&E's customers.

25          MS. ZIMNEY:   Okay.   I have no further  
26   questions.

27          ALJ LAU:   Ms. Stough, do you have any  
28   redirect?

1 MS. STOUGH: Yes, your Honor.

2 ALJ LAU: Please proceed.

3 REDIRECT EXAMINATION

4 BY MS. STOUGH:

5 Q Dr. Earle, what are your  
6 qualifications and/or background on  
7 technology?

8 A So I think most relevant to the --  
9 my testimony on the CSOs is for the last  
10 three years I've been teaching artificial  
11 intelligence classes at the University of  
12 Zurich to master's students who are either  
13 generally economics or business students.

14 And part of the focus of the  
15 classes is to talk about, well, what are the  
16 methods. And part of it is how does this  
17 work? What are the applications?

18 MS. STOUGH: Thank you. No other  
19 questions.

20 ALJ LAU: All right.

21 ALJ LIRAG: Any redirect off that,  
22 Ms. Zimney?

23 MS. ZIMNEY: No. Thank you.

24 ALJ LAU: So let us --

25 ALJ LIRAG: I meant recross. Sorry.

26 ALJ LAU: Yeah. So let's -- we have in  
27 front of us Exhibit 41 -- 61 to 64. Is there  
28 a motion to move 61 and 62 into evidence?

1 MS. STOUGH: CUE seeks to move Exhibit  
2 61 and 62 into the record, your Honor.

3 ALJ LAU: Are there any objections?

4 MS. GANDESBERY: No objections.

5 ALJ LAU: Hearing none, 61 and 62 are  
6 moved into the record.

7 (Exhibit No. 61 was received into  
8 evidence.)

9 (Exhibit No. 62 was received into  
10 evidence.)

11 ALJ LAU: Are there any motions to move  
12 63 and 64 -- Exhibit 63 and Exhibit 64 into  
13 the record?

14 MR. LINDL: Yes, your Honor. Tim Lindl  
15 on behalf of the Joint CCAs. We can withdraw  
16 Exhibit 64.

17 ALJ LAU: So you are moving Exhibit 63  
18 into the record?

19 MR. LINDL: We would like to move  
20 Exhibit 63 into the record, yes, please, your  
21 Honor.

22 ALJ LAU: Are there any objections to  
23 moving Exhibit 63 into the record?

24 MS. GANDESBERY: Your Honor, is this  
25 CUE's response to CCA Data Request 1?

26 ALJ LAU: Yes, that is correct.

27 MS. GANDESBERY: No objection.

28 ALJ LAU: Hearing none, Exhibit 63 is  
moved into the record.

1 (Exhibit No. 63 was received into  
2 evidence.)

3 ALJ LAU: Judge Lirag. ]

4 ALJ LIRAG: What?

5 ALJ LAU: Would you like to make some  
6 closing remarks?

7 ALJ LIRAG: Ms. Shek had something to  
8 raise.

9 MS. SHEK: Thank you, your Honor.  
10 Your Honor, earlier this morning  
11 Mr. Roberts and Mr. Hawiger questioned  
12 Ms. Cullings on the various PG&E requests  
13 made under the electric distribution  
14 maintenance program. And some of their  
15 questions related to staffing or necessary  
16 staffing for these requests, but Ms. Cullings  
17 was unable to answer some of those questions.

18 We just wanted to state for the  
19 record that PG&E has agreed to determine who  
20 might be the best witness to address some of  
21 these staffing issues as it relates to PG&E's  
22 request for electric distribution  
23 maintenance.

24 ALJ LIRAG: All right. And which  
25 witness is this?

26 MS. SHEK: They are still working on  
27 that.

28 ALJ LIRAG: All right. Can you confirm

1 Ms. Shek's statement?

2 MS. GANDESBERY: Yes, your Honor.

3 ALJ LIRAG: All right. That's fine.

4 Let us know when you have worked it out.

5 MS. SHEK: Thank you.

6 ALJ LIRAG: And remind us when the time  
7 is right for us to be aware of that.

8 All right. Let's excuse Dr. Earle.  
9 Thank you.

10 THE WITNESS: Thank you.

11 ALJ LIRAG: All right. So, before we  
12 conclude our first week of hearings, let me  
13 just say that we'll continue again on  
14 September 30th, Monday, and then we have, I  
15 guess, Mr. Glover, Mr. Patterson, Ms. Ong and  
16 the deferred work panel witnesses. I guess  
17 we'll see Mr. Abranches again. So that is  
18 for Monday.

19 We will have a full week on Monday  
20 in exchange for the somewhat lighter schedule  
21 this week.

22 And so, this is a note to all the  
23 parties that because we had extra time during  
24 today's hearing and on Wednesday, we were  
25 letting it -- we were not rushing parties in  
26 their questioning, but I think because we  
27 have a full schedule next week, we might be a  
28 little stricter on time, not meaning we'll

1 cut your questioning, but we'll try to move  
2 things a little bit faster.

3 Any questions regarding that? All  
4 right.

5 Ms. Goodson.

6 MS. GOODSON: Thank you, your Honor,  
7 just a statement actually, not a question.

8 So already there are changes in  
9 order for the schedule for next week and I  
10 imagine there may be more as we go along.

11 But thus far we can report that  
12 Ms. Ong for her role on the aviation panel  
13 will no longer be cross-examined by TURN --  
14 that's right -- her testimony on plant as  
15 part of the aviation panel.

16 ALJ LIRAG: All right. If there's  
17 schedule changes on the positive side,  
18 meaning that the schedule would be a little  
19 lighter, then we don't have to police the  
20 time, the cross-examination estimates too  
21 much. That's all I can say. I think  
22 Mr. Hawiger will be familiar with this  
23 because I did hurry him on several other  
24 occasions.

25 All right. With that, any last  
26 words from Judge Lau?

27 ALJ LAU: No.

28 ALJ LIRAG: All right. Thank you,

1 everyone. This was a good first week for all  
2 of us.

3 Let's adjourn until Monday, 9:30.

4 Thank you, everyone. Off the record.

5 (Whereupon, at the hour of 2:55  
6 p.m., this matter having been continued  
7 to 9:30 a.m., September 30, 2019, at  
San Francisco, California, the  
Commission then adjourned.) ]

8 \* \* \* \* \*

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

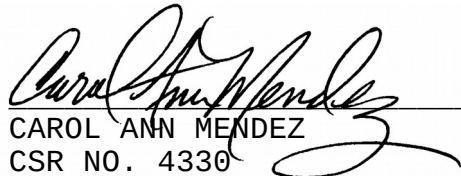
BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE  
STATE OF CALIFORNIA

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

I, CAROL ANN MENDEZ, CERTIFIED SHORTHAND REPORTER  
NO. 4330, IN AND FOR THE STATE OF CALIFORNIA, DO  
HEREBY CERTIFY THAT THE PAGES OF THIS TRANSCRIPT  
PREPARED BY ME COMPRISE A FULL, TRUE, AND CORRECT  
TRANSCRIPT OF THE TESTIMONY AND PROCEEDINGS HELD IN  
THIS MATTER ON SEPTEMBER 27, 2019.

I FURTHER CERTIFY THAT I HAVE NO INTEREST IN THE  
EVENTS OF THE MATTER OR THE OUTCOME OF THE PROCEEDING.

EXECUTED THIS OCTOBER 03, 2019.

  
CAROL ANN MENDEZ  
CSR NO. 4330



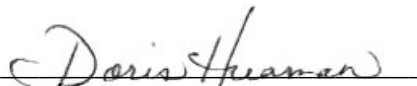
BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE  
STATE OF CALIFORNIA

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

I, DORIS HUAMAN, CERTIFIED SHORTHAND REPORTER  
NO. 10538, IN AND FOR THE STATE OF CALIFORNIA, DO  
HEREBY CERTIFY THAT THE PAGES OF THIS TRANSCRIPT  
PREPARED BY ME COMPRISE A FULL, TRUE, AND CORRECT  
TRANSCRIPT OF THE TESTIMONY AND PROCEEDINGS HELD IN  
THIS MATTER ON SEPTEMBER 27, 2019.

I FURTHER CERTIFY THAT I HAVE NO INTEREST IN THE  
EVENTS OF THE MATTER OR THE OUTCOME OF THE PROCEEDING.

EXECUTED THIS OCTOBER 03, 2019.

  
DORIS HUAMAN  
CSR NO. 10538

<hr/>	<b>1388</b> 1313:20	<b>2008</b> 1255:25,27	<b>2AA</b> 1286:11
<hr/> <b>\$</b> <hr/>	<b>14</b> 1235:7 1321:9 1325:18,20 1328:4 1331:22	<b>2010</b> 1333:12 1337:14	<b>2AP</b> 1242:23,27 1246:2 1279:23 1280:3,14
<b>\$117</b> 1295:9	<b>14-197</b> 1235:9	<b>2013</b> 1308:8 1337:4 1338:20,22	<b>2AR</b> 1242:15 1280:24
<b>\$2,350</b> 1267:9 1274:10	<b>14-199</b> 1235:9	<b>2014</b> 1278:5 1301:17,24	<hr/> <b>3</b> <hr/>
<b>\$20</b> 1297:2,3	<b>15</b> 1353:11	<b>2016</b> 1236:21 1249:18 1250:5 1333:21 1338:22	<b>3</b> 1240:12 1246:27,28 1247:28 1259:2 1269:21 1276:12 1279:21 1302:3,13 1304:6 1307:3 1334:27 1335:3 1336:25
<b>\$200</b> 1268:6,7,21 1279:17	<b>16</b> 1234:16 1235:24,25 1259:14,19 1261:13 1265:24 1292:4 1295:5	<b>2017</b> 1242:9 1278:7 1291:20 1296:13,15 1297:18 1333:21 1337:4 1338:21 1339:13	<b>3-feet</b> 1260:21
<b>\$215</b> 1279:18	<b>17</b> 1312:15 1325:17,19, 20 1328:4 1344:13 1348:23 1363:4	<b>2018</b> 1286:9 1293:8 1295:7 1301:18,24 1308:9,14,15,28	<b>3-foot</b> 1259:5,24
<b>\$250</b> 1279:19	<b>177,000</b> 1284:28	<b>2019</b> 1229:2 1240:6 1293:8 1295:7 1312:15 1314:2,8	<b>300</b> 1334:16
<b>\$353.5</b> 1331:28	<b>18</b> 1234:21,26 1236:18 1238:17 1241:3 1350:17	<b>2020</b> 1295:19,22 1308:24 1337:5	<b>30th</b> 1367:14
<b>\$78</b> 1267:14,20	<b>1858</b> 1234:5	<b>21</b> 1234:25 1235:2 1240:5,12	<b>31</b> 1321:13
<hr/> <b>0</b> <hr/>	<b>19</b> 1266:9 1270:9 1321:8 1347:6,14	<b>23</b> 1271:15 1274:10 1300:9	<b>35</b> 1300:7
<b>010</b> 1240:12	<b>1974</b> 1255:23	<b>238</b> 1334:15	<b>352</b> 1350:19
<hr/> <b>1</b> <hr/>	<b>199</b> 1250:8 1279:22	<b>24</b> 1236:21	<b>36</b> 1250:7
<b>1</b> 1234:17,22,26 1235:8 1240:5 1244:13,15 1246:25 1247:23 1253:2 1254:24,26 1255:2 1258:16 1304:6 1308:15,17 1311:1 1314:15 1323:7 1354:12,19 1365:24	<b>1:15</b> 1311:2	<b>243</b> 1253:2	<b>38</b> 1250:15 1291:16 1347:5,14
<b>1.2(a)</b> 1321:11 1323:1, 13	<b>1:25</b> 1311:4 1312:1	<b>25</b> 1236:24 1240:5 1248:5,18 1249:7 1311:1	<b>39</b> 1250:7,28 1347:19 1350:16 1357:10 1362:11
<b>1.5</b> 1334:28	<hr/> <b>2</b> <hr/>	<b>254</b> 1334:15	<hr/> <b>4</b> <hr/>
<b>10</b> 1234:22 1265:24 1284:2 1302:3,12 1303:9 1307:3 1333:26 1339:26 1362:11	<b>2</b> 1234:26 1235:8 1250:9,28 1254:24 1256:3 1258:25 1259:17 1271:1 1275:14 1304:2 1305:16 1329:13,14 1331:22 1339:26 1352:3,23	<b>26</b> 1235:7 1236:28 1279:23 1314:2	<b>4</b> 1235:26 1236:2 1241:3 1249:11 1266:25 1314:8 1334:27 1352:4 1355:12 1360:11,17
<b>10,000</b> 1299:5	<b>2(a)</b> 1284:12	<b>26-A</b> 1238:5,9,25	<b>4-C</b> 1344:10
<b>11</b> 1246:28 1277:11 1339:27	<b>2,000</b> 1304:28	<b>26-B</b> 1238:15,17,20,25	<b>40</b> 1252:28 1253:6 1347:8,16,18,20 1348:6 1350:16 1360:16,17
<b>11:50</b> 1311:4	<b>20</b> 1234:25 1235:24 1236:17 1237:13 1248:1,8,18 1249:7 1284:1 1294:19 1296:2 1297:12 1300:9 1303:28 1304:13,24 1305:5 1321:9 1360:10	<b>27</b> 1229:2 1235:7 1282:21	<b>41</b> 1293:7 1354:12,20 1356:17 1364:27
<b>12</b> 1249:9 1250:9 1356:17 1362:22	<b>2007</b> 1333:8	<b>27-A</b> 1238:13	<b>4292</b> 1300:16 1303:10
<b>12,000</b> 1286:14		<b>28</b> 1280:11	<b>46</b> 1348:23 1362:21
<b>12/31/15</b> 1253:15		<b>29</b> 1235:8	<b>49</b> 1313:21
<b>120,000</b> 1300:28		<b>29-65</b> 1235:10	
<b>13</b> 1249:12 1325:18,20 1328:4 1331:22		<b>29-68</b> 1235:10	

<hr/> <p style="text-align: center;"><b>5</b></p> <hr/> <p><b>5</b> 1236:2 1292:6,9 1293:5 1302:1,14 1319:15 1347:20</p> <p><b>5/8</b> 1258:16</p> <p><b>50</b> 1253:7,18 1254:18</p> <p><b>51</b> 1258:15</p> <p><b>52</b> 1282:25</p> <p><b>56</b> 1229:19,23,24 1230:8,10</p> <p><b>57</b> 1229:26,28 1230:8, 11</p> <p><b>58</b> 1239:22,28 1241:7 1243:28 1244:14,15,16 1279:15 1310:1,4,8,10</p> <p><b>59</b> 1240:2,7 1241:7,23 1266:8 1310:2,4,9,11</p>	<p>1266:25 1297:22 1301:27 1302:11 1304:4 1310:14,16,17, 26,28 1348:12</p> <p><b>61</b> 1259:1 1313:27 1314:3 1315:12 1344:11 1364:27,28 1365:2,5,7</p> <p><b>613</b> 1280:21</p> <p><b>62</b> 1314:5,9 1315:16 1331:23 1364:28 1365:2,5,8</p> <p><b>63</b> 1314:12,16 1321:12 1322:28 1334:27 1365:11,16,19,22,27 1366:1</p> <p><b>64</b> 1314:18,22 1364:27 1365:11,15</p> <p><b>65</b> 1312:7,16,27 1313:1</p> <p><b>66</b> 1253:14</p> <p><b>68</b> 1254:23,26 1255:1,2 1261:17</p> <p><b>69</b> 1254:25 1256:3</p>	<hr/> <p style="text-align: center;"><b>9</b></p> <hr/> <p><b>9</b> 1259:15,25 1260:19, 28 1261:6,12 1284:6 1308:5 1357:10</p> <p><b>90</b> 1267:6 1268:27 1279:14</p> <p><b>90,000</b> 1298:13,16,28</p> <p><b>93</b> 1269:5</p> <p><b>94</b> 1266:25 1270:11</p> <p><b>94117</b> 1313:22</p> <p><b>95</b> 1247:1</p> <p><b>96</b> 1304:5 1350:18</p> <p><b>99</b> 1233:1</p> <p><b>9:30</b> 1229:2</p> <hr/> <p style="text-align: center;"><b>A</b></p> <hr/> <p><b>a.m.</b> 1229:2 1311:4</p> <p><b>abbreviate</b> 1353:8</p> <p><b>ability</b> 1243:19,22 1250:14 1289:6 1290:21 1307:17 1351:27 1352:19 1354:11 1359:17</p> <p><b>above-</b> 1329:3</p> <p><b>above-market</b> 1324:14 1326:1,13,15 1329:20,28</p> <p><b>Abranches</b> 1367:17</p> <p><b>accept</b> 1304:27</p> <p><b>accepted</b> 1232:27</p> <p><b>access</b> 1334:5</p> <p><b>accompanying</b> 1232:23</p> <p><b>account</b> 1289:12,20 1327:25 1335:16</p> <p><b>accounting</b> 1289:19 1297:18</p> <p><b>accurate</b> 1244:27 1268:9 1271:20 1272:6 1274:18 1279:17</p>	<p><b>achieves</b> 1358:28</p> <p><b>acknowledged</b> 1360:19 1361:7</p> <p><b>acronym</b> 1242:17</p> <p><b>action</b> 1284:11,15,16, 26 1285:18</p> <p><b>activities</b> 1267:13 1282:9,14 1287:25 1288:2,6</p> <p><b>activity</b> 1242:15</p> <p><b>actual</b> 1258:12 1268:22 1274:9,13 1276:25 1293:3 1303:2</p> <p><b>add</b> 1238:24 1257:14, 19,22,23</p> <p><b>added</b> 1236:4,6</p> <p><b>additional</b> 1236:4 1237:10 1257:26 1286:17 1289:20,24 1290:10,23</p> <p><b>additions</b> 1235:19</p> <p><b>address</b> 1232:18 1233:25 1234:4 1237:21 1286:21 1287:20,27 1289:5 1313:18,20 1342:4 1366:20</p> <p><b>addressed</b> 1285:28 1286:8</p> <p><b>addresses</b> 1290:26 1316:20</p> <p><b>addressing</b> 1287:2</p> <p><b>adjustment</b> 1319:2 1329:7</p> <p><b>administrative</b> 1229:4 1333:2</p> <p><b>administratively</b> 1327:23</p> <p><b>admitted</b> 1230:2</p> <p><b>adopt</b> 1315:25</p> <p><b>adopted</b> 1253:28 1320:27 1321:18 1324:22 1334:4</p> <p><b>Advocates</b> 1239:24,25 1240:3,18,24 1250:8</p>
<hr/> <p style="text-align: center;"><b>6</b></p> <hr/> <p><b>6</b> 1234:18,20,27 1235:26 1236:18 1238:7,18 1239:27 1241:3 1294:21 1302:1, 14 1319:15 1333:24,26 1336:25 1360:11,17</p> <p><b>6-12</b> 1276:10</p> <p><b>6-13</b> 1292:9 1295:5</p> <p><b>6-14</b> 1277:11</p> <p><b>6-15</b> 1236:20</p> <p><b>6-20</b> 1294:20</p> <p><b>6-22</b> 1300:6</p> <p><b>6-23</b> 1291:13</p> <p><b>6-25</b> 1277:6</p> <p><b>6-30</b> 1294:22</p> <p><b>6-4</b> 1288:27</p> <p><b>6-45</b> 1235:28 1236:3,14</p> <p><b>6-49</b> 1292:5 1295:5</p> <p><b>6-6</b> 1284:1</p> <p><b>6-7</b> 1308:3</p> <p><b>60</b> 1240:10,14 1258:25</p>	<hr/> <p style="text-align: center;"><b>7</b></p> <hr/> <p><b>7</b> 1240:12 1249:13,28 1277:6 1308:2</p> <p><b>7/31/15</b> 1253:10</p> <p><b>71</b> 1293:7</p> <hr/> <p style="text-align: center;"><b>8</b></p> <hr/> <p><b>8</b> 1236:14 1247:9 1280:21</p> <p><b>8-feet</b> 1258:17,26</p> <p><b>8-foot</b> 1259:10,18</p> <p><b>81</b> 1253:6 1265:23</p> <p><b>810</b> 1321:9</p> <p><b>86</b> 1266:1</p> <p><b>88</b> 1266:7</p> <p><b>89</b> 1266:24</p>		

1253:2 1270:15 1279:22 1310:5 1338:2	1271:24 1272:11,18 1273:1,8,18,24,28 1274:4,25 1276:4 1278:26 1279:4,7,9 1281:15,19,25 1282:22, 26 1285:4 1286:4 1288:3,14 1290:12 1291:1,5,10,26 1292:1, 26 1293:24,28 1294:9, 25,27 1296:14,22,26 1297:5,25,28 1298:3 1302:5,7 1306:26,28 1307:23 1309:6,14,17, 22,23,25,28 1310:6,8, 13,24,26 1311:1 1312:4,10,12,18,20,24, 27 1313:3,6,15,23 1314:5,11,18,24,27,28 1316:3,9 1320:3,6,11 1321:19 1322:13,23 1324:9,11,18,23,27 1325:8,10,12,14 1326:19 1327:2 1330:13 1331:1,6 1340:14,23 1341:7 1342:10,12 1343:20,24 1344:1 1345:8,10 1351:10,12 1353:3,5, 12,16,19 1357:3,5 1359:1,4,13,22,27,28 1360:2,7 1363:27 1364:2,20,21,24,25,26 1365:3,5,10,16,21,25, 27 1366:3,4,5,7,24,28 1367:3,6,11	<b>amount</b> 1260:28 1264:21 1287:24 1295:17 1296:7,27 1320:23 1334:10,12 1336:2,26,28  <b>analogy</b> 1341:22 1360:28  <b>analyses</b> 1334:9  <b>analysis</b> 1269:7,21 1270:1,3 1333:27,28 1334:3,4,8 1336:26 1337:23 1338:8,25 1339:8  <b>and/or</b> 1277:1 1364:6  <b>angry</b> 1297:7  <b>annual</b> 1267:21  <b>answering</b> 1254:15  <b>answers</b> 1304:12 1353:10  <b>anticipate</b> 1289:15  <b>apologize</b> 1248:12 1291:24 1294:8 1345:7 1355:9 1356:2 1357:9 1359:26  <b>apparent</b> 1257:18  <b>appeared</b> 1252:19 1350:26  <b>appearing</b> 1252:20  <b>appears</b> 1250:20 1259:3 1260:18 1349:26  <b>apple</b> 1358:23  <b>applicability</b> 1267:24  <b>application</b> 1256:22  <b>applications</b> 1364:17  <b>applies</b> 1250:3  <b>apply</b> 1269:24 1300:19, 25 1343:9  <b>approach</b> 1333:7  <b>approve</b> 1266:28  <b>approximately</b> 1267:14 1279:17 1283:17 1284:28 1298:13 1308:14	<b>areas</b> 1304:2 1305:11, 16 1344:18 1352:5,26  <b>Argumentative</b> 1272:10 1290:11  <b>Arnold</b> 1233:5  <b>arresters</b> 1236:23 1237:16,17 1242:8,13 1245:14 1251:6,13 1257:21,24 1268:5,17, 21 1269:2 1276:13,17, 20,25,26 1277:8,18,22 1278:1,6 1279:16 1281:9 1291:19 1292:6, 7,12,14 1293:14 1295:7,26 1296:8,12, 16,28 1297:14 1298:18 1299:27  <b>arresters</b> 1240:13 1245:15 1246:12,19,23 1249:14,23 1250:21 1251:17,19 1255:5,8 1261:21 1266:14 1268:10 1269:13,23,26 1276:24 1277:3 1278:17,19,21,22 1279:27 1280:5,15,27 1292:18,20 1298:8,14, 20,22 1299:20 1300:8 1304:1,14  <b>article</b> 1351:3,8,26 1352:2,18,21  <b>artificial</b> 1364:10  <b>asks</b> 1359:5  <b>assessment</b> 1303:3  <b>assets</b> 1250:3  <b>assist</b> 1356:23  <b>assistant</b> 1309:10  <b>assume</b> 1249:23  <b>assuming</b> 1260:26 1278:27  <b>assumption</b> 1252:6  <b>assumptions</b> 1269:7 1337:28 1339:3  <b>at-market</b> 1326:3,17 1328:8  <b>attachment</b> 1234:27 1249:11 1250:9 1266:9,
<b>Advocates'</b> 1333:27 1334:3 1338:17  <b>Advocates-08</b> 1242:5  <b>Advocates-199</b> 1271:15 1280:10  <b>Advocates-59</b> 1249:11 1270:8  <b>Advocates-pg&amp;e-199- tcr</b> 1240:4  <b>afforded</b> 1327:21 1328:22  <b>afraid</b> 1282:19  <b>afternoon</b> 1312:1 1315:5 1316:13,14 1344:6,7  <b>aggregator</b> 1319:21  <b>agree</b> 1241:26 1259:19 1260:11,21 1284:25 1294:13 1297:17 1298:13 1308:9,16 1318:24 1321:26 1322:4 1323:13 1324:13 1326:8 1332:4 1333:1 1335:21,28 1358:8  <b>agreed</b> 1245:3 1323:23 1366:19  <b>agreement</b> 1230:28  <b>ahead</b> 1312:18  <b>Albertsons</b> 1350:17 1351:4,15 1352:12  <b>Aliso</b> 1333:15  <b>ALJ</b> 1229:17,26 1230:1, 4,7,13,15 1231:6,11,22, 27 1232:4,16,24 1233:1,4,11,15,22,28 1234:6 1237:20,22,24, 26 1238:11,14,16,22 1239:16,18 1240:1,9,16 1243:11 1247:15,19 1248:22 1249:1 1251:24,28 1252:8,13, 23,26 1254:4 1255:11 1256:26 1260:2 1264:11,15,26 1265:8, 16,18 1268:11,14	<b>allocate</b> 1334:4  <b>allocated</b> 1334:10,14 1340:2,10,26 1342:5,18 1343:4  <b>allocating</b> 1331:27  <b>allocation</b> 1290:14 1316:22,24  <b>allowable</b> 1247:11,24  <b>aloud</b> 1249:13  <b>alternative</b> 1259:2,4, 15,23 1260:10,17 1266:15,16 1269:9,12, 20,22 1360:28 1361:8  <b>alternatives</b> 1269:22 1360:15,20 1361:4  <b>ambiguous</b> 1327:13		

27 1344:17 1345:24 1346:7	1355:21	1350:14 1354:28	<b>bundled</b> 1320:18
<b>attachments</b> 1229:21, 22 1253:5	<b>background</b> 1252:22 1364:6	1355:27 1356:1,3,12,27 1362:3,7	1322:2 1326:4,16,18 1328:9 1329:11,19,22 1330:1,23,27 1331:14
<b>attain</b> 1358:20	<b>balance</b> 1358:9,27	<b>bills</b> 1348:1,4,11 1349:19 1350:3,7 1361:9	<b>business</b> 1233:24 1313:18,20 1332:2,11, 17 1364:13
<b>attempt</b> 1256:22 1306:9,15	<b>balances</b> 1358:25	<b>bit</b> 1254:5 1288:4 1297:6 1320:7 1328:11, 13,14 1335:23 1338:1, 11 1355:21 1358:16 1359:2,16	<b>button</b> 1355:16
<b>attempts</b> 1323:18	<b>ballpark</b> 1275:22 1299:4	<b>blanket</b> 1336:15	<b>buy</b> 1268:9 1362:6
<b>attention</b> 1351:6,22	<b>Bankruptcy</b> 1312:9,14		<hr/> <b>C</b> <hr/>
<b>attributable</b> 1337:1	<b>barrier</b> 1299:25 1300:1, 2	<b>block</b> 1263:7	<b>C-U-L-L-I-N-G-S</b> 1233:27 1234:3
<b>attribute</b> 1339:9	<b>base</b> 1289:13,16 1295:18 1325:25 1328:6 1330:7,16,26 1331:10,16 1352:6,24	<b>blow</b> 1301:13 1303:5	<b>Cal</b> 1242:5 1273:21 1275:9 1333:27 1334:3 1338:1,16
<b>attributed</b> 1334:13 1336:4	<b>based</b> 1249:19 1288:18 1292:23 1306:1 1308:25 1309:1 1326:20 1334:18 1340:5,27 1341:2	<b>blown</b> 1305:28	<b>calculated</b> 1266:3 1322:18 1324:3
<b>authorization</b> 1292:24	<b>basic</b> 1247:23 1319:19 1332:24	<b>body</b> 1250:21 1347:4	<b>calculation</b> 1322:20
<b>authorized</b> 1242:9 1291:19 1295:26 1296:8,20,24,27	<b>basically</b> 1308:23 1355:11 1356:22	<b>boom</b> 1262:2	<b>calculations</b> 1337:28 1338:9 1339:1
<b>automated</b> 1355:3 1357:8 1361:1	<b>basis</b> 1267:21 1286:25 1329:21	<b>boots</b> 1261:25	<b>California</b> 1229:1 1313:21 1314:1,7 1315:9 1333:16 1350:19 1351:17 1352:6 1363:13
<b>automation</b> 1354:14, 23 1362:11	<b>Beach's</b> 1321:13	<b>bottom</b> 1267:12 1269:6,17 1301:28 1335:3	<b>call</b> 1258:20,22 1279:6 1355:13
<b>average</b> 1308:21 1338:18	<b>bearing</b> 1264:27	<b>Boulevard</b> 1234:5	<b>called</b> 1233:18 1254:10 1313:11 1355:6 1356:11
<b>averaging</b> 1333:28	<b>begin</b> 1240:16 1314:24 1315:1 1335:3	<b>box</b> 1267:9,12 1269:6, 17	<b>calling</b> 1349:14
<b>aware</b> 1270:2,18 1299:9,11 1300:2 1347:26 1348:3 1353:21,28 1354:6 1361:20 1367:7	<b>beginning</b> 1308:5	<b>boxes</b> 1267:7	<b>calls</b> 1282:7
<hr/> <b>B</b> <hr/>	<b>begins</b> 1236:3	<b>brakes</b> 1341:24	<b>Calpine's</b> 1343:10
<b>back</b> 1230:15 1239:18 1247:19 1252:13 1261:17 1263:28 1265:18 1268:14,24,26 1279:9 1286:10 1287:14 1292:1 1294:18,27 1295:3 1297:28 1302:7 1306:28 1309:28 1312:12 1313:4,6 1324:11 1328:16 1345:10 1351:12 1353:17 1357:5,7 1360:7	<b>behalf</b> 1281:28 1313:28 1314:6 1315:8,15 1319:1 1320:21 1365:14	<b>break</b> 1229:8 1252:1 1254:7 1279:1,5,6 1312:5 1313:4,7 1329:8 1360:4	<b>Calvert</b> 1252:18,19
<b>back-and-forth</b>	<b>belief</b> 1341:2	<b>breakdown</b> 1286:24	<b>cancel</b> 1350:14
	<b>believes</b> 1359:18	<b>breaking</b> 1257:18	<b>Canyon</b> 1333:15
	<b>benchmark</b> 1327:22 1328:22	<b>briefs</b> 1359:23	<b>capacity</b> 1335:13
	<b>benefit</b> 1255:12	<b>broad</b> 1273:4	<b>capital</b> 1269:12,23,25 1284:5,9 1285:9,17 1286:12,25 1287:3,20, 27 1293:4,6,9 1294:14, 15 1295:6,9 1296:15
	<b>benefits</b> 1362:12	<b>Bruno</b> 1333:13	<b>capitalize</b> 1297:19
	<b>big</b> 1339:19	<b>bucket</b> 1261:20,26,28 1262:1	
	<b>bill</b> 1343:18 1348:25,26 1349:23,24,27,28	<b>built</b> 1275:2	
		<b>bulk</b> 1253:6	
		<b>bullet</b> 1269:17	
		<b>bulleted</b> 1266:18	
		<b>bulletin</b> 1253:15,25,27 1254:11,17	

<b>care</b> 1229:11 1231:22 1312:19 1326:14 1346:23 1347:2	1290:5,23 1302:22	1303:10	<b>complete</b> 1290:22 1305:3 1345:25 1346:7, 10 1352:20
<b>case</b> 1238:25 1243:24 1254:11,16 1264:10 1277:27 1287:26 1291:20 1292:24 1293:10 1295:13,15,17, 28 1296:9 1316:21 1320:10 1321:4 1322:25,26 1337:17	<b>Chapters</b> 1235:24	<b>climbing</b> 1261:24	<b>completed</b> 1304:8
<b>cases</b> 1276:2 1333:8	<b>characteristics</b> 1361:27	<b>close</b> 1249:15,24 1276:7 1344:13 1353:24 1354:3 1363:4	<b>completely</b> 1343:1
<b>cashier</b> 1353:24 1354:3	<b>charge</b> 1316:21,27 1317:4 1319:1 1320:14, 22,25,27 1321:3 1324:22 1329:6	<b>closing</b> 1358:27 1366:6	<b>completes</b> 1281:11
<b>categories</b> 1288:28 1289:8 1330:21	<b>charges</b> 1318:26 1323:16,20	<b>closure</b> 1357:12,15	<b>completion</b> 1280:16 1281:5
<b>causation</b> 1340:6,28 1341:18	<b>check</b> 1278:27 1284:25 1294:2 1304:27 1351:27 1353:3	<b>coaching</b> 1293:23	<b>complex</b> 1338:12
<b>caused</b> 1323:9 1340:9, 20 1341:3	<b>checker</b> 1351:7,23	<b>Coalition</b> 1230:25 1314:1,7 1315:9 1363:13	<b>compliance</b> 1317:8
<b>caveat</b> 1310:18	<b>checkout</b> 1361:1	<b>code</b> 1242:23 1300:16	<b>compliance-related</b> 1277:21,23
<b>CCA</b> 1319:25 1365:24	<b>choice</b> 1319:20	<b>collect</b> 1295:21 1297:16	<b>Compound</b> 1272:9
<b>CCAS</b> 1314:13,14,19 1316:16 1321:12 1323:3 1325:2 1365:14	<b>choose</b> 1258:7	<b>collected</b> 1297:12	<b>concern</b> 1230:20 1363:19,23
<b>center</b> 1283:24 1354:7	<b>Christine</b> 1352:11	<b>column</b> 1247:28 1248:4	<b>conclude</b> 1300:8 1367:12
<b>centers</b> 1283:19 1361:25	<b>circuits</b> 1246:11,17	<b>combination</b> 1292:14	<b>concluded</b> 1349:1
<b>central</b> 1282:12	<b>citation</b> 1350:28 1351:2	<b>combining</b> 1299:19	<b>Concord</b> 1234:5
<b>centralized</b> 1282:14	<b>cite</b> 1301:12	<b>comfortable</b> 1248:14 1254:15 1345:13	<b>condition</b> 1250:17 1251:1 1258:12,14 1280:14
<b>certified</b> 1263:23	<b>claim</b> 1332:20 1357:11	<b>comma</b> 1236:10 1237:1	<b>conducted</b> 1300:15
<b>chain</b> 1256:13	<b>claims</b> 1264:6 1332:10, 16	<b>comment</b> 1273:9	<b>conductor</b> 1236:9 1248:8
<b>challenges</b> 1356:19	<b>clarification</b> 1318:21	<b>Commission</b> 1278:3, 12 1327:23 1336:1,13, 17	<b>conductors</b> 1245:11 1246:14,21 1251:10
<b>chance</b> 1309:19	<b>clarifies</b> 1253:20	<b>common</b> 1248:16,20 1250:16 1333:4	<b>conduit</b> 1236:15 1251:3,13 1255:6,9 1256:6,17 1257:6,20,27 1258:1,3
<b>change</b> 1231:13 1264:21 1287:22 1331:19 1338:10,11 1339:22	<b>clarify</b> 1252:14 1254:4 1268:15 1272:11,18 1356:2 1359:11	<b>commonsense</b> 1306:2	<b>confer</b> 1251:26 1252:9 1265:13
<b>changed</b> 1241:18 1264:23 1278:5 1297:18	<b>classes</b> 1364:11,15	<b>communities</b> 1358:19	<b>confidence</b> 1339:2
<b>chapter</b> 1234:18,20,22, 27 1235:26 1236:18 1238:7,18 1239:26 1241:3 1283:10 1284:12 1288:7 1289:1	<b>classified</b> 1333:2	<b>community</b> 1291:3 1316:24 1319:20 1339:24	<b>confidently</b> 1258:7
	<b>clean</b> 1231:20 1355:8, 18	<b>company</b> 1233:18 1313:11 1335:14	<b>configurations</b> 1244:26
	<b>clear</b> 1254:27 1256:4 1299:24 1300:21 1307:2 1325:3 1339:18 1346:15 1362:26	<b>company-wide</b> 1254:10	<b>confirm</b> 1234:13 1242:6 1250:12 1315:6 1366:28
	<b>clearance</b> 1280:4 1300:14,26 1301:6,9 1305:23 1307:8,10,14	<b>comparing</b> 1322:5	<b>confused</b> 1290:1 1296:5
	<b>clearances</b> 1247:11,24	<b>comparison</b> 1357:7	<b>confusing</b> 1262:17
	<b>clearing</b> 1267:13	<b>competition</b> 1360:25	

<b>confusion</b> 1296:18	1257:12,13,21 1258:21	1324:1 1326:13,17	1307:24 1312:6,8
<b>conservation</b> 1317:8, 13 1323:26	1259:7,22,26 1260:13	1328:7,8,19 1333:4	1313:24,26 1314:12,13,
<b>considers</b> 1277:12	1261:7,27 1263:1,8,12, 13,20,21 1266:2,6,17	1340:6,26,28 1341:18	19 1316:2,11 1344:4
<b>consistency</b> 1282:15	1267:1,2 1268:6 1269:4	1358:10	<b>cross-exhibits</b>
<b>consumers</b> 1319:20, 25 1351:6	1271:18 1274:11,12,15, 16 1275:9,12 1278:13, 14,24 1279:25,28	<b>cost-effective</b>	1241:19 1310:5
<b>contained</b> 1239:3	1280:6,8,17,18,27,28	1357:14,15,20,27	<b>crossarm</b> 1251:18
1282:19 1302:13	1283:1,5,7,8,11,13,14	<b>costs</b> 1244:10 1266:1, 3,4 1268:22 1288:11	<b>CS0</b> 1347:10
1305:10	1284:13 1285:20	1293:3,4,6,9 1294:13,	<b>CS0S</b> 1344:14
<b>contents</b> 1307:6	1287:9 1289:2,3 1290:6	15 1295:6 1308:6,9,14	<b>CSO</b> 1347:7 1348:13,
<b>continue</b> 1243:12	1291:18,21 1292:7,9,	1316:23,24,27 1317:3,	14,22 1354:9 1357:17,
1266:20 1321:19	10,19 1293:2,11,12	11,17,20,21,26 1318:4,	18,21 1361:10 1362:8
1353:23 1354:2	1294:17 1295:10,13,16,	7,15,16,25 1320:17,18,	1363:2,10
1357:21 1367:13	20,23,24 1296:3	20 1321:1 1322:6,19	<b>CSOS</b> 1353:24,25
<b>continued</b> 1337:6	1297:11,14,19,20	1323:14,18,24 1324:1,	1354:3 1357:12 1358:3,
<b>continues</b> 1247:25	1298:23,27 1299:15,23	14,20 1325:24,28	27 1362:23 1363:1,5
1291:17	1300:1,17,18,27	1326:1,4,11,15 1327:9	1364:9
<b>continuing</b> 1357:18	1301:1,15,19 1303:1,26	1328:5 1329:2,4,10,20,	<b>CUE</b> 1314:14 1315:10,
<b>contractor</b> 1262:16,20, 23	1304:9,10,20,21	28 1330:3,6,15 1331:9,	15 1320:15 1321:9
<b>contractors</b> 1262:21	1305:13 1307:4,12	15,18 1334:5 1339:13,	1365:1
<b>control</b> 1262:1	1308:11,19,27 1309:13	14 1340:2,16 1342:17	<b>CUE's</b> 1319:1 1365:24
1283:19,23	1315:18 1319:4,26,27	1343:3,9	<b>Cullings</b> 1229:10
<b>convenience</b> 1302:1	1323:22 1332:18	<b>counsel</b> 1237:6,9	1232:19 1233:13,16,18,
<b>convenient</b> 1362:1,6	1333:5 1334:1 1335:20	1293:19,23 1316:16	26,28 1234:2,11,13
<b>convinced</b> 1233:14	1337:2,16 1340:3,4,7	1359:8,18,23	1237:7,13 1238:2
<b>copies</b> 1237:6,10	1344:24 1345:5,6,19,	<b>County</b> 1350:26	1239:2,12,26 1240:22
<b>copy</b> 1344:25,28	20,22,23 1346:25,26	<b>couple</b> 1257:17 1309:6	1252:24 1253:3
1345:7 1351:9	1347:11,22 1348:27	1325:12 1352:1 1355:6	1256:28 1264:27
<b>copying</b> 1231:12	1349:8,9 1350:21,22	<b>court</b> 1255:7,12	1265:4 1273:18
<b>core</b> 1329:9	1351:23,24 1354:9,16	<b>coverage</b> 1334:23	1281:23 1288:21
<b>corporate</b> 1345:5,19	1358:25 1360:15,22	<b>covered</b> 1250:10	1290:13 1292:3
<b>Corporation</b> 1312:9,13	1361:3,10 1362:25	<b>covering</b> 1320:16	1293:25 1294:2
<b>correct</b> 1229:14	1363:14,15,18 1365:25	1324:20	1296:19,26 1297:5
1231:27 1237:18	<b>corrected</b> 1239:4	<b>CPUC</b> 1247:1 1277:27	1305:4 1307:20,26
1239:5 1241:4,5,8,9,19,	1250:17 1359:10	1278:15	1309:7,17 1366:12,16
20 1242:24,25 1243:25	<b>correcting</b> 1299:21	<b>create</b> 1337:4	<b>current</b> 1243:24 1253:8
1245:4,11,18 1247:7,8,	<b>correction</b> 1237:14	<b>crew</b> 1257:25 1258:6	1256:21 1258:19
12 1248:5,6 1249:5,19,	1256:24 1299:26	1262:7 1263:5,10	1261:13 1282:4 1319:7
20 1250:15,19,22,23	<b>corrections</b> 1235:19,	<b>criticize</b> 1357:11	<b>customer</b> 1245:9
1251:1,2,14,15	21,27 1236:19 1237:4,6	<b>cross</b> 1229:14 1232:20	1321:27 1325:25
1253:10,11,13,15,16,	1238:1 1239:3	1264:12 1273:17	1328:6 1330:7,16,26,
19,21 1256:9,10,22	<b>corrective</b> 1284:11,15, 16,26 1285:18,20	1281:20	27,28 1331:10,16
	<b>correctly</b> 1285:17	<b>cross-examination</b>	1344:13 1346:23,24
	<b>cost</b> 1262:4,12	1229:10 1231:1,25	1347:1,2,9 1352:6,24
	1264:22,24 1266:5	1239:13,20,23,25	1353:21,28 1354:22,25
	1267:9 1268:5 1269:28	1240:2,10,17,20 1242:4	1355:3,7,22 1357:18,20
	1271:16,18,28 1272:15	1271:6 1273:20	1358:4,9 1362:1,6
	1273:2 1274:9,13,18	1281:21 1297:23	<b>customer's</b> 1351:27
	1279:15 1297:19		1352:19
			<b>customers</b> 1319:21

1320:16,19 1321:28 1322:3 1326:5,16,18 1328:9 1329:12,20 1330:1,17,18,24 1331:15 1347:7,9,21,25 1348:7,27 1349:3,6,19 1351:22 1353:23 1354:2,15 1358:6,11,15 1360:12,14,27 1361:9 1362:18,21,23 1363:2, 7,10,20,24 <b>cutout</b> 1245:20,21,27 1250:25 <b>cutouts</b> 1246:4,6 <b>CWSP</b> 1316:25 1340:1, 10 1341:12,27 1342:4, 16	<b>decommissioning</b> 1317:6 <b>deeper</b> 1272:7 <b>defer</b> 1281:13 <b>deferred</b> 1367:16 <b>deficiencies</b> 1299:18, 21 <b>define</b> 1287:18 1288:3 1326:6,9,20,21 1327:3 1328:23 1342:19 1349:10 1362:15 <b>defining</b> 1327:1 <b>definition</b> 1300:22 1328:11,13 <b>degree</b> 1244:2 <b>delivered</b> 1262:19 <b>delving</b> 1264:9 <b>demand</b> 1344:22 <b>departed</b> 1319:20 1331:14 <b>department</b> 1283:25 <b>depending</b> 1257:24 <b>depends</b> 1258:11,13, 14 1353:10 <b>deployed</b> 1342:15 <b>depreciated</b> 1294:16 <b>depreciation</b> 1293:14, 17 <b>describe</b> 1256:22 1260:3 <b>describing</b> 1292:14 <b>desired</b> 1251:1 <b>detail</b> 1299:10,13 <b>detailed</b> 1244:5 1332:25 <b>details</b> 1243:1 1285:14 1329:27 <b>determination</b> 1258:5 <b>determine</b> 1265:13 1336:1,26 1366:19 <b>determining</b> 1335:13	<b>developments</b> 1230:19 1231:13 <b>devices</b> 1251:19,23 <b>diagram</b> 1256:21 1259:3,28 <b>diagrams</b> 1260:5 <b>diameter</b> 1258:17 <b>difference</b> 1245:27 1274:6 1275:3 1326:12 <b>difficult</b> 1256:24 1259:9 1318:1 1336:7, 22 1353:2 1358:18 <b>direct</b> 1229:20 1232:27 1234:7,9 1273:28 1291:23 1292:4 1295:4 1302:22 1314:25 1315:1,3 1359:9 <b>directly</b> 1262:19,20 1274:1 1320:26 <b>disadvantaged</b> 1358:7 <b>disappear</b> 1363:11 <b>discovery</b> 1270:4 1321:10 1334:27 <b>discuss</b> 1244:23 1252:21 1255:28 1261:19 1265:27 1284:2 1300:7 1304:13 1333:26 1344:15 1354:13,22 <b>discussed</b> 1260:9 1284:11 1294:7 1321:13 1352:18 <b>discusses</b> 1284:26 1321:7 <b>discussing</b> 1264:8 <b>discussion</b> 1230:18 1242:7 1244:10 <b>discussions</b> 1230:27 <b>disliked</b> 1348:7 <b>disproportionately</b> 1358:7 <b>distinction</b> 1272:14 <b>distinguish</b> 1242:28	<b>distributed</b> 1237:8 1239:20 1297:24 1312:6 <b>distribution</b> 1234:4, 19,28 1235:23 1238:8, 19 1239:27 1240:28 1241:2 1244:6 1245:1 1246:25 1248:17 1249:6 1257:12 1282:8 1283:16,19,23,24,26 1284:3 1285:23,24 1286:1,7,9 1287:1,5,8, 9,12 1288:8 1289:8 1308:7 1319:22 1334:15 1340:3,9,11, 15,27 1341:3,14,19,21 1342:1 1343:1,3 1366:13,22 <b>district</b> 1305:11,16 <b>dive</b> 1259:10 <b>Diverse</b> 1230:24 <b>divided</b> 1304:15 <b>dividing</b> 1266:4 <b>division</b> 1352:10 <b>DL</b> 1316:5 <b>docket</b> 1319:2,8,11 <b>Doctor</b> 1343:27 <b>document</b> 1231:3,20 1238:12,16 1241:22 1247:5 1249:18 1253:8, 22 1270:17,20 1271:7 1277:27 <b>documents</b> 1235:1 1237:21,27,28 1253:20 1254:10,12,13 1270:21, 23 1271:2 1273:21 1278:16 1279:21 <b>dollars</b> 1267:28 1308:15,17 <b>dot</b> 1337:10 1339:8,9 <b>doubling</b> 1286:18 <b>drawback</b> 1231:7 <b>drawing</b> 1255:17 1261:4 1361:1 <b>driving</b> 1261:16 <b>dropped</b> 1355:13
<hr/>			
<b>D</b>			
<hr/>			
<b>daily</b> 1233:6 1350:23, 28 <b>dam</b> 1333:19 1337:22 <b>damage</b> 1342:22 <b>data</b> 1240:3,11 1241:10,28 1245:3 1253:5 1265:24 1266:8 1268:23 1270:25 1280:11 1281:7 1282:13,14 1302:2,12, 15 1303:25,27 1304:5 1306:5 1307:2,18 1314:14 1323:7 1336:11,18 1349:18 1365:24 <b>database</b> 1301:16,23 1303:23 1304:19,20,23, 28 1305:6,8,10,20,25 1307:7,12 <b>date</b> 1249:19 <b>dated</b> 1240:5 1253:10, 15 1312:14 1314:2 <b>day</b> 1356:11 <b>days</b> 1350:7 1355:6 <b>deal</b> 1241:12 1267:26 1283:10,12,18 1309:8 <b>dealing</b> 1352:28 <b>decide</b> 1263:17			



<b>due</b> 1269:8,19 1284:4 1291:1 1301:10 1303:28 1304:1 1307:14	<b>electricity</b> 1345:3,17 1346:27	1255:3 1279:26 1280:8 1301:10 1302:26 1304:2 1305:21 1307:8	<b>exchange</b> 1367:20
<hr/> <b>E</b> <hr/>	<b>electronic</b> 1348:25 1349:4,13	<b>errata</b> 1235:8 1237:21	<b>excuse</b> 1235:5 1254:24 1271:3 1292:22 1304:1 1326:2 1336:27 1337:7, 18 1356:7 1360:12 1362:21 1367:8
<b>E-A-R-L-E</b> 1313:20	<b>element</b> 1245:22,28 1246:8 1267:18	<b>erratas</b> 1238:23	<b>execution</b> 1282:7
<b>e-mail</b> 1231:12	<b>elements</b> 1246:4 1256:12,15	<b>essentially</b> 1318:12	<b>exempt</b> 1268:5,17,20, 28 1269:2 1278:22 1279:15 1280:4 1281:4
<b>Earl</b> 1344:2	<b>elicit</b> 1244:2	<b>establish</b> 1288:9 1342:28	<b>exhibit</b> 1229:19,22,23, 24,26,28 1230:10,11 1231:5 1232:2,6,18 1234:16,17,21,26 1235:2,3,7,8,25,26 1236:17,18 1237:13 1238:3,5,7,9,13,17,20 1239:22,23,26,28 1240:1,2,7,9,10,14 1241:6,8,23 1242:5 1243:27 1244:14,15,16, 21 1250:10 1253:6 1270:20,27 1271:11 1279:15 1282:20,25 1284:1 1291:25 1292:4 1294:19 1295:5 1297:22,23 1301:27 1302:11 1304:4 1310:1, 8,10,11,14,16,17,26,28 1312:7,8,16,27 1313:1, 27 1314:3,5,9,12,13,16, 18,19,22 1315:12,16 1321:7,8,12 1322:28 1331:23 1334:27 1344:11,17 1358:4 1364:27 1365:1,7,8,11, 15,16,19,22,27 1366:1
<b>Earle</b> 1229:11 1313:7,9, 11,19,24,28 1314:6,21 1315:5 1316:1,13 1321:26 1323:2 1325:16 1326:26 1327:4,8 1330:13 1335:4 1341:9 1344:6 1359:4 1364:5 1367:8	<b>eliminate</b> 1300:10 1301:10 1306:9,15	<b>estimate</b> 1271:18,28 1272:15 1273:2 1274:7, 10,13,18,27 1275:5,6, 11 1285:7 1290:14 1298:7 1299:1 1338:17 1353:7,11	
<b>Earle's</b> 1323:17 1341:8	<b>eliminated</b> 1350:18	<b>estimates</b> 1271:17 1272:6 1275:10,16	
<b>earlier</b> 1297:24 1323:23 1338:26 1339:13 1360:19 1361:7 1366:10	<b>emphasized</b> 1236:26	<b>estimating</b> 1271:19 1272:1,5,16 1274:14,28 1275:24	
<b>easements</b> 1317:9	<b>emphasizing</b> 1236:7	<b>evaluated</b> 1286:28	
<b>easier</b> 1265:4 1352:25	<b>employees</b> 1287:11,19 1314:2,7 1315:10 1363:13,17,21	<b>evaluating</b> 1290:3	
<b>easy</b> 1285:19	<b>end</b> 1236:8 1251:11 1276:8 1300:9 1301:18, 24 1322:16 1355:11	<b>evaluation</b> 1345:4,18	
<b>economic</b> 1269:28 1270:3	<b>ended</b> 1355:10	<b>evening</b> 1302:16	
<b>economics</b> 1344:20 1364:13	<b>energy</b> 1327:24	<b>events</b> 1338:4 1339:19	
<b>Edison's</b> 1333:16	<b>engage</b> 1277:28	<b>evidence</b> 1230:10,12 1282:27 1310:10,12,28 1312:28 1313:1 1335:23 1349:22 1364:28 1365:7,9 1366:1	
<b>efficient</b> 1357:13,15	<b>engineer</b> 1240:24 1245:24 1261:11 1264:28 1283:7,12	<b>evidentiary</b> 1229:7 1293:20	
<b>effort</b> 1306:11 1350:20	<b>engineering</b> 1236:22 1248:13 1299:25,28	<b>exact</b> 1303:2 1336:2,14 1347:15	<b>exhibits</b> 1229:12,13 1230:8 1232:10,13 1234:25 1235:7,24 1238:4 1239:4,21 1241:3,10 1309:23 1310:4 1312:6 1313:24, 25,26 1314:12
<b>elaborate</b> 1230:22 1320:6 1340:16	<b>ensure</b> 1321:27 1332:9,15 1358:10	<b>examination</b> 1234:7,9 1252:5 1274:24 1314:25 1315:1,3 1364:3	<b>exist</b> 1317:17
<b>electric</b> 1233:18 1234:18,28 1235:23 1238:8,18 1239:27 1240:28 1241:2 1247:6 1283:24,26 1284:3 1285:20,23 1286:8 1287:12 1288:7 1289:8 1308:7 1313:11 1340:2, 15,27 1341:14,19,20,26 1342:1,26 1343:1,2 1344:19,21 1366:13,22	<b>enter</b> 1232:11	<b>examiner</b> 1256:21	<b>existed</b> 1256:23
<b>Electric's</b> 1238:7	<b>entered</b> 1321:11,14	<b>excellent</b> 1359:8	<b>existing</b> 1236:11 1237:2 1257:16 1320:22
	<b>enterprises</b> 1362:14	<b>exceptions</b> 1335:7	<b>exists</b> 1331:8
	<b>entire</b> 1236:13 1277:1 1306:10,16	<b>excerpt</b> 1246:28 1314:20	
	<b>entitled</b> 1239:24	<b>excess</b> 1316:22 1331:20,28	
	<b>environment</b> 1345:4, 18		
	<b>environmental</b> 1317:17,20 1344:20		
	<b>equal</b> 1330:2		
	<b>equipment</b> 1242:22 1244:7,22,26 1249:15		

<b>expand</b> 1273:16	1355:8 1360:24	1347:28 1355:7,18	<b>four-year</b> 1308:21
<b>expanded</b> 1254:25	1361:24	<b>fine</b> 1248:28 1367:3	<b>framework</b> 1317:25
<b>expect</b> 1231:2,14	<b>facts</b> 1239:3	<b>finish</b> 1271:24	<b>Francisco</b> 1229:1
<b>expected</b> 1290:24	<b>failure</b> 1337:21	<b>finished</b> 1285:25	1313:21
<b>expenditure</b> 1296:12, 16	<b>fair</b> 1288:12 1308:22	<b>fire</b> 1301:14	<b>free</b> 1319:17
<b>expense</b> 1242:10	1320:20 1329:21	<b>firefighter</b> 1342:15,27	<b>Friday</b> 1252:20 1291:4, 7
1295:14,25 1296:8,21, 24,27 1308:7 1333:1,3	1356:16 1357:24	<b>fires</b> 1340:20	<b>friendly</b> 1351:7,23
<b>expenses</b> 1297:13	<b>fairly</b> 1264:18 1288:15	<b>firm</b> 1362:18	1353:24
1333:11	1336:5 1338:14	<b>fish</b> 1317:12 1323:25	<b>front</b> 1254:28 1323:4
<b>experience</b> 1350:6	<b>familiar</b> 1241:15	<b>five-minute</b> 1360:3	1344:26 1364:27
1355:6	1243:1,5,16 1245:26	<b>fluctuated</b> 1308:8,10	<b>frustration</b> 1354:23
<b>expert</b> 1248:13	1246:7 1247:1 1273:19, 22,26 1302:15 1303:24	<b>focus</b> 1282:8 1351:5,21	<b>full</b> 1253:25 1254:12
1271:20,21 1272:3,16, 19 1293:22 1318:9	1356:5,9 1361:17,24	1364:14	1270:11 1351:5,21
1336:10	<b>faster</b> 1359:2	<b>focused</b> 1261:18	1367:19,27
<b>expertise</b> 1283:3	<b>FEA</b> 1232:20 1307:23, 27 1308:6,13	1279:24 1339:20	<b>function</b> 1340:3,11,27
1297:15 1306:6	<b>FEA's</b> 1308:20	<b>focuses</b> 1246:3	1342:27
1344:19	<b>feel</b> 1248:13 1254:15	1352:21	<b>functionalized</b> 1333:3
<b>experts</b> 1274:19,26	1319:17	<b>folks</b> 1278:28	<b>funded</b> 1295:14
1275:5,16 1336:19	<b>feet</b> 1248:1,9,18 1249:7	<b>follow</b> 1250:5 1326:26	<b>funding</b> 1278:20
<b>explain</b> 1338:28	1259:14,15,19,25	<b>forecast</b> 1243:2,7,23	1289:13,16
1359:24	1260:19,23,28 1261:6, 9,12,13 1303:9	1287:25 1289:7,16,23	<b>fuse</b> 1245:20,21,22,27
<b>explanation</b> 1359:6,7	<b>felt</b> 1283:20	1290:4,22 1292:23	1246:3,4,5,8 1250:24, 25 1252:4 1281:8
<b>explosion</b> 1333:13	<b>FERC</b> 1317:6 1318:10	1293:9 1295:6 1308:16, 18 1309:1	<b>fuses</b> 1246:3,23
<b>express</b> 1352:10	<b>fewer</b> 1320:16	<b>forecasted</b> 1322:5	1279:24 1280:25
<b>expressed</b> 1239:7	<b>figure</b> 1244:27	<b>forecasting</b> 1337:14	1281:3
1315:21	1250:16,20,24,28	<b>forecasts</b> 1308:24	<b>future</b> 1329:23,25
<b>extend</b> 1258:1 1337:5	1251:16 1254:24,26	<b>forgot</b> 1331:2	
<b>extending</b> 1251:13	1255:2 1256:3,9	<b>form</b> 1237:9	<b>G</b>
<b>extensive</b> 1230:26	1258:25 1259:2,17	<b>formalized</b> 1231:3	
<b>extent</b> 1335:5,22	1267:18,25 1291:27	<b>formally</b> 1233:4	<b>Gallo</b> 1229:15,16
<b>extra</b> 1359:6,7 1367:23	1336:25 1347:28	<b>forward</b> 1278:3 1294:1	1234:6,8,10 1237:5
<b>extraordinarily</b> 1336:6	<b>file</b> 1231:15	1340:22	1238:27 1239:1,11
<b>extreme</b> 1357:16,25	<b>filed</b> 1293:10	<b>found</b> 1244:19 1245:6	1241:21 1243:9
	<b>filing</b> 1276:22	1335:24	1248:20 1251:27
	<b>finalized</b> 1231:19	<b>foundation</b> 1244:9	1252:9,14,17 1254:2,19
	<b>finally</b> 1235:5,6,12	1264:16 1288:10	1256:20 1259:27
<b>F</b>	1270:10 1280:20	1322:10,22 1324:17	1264:1 1271:9,22
<b>facilities</b> 1317:12	<b>financial</b> 1269:7,8,10, 18,19	1340:13,15 1341:5	1272:9,17,22 1274:21
1323:25 1332:21,22	<b>Financing</b> 1312:14	1342:8	1285:1 1286:2 1288:1
<b>fact</b> 1329:10 1343:5,16	<b>find</b> 1268:23 1271:5	<b>foundational</b> 1272:22	1290:11,25 1291:3
1348:10 1349:22,25	1335:26 1336:10		1292:25 1293:16
			1294:2,6 1296:10
			1303:16 1309:14,16
			1310:23
			<b>Gandesbery</b> 1230:5

1231:28 1232:1,12 1251:24,26 1252:9,11 1282:24 1312:25 1314:25 1319:28 1320:7,9 1321:21 1322:9,21 1324:16 1327:12,18 1330:9 1340:12,17,18 1341:4 1342:7 1365:4,23,26 1367:2	<b>Gondai's</b> 1232:6 <b>good</b> 1229:6 1233:15 1234:11,12 1240:22,26 1244:21 1281:23,24 1307:26,28 1315:5 1316:13,14 1319:5 1339:4 1344:6,7 <b>GOODSON</b> 1312:22 <b>governing</b> 1247:6 <b>granularity</b> 1305:25 <b>gray</b> 1251:10 1339:9 <b>grayed-out</b> 1337:13 <b>GRC</b> 1242:9,14,22 1243:8 1283:21 1296:13 1325:2 1341:13 <b>Great</b> 1231:16 <b>greatly</b> 1244:3 <b>groceries</b> 1362:2,7 <b>grocery</b> 1360:11 <b>ground</b> 1236:27 1248:9,19 1249:7 1250:16 1251:4,5,11 1255:5,6,9,18,22 1256:5,6,7,14,16,17 1257:6,7,15,19,20,26 1258:1,3,9,16,21,23,26, 27 1259:5,10,15,18,20, 25 1260:6,8,10,11,16, 17,19,20 1261:5,7,12, 13 1263:18,19 1277:2 <b>grounding</b> 1236:23 1237:16,17 1242:8 1251:1 1253:9 1256:13 1257:11 1259:3 1260:6 1262:8 1266:20 1276:13,17,23 1277:12, 20,24 1278:1,5 1291:19 1292:15 1295:27 1296:1,13 1298:17 1299:21,26 <b>grounds</b> 1255:27 1256:6 1257:10 1266:13 <b>group</b> 1273:3 <b>guess</b> 1229:8 1231:7 1232:20 1263:14 1264:17 1287:14	1289:13 1290:1,20 1304:18 1318:20 1328:25 1336:9 1342:24 1343:22 1358:13 1367:15,16 <b>guidance</b> 1236:7,22 1237:15,17 1249:22 1275:20 <b>guideline</b> 1294:10 <hr/> <b>H</b> <hr/> <b>habitat</b> 1317:13 1323:26 <b>Haight</b> 1313:20 <b>half</b> 1348:26 <b>hand</b> 1233:17,23 1313:10,15 1356:24 <b>hand-numbered</b> 1301:28 1302:14 <b>handle</b> 1319:5 <b>happen</b> 1267:17 1270:6 <b>happened</b> 1359:24 <b>happening</b> 1329:16 <b>Happy</b> 1325:7 <b>hard</b> 1251:9 <b>hardening</b> 1340:22 <b>Hawiger</b> 1239:14 1271:3,8 1273:8,9 1281:14,15,17,22,25, 27,28 1282:28 1285:5 1286:4,6 1288:3,5,20, 23 1290:19 1291:7,8,11 1292:2,27,28 1293:18, 26 1294:11,12 1295:1 1296:14,17,23 1297:8, 10 1298:1,2,5 1302:8, 10 1303:19 1306:22 1307:1,19 1310:15 1366:11 <b>head</b> 1233:11 <b>hear</b> 1253:12 1285:16 <b>heard</b> 1338:25 <b>hearing</b> 1230:7 1234:16,20,25 1235:1, 6,24,25 1236:17 1237:13 1238:3 1310:8, 26 1312:27 1315:11,16 1344:11 1365:5,27 1367:24 <b>hearings</b> 1229:7 1231:8 1367:12 <b>heavy</b> 1283:22 <b>height</b> 1248:1 1262:2 1263:12 <b>heights</b> 1251:11 <b>helped</b> 1309:11 <b>helpful</b> 1355:24 <b>helps</b> 1339:2 <b>high</b> 1348:1 <b>high-fire</b> 1305:11,16 <b>high-tech</b> 1362:24,28 1363:3,7,11,22 <b>higher</b> 1246:24 1248:9 <b>holds</b> 1245:21 <b>Honor</b> 1229:16 1230:6, 23 1232:1,22 1234:8 1237:5 1238:27 1239:12 1241:21 1252:17 1256:20 1259:27 1264:1,7,19 1272:23 1282:25 1285:1 1288:5 1291:9 1293:18 1294:6,23,24 1296:10 1298:5 1309:16 1310:3,15,23 1312:22,26 1315:2 1316:1,10 1319:28 1320:13 1321:6,24 1324:8,19 1325:11 1326:7,8 1331:5 1343:26 1353:15 1364:1 1365:2,13,20,23 1366:9,10 1367:2 <b>Honors</b> 1240:19 1290:25 1327:7 <b>hook</b> 1343:8 <b>hope</b> 1233:8 1329:25 <b>hour</b> 1311:1,4 <b>hours</b> 1342:18 1361:17 <b>human</b> 1356:23
--	---	--

<b>hundred</b> 1303:22	<b>inappropriate</b> 1308:24	1237:3	1278:23
<b>hydro</b> 1320:26 1321:2, 17 1323:15,24 1324:21	<b>include</b> 1229:21 1241:10 1262:5,13 1271:12 1317:11 1321:3 1323:15,24 1329:3 1330:18	<b>installed</b> 1246:24	<b>items</b> 1244:28 1254:27 1256:5 1266:18
<b>hydroelectric</b> 1316:20,28 1317:18 1318:6 1337:22	<b>included</b> 1236:25 1269:11 1270:26 1285:22 1295:11 1317:3 1324:2,6	<b>insurance</b> 1316:23 1331:20 1332:1,9,15,23 1333:1,7,12 1334:5,13, 20 1336:3,10,18 1337:9,25 1339:6 1346:17,20	<hr/> <b>J</b> <hr/>
<b>hypothesis</b> 1338:10	<b>includes</b> 1269:7 1271:14 1321:1 1351:6, 22	<b>insure</b> 1329:18	<b>Jan</b> 1229:20
<b>hypothetical</b> 1274:22 1326:28	<b>including</b> 1255:4 1269:22 1277:1 1296:1 1313:26 1356:24	<b>insurers</b> 1335:11,17	<b>January</b> 1282:17
<hr/> <b>I</b> <hr/>	<b>inclusion</b> 1269:18	<b>insures</b> 1334:22	<b>JCCA</b> 1331:27
<b>idea</b> 1275:21 1286:17 1290:8 1338:9 1340:8	<b>Incomplete</b> 1274:21	<b>intelligence</b> 1364:11	<b>Jeffrey</b> 1241:12
<b>identification</b> 1229:24, 28 1234:16 1238:9,20 1239:28 1240:7,14 1312:16 1314:3,9,16,22 1315:11,16	<b>incorporate</b> 1337:23	<b>intent</b> 1329:27	<b>job</b> 1262:27 1283:18,20
<b>identified</b> 1238:2 1276:14,18,21,27 1282:23 1284:16,27 1285:22 1297:22 1298:15 1303:27	<b>incorporated</b> 1338:5	<b>intentionally</b> 1342:28	<b>jobsite</b> 1262:7,19 1263:2,6,10
<b>identify</b> 1229:18 1239:21 1271:4,10 1312:7 1313:27	<b>incorrectly</b> 1269:1	<b>interact</b> 1353:23 1354:2	<b>jobsited</b> 1262:16
<b>identifying</b> 1238:4,11	<b>increase</b> 1284:4,11,14, 20,21 1287:22 1336:3 1337:20,24 1339:6	<b>interacting</b> 1349:5,8, 11,21	<b>joint</b> 1231:4 1232:2,13 1314:13,14,19 1316:16 1321:12 1323:3 1325:2 1365:14
<b>ignition</b> 1305:20 1307:6,11	<b>increased</b> 1284:5 1285:9 1287:2,27 1289:5	<b>interchangeably</b> 1245:18	<b>jointly</b> 1231:19
<b>ignitions</b> 1301:16,20, 22 1303:21,28 1304:14, 20,23,24,28 1305:10, 12,15 1306:10,15	<b>increasingly</b> 1349:4	<b>interest</b> 1363:16	<b>jointly-sponsored</b> 1231:4
<b>image</b> 1244:19,20	<b>incur</b> 1317:25 1318:3,7	<b>interested</b> 1237:11	<b>Judge</b> 1229:4 1233:14 1237:20 1238:14 1279:6 1309:7 1366:3
<b>impacts</b> 1269:8,11,19	<b>incurred</b> 1320:21	<b>interesting</b> 1342:23	<b>judgement</b> 1271:20
<b>implication</b> 1352:22	<b>indicating</b> 1248:7	<b>internal</b> 1271:19 1272:1,5,15 1274:14,28 1275:6,11,24 1282:7	<b>judgment</b> 1239:9 1272:2 1315:23
<b>implications</b> 1338:3	<b>indifference</b> 1319:2 1321:27 1322:2 1329:6, 19	<b>internet</b> 1348:17 1349:17 1350:1 1356:25	<b>July</b> 1314:2
<b>implies</b> 1348:26	<b>infer</b> 1250:2	<b>interrupt</b> 1247:15	<b>justifications</b> 1320:14
<b>implying</b> 1271:27	<b>information</b> 1270:12 1285:14 1299:8 1306:1	<b>interruption</b> 1255:7	<hr/> <b>K</b> <hr/>
<b>important</b> 1321:4 1337:27	<b>initially</b> 1264:22	<b>investment</b> 1295:23	<b>keen</b> 1362:27
<b>Impossible</b> 1336:5	<b>inquire</b> 1355:20	<b>involved</b> 1318:14 1324:4 1329:15	<b>keeping</b> 1233:5
<b>inadvertently</b> 1340:19	<b>insert</b> 1236:10,22 1237:1,15	<b>involves</b> 1362:13	<b>Ken</b> 1233:5
	<b>installation</b> 1261:6 1262:5,13	<b>issue</b> 1272:23 1289:1 1320:10 1324:5,20 1329:9 1335:4 1358:17	<b>key</b> 1320:14
	<b>installations</b> 1236:12	<b>issues</b> 1230:20 1291:5 1298:19 1333:20 1354:15 1366:21	<b>kind</b> 1245:6 1282:12
		<b>issuing</b> 1278:12	<b>knew</b> 1294:7
		<b>item</b> 1245:7,13,19	<b>knowledge</b> 1239:5 1265:26 1303:18 1315:19 1332:25 1333:10 1341:10

<b>L</b>	1364:2,20,24,26 1365:3,5,10,16,21,25, 27 1366:3,5	7 1340:14,23,25 1341:9 1342:2,9,11,13 1343:25 1365:13,18	1265:1,9 1361:6
<b>labeled</b> 1244:28 1245:13,20 1251:3,18	<b>Laughter</b> 1233:10 1297:9	<b>linemen</b> 1261:24 1263:22 1287:15	<b>lots</b> 1244:25
<b>labor</b> 1287:24 1290:14 1354:13 1362:13,15,16, 17 1363:21	<b>LAW</b> 1229:4	<b>lines</b> 1247:6 1273:6 1276:6 1300:9 1321:9 1325:18,19,20 1326:27 1328:4 1331:22 1332:1, 11,17 1333:26 1339:26 1360:11,17	<b>low-voltage</b> 1248:8
<b>lack</b> 1289:14	<b>lead</b> 1302:8		<b>lower</b> 1233:22 1254:25 1256:8 1269:18 1313:15
<b>laid</b> 1264:16 1286:26	<b>leads</b> 1249:16		<b>lunch</b> 1313:4,7
<b>land</b> 1317:13 1323:26	<b>leak</b> 1333:16		<b>M</b>
<b>landed</b> 1337:9	<b>learn</b> 1354:16 1362:23	<b>Liotta</b> 1281:13 1307:25, 27 1309:4	<b>machine</b> 1353:1
<b>lands</b> 1317:7	<b>least-cost</b> 1266:15,17	<b>Lirag</b> 1229:4,17,26 1230:1,4,7,13,15 1231:6,11,22,27 1232:4,16,24 1233:1,4, 11 1237:20,24 1238:14, 22 1247:15,19 1252:8 1264:11,15,26 1265:8, 16 1273:1,8,18,24,28 1274:4,25 1276:4 1278:26 1279:4 1288:14 1291:1,5,10,26 1293:28 1294:9 1297:5 1309:7,23 1312:10,18 1313:3 1314:27 1320:6, 11 1324:27 1325:8,10 1326:19 1343:20,24 1359:1,4,13,22,27 1364:21,25 1366:3,4,7, 24,28 1367:3,6,11	<b>made</b> 1269:17 1271:16 1358:18,26 1366:13
<b>lanes</b> 1350:18 1351:16 1352:8,10	<b>leave</b> 1258:8 1265:11		<b>mail</b> 1348:17 1349:13, 20 1356:28 1360:21 1361:3
<b>large</b> 1283:4 1337:21, 24	<b>leaving</b> 1321:28		<b>maintenance</b> 1234:19 1235:1,23 1238:8,19 1239:27 1240:28 1241:3 1242:15 1283:16 1284:4 1285:24 1286:1,9 1287:1,9,12 1288:8,28 1289:9 1308:7 1366:14, 23
<b>latest</b> 1231:13	<b>left</b> 1251:6 1269:6,18 1326:16		<b>major</b> 1337:19
<b>Lau</b> 1233:14,15,22,28 1234:6 1237:20,22,26 1238:11,14,16 1239:16, 18 1240:1,9,16 1243:11 1248:22 1249:1 1251:24,28 1252:13,23, 26 1254:4 1255:11 1256:26 1260:2 1265:18 1268:11,14 1271:24 1272:11,18 1279:6,7,9 1281:15,19, 25 1282:22,26 1285:4 1286:4 1288:3 1290:12 1292:1,26 1293:24 1294:25,27 1296:14,22, 26 1297:25,28 1298:3 1302:5,7 1306:26,28 1307:23 1309:6,14,17, 22,25,28 1310:6,8,13, 24,26 1311:1 1312:4, 12,20,24,27 1313:6,15, 23 1314:5,11,18,24,28 1316:3,9 1320:3 1321:19 1322:13,23 1324:9,11,18,23 1325:12,14 1327:2 1330:13 1331:1,6 1340:14,23 1341:7 1342:10,12 1344:1 1345:8,10 1351:10,12 1353:3,5,12,16,19 1357:3,5 1359:28 1360:2,7 1363:27	<b>Legacy</b> 1318:12		<b>make</b> 1233:28 1235:19 1238:15 1258:2 1261:15 1275:16 1320:19 1326:24 1341:22 1366:5
	<b>length</b> 1259:14,20,25 1260:15,19 1261:1,5,7, 12,13 1341:1 1353:10		<b>makes</b> 1232:9 1249:28 1336:22 1341:24 1342:25
	<b>letting</b> 1367:25		<b>making</b> 1306:3
	<b>level</b> 1303:25 1305:24 1306:11,16 1356:13,15		<b>man</b> 1342:17
	<b>levelize</b> 1289:27		<b>management</b> 1266:28 1267:22 1268:1 1272:2 1281:5 1282:6,10 1283:3 1300:10,13,22, 25 1317:7
	<b>levels.'</b> 1338:18		<b>manager</b> 1271:21
	<b>liability</b> 1316:22 1331:20,28 1332:9,10, 15,16,19 1333:1,7,11 1334:5,13,21 1336:3,28 1337:8,20,24 1339:6	<b>list</b> 1231:12 1345:25 1346:6,7,9,11,23 1347:1	<b>mandate</b> 1278:2
	<b>licenses</b> 1317:6 1318:10	<b>lists</b> 1258:16	<b>mandated</b> 1278:23
	<b>lieu</b> 1232:6	<b>located</b> 1246:13,20 1248:18 1249:24 1361:25	<b>mandatory</b> 1277:14,19
	<b>life</b> 1293:13	<b>location</b> 1263:6 1362:3,8	
	<b>lift</b> 1263:12 1283:22	<b>locations</b> 1267:14 1281:9,10 1298:17	
	<b>lighter</b> 1367:20	<b>long</b> 1258:17,20,22,26 1259:5 1260:21	
	<b>lighting</b> 1245:14	<b>longer</b> 1319:9 1357:12	
	<b>LIN</b> 1316:5	<b>looked</b> 1253:18 1267:23	
	<b>Lindl</b> 1316:3,8,9,10,12, 15 1320:4,12,13 1321:23 1322:12,15,24, 27 1324:7,12,19,26 1325:7,9,11,13,15 1327:6,15,20 1331:1,4,	<b>lot</b> 1229:23 1264:2	

<b>manner</b> 1330:2	<b>middle</b> 1301:17,23	<b>Moniz-witten</b> 1250:11	<b>necessarily</b> 1246:1 1253:28 1317:19
<b>Marcel</b> 1281:28	<b>million</b> 1293:7,8 1295:9 1296:2 1297:2,3,12 1308:15,17 1331:28 1334:15,16	<b>monopoly</b> 1360:26	<b>needed</b> 1231:15 1257:27 1290:14 1357:13
<b>marked</b> 1229:24,28 1234:15,24 1235:6 1238:9,20 1239:28 1240:7,14 1241:7 1243:28 1247:28 1270:21,22,28 1282:25 1312:16 1314:3,9,16,22 1315:11,15 1321:12	<b>mind</b> 1264:27 1281:25 1293:19 1345:15	<b>months</b> 1319:13 1329:16	<b>negotiations</b> 1230:26
<b>market</b> 1322:7 1326:6, 9,11,12 1327:3,8,10,13, 15,19,22 1328:11,13, 17,19,20,22,23 1329:4 1345:4,18	<b>minimum</b> 1247:23 1260:28 1261:4	<b>morning</b> 1229:6 1233:15 1234:11,12 1237:9 1240:22,26 1281:23,24 1307:26,28 1366:10	<b>neighbor's</b> 1341:24
<b>markets</b> 1344:21	<b>minus</b> 1326:11,12	<b>motherhood</b> 1358:23	<b>neighborhood</b> 1354:7
<b>master's</b> 1364:12	<b>minute</b> 1265:13 1311:2	<b>motion</b> 1310:1,13 1312:20 1364:28	<b>NESAR</b> 1242:12,19 1244:8 1245:16 1250:18 1255:4 1264:9, 24 1266:28 1277:14,19, 25 1280:24 1281:3,6
<b>MAT</b> 1242:15,23,26 1246:2 1279:23 1280:3, 13,24	<b>minutes</b> 1325:12 1353:6,9 1355:13,23	<b>motions</b> 1365:10	<b>Network</b> 1282:1
<b>materials</b> 1235:15 1239:24 1262:5,6,13,27 1263:10	<b>Mischaracterizes</b> 1259:28 1296:11	<b>mounted</b> 1249:14 1250:21 1251:17 1298:8,22,25 1299:1	<b>News</b> 1350:24 1351:1
<b>matter</b> 1326:23	<b>mischaracterizing</b> 1260:22	<b>move</b> 1230:1,3 1264:5 1278:3 1294:9 1310:1, 4,13,15,16,21 1312:20, 23 1331:20 1364:28 1365:1,10,18	<b>nexus</b> 1318:1
<b>matters</b> 1345:22	<b>misstates</b> 1330:10	<b>moved</b> 1231:19 1261:28 1309:8 1310:9, 17,27 1312:28 1365:6, 28	<b>nights</b> 1361:21
<b>meaning</b> 1287:10 1367:28	<b>Mister</b> 1341:7	<b>movement</b> 1262:2	<b>non-bypassable</b> 1316:20,26 1317:4 1320:25,27 1321:3 1324:22
<b>means</b> 1250:1 1295:21 1327:3,16 1349:13,27	<b>mitigation</b> 1276:21,27 1277:9 1317:17 1341:15 1344:21	<b>moving</b> 1264:8 1293:28 1349:3 1365:16,22	<b>non-cso</b> 1362:27
<b>meant</b> 1303:11 1364:25	<b>mitigations</b> 1277:7	<b>multiple</b> 1245:9 1252:5	<b>non-exempt</b> 1242:13, 22 1268:10,17,28 1276:26 1277:8,22 1278:21 1279:26 1280:7,16,26 1292:17 1298:14 1299:19 1300:8 1301:10 1302:26 1304:1 1305:21 1307:7
<b>memo</b> 1289:12,20	<b>mix</b> 1298:24,25 1339:18,19	<b>mysterious</b> 1335:27	<b>non-transformer</b> 1298:8
<b>mention</b> 1267:3 1351:25 1362:10	<b>mixture</b> 1339:15	<b>N</b>	<b>Northern</b> 1352:6
<b>mentioned</b> 1339:12 1363:10	<b>Mm-hmm</b> 1351:19	<b>N-E-S-A-R</b> 1242:12,19	<b>note</b> 1254:23 1347:6 1367:22
<b>menu</b> 1354:16 1356:7,9	<b>modeling</b> 1344:20 1345:4,18	<b>narrow</b> 1272:27 1273:4 1320:3	<b>noted</b> 1357:24 1360:10
<b>merits</b> 1359:7	<b>models</b> 1335:12	<b>National</b> 1230:24	<b>notes</b> 1308:6,13
<b>method</b> 1259:2,4,13, 16,21,23 1260:8,10,16, 18 1347:22 1360:24	<b>modification</b> 1257:5 1277:2	<b>navigate</b> 1354:16	<b>noticed</b> 1237:12
<b>methods</b> 1273:5 1335:12,15 1348:4,8,14 1349:4,7,11,15 1358:6 1361:4,8 1364:16	<b>modifications</b> 1266:20	<b>navigated</b> 1355:10	<b>notifications</b> 1284:6, 10 1285:10,17,28 1286:8,18,20 1287:3, 20,28 1289:5
<b>microphone</b> 1234:1 1281:26	<b>modified</b> 1256:18	<b>NBC</b> 1317:5,21 1318:15,16 1321:17 1323:15,19,24 1331:17	<b>NPC</b> 1360:21 1361:2, 13,15
	<b>modifies</b> 1253:27	<b>NDC</b> 1230:20,27	
	<b>modify</b> 1256:12 1278:1		
	<b>modifying</b> 1266:13		
	<b>moment</b> 1294:21,23,24 1306:24 1324:7 1344:27 1353:20 1357:2 1359:20		
	<b>Monday</b> 1367:14,18,19		

<b>NPCS</b> 1361:26	<b>office</b> 1239:24 1240:3, 18,25 1282:6,11 1287:15	<b>orders</b> 1317:6	<b>paid</b> 1361:15
<b>number</b> 1243:27 1270:7 1271:11 1274:1, 17 1282:20 1284:5,14, 16 1285:8,9,27 1286:7, 17,20 1287:3,8,27 1291:24 1292:5 1294:21 1295:11 1301:27 1303:12 1334:8 1336:14 1356:11	<b>offices</b> 1344:13	<b>organization</b> 1233:25 1282:6	<b>panel</b> 1367:16
<b>numbered</b> 1238:22	<b>one-on-one</b> 1350:20	<b>original</b> 1241:1,11 1265:25 1283:6,9 1302:22 1355:26	<b>paper</b> 1348:26,27 1349:19,23,24,26,28 1350:3,7,14
<b>numbering</b> 1238:26	<b>Ong</b> 1367:15	<b>originally</b> 1350:26	<b>paperless</b> 1350:4,8
<b>numbers</b> 1244:15 1284:24 1334:17	<b>open</b> 1357:17 1361:21	<b>Oroville</b> 1333:19	<b>paragraph</b> 1266:10 1301:11 1308:13 1351:18 1352:4
<hr/> <b>O</b> <hr/>	<b>opening</b> 1313:28 1314:20 1315:8	<b>overarching</b> 1247:3	<b>paraphrase</b> 1280:23
	<b>operate</b> 1318:5	<b>overbroad</b> 1243:10 1254:2 1271:23 1272:17	<b>pars</b> 1328:10,12
	<b>operating</b> 1317:27,28 1318:2	<b>overhead</b> 1246:11,17 1247:6 1284:5,9 1285:9,17,28 1286:8, 11,18,20,24 1287:3,20, 28 1289:5	<b>parse</b> 1336:11 1339:7
	<b>operation</b> 1361:18	<b>overheads</b> 1275:1	<b>part</b> 1254:26 1256:18 1257:4 1259:8 1264:13 1291:3 1304:13,24 1305:14 1322:19 1329:9 1341:17 1342:16 1349:6 1364:14,16
	<b>Operations</b> 1234:4	<b>overlap</b> 1281:1	<b>particles</b> 1301:13 1303:6
	<b>operator</b> 1356:23	<b>override</b> 1341:9	<b>parties</b> 1239:20 1320:15 1367:23,25
<b>object</b> 1319:28 1321:22 1322:9 1327:12 1330:9 1341:4	<b>opine</b> 1336:19	<b>Overruled</b> 1243:11 1290:12 1293:24	<b>parts</b> 1316:19
<b>objecting</b> 1293:20	<b>opinion</b> 1306:8,14 1317:16 1336:12 1341:8 1356:26	<b>oversee</b> 1282:5 1283:18	<b>party</b> 1231:15 1336:17
<b>objection</b> 1230:4,5 1241:21 1243:9 1248:20 1254:2,19 1256:20 1259:27 1271:22 1272:9,17 1274:21 1286:2 1288:1 1290:11 1292:25 1293:16,21 1296:10 1310:6,21,23 1312:25 1322:21 1324:16 1340:12 1342:7 1365:26	<b>opinions</b> 1239:7 1315:21	<b>overview</b> 1244:22	<b>past</b> 1243:7,18 1329:24
	<b>opposed</b> 1246:18 1258:4 1352:26	<b>owing</b> 1304:14	<b>path</b> 1260:17 1261:13
	<b>opposing</b> 1237:8	<b>owned</b> 1317:18	<b>Patterson</b> 1367:15
	<b>opt-out</b> 1355:18	<b>owning</b> 1317:26,27 1318:2	<b>Paul</b> 1242:24
	<b>opted</b> 1355:8	<hr/> <b>P</b> <hr/>	<b>pay</b> 1319:21,22,25 1341:23 1348:1,4,11 1354:28 1355:27,28 1356:3,12 1358:20 1362:1,2,7
	<b>optimization</b> 1344:23	<b>p.m.</b> 1311:5 1312:1	<b>paying</b> 1320:19 1356:10,27 1360:20 1361:2,3,9,10 1362:8
	<b>option</b> 1350:4 1355:17	<b>PA</b> 1275:9	<b>payment</b> 1347:22 1354:7 1360:24 1361:4, 8
<b>objections</b> 1310:24 1312:24 1365:3,4,21	<b>options</b> 1269:9,21 1353:22 1354:1,5 1355:12 1356:12 1362:24,28 1363:3,8,9, 11,20,22	<b>PA's</b> 1273:21	<b>payments</b> 1348:7
<b>objects</b> 1359:18	<b>ORA</b> 1266:25	<b>Pacific</b> 1233:18 1238:6 1313:11	<b>PCIA</b> 1319:2,6,16,25 1320:9,23,28 1321:7,9, 13,25 1322:5,18,24 1323:20 1324:2,13,20
<b>observation</b> 1306:3	<b>ORA's</b> 1264:20 1273:21	<b>package</b> 1241:7	
<b>obtain</b> 1354:28	<b>ORA-08</b> 1270:27	<b>packaged</b> 1332:26	
<b>occasions</b> 1278:8	<b>Orange</b> 1350:26	<b>pages</b> 1235:9,28 1246:28 1250:7 1266:24 1301:28 1302:1,14 1304:6 1334:27 1350:16	
<b>occupied</b> 1287:2	<b>order</b> 1247:1,2 1278:12		
<b>occur</b> 1275:7 1306:7	<b>ordered</b> 1277:28 1278:16		
<b>occurred</b> 1301:17 1305:21 1333:20			
<b>offer</b> 1285:7 1335:14			
<b>offered</b> 1347:10 1353:22 1354:1			

1326:10,14 1329:10,18 1330:5 1331:8,13	1316:21,26 1317:17 1318:5,12,24 1320:15 1321:6 1323:13,17 1326:1,4 1328:9 1332:2 1333:7 1334:20,21 1335:10,26 1337:14,20 1339:21 1342:15 1343:10 1344:1 1347:8 1349:5,8,11,21 1353:22 1354:1,25 1355:7 1357:27 1358:8 1360:14,27 1361:8 1362:2,7,19,22 1366:12,19	<b>pipelines</b> 1332:21	<b>potentially</b> 1258:11 1262:15 1301:14
<b>PCIA's</b> 1320:17		<b>place</b> 1255:22 1258:9 1322:16	<b>potentially-reduced</b> 1289:6
<b>PCIA-RELATED</b> 1330:6		<b>places</b> 1257:14	<b>power</b> 1319:1 1329:6 1344:19,21 1355:9,18
<b>Pender</b> 1302:20 1303:15 1307:4		<b>plan</b> 1284:23 1285:12, 26 1286:26 1289:27 1312:14	<b>practical</b> 1249:17
<b>people</b> 1241:27 1288:10 1290:17 1343:17 1349:28 1350:10 1352:25		<b>planning</b> 1283:25	<b>practices</b> 1254:3
<b>percent</b> 1233:1 1303:22 1347:8,16,18, 20 1348:6,12		<b>plant</b> 1343:7,8	<b>PRC</b> 1300:24,25
<b>percentage</b> 1348:1		<b>plants</b> 1317:18 1318:6	<b>precarious</b> 1358:19
<b>perform</b> 1289:7 1290:15		<b>plow</b> 1353:16	<b>precision</b> 1336:2 1339:17
<b>performed</b> 1243:6,18, 20 1261:20 1354:14 1362:18	<b>PG&amp;E's</b> 1235:8 1238:17 1241:1 1243:2 1249:10 1250:3,8 1253:1,8 1265:23 1266:8 1271:14,19 1272:1 1287:23 1293:8 1308:6,14 1316:22 1318:17 1319:21,23 1320:16,19 1321:28 1322:6 1323:16 1324:14,28 1325:23 1326:18 1327:9 1328:4, 19 1329:4,5 1330:14,17 1331:9 1332:5,11,17,20 1333:11 1335:21 1340:9,21 1341:2 1342:4 1344:12 1349:3, 6 1354:27 1355:27 1357:11 1363:1,4,24 1366:21	<b>poetry</b> 1346:12	<b>predecessors</b> 1241:27
<b>perimeter</b> 1301:13 1303:6,7,9		<b>point</b> 1282:12 1321:5 1328:1 1329:14 1332:7 1354:17 1355:15	<b>prefer</b> 1231:18 1348:27 1349:7,20,23,26
<b>period</b> 1294:16 1308:10		<b>points</b> 1316:18 1352:2	<b>preference</b> 1348:16 1352:22 1358:5,10,12
<b>person</b> 1250:13 1252:21 1348:2 1349:12,20 1355:24		<b>pole</b> 1244:20 1245:1,7 1246:13,20 1251:5,7 1257:12 1260:7 1261:24 1267:15 1279:26 1280:2,5,25 1305:22	<b>preferred</b> 1259:13,21 1260:7,15 1293:5 1357:19
<b>personnel</b> 1262:24		<b>poles</b> 1244:6,25 1253:9 1280:13 1281:2 1300:10,19,20,26,27 1301:1,5 1302:27 1303:21	<b>preliminaries</b> 1264:3
<b>perspective</b> 1247:4 1279:23	<b>PG&amp;E-04</b> 1238:7 1239:26	<b>policy</b> 1334:23 1344:22	<b>premise</b> 1326:19,27
<b>PG&amp;E</b> 1230:20,27 1231:14,25 1234:25 1235:7,26 1236:6,18 1237:23,27 1240:3,11 1241:10,11 1242:21 1244:24 1245:1 1249:18 1253:23 1254:3,10 1261:24 1262:23 1263:22 1264:10,23 1266:27 1274:9 1277:12,17,28 1278:16 1282:4,20,24 1284:17 1287:13 1290:22 1292:22 1295:16,21 1297:11,18 1298:14 1299:7 1300:20 1301:15 1305:19 1306:8,14 1310:20 1312:9,13	<b>PG&amp;E-18</b> 1235:3 <b>PG&amp;E-4</b> 1234:17,21 <b>PG&amp;E-52</b> 1282:26 <b>phase</b> 1329:12,13,14 <b>phone</b> 1354:14,23,27 1355:27 1356:6,24 1360:20 1361:3 <b>phrase</b> 1300:1 <b>phrased</b> 1343:14 <b>picking</b> 1262:5,13 <b>pie</b> 1358:23 <b>piece</b> 1305:21 <b>pipeline</b> 1333:13	<b>politically</b> 1358:24 <b>pool</b> 1332:23 <b>poor</b> 1358:7 <b>popular</b> 1352:9 <b>portfolio</b> 1322:6,8 1324:15 1327:9 1328:20 1329:4 <b>portion</b> 1277:13,19,20, 25 1285:21 <b>portions</b> 1253:24,27 1254:17 <b>posed</b> 1300:7 1307:7 <b>position</b> 1282:4,16 1334:2,7 1340:5 <b>possibly</b> 1361:28 1362:5	<b>premium</b> 1334:5 1337:9 <b>premiums</b> 1332:1 1336:3 1337:25 <b>prepare</b> 1286:15 1309:11 <b>prepared</b> 1230:28 1235:15,22,27 1307:3 1310:19 1323:9,10 1341:5 <b>present</b> 1231:3 1232:2, 6 1338:15 <b>presented</b> 1229:12 1230:18 1234:20 <b>presenting</b> 1232:7 <b>preserve</b> 1322:2 <b>preserving</b> 1363:19 <b>preside</b> 1233:14 <b>press</b> 1355:12,16 <b>presume</b> 1360:8



<b>pretend</b> 1297:7	<b>program</b> 1242:9,10,14, 21,27 1244:10 1245:16 1246:2 1256:2,11,19 1257:4 1261:18 1262:9, 10 1264:8,9,22,25 1266:28 1267:5,24 1271:21 1272:2 1276:21,27 1277:1,8, 14,25,28 1278:5,6,21 1279:24,25 1280:3,13, 16,23,24,25 1281:9 1290:26 1291:4,19 1292:7,8,13,16,20 1293:10 1294:14,15 1295:8,27 1296:1,9,13, 28 1297:14,19 1316:25 1339:25 1340:22 1366:14	1357:13 1362:12	<b>quantify</b> 1284:20
<b>pretty</b> 1321:17 1338:12		<b>provided</b> 1241:27 1266:27 1270:3 1272:15 1274:14 1318:28 1344:16 1362:17	<b>question</b> 1239:14 1240:5 1243:13 1244:22 1248:25,26,27 1249:11,21,27 1250:9, 13 1251:22,25 1252:2,4 1253:2 1260:14 1263:26 1265:24 1266:9,25 1268:16,19 1270:9 1271:15,25 1272:12,24,28 1273:15, 24 1274:2 1279:14,22 1280:10 1287:5 1288:13,19,21 1289:4, 18 1290:20 1292:26 1296:5 1302:3,13,21 1305:6 1306:13 1307:3 1308:28 1321:10 1322:14 1323:1,12 1325:4 1326:25 1327:3 1328:1 1330:12 1331:2 1332:13 1334:28 1335:2 1340:19,24 1342:23 1343:15,23 1345:13 1346:3,4,5,15 1349:25 1352:14,17 1353:27 1355:26 1358:17 1359:5 1361:6
<b>prevent</b> 1341:20		<b>providing</b> 1351:5,21 1362:13	
<b>preventive</b> 1288:28		<b>proximity</b> 1249:24	
<b>previous</b> 1288:26		<b>Public</b> 1239:23,25 1240:2,4,18,24 1249:10 1250:8 1253:1 1270:8, 15 1271:15 1279:22 1280:10 1300:15 1310:4	
<b>previously</b> 1242:9 1279:14		<b>publications</b> 1346:16, 19,23	
<b>price</b> 1268:20 1269:1,3 1279:16 1327:16,21,22 1328:21,22,23 1335:15, 16	<b>program-specific</b> 1308:25	<b>published</b> 1236:7 1345:21,25 1346:6,12	
<b>priced</b> 1334:22 1335:25	<b>programs</b> 1243:2,17 1244:9 1250:18 1255:4 1283:4 1333:12 1340:21 1341:12,13,14, 16,26,28 1342:1,3	<b>pull</b> 1351:8	
<b>primarily</b> 1342:28		<b>purchases</b> 1334:20	
<b>primary</b> 1236:9 1237:1 1246:14,21 1263:24 1283:3 1288:28	<b>prohibitive</b> 1351:27 1352:19	<b>purpose</b> 1320:17 1321:25,26 1322:1 1332:8,14 1356:1	
<b>principal</b> 1230:28 1340:6,28	<b>project</b> 1272:8 1274:20 1275:17 1282:5,10	<b>purposes</b> 1293:15	<b>questioned</b> 1366:11
<b>Prior</b> 1236:15	<b>promise</b> 1330:4	<b>pursuant</b> 1300:15	<b>questioning</b> 1237:7 1255:13 1279:11 1285:3 1290:28 1291:6 1294:1 1320:1 1324:24 1367:26
<b>prioritization</b> 1306:17	<b>proposal</b> 1344:12 1363:1,4	<b>push</b> 1302:18	
<b>prioritize</b> 1306:19	<b>proposals</b> 1325:2	<b>put</b> 1243:28 1285:6 1317:23 1318:14 1352:10	<b>questions</b> 1240:12,27 1243:27 1244:1,6 1252:16,24 1254:8 1257:17 1265:1,3,9 1276:6 1281:12,16 1282:2 1288:14 1291:15 1302:24 1303:13,17 1306:23 1307:21 1309:5,6 1316:17 1319:15 1320:4 1321:20 1328:25 1343:26 1344:2,9 1353:6 1363:26 1364:19 1366:15,17
<b>private</b> 1362:13	<b>proposed</b> 1242:14 1317:4 1320:24 1321:2 1323:19 1325:5 1353:25 1354:3 1357:12 1358:27	<b>puts</b> 1330:25	
<b>proactively</b> 1278:1		<b>putting</b> 1285:12 1289:11	
<b>problem</b> 1356:27	<b>proposes</b> 1323:15	<b>puzzled</b> 1294:4	
<b>problems</b> 1341:20	<b>proposing</b> 1232:2 1316:21,26		
<b>procedures</b> 1335:12	<b>protect</b> 1249:16,25 1342:21	<b>quadrupling</b> 1286:19	
<b>proceed</b> 1264:26 1265:14,19 1276:5 1279:10 1281:19 1294:11 1298:3 1313:5 1316:9 1359:27 1364:2	<b>protection</b> 1317:13 1323:26	<b>qualifications</b> 1235:13 1282:3,19 1283:2 1344:16 1364:6	
<b>proceeding</b> 1234:15 1315:7 1320:2 1325:2,6 1327:25 1329:10,15,27 1332:6 1341:28 1346:11	<b>provide</b> 1246:28 1259:14,19,25 1261:6, 12 1263:19 1272:6 1274:20,26 1343:16	<b>qualify</b> 1286:4 1288:18 1327:2	<b>quick</b> 1252:10
<b>process</b> 1355:2		<b>quantification</b> 1286:19	<b>quickly</b> 1246:16 1320:4
<b>processing</b> 1287:15			<b>quo</b> 1266:12,16,19
<b>produced</b> 1302:19			
<b>professional</b> 1239:8 1306:6 1315:22 1345:28			

1269:9,20	1238:18 1276:9	1359:28 1360:1,2,5,6,7	<b>Reform</b> 1282:1
<b>quote</b> 1335:10 1350:23, 25 1351:14 1352:23	1277:11 1280:21	1365:2,6,12,17,19,22, 28 1366:19	<b>regarded</b> 1335:17
<b>quotes</b> 1267:27	1283:28 1286:15		<b>Register</b> 1350:27
	1288:26 1290:27	<b>recorded</b> 1308:6,14	<b>regret</b> 1231:9
	1291:14 1294:19	<b>recover</b> 1323:18	<b>regulated</b> 1358:9
	1300:6 1302:23	<b>recovered</b> 1318:17,20 1323:19	1360:26
<b>R</b>	1305:27 1307:18	<b>recovers</b> 1318:25 1323:14 1324:13	<b>regulation</b> 1345:3,17 1346:28
<b>R.17-06-026.</b> 1314:21	1308:2,22 1309:12	<b>recovery</b> 1327:24 1341:13	<b>regulatory</b> 1317:24 1344:22
<b>raise</b> 1233:16 1313:9 1321:5 1366:8	1314:5 1315:14	<b>recreational</b> 1317:12 1323:25	<b>Reid</b> 1229:12,20,27 1230:1,3 1232:25,26 1233:3
<b>raises</b> 1321:9	1316:19 1321:8	<b>recross</b> 1364:25	<b>reject</b> 1344:12
<b>RAMP</b> 1276:19,22	1325:17 1331:23	<b>red</b> 1337:10 1339:8	<b>relate</b> 1235:2 1324:24, 28 1355:5
<b>ran</b> 1236:16	1333:24 1339:25	<b>redacted</b> 1270:11,16	<b>related</b> 1264:20 1316:27 1317:7 1332:20 1359:14,19,25 1366:15
<b>random</b> 1325:4	<b>recall</b> 1319:17	<b>redirect</b> 1309:15 1353:13 1359:10 1363:28 1364:3,21	<b>relates</b> 1366:21
<b>range</b> 1286:13 1334:17 1339:4	<b>receive</b> 1349:19,26 1350:3	<b>redline</b> 1237:9,28 1238:1,6,19	<b>relation</b> 1284:18 1309:8
<b>ranges</b> 1279:18	<b>received</b> 1230:8,10,11 1282:22,27 1305:5 1310:10,11,28 1313:1 1365:7,8 1366:1	<b>reduce</b> 1320:18	<b>relationship</b> 1271:28 1272:5 1275:4 1326:21
<b>rate</b> 1264:10 1287:26 1291:20 1292:24 1293:10 1295:12,15,18, 28 1296:9 1320:10 1322:5 1333:8	<b>receives</b> 1348:25	<b>reduced</b> 1287:26	<b>relative</b> 1243:27
<b>ratemaking</b> 1344:22	<b>recent</b> 1230:19 1319:13	<b>reduction</b> 1288:2 1302:25 1307:9,13	<b>relevance</b> 1264:2
<b>ratepayers</b> 1329:5 1357:27	<b>recess</b> 1309:22 1311:2, 4	<b>refer</b> 1242:26 1275:26 1305:5 1308:1 1317:5, 21 1360:23	<b>relevant</b> 1232:10 1320:26 1321:17 1341:27 1346:11,13 1352:2,15 1364:8
<b>rates</b> 1297:12,15 1318:18,20 1319:22,23 1358:11	<b>recognize</b> 1323:6	<b>reference</b> 1241:8,22 1268:24 1270:20,21,23 1271:1,7 1273:20 1276:1 1279:21 1303:8 1325:27	<b>reliability</b> 1283:25
<b>re-ask</b> 1243:13	<b>recommendation</b> 1332:5,6 1344:9,12	<b>references</b> 1322:25	<b>remained</b> 1357:17
<b>reach</b> 1261:21	<b>recommended</b> 1308:21	<b>referencing</b> 1277:5 1325:28 1326:3	<b>remaining</b> 1303:5
<b>reached</b> 1230:27	<b>recommends</b> 1331:27	<b>referred</b> 1292:16 1338:7	<b>remarks</b> 1366:6
<b>read</b> 1249:13 1273:11, 14,25 1328:16 1352:15	<b>record</b> 1229:5 1230:2, 9,13,14,16,17 1231:21 1232:26 1233:2 1237:23,25,27 1239:15, 16,17,18,19 1247:16, 18,20 1252:8,12,13 1265:16,17,18,26 1268:11,13,14 1277:26 1279:7,8,9 1289:20 1291:26,28 1292:1 1294:24,25,26,27 1296:11 1297:25,26,27, 28 1302:5,6,7 1306:25, 26,27,28 1309:26,27,28 1310:2,9,14,18,22,27 1311:3 1312:4,10,11, 12,21,23 1321:15 1324:9,10,11 1345:8,9, 10 1351:10,11,12 1353:17,18 1357:3,4,5	<b>referring</b> 1284:10 1300:14 1352:8	<b>remember</b> 1327:28 1356:10
<b>readily</b> 1356:24		<b>refers</b> 1304:20 1360:24	<b>remind</b> 1367:6
<b>ready</b> 1298:4 1325:13 1331:24,25		<b>refining</b> 1286:27	<b>remote</b> 1263:6
<b>real</b> 1358:17		<b>reflect</b> 1315:22	<b>repeat</b> 1269:15 1288:20 1306:12 1328:12 1330:11 1332:12 1345:12 1346:3,5 1352:13
<b>reappear</b> 1309:20			
<b>reason</b> 1259:8			
<b>reasonable</b> 1358:10			
<b>rebuttal</b> 1229:27 1232:27 1234:28 1235:3,22 1236:19			

1353:26 1361:5 1362:4	<b>requirements</b> 1236:5 1280:4 1300:15,19 1301:6,9 1305:23 1307:9,10,14 1317:8 1318:14	<b>results</b> 1288:11 1348:19	<b>Roberts'</b> 1252:16
<b>repeated</b> 1302:23		<b>resume</b> 1311:2	<b>rod</b> 1256:14 1258:16, 21,23 1259:10,14,20 1261:5,7,12,13
<b>rephrase</b> 1248:24 1259:17 1271:26 1322:13 1328:26 1330:13 1331:1 1342:11	<b>requisite</b> 1354:11	<b>resuming</b> 1229:7	<b>rods</b> 1255:6,10,18,22 1256:6,17 1257:7,20 1258:10,26 1259:5,18, 24 1260:1,8,11,20
<b>rephrasing</b> 1342:12	<b>research</b> 1346:17,20	<b>return</b> 1279:13 1295:22,23	<b>role</b> 1309:9
<b>replace</b> 1236:5,25,26 1242:22 1246:3,8 1256:12 1258:3 1278:16,19,21 1279:25 1280:25	<b>reserve</b> 1307:20	<b>revealed</b> 1348:16	<b>rolled</b> 1295:18
<b>replacement</b> 1242:13 1269:13,23,25 1276:20, 24,26 1277:1,3,8,18,21 1292:8,13,17,20 1295:8,27 1296:1,2,9	<b>reserving</b> 1291:6	<b>revenue</b> 1295:12	<b>rooftop</b> 1330:25
<b>replacing</b> 1266:14 1280:26 1299:19,26 1302:26	<b>resort</b> 1359:22	<b>revenues</b> 1326:11	<b>row</b> 1247:27 1293:5
<b>reporter</b> 1255:7 1353:18	<b>resource</b> 1327:16,22, 24	<b>review</b> 1275:25 1289:27	<b>rule</b> 1271:25
<b>reporters</b> 1255:12	<b>resources</b> 1300:16 1316:28 1326:17 1327:11,14 1328:8,21 1342:5,17,18	<b>reviewed</b> 1281:8	<b>rules</b> 1247:2,6 1300:25
<b>reporting</b> 1282:9	<b>resourcing</b> 1290:7	<b>revised</b> 1269:28 1270:3 1333:12	<b>run</b> 1253:6
<b>represent</b> 1239:8 1363:16	<b>respect</b> 1308:20 1330:2	<b>revision</b> 1240:5 1255:26	<b>runs</b> 1251:4,6
<b>representative</b> 1298:16 1355:4	<b>respond</b> 1245:2 1256:27 1323:16 1327:5	<b>revisions</b> 1253:25 1254:13	<b>rural</b> 1304:15
<b>representing</b> 1363:12	<b>responded</b> 1241:28 1306:4	<b>rid</b> 1351:16	<b>rushing</b> 1367:25
<b>request</b> 1240:4 1241:11 1245:3 1253:5 1264:10 1265:24 1266:8 1270:1,25 1280:11 1293:19 1302:3,12 1304:5 1307:3 1310:17 1314:14 1323:7 1365:24 1366:22	<b>response</b> 1240:3 1241:18 1248:28 1249:10 1250:8 1253:1, 4 1265:23,25 1266:8, 11,25,26 1268:23 1270:4,6 1271:15 1272:21 1279:22 1280:10,11 1281:7 1302:2,12,15 1303:26 1304:3,5,8,19 1305:2,3 1307:2 1310:7,25 1314:14 1320:11 1321:10 1323:1,12 1334:26 1344:23 1365:24	<b>right-hand</b> 1267:7	<b>résumé</b> 1345:28
<b>requesting</b> 1295:17	<b>responses</b> 1240:11 1241:11,13,26 1270:25 1307:18 1310:19 1323:7	<b>risk</b> 1269:8,19 1276:14, 18 1286:25 1300:7,11 1301:10 1302:25,28 1303:2,5,13 1305:27 1307:9,13 1334:14 1336:4,27 1337:1	<b>S</b>
<b>requests</b> 1231:1 1241:28 1282:13 1303:27 1306:5 1325:1 1366:12,16	<b>responsibilities</b> 1318:11	<b>risks</b> 1269:11 1302:25 1307:7 1334:21	<b>S-A-G</b> 1242:7
<b>required</b> 1256:1,12 1257:5 1261:20	<b>responsible</b> 1290:3	<b>Rita</b> 1307:27	<b>safely</b> 1263:12
<b>requirement</b> 1295:12	<b>result</b> 1289:6	<b>Robert</b> 1313:7,11,19,28 1314:6,20	<b>safer</b> 1341:25
		<b>Roberts</b> 1232:21,23 1240:17,19,21,23 1241:23,24 1243:12,14, 15 1247:16,21 1248:22, 26 1249:4 1252:3,22, 23,25,27 1254:4,6,21 1255:11,16 1257:3 1260:2,4 1264:4,13,19 1265:6,19,21 1268:15, 18 1270:24 1271:13,24, 26 1272:13,20,23 1273:7,10,27 1274:3,8, 23 1276:5,7 1278:27 1279:2,10,12 1281:11 1292:15 1366:11	<b>safety</b> 1236:4 1276:14, 18 1291:4 1316:25 1339:25
			<b>SAG</b> 1242:7 1244:8 1250:18 1255:4 1256:1, 11,18 1257:4 1261:18 1262:4,10,12 1264:8,22 1292:16
			<b>San</b> 1229:1 1313:21 1333:13
			<b>Sandra</b> 1233:18,26 1234:2 1239:26
			<b>save</b> 1267:20 1273:11 1306:22
			<b>saved</b> 1343:7
			<b>saves</b> 1267:13
			<b>savvy</b> 1352:5,24,25,28

<b>schedule</b> 1233:6 1367:20,27	<b>service</b> 1231:12 1246:12,18 1256:7 1306:10,16 1321:28 1344:13 1346:24 1347:1,10 1350:20 1351:5,21 1353:21,28 1355:4,7,22 1357:14 1358:20,21	<b>shows</b> 1250:16,28 1251:3 1255:17 1256:5 1259:2 1265:23 1266:1 1267:9 1268:4 1288:27 1292:6,22 1293:3	<b>spark</b> 1305:28
<b>scheduled</b> 1229:14		<b>shrinking</b> 1325:25 1328:6 1330:7,15,26 1331:10,16	<b>speak</b> 1297:6 1350:6
<b>scope</b> 1243:6,17 1244:8 1256:1 1263:15 1284:3 1320:2,8 1321:21 1322:10,22,25 1324:25	<b>services</b> 1343:16 1347:25 1354:28	<b>shutoff</b> 1355:20	<b>speaking</b> 1288:5
<b>screen</b> 1353:1	<b>serving</b> 1245:8 1362:22	<b>side</b> 1251:5,6 1256:8 1267:7	<b>specific</b> 1241:22 1272:25 1309:1 1325:5
<b>secondary</b> 1236:16 1245:10 1246:14,21 1248:8 1263:23	<b>SESSION</b> 1312:1	<b>significant</b> 1348:9	<b>specifically</b> 1236:1,20 1273:5 1274:5
<b>secrets</b> 1335:18	<b>set</b> 1244:9 1263:11 1273:3 1275:10 1322:5 1326:19,27 1327:23 1340:14,16 1346:6	<b>similarly</b> 1271:9	<b>specification</b> 1248:24
<b>section</b> 1286:16 1344:10 1348:5	<b>sets</b> 1260:1	<b>simple</b> 1288:15 1338:8, 15	<b>specifics</b> 1297:2
<b>sector</b> 1344:19 1345:3, 17 1346:28	<b>settings</b> 1304:16	<b>simply</b> 1358:14	<b>spelling</b> 1233:24 1313:17
<b>SED</b> 1278:4,7,11	<b>SF</b> 1355:9,18	<b>Singh</b> 1284:12,26 1285:2,7,22 1290:26 1291:1 1302:20 1303:15 1306:23 1307:4	<b>spending</b> 1292:6 1308:17
<b>seeks</b> 1312:23 1365:1	<b>shadow</b> 1354:13 1362:13,15,16	<b>single</b> 1245:10 1250:16 1263:18	<b>spent</b> 1287:24
<b>self-checkout</b> 1350:18 1351:16,26 1352:8,18, 26 1356:25 1360:13	<b>share</b> 1285:11,15 1320:20	<b>Sir</b> 1231:10	<b>spillway</b> 1333:20
<b>self-checkouts</b> 1352:9	<b>shared</b> 1329:5,11,21, 28	<b>situation</b> 1256:23	<b>spokesperson</b> 1351:4,20
<b>self-service</b> 1356:19, 21	<b>she'll</b> 1359:19	<b>size</b> 1283:20	<b>spokeswoman</b> 1352:11
<b>sending</b> 1233:7	<b>Shek</b> 1232:22,24 1264:7 1265:12,15 1270:22 1271:6 1272:27 1310:3 1366:7, 9,26 1367:5	<b>skip</b> 1273:24	<b>sponsor</b> 1241:2 1283:9
<b>senior</b> 1240:23	<b>Shek's</b> 1367:1	<b>slightly</b> 1267:4	<b>sponsored</b> 1235:2 1288:6
<b>seniors</b> 1356:18,27	<b>Sher</b> 1232:21	<b>slow</b> 1255:13 1264:13	<b>sponsoring</b> 1234:14, 18,27 1235:9,12 1315:7,8
<b>sense</b> 1232:10 1258:2 1261:15 1299:4	<b>shoppers</b> 1350:21	<b>slowing</b> 1359:16	<b>spot</b> 1322:17 1343:18
<b>sensitivity</b> 1338:7,25	<b>shopping</b> 1361:25	<b>soil</b> 1258:12,14 1260:27	<b>spread</b> 1325:24 1328:5 1330:7,15 1331:9,14,15
<b>sentence</b> 1236:1,9,13 1280:22 1328:7 1329:3	<b>short</b> 1249:16 1279:5 1315:10	<b>soils</b> 1259:11	<b>stack</b> 1271:1
<b>separate</b> 1260:17 1263:18,19 1264:24	<b>show</b> 1250:20 1255:3 1259:3 1260:5 1268:27	<b>solar</b> 1330:25	<b>staff</b> 1287:1,5,8,10,15, 19,24 1288:16 1289:21, 22 1290:9
<b>separating</b> 1287:17	<b>showed</b> 1254:18	<b>sold</b> 1327:17 1328:24	<b>staffing</b> 1290:3 1366:15,16,21
<b>September</b> 1229:2 1240:5 1312:15 1314:8 1367:14	<b>shown</b> 1246:25 1268:21 1269:13 1274:10 1279:16 1295:18 1346:8	<b>sole</b> 1241:2	<b>stand</b> 1309:18 1313:8
<b>serve</b> 1326:2,4,18 1328:9 1351:7,23		<b>solution</b> 1252:10	<b>standard</b> 1236:15 1250:4 1253:9,17,24, 26,28 1254:18 1255:21 1257:11,28 1258:19
<b>served</b> 1237:23,27		<b>sort</b> 1275:16 1306:2,11 1330:21 1338:5 1343:5, 15 1358:22	<b>standardization</b> 1253:23
		<b>sounds</b> 1317:10 1344:26	<b>standards</b> 1236:4,6,22 1254:12,13,14
		<b>Southern</b> 1333:16 1350:19 1351:16	

<b>start</b> 1233:4,13 1234:6 1241:25 1242:2 1244:5 1253:7 1282:16 1298:12 1322:15 1328:3	14	<b>Summary</b> 1312:14	
<b>started</b> 1278:4 1304:18	<b>stored</b> 1262:27	<b>supervision</b> 1235:16	<b>T</b>
<b>starting</b> 1276:12 1295:19,22 1297:17 1347:5,14,20 1348:23 1350:16 1354:12,19 1356:17 1362:22	<b>stores</b> 1350:19 1351:17 1352:7,8 1360:25	<b>supervisor</b> 1233:9	<b>table</b> 1247:10,11,23 1258:16 1266:1,3 1288:25,27 1291:23 1292:5,9,13,21 1293:2 1295:4,5,18
<b>starts</b> 1236:2,14 1266:11 1277:6 1291:16	<b>Stough</b> 1314:28 1315:2,4,28 1353:12,14 1363:27 1364:1,4,18 1365:1	<b>support</b> 1349:18	<b>Tadashi</b> 1230:24
<b>state</b> 1313:16 1325:23 1331:26 1340:1 1347:19 1348:24 1350:17 1351:4 1354:14 1355:16 1366:18	<b>strap</b> 1261:25	<b>supporting</b> 1239:25 1283:21	<b>tag</b> 1285:19,20
<b>stated</b> 1351:20 1356:18	<b>strategy</b> 1345:5,19	<b>supposed</b> 1328:24	<b>tags</b> 1284:11,15,16,27 1285:18,22
<b>statement</b> 1235:13 1249:28 1250:2 1269:16,24 1282:18 1283:2 1303:9,11 1335:21 1336:15 1344:16 1367:1	<b>Street</b> 1313:21	<b>surge</b> 1236:23 1237:16, 17 1240:12 1242:8,13 1245:15 1246:12,19,23 1249:23 1250:21 1251:6,13,17,19 1255:4,8 1257:20,24 1261:21 1266:14 1268:5,10,17,20 1269:2,13,23,25 1276:13,17,20,24,25,26 1277:3,8,18 1278:1,6, 17,19,21,22 1279:15,27 1280:5,15,26 1281:9 1291:18 1292:6,7,12, 14,17,19 1293:14 1295:7,26 1296:8,12, 16,27 1297:13 1298:8, 14,18,19,21 1299:19,27 1300:8 1303:28 1304:14	<b>takes</b> 1326:14
<b>statements</b> 1271:16 1291:15	<b>strength</b> 1336:21	<b>survey</b> 1348:19	<b>taking</b> 1283:20 1325:17
<b>states</b> 1308:5,13,23 1323:13 1339:21 1344:18	<b>stricter</b> 1367:28	<b>surveyed</b> 1347:7,8,16, 18,21 1348:7,21 1362:20	<b>talk</b> 1364:15
<b>stating</b> 1262:22 1335:3,10 1357:1	<b>strike</b> 1236:13,24 1326:2 1334:11 1337:18 1357:9	<b>sustain</b> 1273:2	<b>talked</b> 1263:15 1278:4
<b>status</b> 1266:12,16,19 1269:9,20 1355:18	<b>strong</b> 1336:5	<b>sustained</b> 1260:2 1285:4 1320:5 1322:23 1324:18	<b>talking</b> 1242:3 1274:7 1298:10 1300:23 1331:17 1340:18,20 1341:27 1345:28 1357:23 1358:2,3,14 1359:15
<b>stem</b> 1317:5	<b>structure</b> 1345:3,17 1346:28	<b>switch</b> 1244:14	<b>talks</b> 1269:20
<b>step</b> 1309:18 1319:14 1359:19	<b>structuring</b> 1244:1	<b>sworn</b> 1233:19 1313:12	<b>Tanya</b> 1250:11
<b>Steve</b> 1252:18	<b>students</b> 1364:12,13	<b>system</b> 1256:18 1257:11 1260:6 1263:18 1298:9,20 1301:6 1319:22 1340:9 1341:3,20,21 1344:23 1355:3,10 1361:2	<b>target</b> 1280:3
<b>stipulation</b> 1231:4 1232:3 1265:9	<b>studied</b> 1335:4 1342:25 1361:26	<b>systems</b> 1263:19,24 1354:23 1356:24 1357:8	<b>targeted</b> 1281:3
<b>stop</b> 1248:10 1258:13 1274:23 1321:16	<b>subject</b> 1245:16 1255:3 1280:13 1284:25 1300:20 1301:5 1302:27 1304:27 1305:22		<b>teaching</b> 1364:10
<b>storage</b> 1332:20 1333:16	<b>subject-matter</b> 1271:21 1272:3,16,19 1274:19,26 1275:5,15		<b>team</b> 1271:19 1272:1,6, 16 1274:14 1275:6,24 1282:7 1285:12,25 1289:25,26,28 1290:2,6
<b>store</b> 1351:28 1360:11,	<b>submitted</b> 1268:22 1324:5		<b>team's</b> 1275:11
	<b>substance</b> 1264:5,17, 20		<b>teams</b> 1342:15,27
	<b>substantial</b> 1320:23 1349:6		<b>tech</b> 1352:5,23,25,28
	<b>substituting</b> 1232:21		<b>technical</b> 1245:24 1252:21 1265:1,3 1299:25,28
	<b>sufficient</b> 1301:9		<b>technician</b> 1262:1
	<b>suggests</b> 1335:24		<b>technologies</b> 1356:20, 21,22
	<b>sum</b> 1260:20 1287:7		<b>technology</b> 1364:7
	<b>summarize</b> 1299:17		<b>telling</b> 1278:12
			<b>term</b> 1245:17 1289:14 1317:19 1318:22

1325:27 1327:15 1328:7 1329:2	1359:16	1295:8 1301:20,22 1304:23,28 1322:6,19 1326:10	1258:15,24 1265:22,24, 28 1269:5 1270:19 1271:1 1276:9 1277:10 1280:9 1283:27 1291:13,23 1292:3 1294:18 1297:21 1300:5 1301:26 1302:2, 12 1304:11 1307:2 1312:8,22 1323:14 1325:16 1333:24 1347:28
<b>termed</b> 1300:20	<b>third-party</b> 1332:10,16	<b>tough</b> 1260:27	<b>TURN's</b> 1304:5
<b>terminology</b> 1242:3	<b>thought</b> 1244:21 1267:26 1331:4 1337:7, 8 1355:28	<b>track</b> 1303:20,24 1305:20	<b>TURN-DRA-096</b> 1240:11
<b>terms</b> 1243:5,17 1244:27,28 1273:12,16 1289:21	<b>thoughts</b> 1362:24	<b>tracked</b> 1280:19 1281:8	<b>turned</b> 1328:15
<b>territory</b> 1306:10,16 1333:17	<b>thousands</b> 1267:28	<b>trade</b> 1335:17	<b>turning</b> 1250:27 1263:27 1266:7,24 1267:6 1347:4
<b>test</b> 1296:7,15	<b>threat</b> 1305:11,16	<b>traditional</b> 1349:7,10, 15,16	<b>two-thirds</b> 1264:14
<b>testified</b> 1233:19 1296:19 1303:4 1313:12 1340:26	<b>tie</b> 1322:24	<b>transaction</b> 1352:20	<b>type</b> 1242:15 1276:18
<b>testify</b> 1290:21 1305:26 1341:6	<b>tied</b> 1325:4	<b>transfer</b> 1318:10	<b>types</b> 1259:11
<b>testifying</b> 1289:22	<b>Tier</b> 1304:2 1305:16	<b>transformer</b> 1245:8 1246:25 1248:17 1249:6 1250:22 1251:4, 12 1255:8 1256:8,13 1257:6,24 1258:2,4 1261:21 1298:18 1299:2	<b>typical</b> 1253:23 1254:3 1285:27 1286:3,5
<b>testimony</b> 1229:9,20, 27 1231:17 1232:28 1234:14,28 1235:3,22, 27 1236:19 1238:18 1264:20 1273:22 1276:10 1277:5,26 1280:21 1283:15,28 1286:16 1290:24,27 1291:13,14,23 1292:4 1294:19 1295:4 1297:3 1299:16 1300:6 1302:21 1308:2,23 1309:12 1313:28 1314:6,20 1315:6,8,14, 18,22,25 1316:19 1318:28 1321:8,14 1324:5 1325:17 1330:10 1331:12,13,23 1334:18 1337:12 1338:16 1339:25 1340:21 1341:23 1344:10 1345:24 1347:5 1348:5,24 1354:13 1357:11 1360:11 1362:10 1363:23 1364:9	<b>time</b> 1232:5,17,18 1235:20 1242:18 1243:28 1246:9 1261:3 1262:11 1264:3 1267:18 1273:11 1278:26 1279:5 1287:1, 6,24 1294:16 1295:22 1296:4,20,25 1299:20 1308:10,18 1318:13 1319:7 1339:23 1348:21 1350:13 1353:3,14 1367:6,23,28	<b>transformers</b> 1246:12, 19 1249:25 1255:5 1298:22,26	<b>typically</b> 1236:11 1237:2 1246:24 1249:6, 23 1286:21
	<b>times</b> 1252:5	<b>transition</b> 1363:2,7	<b>typo</b> 1237:15
	<b>timing</b> 1275:8	<b>transitioning</b> 1363:21	
	<b>title</b> 1247:10,14 1267:3 1271:4	<b>transmission</b> 1341:16	<hr/> <b>U</b> <hr/>
	<b>titled</b> 1240:3,11 1312:8, 13 1313:27	<b>treated</b> 1294:15 1330:1	<b>ultimately</b> 1326:22
	<b>today</b> 1229:9 1231:1, 18,23 1232:21 1261:26 1264:12 1268:10 1286:27 1289:17 1310:5 1315:11,15 1316:18 1344:8	<b>treatment</b> 1333:11	<b>unable</b> 1366:17
	<b>today's</b> 1367:24	<b>tree</b> 1354:16 1356:6,7,9	<b>unbundled</b> 1322:3 1329:12,19,22 1330:1, 18,23,28
<b>theory</b> 1354:10	<b>Tom</b> 1240:17,23 1321:13	<b>trees</b> 1267:27	<b>unclear</b> 1263:16
<b>thing</b> 1237:12 1245:5 1267:8 1285:11 1326:16	<b>tool</b> 1275:1	<b>trend</b> 1333:27 1336:26 1337:4,6,22 1338:20,22 1339:7	<b>underground</b> 1246:18
<b>things</b> 1231:13 1332:26 1335:25 1336:11 1338:6 1346:12 1349:12	<b>top</b> 1246:13,20 1247:22 1249:19 1276:14	<b>trends</b> 1308:26 1309:2	<b>underlying</b> 1337:28
	<b>topic</b> 1359:15,19	<b>tripling</b> 1286:19	<b>understand</b> 1241:17 1244:8 1249:26 1261:10 1263:25 1268:2,25 1271:17 1272:4 1275:13 1287:4, 5,16 1289:19 1299:16 1332:28 1338:4 1343:15
	<b>total</b> 1259:14,15,25 1260:15,18 1261:1	<b>truck</b> 1261:20,26 1263:9,11	
		<b>true</b> 1239:4 1249:22 1299:22 1315:18 1326:22 1335:6,23 1349:2	
		<b>turn</b> 1232:20 1240:10 1244:12,13 1246:27 1247:9 1249:9 1250:6 1252:28 1254:23	

<b>understandable</b> 1288:16	<b>version</b> 1238:1,6 1254:25 1270:16	1334:13 1336:4,27 1337:1,7 1339:14,24 1340:22 1341:15 1342:21 1343:6	22,23 1306:19 1308:25 1309:1 1318:10 1320:24 1327:1 1330:22 1341:19 1342:16,19,21 1345:2, 16 1346:27 1347:1 1348:16 1364:17 1367:16
<b>understanding</b> 1244:24 1246:5 1288:19 1306:6 1317:15,22 1318:3,11, 19,27 1319:24 1322:1 1323:17 1324:6 1332:24 1341:11	<b>versus</b> 1259:15 1273:3 1275:6 1281:9 1307:8	<b>wildfires</b> 1339:20 1340:10 1341:3,6	<b>worked</b> 1367:4
<b>understood</b> 1242:10, 11,16	<b>vertical</b> 1247:11,24	<b>wildlife</b> 1317:12 1323:25	<b>working</b> 1284:22 1285:13 1366:26
<b>underwriting</b> 1346:20	<b>views</b> 1242:27	<b>wind</b> 1303:5 1306:1	<b>workpapers</b> 1234:19, 22 1270:26 1286:11
<b>undoubtedly</b> 1339:15	<b>visit</b> 1348:13,14 1362:23	<b>winds</b> 1301:12	<b>works</b> 1232:17 1233:8 1319:6,16 1326:10 1345:21,26 1346:6
<b>unique</b> 1335:11	<b>visitors</b> 1362:27	<b>winter</b> 1333:20	<b>wrong</b> 1294:20 1314:27
<b>unit</b> 1264:21,24 1266:2, 3,5 1267:9	<b>voltage</b> 1263:23	<b>wire</b> 1236:27 1251:12, 13 1255:9,19,22 1256:5,6,16 1257:6,15, 19 1258:1,3 1260:9,11, 16,20 1263:18,19	<b>WSIP</b> 1290:26
<b>University</b> 1364:11	<b>volume</b> 1234:17,26 1235:8 1266:4	<b>wires</b> 1245:9 1247:24 1255:5 1257:10 1258:9 1260:7 1277:2	
<b>unsure</b> 1288:17	<b>volumes</b> 1238:23 1266:2	<b>WISP</b> 1284:27	<b>Y</b>
<b>up-to-date</b> 1233:6	<b>volumetric</b> 1318:17,22 1323:16	<b>withdraw</b> 1293:1 1342:10 1365:14	<b>yards</b> 1262:21
<b>update</b> 1254:12,17	<b>Vons</b> 1350:18 1351:15	<b>witness'</b> 1303:17	<b>year</b> 1266:2 1267:18 1282:17 1286:1 1296:2, 7,15 1297:2,4 1308:8 1339:13
<b>updated</b> 1231:11 1253:25	<b>vulnerable</b> 1358:19	<b>witnesses</b> 1231:2 1252:15 1302:20 1307:4,5,21 1367:16	<b>years</b> 1286:13 1337:4 1364:10
<b>updates</b> 1253:17	<b>W</b>	<b>wonderful</b> 1346:14	<b>yesterday</b> 1237:7
<b>urban</b> 1304:15	<b>waiting</b> 1355:13	<b>wondering</b> 1238:26 1250:1 1267:19 1269:24	<b>yields</b> 1334:8
<b>urge</b> 1350:8	<b>waive</b> 1231:1	<b>Wooden</b> 1253:9	<b>Z</b>
<b>utilities</b> 1240:24 1348:3	<b>waiving</b> 1231:25	<b>word</b> 1236:26,28 1336:5 1358:12	<b>Zimney</b> 1314:24 1316:3,6 1344:3,5 1345:11 1351:13 1353:4,5,8,19,20 1357:2,6 1359:5 1360:8,9 1363:25 1364:22,23
<b>utility</b> 1244:20 1245:7 1254:11,17 1282:1 1314:1,7 1315:9 1348:1,11 1358:9 1363:13	<b>wanted</b> 1265:27 1268:24 1279:13 1344:15 1366:18	<b>words</b> 1236:5,6,9,10, 21,24,25,27 1237:1 1262:18 1337:12	<b>Zurich</b> 1364:12
<b>V</b>	<b>warehouse</b> 1262:6,14	<b>work</b> 1232:8 1234:3,4 1242:6 1243:6,17 1256:1,11 1257:5,25 1258:6 1261:19 1262:22,25 1263:15,23 1264:21 1265:11,14 1274:19 1282:7 1284:3, 23 1285:12,23 1287:9, 12,16 1288:7,11 1289:1,7,11,13,16,20, 23,24 1290:4,9,10,15,	
<b>vague</b> 1243:9 1248:21 1271:22 1286:2 1288:1 1292:25 1327:12	<b>watershed</b> 1317:7		
<b>valid</b> 1293:20	<b>ways</b> 1318:23 1338:3,6, 19 1339:1 1348:12		
<b>variety</b> 1337:27 1338:6	<b>Wednesday</b> 1367:24		
<b>veg</b> 1267:13	<b>week</b> 1231:2,5 1367:12, 19,21,27		
<b>vegetation</b> 1267:22 1268:1 1280:4 1281:5 1300:9,13,21,24 1301:8	<b>weekends</b> 1361:22		
	<b>weeks</b> 1283:17		
	<b>well-deserved</b> 1229:8		
	<b>wholesale</b> 1327:18		
	<b>Wikipedia</b> 1244:20		
	<b>Wilcox</b> 1352:11		
	<b>wildfire</b> 1269:8,11 1282:8 1291:4 1316:25		