BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE





ADMINISTRATIVE LAW JUDGE RAFAEL L. LIRAG, 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)

Devidentian

Application
18-12-009

18-12-009

REPORTER'S TRANSCRIPT San Francisco, California October 7, 2019 Pages 2153 - 2218 Volume - 19

Reported by: Jason Stacey, CSR No. 14092

1	INDEX	
2	WITNESSES.	DACE
3	WITNESSES:	PAGE
4	Steve Royall	2162
5	Direct Examination By Ms. Post Cross-Examination By Ms. Liotta	2167
6	Cross-Examination By Mr. Lindl	2168
7	Stephanie Maggard Direct Examination By Ms. Post	2178
8	Cross-Examination By Ms. Liotta Cross-Examination By Mr. Lindl	2181
9		
10		
11	Exhibits: Iden. Evid.	
12	143 2155 2156	
13	143 2155 2156 144 2155 2156 145 2156 2156	
14	146 2157 2158 147 2157 2158	
15	148 2157 2158 149 2157 2159	
16	150-C 2159 2159 16 2160	
17	17 2160 18 2160	
18	19 2160 20 2161	
19	21 2161 22 2161	
20	71 2162 151 2166 2177	
21	152 2166 2177 153 2186 2213	
22	154 2186 2215 155 2186	
23	156 2186 2213	
24		
25		
26		
27		
28		

1	SAN FRANCISCO, CALIFORNIA
2	OCTOBER 7, 2019 9:33 a.m.
3	* * * *
4	ADMINISTRATIVE LAW JUDGE LIRAG: Let's
5	go on the record.
6	Good morning, everybody. This is
7	day 11 I think out of 20. Although the
8	schedule that we have has changed greatly,
9	today we'll have Mr. Royall and Ms. Maggard.
10	And it looks like tomorrow there is no
11	hearings, but we'll discuss that at the end
12	of today.
13	So today let's start with some
14	exhibits that we didn't get to last Friday.
15	First let's have Cal PA's exhibits in lieu of
16	cross. So first
17	So hang tight, Mr. Royall. This
18	will take about five minutes. All right.
19	So first I'll identify Exhibit-143.
20	This is a response to Public Advocates Office
21	Data Request 160 so that's Exhibit-160,
22	Question 3. So that's Exhibit-143.
23	(Exhibit No. 143 was marked for identification.)
24	identification.)
25	ALJ LIRAG: Next Exhibit-144 is PG&E's
26	response to Cal PA's Data Request 245,
27	Question 4.
28	(Exhibit No. 144 was marked for identification.)

1	1
1	ALJ LIRAG: Exhibit-145 is PG&E's
2	response to Cal PA's Data Request 241
3	Question 1, and it includes a spreadsheet.
4	(Exhibit No. 145 was marked for identification.)
5	identification.)
6	ALJ LIRAG: Next let's take care of
7	this. Ms. Shek, is there a move to have
8	these admitted into the record?
9	MS. SHEK: Yes, your Honor. Thank you.
10	ALJ LIRAG: Any objection?
11	MS. GANDESBERY: Can I just look at
12	them?
13	ALJ LIRAG: Let's go off the record.
14	(Off the record.)
15	ALJ LIRAG: Let's go back on the
16	record.
17	Again, Ms. Gandesbery, any
18	objections to Cal PA's three exhibits?
19	MS. GANDESBERY: No objection, your
20	Honor.
21	ALJ LIRAG: Hearing none, Exhibits 143,
22	144, and 145 are received into the record.
23	(Exhibit No. 143 was received into evidence.)
24	(Exhibit No. 144 was received into
25	èvidence.)
26	(Exhibit No. 145 was received into evidence.)
27	
28	ALJ LIRAG: Next I'll identify

1	Exhibit-146. And this is the Prepared	
2	Testimony of Various PG&E Witnesses on Energy	
3	Supply. It's premarked PG&E-05.	
4	(Exhibit No. 146 was marked for	
5	identification.)	
6	ALJ LIRAG: Next is Exhibit-147 is the	
7	workpapers supporting Chapters 2 to 4 of	
8	Energy Supply.	
9	(Exhibit No. 147 was marked for	
10	identification.)	
11	ALJ LIRAG: Next is Exhibit-148. This	
12	document contains selections from the Joint	
13	CCAs Data Request-017.	
14	(Exhibit No. 148 was marked for identification.)	
15	identification.)	
16	ALJ LIRAG: Next is Exhibit-149.	
17	Again, this is Workpapers Supporting Energy	
18	Supply. This time Chapters 5 through 8.	
19	(Exhibit No. 149 was marked for identification.)	
20	rucher roucion.	
21	ALJ LIRAG: Next is Exhibit 150-C. And	
22	it's the Confidential Version of Workpapers	
23	Supporting Energy Supply Chapters 3 and 5.	
24	And, Ms. Post, can you explain about	
25	this exhibit?	
26	MS. POST: Yes, Your Honor. This	
27	exhibit contains information that's protected	
28	by confidentiality or nondisclosure	
	i de la companya de	

ו
agreements with third parties. It also
contains proprietary information belonging to
those third parties.
ALJ LIRAG: All right. So it contains
confidential information pertaining to what
we had just identified as Exhibit-147 and 149
seeing that it contains Chapters 3, 4, and 5;
is that correct?
MS. POST: It is actually workpapers
supporting Chapters 3 and Chapter 5. Not
Chapter 4.
ALJ LIRAG: Not Chapter 4. That's
right. Let's take up let's take up all
the exhibits right now.
Is there a move to have these
admitted into the record?
MS. POST: Yes, your Honor.
ALJ LIRAG: All right. So first 146
through 149. Any objections?
(No response.)
ALJ LIRAG: Hearing none, Exhibits 146,
147, 148, and 149 are received into the
record.
(Exhibit No. 146 was received into evidence.)
(Exhibit No. 147 was received into
evidence.)
(Exhibit No. 148 was received into evidence.)
///

1	(Exhibit No. 149 was received into.	
2	Evidence.)	
3	ALJ LIRAG: Regarding 150-C, I've heard	
4	the explanation regarding the confidential	
5	nature of the document. And it appears to be	
6	a solar explanation of other documents that	
7	we've granted confidential treatment to.	
8	So any comments from any of the	
9	parties first regarding the confidential	
10	nature of this exhibit?	
11	MR. LINDL: No, Your Honor.	
12	ALJ LIRAG: All right. Hearing none, I	
13	guess we've evaluated this type of request	
14	for confidential treatment. And so we will	
15	apply confidential treatment to this	
16	document.	
17	(Exhibit No. 150-C was marked for identification.)	
18	identification.)	
19	ALJ LIRAG: Regarding admission, Ms.	
20	Post you already did.	
21	Any objections to admitting 150-C	
22	into the record?	
23	(No response.)	
24	ALJ LIRAG: Hearing none, Exhibit 150-C	
25	is received into the record.	
26	(Exhibit No. 150-C was received into	
27	evidence.)	
28	ALJ LIRAG: Hopefully that wasn't too	

1	long, Mr. Royall.
2	Yes, Ms. Gandesbery?
3	MS. GANDESBERY: Your Honor, I have a
4	few other objections exhibits I would like
5	to move.
6	ALJ LIRAG: All right. I hope you're
7	not objecting to your own exhibit.
8	(Laughter.)
9	MS. GANDESBERY: I'll try not to.
10	These are the electric starting with the
11	electric distribution exhibits.
12	ALJ LIRAG: Okay. So these are ready?
13	MS. GANDESBERY: Yeah. So I'd like to
14	move Exhibit 16, 17, 18, 19, 20, and 21 into
15	the record.
16	ALJ LIRAG: All right. Any objections
17	to moving Exhibits 16 through 21 into the
18	record?
19	(No response.)
20	ALJ LIRAG: Hearing none, Exhibits 16,
21	17, 18, 19, 20, 21 are received into the
22	record.
23	(Exhibit No. 16 was received into evidence.)
24	(Exhibit No. 17 was received into
25	evidence.)
26	(Exhibit No. 18 was received into evidence.)
27	(Exhibit No. 19 was received into
28	evidence.)

1	(Exhibit No. 20 was received into	
2	evidence.)	
3	(Exhibit No. 21 was received into evidence.)	
4	ALJ LIRAG: So Marianne is going to be	
5	busy.	
6	Yes, Ms. Gandesbery. More exhibits?	
7	MS. GANDESBERY: Yes. I'd also like to	
8	move Exhibit-22 into the record.	
9	ALJ LIRAG: All right. Any objections	
10	to 22?	
11	(No response.)	
12	ALJ LIRAG: Hearing none, Exhibit-22 is	
13	also received into the record.	
14	(Exhibit No. 22 was received into evidence.)	
15	evidence.)	
16	MS. GANDESBERY: Your Honor, Exhibit-71	
17	is Energy Supplies Rebuttal Testimony that	
18	was marked previously. And since you've	
19	admitted the other energy supply testimony,	
20	we'd like to move to have the rebuttal	
21	testimony for energy supply admitted as well.	
22	ALJ LIRAG: All right. I guess I went	
23	ahead, and I should have let Mr. Royall	
24	finish.	
25	That exhibit does not pertain to Mr.	
26	Royall; right?	
27	MS. POST: It does, your Honor,	
28	actually. Mr. Royall is sponsoring	

```
1
     Chapter 5, Exhibit-71. But we had a prior
 2
     witness, Mr. Patterson, who has already
 3
     testified with regard to Exhibit-71. That's
     why it's already been marked.
 4
 5
           ALJ LIRAG: Okay. Let's go with that.
 6
               Any objection to Exhibit-71?
               (No response.)
 7
 8
           ALJ LIRAG: Hearing none, Exhibit 71 is
     also received into the record.
               (Exhibit No. 71 was received into
10
               evidence.)
11
12
           ALJ LIRAG: Anything else?
13
           MR. LINDL: Your Honor?
14
           ALJ LIRAG: Yes, Mr. Lindl?
15
           MR. LINDL: May I just ask a quick
     question here? PG&E -- what was PG&E-05 was
16
17
     just admitted into the record as Exhibit-146;
     is that correct?
18
19
           ALJ LIRAG:
                       Right.
20
           MR. LINDL: Thank you.
21
           ALJ LIRAG: All right. So good morning
22
     again, Mr. Royall.
23
           THE WITNESS: Good morning.
24
           ALJ LIRAG: Please raise your right
25
     hand.
26
               Steve Royall, called as a witness by
           Pacific Gas & Electric Company, having
27
           been sworn, testified as follows:
28
           THE WITNESS: I do.
```

```
1
           ALJ LIRAG:
                       Please state your name,
 2
     spell your last name, and provide a business
 3
     address.
 4
           THE WITNESS:
                          Steve Royall, S-t-e-v-e
 5
     R-o-y-a-l-l. 245 Market Street, San
 6
     Francisco.
 7
           ALJ LIRAG:
                       Thank you.
 8
               Ms. Post?
 9
                   DIRECT EXAMINATION
     BY MS. POST:
10
11
           Q
               Thank you, your Honor.
12
               Good morning, Mr. Royall.
13
           Α
               Good morning.
14
           Q
               Mr. Royall, I'd like to confirm the
15
     testimony you're sponsoring in this
16
     proceeding.
                  In what was just marked for
17
     identification as Exhibit-146 formerly
18
     PG&E-05, The Prepared Direct Testimony of
19
     PG&E, are you sponsoring all of Chapter 5
20
     Natural Gas and Solar Generation Operations
21
     Costs and the workpapers for Chapter 5
22
     presented in what's been marked as
23
     Exhibit-149 and 150-C?
24
           Α
               Yes, I am.
25
           0
               And in what has been marked as
26
     Exhibit-71 formerly PG&E 19, PG&E's Rebuttal
27
     Testimony, are you sponsoring all of Chapter
28
     5 in Attachment A, Rebuttal Testimony on
```

1	Natural Gas and Solar Generation Operation	
2	Costs?	
3	A Yes, I am.	
4	Q In what's been marked as Exhibit-21	
5	and Exhibit I am sorry. Exhibit-26 and	
6	Exhibit-27, PG&E's Errata to Testimony, are	
7	you sponsoring pages 14-226 to 14-227 and	
8	29-108 to 29-109?	
9	A Yes, I am.	
10	Q And finally in Exhibit-51, are you	
11	sponsoring your statement of qualifications?	
12	A Yes, I am.	
13	Q Were these materials prepared by	
14	you or under your direction?	
15	A Yes, they were.	
16	Q Do you have any changes,	
17	corrections, or additions to make at this	
18	time?	
19	A I do. What has been marked as	
20	Exhibit-71 previously marked as Exhibit-19	
21	page 5-5, line 8, change from "OS" to	
22	"OM."	
23	ALJ LIRAG: What page was that?	
24	THE WITNESS: 5-5, line 8, change from	
25	"OS" to "OM."	
26	ALJ LIRAG: Could you use the mic also?	
27	I don't think your mic is turned on.	
28	THE WITNESS: There. It's turned on	

1 now. 2 ALJ LIRAG: Thank you. 3 BY MS. POST: With those changes, are the facts 4 0 5 contained in these exhibits true and correct to the best of your knowledge? 6 7 Α Yes. 8 0 And do the opinions expressed 9 therein express your best professional 10 judgment? 11 Α They do. 12 MS. POST: Thank you. 13 Your Honor, the witness is available 14 for cross-examination. ALJ LIRAG: All right. Thank you, 15 Ms. Post. 16 17 Let me just clarify. Normally --18 this is just for the record. Normally, I wait for the witness's cross to be concluded 19 20 before I admit the exhibits pertaining to the 21 witness. So what I'll do in this case is 22 just ask the parties again at the conclusion 23 of Mr. Royall's testimony if they have any 24 objections to the exhibits that we just 25 admitted pertaining to Mr. Royall. I believe that's a couple of exhibits except for the 26 27 rebuttal. 28 Yes, Mr. Lindl?

```
1
           MR. LINDL: Can we go off the record
     for just a minute?
 2
           ALJ LIRAG: Off the record.
 3
 4
               (Off the record.)
           ALJ LIRAG: Let's go back on the
 5
     record.
 6
 7
               While we were off the record,
 8
     exhibits were distributed, and I believe
 9
     Mr. Lindl and Ms. Liotta were trying to
10
     figure out who will go first, and I think
11
     that Ms. Liotta is --
           MR. LINDL: Do you want to mark those
12
13
     exhibits at this time, your Honor?
           ALJ LIRAG: Yeah. Let's mark them. I
14
15
     was just trying figure out who will go first.
           MR. LINDL: Ms. Liotta will.
16
17
           ALJ LIRAG: All right. Let's mark the
18
     exhibits first for the Joint CCAs.
                                          First
19
     I'll identify as Exhibit-151 is PG&E's
20
     Response to the Joint CCAs Data Request 15,
21
     Question 3.
22
               (Exhibit No. 151 was marked for
               identification.)
23
24
           ALJ LIRAG: Next is Exhibit-152, PG&E's
25
     Data Response to the Joint CCAs Data Request
26
     18, Question 1.
27
               (Exhibit No. 152 was marked for
               identification.)
     ///
28
```

1	ALJ LIRAG: So that's Exhibit-152.	
2	All right. Ms. Liotta?	
3	CROSS-EXAMINATION	
4	BY MS. LIOTTA:	
5	Q Good morning, Mr. Royall. I'm Rita	
6	Liotta with FEA.	
7	A Good morning.	
8	Q I'm just going to refer you to your	
9	rebuttal testimony. If you could look at	
10	page 27 of your rebuttal beginning on	
11	line 28.	
12	A On line? I'm sorry.	
13	Q Twenty-eight.	
14	A Got it. Thank you.	
15	Q You state that you are uncertain	
16	whether the cost listed are included in the	
17	APS or the Chugach estimates; correct?	
18	So is that still correct that you	
19	don't know whether or not these costs	
20	included in those estimates?	
21	A That's correct.	
22	Q And then on page 28 of your	
23	rebuttal, line 11	
24	A Yes.	
25	Q you state:	
26	A 15 percent contingency is	
27	typical on decommissioning	
28	project.	

1	Would you define the word	
2	"contingency"? Does it mean unforeseen event	
3	or circumstance? How do you define the word	
4	contingency?	
5	A I define it the way that you	
6	defined it. Uncertainty or event	
7	unanticipated.	
8	Q Thank you. So you would agree then	
9	that the contingency costs are not known or	
10	measurable?	
11	A I would say that they are there	
12	is a reasonable range for contingency on any	
13	typical decommissioning project.	
14	Q And my last question is: Is it	
15	possible that the decommissioning contingency	
16	costs could be significantly lower than the	
17	company's projections?	
18	A I would say it is possible.	
19	MS. LIOTTA: Thank you. I have no	
20	further questions for this witness.	
21	ALJ LIRAG: All right. Thank you,	
22	Ms. Liotta.	
23	Mr. Lindl?	
24	CROSS-EXAMINATION	
25	BY MR. LINDL:	
26	Q Thank you, your Honor.	
27	Good morning, Mr. Royall.	
28	A Good morning.	

Q My name's Tim Lindl. I'm the
attorney for the Joint CCAs. I appreciate
your time this morning.
PG&E is proposing to allocate funds
to decommission its 152 megawatts of
utility-owned solar generation facilities in
this case; right?
A Correct.
Q And based on studies conducted for
PG&E, the decommissioning expenses are
estimated to be \$100.5 million for those
solar projects; right?
A I think that is correct.
Q For the 2020 to 2022 time period,
the decommissioning costs went to about
\$6 million per year. Does that sound right?
A That sounds right.
Q Okay. And that \$6 million will
accrue annually for the remaining solar plant
lives, which is between 15 to 18 years; is
that right?
A Expected today.
Q Okay. Thank you. And those
estimates result in a \$398 per-kilowatt costs
for decommissioning the fixed designed
projects; right?
A I think that's right.
Q And \$421 per kilowatt for the solar

tracker project; right? 1 2 That's correct. Α 3 Q So on average PG&E proposes around \$400 per kilowatt for decommissioning these 4 5 projects? That's correct. 6 Α 7 Q Now, for the most part, would you 8 agree that decommissioning solar resources is 9 a relatively new practice? 10 Α We know of no utility-scale solar 11 facility that has been decommissioned in the 12 United States. 13 Right and that's because these 0 14 resources typically have lives between 20 and 15 30 years, and they're still operating. 16 hasn't gotten to the point where they're 17 being decommissioned; is that right? 18 Α They are relatively new technology. 19 Q Okay. And PG&E used two companies 20 to conduct it's decommissioning studies TLG 21 and Silverado Contractors; right? 22 Α That's correct. 23 And PG&E chose TLG because it was Q 24 more detailed than that from Silverado? 25 Α That's correct. TLG is a company 26 that's decommissioned over 300 generating 27 facilities. They have a vast amount of 28 experience, and their estimate was much more

1	detailed than Silverado's.
2	Q Okay. Have they have ever
3	performed any solar decommissioning studies
4	before they performed the ones they performed
5	for PG&E?
6	A Not that I'm aware of.
7	Q Okay. Has PG&E previously
8	decommissioned a solar project?
9	A We have. A non-utility scale small
10	solar project in the Central Valley.
11	Q And looking at what was just marked
12	as Exhibit-152, that is the small PV plant in
13	a rural part of Fresno County; is that right?
14	A That is right.
15	Q And the cost of decommissioning
16	that project was \$180 per kilowatt?
17	A That's correct.
18	Q Okay. And that \$180 per kilowatt
19	is in 2018 dollars?
20	A In 2018; correct.
21	Q Okay. And that's about that
22	amount is less than half of the \$400 per
23	kilowatt PG&E's currently projecting as the
24	cost for the other projects; correct?
25	A It is correct. I think when you
26	look at the again, the small-scale
27	facility did not include many of the things
28	that are considered in the large-scale
	1

utility decommissioning. So when we looked at our decommissioning, we believe they're best because we engaged a very experienced decommissioning expert in TLG and Silverado. And we perform site-specific analysis versus using benchmark data.

Q What costs are missing for these small solar PV plants that are being taken into account for the larger ones?

A On 528 of the rebuttal testimony, you'll see those costs at the top of the page down from line 1 to line 15. I could read them for you if you like.

Q That's okay. All other factors being equal, would you expect cost-per-kilowatt to go down for larger projects compared to smaller projects due to economy scale?

A Unknown. We, again, see no utility scale decommissioning efforts in the U.S. that we're aware of.

Q Okay. And looking at your rebuttal on pages 530 to 531. Now, I'm not going to refer you to a specific line or anything, but you push back on the studies that the Joint CCAs reference that would suggest the decommissioning cost should be in the range of \$10 per kilowatt to \$60 per kilowatt;

1	correct?
2	A We did push back; correct.
3	Q Do you recall on page 38 of Tom
4	Beach's testimony where he provides an \$83
5	per kilowatt figure calculated for the
6	Electric Power Research Institute by the
7	firm, Sargent & Lundy, in April 2018?
8	A And where are you referencing?
9	Sorry.
10	Q That's okay. Let me we can pass
11	this around as a reference exhibit.
12	ALJ LIRAG: All right. Let's go off
13	the record.
14	(Off the record.)
15	ALJ LIRAG: Let's go back on the
16	record.
17	Mr. Lindl just distributed a
18	reference document.
19	MR. LINDL: Yes. Thank you, your
20	Honor.
21	Q This is the direct testimony of R.
22	Thomas Beach on behalf of the Joint CCAs. Do
23	you agree, Mr. Royall?
24	The witness nodded.
25	So on page 38, Mr. Beach references
26	an April 2018 Electric Power Research
27	Institute Study performed for EPRI, that's
28	E-P-R-I, by Sargent & Lundy which estimated

1	the cost of decommissioning in a 11-megawatt
2	solar plant as being \$83 per kilowatt. Do
3	you see that there?
4	A I do see that.
5	Q You did not address this study in
6	your rebuttal testimony; correct?
7	A We did not.
8	Q Okay.
9	A I wasn't aware of this testimony.
10	Q Okay. And can we look at what has
11	been marked as Exhibit-151 next? It's the
12	response to Joint CCAs 15.03.
13	A I think what's important to
14	recognize here is that if you look at
15	page 5-32, line 23, rebuttal testimony.
16	Q All right. I'm moving on to Data
17	Request 1503.
18	A Understood. But I'm trying to help
19	you understand that our customers will be
20	made whole. On that page and on that line it
21	states as stated in Decision 92-12-057:
22	Actual decommissioning
23	costs will be reconciled
24	such that the amounts
25	collected in rates are
26	equal with the actual costs
27	expended.
28	Q In response to 1503, especially

1 Question C in that response, do you agree 2 that if PG&E's decommissioning collections 3 for these solar resources are too low compared to their actual costs, PG&E will 4 5 still be able to recover those costs? 6 I'm not the ratemaking witness. So 7 I'm not sure. But, again, our goal is to 8 keep our customers that are using that energy 9 today funding that energy now -- funding that 10 decommissioning now in a way that they will 11 pay no more than the cost for the 12 decommissioning and no less. 13 0 So -- but you just quoted page 532, 14 lines 23 to 25? 15 Α I did. 16 Q And that says that if the costs 17 that PG&E collects are too high, they'll be 18 reconciled and paid back to ratepayers; is 19 that right? 20 That's correct. Α Yes. 21 So your point is that there's no Q 22 risk of overcollection; correct? 23 My point is that no large-scale Α 24 utility solar facilities have been 25 decommissioned. We continue -- we will 26 continue to look at these costs, benchmark, 27 understand where we might be able to revisit 28 the costs in the future. But today the

```
estimate from -- that we're using we believe
 1
 2
     is the best estimate.
               And I'm asking you if the opposite
 3
     of what you're saying on lines 24 to 26 is
 4
 5
     true or not? So if PG&E collects too much --
     or if PG&E collects too little to cover the
 6
     actual costs, will PG&E be able to make up
 7
     that extra --
 8
 9
               That's a question -- I don't know
           Α
10
     the answer. But I expect that using the
11
     estimates that you provided from the -- from
12
     some of the sites that you're -- that are in
13
     your testimony, that risk does appear to be
14
     real for PG&E.
15
           Q
               Okay.
           MR. LINDL: No further questions, your
16
17
     Honor.
18
           ALJ LIRAG: Any redirect off the
19
     questions from Ms. Liotta or Mr. Lindl,
20
     Ms. Post?
21
                      May I have a moment, your
           MS. POST:
22
     Honor, please?
           ALJ LIRAG: All right. Let's go off
23
24
     the record.
25
               (Off the record.)
           ALJ LIRAG: Let's go back on the
26
27
     record.
28
               Ms. Post, no redirect?
```

```
No redirect, your Honor.
 1
           MS. POST:
 2
           ALJ LIRAG: All right. Let's take up
     the exhibits.
 3
 4
               Mr. Lindl, a move to admit
     Exhibits 151 and 152 into the record?
 5
           MR. LINDL: So moved, your Honor.
 6
           ALJ LIRAG: Any objections from PG&E or
 7
 8
     any other party?
 9
               (No response.)
           ALJ LIRAG: Hearing none, Exhibits 151
10
11
     and 152 are received into the record.
12
               (Exhibit No. 151 was received into
               evidence.)
13
               (Exhibit No. 152 was received into
14
               evidence.)
15
           ALJ LIRAG: Thank you, Mr. Royall. You
16
     are excused.
17
               Off the record.
18
               (Off the record.)
19
           ALJ LIRAG: Let's go back on the
20
     record.
21
               I know you're not settled down yet.
22
     But good morning, Ms. Maggard.
23
           THE WITNESS: Good morning.
           ALJ LIRAG: Please raise your right
24
25
     hand.
26
               Stephanie Maggard, called as a
           witness by Pacific Gas & Electric
27
           Company, having been sworn, testified
           as follows:
28
     ///
```

1	THE WITNESS: Yes, I do.
2	ALJ LIRAG: Please state your name,
3	spell your last name, and provide a business
4	address.
5	THE WITNESS: My name is Stephanie
6	Maggard, M-a-g-g-a-r-d. My business address
7	is 245 Market Street, San Francisco.
8	ALJ LIRAG: Thank you.
9	Ms. Post?
10	DIRECT EXAMINATION
11	BY MS. POST:
12	Q Good morning, Ms. Maggard.
13	A Good morning, Ms. Post.
14	Q I'd like to confirm the testimony
15	you're sponsoring in this proceeding. In
16	what's been marked for identification now as
17	Exhibit-146, PG&E's Direct Testimony, are you
18	sponsoring all of Chapter 8, Energy Supply
19	Ratemaking and the workpapers for Chapter 8
20	presented in what's been marked as
21	Exhibit-149?
22	A Yes, I am.
23	Q And are you in what has been marked
24	as Exhibits 26 and 29, PG&E's errata, are you
25	sponsoring pages 14-231 to 14-243 and 29-110
26	to 29-111?
27	A I thought it was Exhibits 26 and
28	27.

1	Q I am sorry. It was. Thank you for
2	the correction.
3	A Yes, I am.
4	Q And finally in Exhibit-51, the
5	Statement of Qualifications, are you
6	sponsoring your statement of qualifications?
7	A Yes, I am.
8	Q Were these materials prepared by
9	you under your supervision?
10	A Yes, they were.
11	Q Do you have any changes,
12	corrections, or additions to make at this
13	time?
14	A Yes, just a couple. First on
15	page 8-26 of Exhibit-146, Table 8-12, line 10
16	incorrectly identifies the costs with Major
17	Work Category AY as capital. But these costs
18	are expense. So line 10 should be moved
19	below line 2.
20	Similarly, these costs are
21	incorrectly shown in the workpapers in
22	Exhibit
23	ALJ LIRAG: Could you repeat the first
24	question the first correction again? I
25	got lost.
26	THE WITNESS: I'm sorry. Yes. Page
27	8-26 of Exhibit-146, Table 8-12, line 10
28	incorrectly identifies the costs with Major

```
1
     Work Category AY as capital. But these costs
 2
     are expense.
           ALJ LIRAG: So move it below --
 3
           THE WITNESS:
                         Below line 2.
 4
 5
           ALJ LIRAG: All right. Please proceed.
 6
           THE WITNESS: And the same change needs
 7
     to be made to the workpapers. So that's
     Exhibit-149, workpaper 8-20, line 10
 8
 9
     similarly needs to be moved below line 2.
10
               And one other correction is in
11
     Exhibit PG&E-71, Chapter 8, on page 8-4,
12
     there's a formatting error on line 15, which
13
     should be at the start of question 11.
14
     Q-8 should be changed to Q-11 and moved to
15
     the left. The answer for Q-11 begins on
16
     line 17 not on line 20.
17
               So on line 17, Q-11 should be
18
     changed to A-11. And on line 20, A-11 should
19
     be deleted.
20
     BY MS. POST:
21
               With those corrections, are the
           Q
22
     facts contained in these exhibits true and
23
     correct to the best of your knowledge?
24
           Α
               Yes, they are.
25
           0
               And do the opinions expressed
26
     therein represent your best professional
27
     judgment?
28
           Α
               They do.
```

1	Q Thank you.
2	MS. POST: Your Honor, the witness is
3	available for cross-examination.
4	ALJ LIRAG: Thank you, Ms. Post.
5	Let's go with Ms. Liotta.
6	CROSS-EXAMINATION
7	BY MS. LIOTTA:
8	Q Good morning, Ms. Maggard. I'm
9	Rita Liotta with FEA. I just have a couple
10	of questions for you this morning.
11	A Good morning.
12	Q If I could refer you to your
13	rebuttal, page 6, beginning on lines 2
14	through 4.
15	A I'm there.
16	Q You state:
17	There's no risk of
18	overcollection of
19	decommissioning funds
20	because any overcollection
21	will be returned to
22	ratepayers.
23	But in your opinion, is it possible
24	that an overcollection could occur?
25	A It's possible that an
26	overcollection could occur.
27	Q Okay. And if an overcollection
28	were to occur, could you just give me a

general explanation of how those 1 overcollections would be refunded to 2 3 customers? So what we're proposing here is 4 5 very solar to what PG&E has historically done 6 on its fossil facilities. So we estimate what we think the costs will be to 7 8 decommission the projects. And then as we 9 actually expend funds to decommission the 10 projects, they're netted against those 11 collected funds. And to the extent there's a 12 difference at the end of the day, the 13 difference will be either returned to 14 customers in the case of an overcollection or 15 funded from customers in the case of an undercollection. 16 17 0 Okay. So could you look at page 5 18 of your rebuttal beginning on line 20. You state that: 19 20 The party's primary 21 opposition to PG&E's 22 proposed accrual seems to 23 be based on the uncertain 24 timeline associated with 25 decommissioning the various 26 projects. 27 So you would agree that the timeline 28 of decommissioning is uncertain?

For hydro projects, it's absolutely 1 Α 2 uncertain as compared to some of our other 3 generation facilities. Thank you. And then on page 7 of 4 0 5 your rebuttal beginning on line 4 you state: 6 Other intervening 7 parties --That you agree with Cal Advocates 8 9 and the other intervening parties that: 10 There is a high degree of 11 uncertainty regarding 12 future decommissioning 13 costs of hydro projects. 14 So I guess in your opinion, would it 15 be the company's burden to show that the 16 decommissioning costs it requests should be known and measurable? 17 18 The reason we're proposing to 19 establish a decommissioning reserve for hydro 20 now is because the customers who are enjoying 21 the benefits of our hydro production should 22 be responsible for ultimately decommissioning 23 those properties. And we haven't to this 24 point collected any costs for the ultimate 25 decommissioning of hydro. I think all the parties have agreed 26 27 that it's a reasonable -- that it's 28 reasonable for PG&E to start accruing a

decommissioning reserve for the ultimate 1 2 decommissioning of the projects. We've been 3 very clear that the precise costs for each project decommissioning is unknown at this 4 5 We've been clear about that. 6 recognize that. 7 We did have some studies prepared 8 to use as proxies to establish an initial 9 decommissioning accrual amount to reserve. 10 And we are proposing to refine that over As we have better information, we'll 11 time. 12 do more detailed studies as we move forward. 13 Thank you, Ms. Maggard. MS. LIOTTA: 14 I have no further questions for this 15 witness. 16 THE WITNESS: Thank you. 17 ALJ LIRAG: Let's have Ms. Post ask any 18 redirect questions from Ms. Liotta. 19 MS. POST: I have no redirect, your 20 Honor. 21 ALJ LIRAG: All right. So I think 22 we'll call an early break, and we'll finish 23 up with Mr. Lindl. 24 But before we get to that, I just 25 want to address the information that So 26 Ms. Goodson stated so everyone's aware. 27 we had reserved -- the hearing is scheduled 28 until October --

Let me excuse you until after the 1 2 break. 3 THE WITNESS: Thank you. ALJ LIRAG: So the hearings are 4 5 scheduled until October 18th. We did reserve 6 the Monday following. So that is the 21st and the 22nd in this room also in case it's 7 8 needed. 9 So, Ms. Goodson and Ms. Gandesbery, please use that as an option when you talk 10 11 about the schedule regarding -- I guess, it's 12 going to be on depreciation cross by TURN. 13 Also for the parties, we're probably 14 -- we can offer setting up a conference line 15 so you can call in and not have to be here. 16 I understand that it's just TURN's cross 17 that's being impacted. So other parties can 18 listen in. I'm just saying what's available 19 from the Commission. So we have those two And we can have a conference line for 20 21 other parties to call in. So that's just an 22 option for you to consider when you talk. 23 All right. Let's call a break until 24 -- we'll make it a longish break until 10:30. 25 All right. Off the record. 26 (Off the record.) 27 ALJ LIRAG: Let's go back on the 28 record.

1	We're back from our morning break.
2	First before we get to the cross from
3	Mr. Lindl, let's identify the exhibits that
4	he just distributed.
5	First I'll identify as Exhibit-153
6	PG&E's Response to the Joint CCAs Data
7	Request 2 Question 8.
8	(Exhibit No. 153 was marked for identification.)
9	identification.)
10	ALJ LIRAG: Exhibit-154, are select
11	pages from the CPUC Standard Practice Manual.
12	(Exhibit No. 154 was marked for identification.)
13	identification.)
14	ALJ LIRAG: Exhibit-155 is a document
15	entitled The Avoided Costs Calculator. And
16	this is the 2019 update on avoided costs.
17	(Exhibit No. 155 was marked for identification.)
18	identification.)
19	ALJ LIRAG: Next is Exhibit-156, and
20	this is PG&E's Response to the Joint CCAs
21	Data Request 20, Question 2.
22	(Exhibit No. 156 was marked for identification.)
23	identification.)
24	ALJ LIRAG: All right. Mr. Lindl?
25	CROSS-EXAMINATION
26	BY MR. LINDL:
27	Q Thank you, your Honor.
28	Good morning, Ms. Maggard.

1	A Good morning, Mr. Lindl.
2	Q So I'm going to talk about two
3	issues with you. First is the hydro
4	nonbypassable charge. I might slip in "NBC"
5	at certain points. And the second is hydro
6	decommissioning.
7	So starting with the hydro NBC,
8	PG&E is proposing nonbypassable charge for
9	certain costs related to their hydroelectric
10	generation resources; correct?
11	A That's correct.
12	Q Okay. So for purposes of our
13	discussion, I'm going to refer to those as
14	"NBC costs," okay?
15	A Okay.
16	Q All right. And those NBC costs
17	stem primarily from Federal Energy Regulatory
18	Commission or FERC licenses for
19	decommissioning orders, PG&E's management of
20	watershed lands, and its compliance with
21	conservation easements; correct?
22	A Yes. We primarily target those;
23	correct.
24	Q Okay. Looking at your direct
25	testimony, which is Exhibit-146 at page 826.
26	A I'm there.
27	Q In Table 8-11?
28	A Yes.

1	Q In Table 8-11, those are the
2	historic costs PG&E is looking to shift to
3	the hydro NBC; right?
4	A Correct. Those are the costs
5	associated with the investments that have
6	been made in fish and wildlife recreation
7	facilities through 2017. That's the value as
8	of December 2017.
9	Q Okay. And they total \$83 million;
10	right?
11	A Correct.
12	Q And the next table below that,
13	Table 8-12, those are the forecasted costs to
14	be allocated to the hydro NBC; right?
15	A Correct.
16	Q Okay. All right. In all of the
17	cost here in Table 8-12, except for lines 2
18	and 4, generally relate to FERC licenses;
19	right?
20	A That's correct.
21	Q And that's because you made a
22	correction here on line 10? Just to be clear
23	that in the uncorrected version of what is
24	line 10, that also relates to FERC licenses;
25	correct?
26	A Would that be the Major Work
27	Category AY?
28	Q Yes.

1 Α Yes. 2 And so those costs result Q Okav. 3 from FERC's need to ensure hydroelectric facilities' balance beneficial uses of the 4 5 water resources as a condition of FERC 6 license; right? 7 Α Yes. And then all told between 8 0 Okay. 9 these two tables, there's approximately 10 \$150 million in capital expenses that PG&E's 11 looking to shift into this hydro NBC; 12 correct? 13 Those are the costs that Α Yes. 14 would go in. There's a revenue requirement 15 associated with those costs that would 16 actually be collected through the NBC. 17 0 Okav. Thank you. Looking at the 18 prior page of your testimony, page 8-25 at 19 lines 2 through 34, the NBC costs come from 20 things like protecting natural habitat, 21 installing and managing hiking trails, boat 22 docks, campgrounds; and long-term monitoring 23 of fish, wildlife, or water quality among 24 other things; right? 25 Α Yes. Okay. All right. At the top of 26 0 27 that page at lines 1 to 2 you state: 28 These activities result in

1	state and local
2	environmental benefits,
3	enhanced environmental
4	sustainability, and
5	increased public safety.
6	Correct?
7	A Yes.
8	Q All right. And because many of
9	these activities are conducted as a result of
10	PG&E's FERC licenses, the NBC costs are
11	caused or the NBC cost they cause are tied
12	to the generation of electricity; correct?
13	A The costs are as a result of
14	generation; right. They're tied to
15	generation, hydro generation. The benefits,
16	though, are enjoyed by more than just
17	generation customers.
18	Q Okay. Do customers from could
19	customers from Sacramento Municipal Utility
20	District enjoy those benefits?
21	A They could.
22	Q And the same with customers from
23	LADWP?
24	A They could.
25	Q Okay. All right. But PG&E would
26	not incur these NBC costs had it not built,
27	owned, or operated these hydroelectric
28	plants; correct?

1	A Probably not.
2	Q Okay. And PG&E currently recovers
3	the NBC costs through its generation rates?
4	A That's correct.
5	Q Okay. Thank you. Let's turn to
6	your rebuttal testimony. It's been marked as
7	Exhibit-71. If you wouldn't mind please
8	turning to page 8-10, lines 16 through 20.
9	A I'm there.
10	Q And these lines you discuss the
11	Power Charge Indifference adjustment, or
12	"PCIA," in response to the Joint CCA's
13	testimony; correct?
14	A Yes.
15	Q And on lines 18 to 19 there you
16	state:
17	The PCIA is meant to
18	recover above-market
19	generation costs.
20	And the costs PG&E is proposing to
21	shift to the NBC are public costs; correct?
22	A Correct.
23	Q Are those public costs you discuss
24	embedded in PG&E generation rates?
25	A They are.
26	Q Okay. And so for that reason, are
27	they included in the calculation and
28	recovered through the PCIA?

1	A My understanding is that and I'm
2	not an expert on the PCIA but my
3	understanding is it includes the
4	generation-related revenue requirement in the
5	calculation.
6	Q Okay. Thank you. All right. And
7	do departed CCA customers pay PG&E's
8	generation rates or CCA-specific generation
9	rates?
10	A Again, I'm not an expert. But my
11	understanding is that they pay a CCA rate for
12	their generation of their CCA customers.
13	Q Okay. And they also pay the PCIA;
14	correct?
15	A That's my understanding, yes.
16	Q Okay. Great. All right. Looking
17	at page 8-10 again, lines 15 to 17 you state:
18	The PCIA only addresses the
19	challenge posed by
20	departing customers to
21	CCAs.
22	Correct?
23	A Yes.
24	Q Okay. And then the next sentence
25	you go on to suggest that the PCIA does not
26	address distributed generation customers like
27	those that have installed rooftop solar;
28	right?
I	

1	A Correct.
2	Q Do PG&E's rooftop solar customers
3	pay PG&E for any generation that they use?
4	A I'm not an expert again. But my
5	understanding is that to the extent they are
6	taking generation, they would pay for it.
7	They also self generate.
8	Q Right. So unlike CCAs customers,
9	PG&E customers enrolled in PG&E's distributed
10	generation programs are still PG&E generation
11	customers?
12	A I believe so.
13	Q Okay. All right. Going to the
14	page before that page 8-9, please?
15	A Mh-hm.
16	Q Lines 2 to 5 you state:
17	PG&E's proposal is prompted
18	by the departure of a large
19	percentage of generation
20	customers, which has
21	resulted in remaining
22	bundled generation
23	customers bearing the brunt
24	of these hydro public
25	benefit costs.
26	Right?
27	A Yes.
28	Q And based on what you say on the

1 next page with regard to rooftop solar 2 customers, are you including distributed 3 generation customers in that bucket of departing customers? 4 I lost -- you lost me. 5 Α I am sorry. Let me rephrase. 6 0 It was a 7 poorly-worded question. I am sorry. 8 On line 3 on page 8-19, you say 9 your proposal is prompted by the departure of 10 a large percentage of generation customers. 11 Are rooftop solar customers included in that 12 large percentage of generation customers? 13 Α Yes. 14 Q Okay. Thank you. All right. So 15 I'm going to refer to PG&E's customers that 16 are not enrolled in distributed generation 17 programs as non-participants. 18 Α Okay. Okay. Are you familiar with how 19 Q 20 the Commission assesses the impact of 21 distributed generation programs on 22 nonparticipants? 23 Α No. 24 Q Okay. Do you know if the 25 Commission assesses the cost and benefits of 26 PG&E's distribution programs -- let me 27 rephrase that. Excuse me. Sorry. 28 Do you know whether the Commission

considers the costs and benefits of PG&E's 1 2 distributed generation programs when it sets 3 rates related to those programs? 4 Α I don't know. 5 0 Okay. So you are not familiar with whether the Commission considers the benefits 6 7 of distributed generation when it assesses the impact of PG&E's distributed generation 8 9 programs on nonparticipants? Α 10 I'm really not familiar with that 11 program. 12 Okay. Q 13 Α I am sorry. 14 0 All right. Can we take a look please at Exhibit-154, which is the 15 16 Commission's Standard Practice Manual. And 17 can we look at page 5? 18 Are you at all familiar with this 19 document? 20 I'm not familiar with it at Α No. 21 all. I saw it yesterday. 22 Q Okay. 23 It was sent to me but I've never Α seen it before. 24 25 0 So then you don't know whether the 26 text here on page 5 are utilized by the 27 Commission as basis for determining the cost 28 effectiveness of demand-side programs?

1	A I don't know. This manual is dated
2	2001. I don't even know if it's a current
3	manual. I'm not sure.
4	Q Okay. All right. Can you turn to
5	page 13, please?
6	A Of the same exhibit?
7	Q Yes, please. Okay. Okay. Look at
8	the title of this chapter here. Do you agree
9	that there's a test in the standard practice
10	manual called the Ratepayer Impact Measure
11	Test?
12	A That looks like what this section
13	is. It's describing that.
14	Q Okay. And looking at the first
15	sentence of the first full paragraph under
16	the heading "Benefits and Costs," do you
17	agree that it states there that:
18	The benefits calculated in
19	the RIM test are the
20	savings from avoided supply
21	costs.
22	A That's what this sentence says.
23	Q Okay. All right. Can we please
24	take a look at Exhibit-155, please? This is
25	the avoided costs 2019 update.
26	A The big exhibit.
27	Q The hundred pages.
28	A Okay.

1	Q All right. Are you familiar
2	sorry. Are you there?
3	A Yes.
4	Q Are you familiar with this
5	document?
6	A No, I'm not. Again, I saw it
7	yesterday for the first time.
8	Q Okay. Would you mind just taking a
9	look at page 17 real quickly, please?
10	A I'm there.
11	Q All right. And in Table 1, do you
12	see a list of what the document calls
13	Components of Electricity Avoided Costs?
14	A I do.
15	Q And do you agree that generation,
16	energy, and generation capacity are listed
17	there among five other components?
18	A Yes, they are.
19	Q Okay. So in your testimony on
20	page 8-9
21	A Rebuttal testimony?
22	Q Yeah. I am sorry. Rebuttal
23	testimony exhibit
24	A Seventy-one?
25	Q Yeah. Thank you. So when you say
26	on page 8-9, line 4, there:
27	Bundled customers are
28	bearing the brunt of the

1 costs because of 2 distributed generation. 3 Are you factoring in any benefits PG&E's distributed generation customers might 4 5 be providing to nonparticipants? 6 This is really more of a general I didn't do a calculation and 7 statement. figure out who was covering what in making 8 9 this statement. 10 This statement just recognizes that 11 today PG&E's generation load is about half 12 roughly of what it had been historically when 13 those costs were incurred. 14 Q Okay. And a reason that that load 15 is about half, per your testimony, is these 16 distributed generation customers; right? 17 A combination of the CCAs and the Α 18 distributed gen customers, yes. 19 Okay. And in making this conclusion here, did you factor in any of the 20 21 benefits that PG&E's distributed generation 22 customers might be providing to 23 non-participants? Those that you referred to 24 as the bundled customer bearing the brunt of 25 these costs? Remind me how you're defining 26 Α 27 non-participants. 28 Those that are not distributed Q

1 generation customers. 2 I'm going to have to ask you to ask Α 3 one more time. I forgot what I asked. No. I'm 4 0 5 just wondering if you're factoring in when 6 you make this conclusion here on page 8-9, 7 are you factoring in any benefits PG&E's 8 distributed generation customers might be 9 providing to non-participants? 10 Α Not specifically, no. 11 Do you think the Commission Q Okay. 12 should determine whether PG&E's distributed 13 generation programs are cost effective in 14 this case? I really don't have any testimony 15 Α on the distributed gen program. Again, I was 16 17 really just making the point that these costs 18 that had historically been recovered from all customers, because they were all our 19 20 customers, no longer are on an ongoing basis. 21 I didn't -- I have no opinion as to 22 how the Commission should review or handle 23 distributed gen programs. 24 Q Okay. Thanks. We'll move on. 25 Thank you. So PG&E's looking to sell a 26 Okay. 27 number of its hydroelectric resources; 28 correct?

That's correct. 1 Α 2 Q Okay. And would you agree that if 3 a CCA or another load-serving entity 4 purchased a hydroelectric generating system 5 from PG&E, that purchaser would be required to abide by the same licensing requirements 6 7 that PG&E currently abides? Part of the -- to the extent 8 Α 9 there's a FERC license associated with the 10 hydro project -- and some don't have FERC licenses but most do. To the extent that the 11 12 hydro license is transferred to the buyer and 13 the entity, they would be required to comply 14 with the requirements of the license. 15 Q Okay. Thank you. And the recent 16 sale of the Deer Creek Hydro Plants in the 17 Nevada Irrigation District, Is Nevada 18 Irrigation District going to have to abide by 19 PG&E's license? 20 It will become their license. Α But 21 yes. 22 Okay. Thank you. All right. And Q 23 then on page 8-10 -- going back to that one 24 -- lines 3 to 5. Let me know when you're 25 there. I'm there. 26 Α 27 Q All right. Here you state: 28 LSEs like CCAs are not

subject to CPUC's rate 1 2 regulation. So they lack 3 the authority -- statutory authority to recover their 4 5 costs from bundled customers. 6 7 Correct? 8 Α Correct. 9 So if a CCA for example was Q 10 required to abide by the same licensing 11 requirements from FERC, a CCA would not be 12 able to pass those costs to PG&E bundled 13 ratepayers; correct? 14 Α I don't know how they would be able 15 to do that since PG&E's rates are regulated by the CPUC and CCAs aren't. 16 But one 17 difference I think is that the CCAs in 18 procuring generation resources are procuring 19 those resources on behalf of their customers. 20 And so they would be able to recover those 21 costs from their customers. 22 PG&E incurred these costs on behalf 23 of all customers. Not just the remaining 24 bundled customers, and that's the difference 25 as I see it. 26 Would you agree that CCAs Okav. 27 are at risk of their load leaving their 28 service territory as well and perhaps go back

1	to PG&E or go to a direct-access provider?
2	A I'm sure there's some risk in that.
3	I don't know how great it is.
4	Q Okay. Thanks. Okay. Let's change
5	gears to hydro decommissioning, please.
6	A Okay. All right. Sorry just one
7	moment.
8	ALJ LIRAG: Let's go off the record.
9	(Off the record.)
10	ALJ LIRAG: Back on the record.
11	BY MR. LINDL:
12	Q Okay. Is part of your hydro
13	decommissioning proposal PG&E is proposing
14	to accrue about 18-and-a-half million dollars
15	annually between 2020 and 2022; right?
16	A Yes.
17	Q Okay. And those decommissioning
17 18	costs are necessary to wind down the
	costs are necessary to wind down the
18	
18 19	costs are necessary to wind down the operation of a generation unit, dismantle and
18 19 20	costs are necessary to wind down the operation of a generation unit, dismantle and remove it, and perform any required
18 19 20 21	costs are necessary to wind down the operation of a generation unit, dismantle and remove it, and perform any required environmental restoration; right?
18 19 20 21 22	costs are necessary to wind down the operation of a generation unit, dismantle and remove it, and perform any required environmental restoration; right? A Correct.
18 19 20 21 22 23	costs are necessary to wind down the operation of a generation unit, dismantle and remove it, and perform any required environmental restoration; right? A Correct. Q That's what you do in
18 19 20 21 22 23 24	costs are necessary to wind down the operation of a generation unit, dismantle and remove it, and perform any required environmental restoration; right? A Correct. Q That's what you do in decommissioning?
18 19 20 21 22 23 24 25	costs are necessary to wind down the operation of a generation unit, dismantle and remove it, and perform any required environmental restoration; right? A Correct. Q That's what you do in decommissioning? A Yes.

28

Exhibit-146, please? Your direct testimony. 1 And that's on page 823, please, Table 8. 2 3 Α Okay. I'm there. In this table, you present 4 0 Okav. 5 13 small hydroelectric plants that PG&E used 6 to establish a high-level estimate of the 7 total decommissioning costs PG&E believes will be necessary; correct? 8 9 Α Yes. And that's high-level because it's 10 Q 11 difficult to determine which hydroelectric 12 projects are going to be decommissioned, when 13 they would be decommissioned, and what the 14 scope of that decommissioning would be; 15 right? 16 Α That's correct. 17 Okav. And the total PG&E estimates 0 18 to eventually be necessary to decommission 19 these 13 projects is \$830 million; right? 20 That's what's shown in the Α Yes. 21 first column there on Table 8-10. So that's 22 the total decommissioning estimate. We are 23 not requesting that we recover all of that, because we recognize that -- at least at this 24 25 time, we recognize there is some probability that not all of these projects will be 26 27 In fact we know -- we just decommissioned.

talked about Deer Creek for example, which

will be sold. 1 2 And so for that reason, you Q Right. 3 adjusted to the 242.7? 4 Right. We have applied a 5 probability to each one of those projects to determine the amount that we think is likely. 6 7 Again, given the information we have today, 8 that is likely to be incurred at some point. 9 Q Okay. Thanks. And that 242.7, that results in the 18 and a half million 10 11 annual accrual; is that right? 12 Α Correct. 13 0 Okay. Thank you. All right. And 14 on lines 15 to 17 on this page, like we just 15 discussed you state: 16 In some cases, PG&E will 17 attempt to sell hydro 18 assets with another entity 19 before surrendering the 20 license and retiring and 21 decommissioning the 22 facilities. 23 Correct? 24 Α Correct. 25 0 If PG&E sells one of the hydro 26 assets, that would remove any need for PG&E 27 to decommission the project because that 28 decommissioning becomes the responsibility of

1 the new owner? 2 Α Yes. Okay. All right. Let's take a 3 Q look at Table 8-10 again. Now, on line 3 4 5 there is mentioned that the Desabla-Centerville Facility; is that right? 6 7 Α Yes. PG&E -- excuse me. FERC ordered 8 0 9 PG&E to sell that facility; is that correct? 10 Α FERC ordered us to try and sell the 11 facility, which we are trying to do. 12 Okay. And as of July, PG&E was in 13 negotiations with a prospective buyer and 14 expected to execute the agreements and file 15 for regulatory approvals later this year; is 16 that right? 17 Although, this year is a bit Yes. 18 optimistic at this point. A few months has 19 passed since we responded to that. I think 20 it will be next year. 21 Okay. And then on line 4 is the Q 22 Deer Creek Facility that we already 23 discussed? 24 Α Yes. 25 0 And then with regard to that 26 facility, the Commission just issued a 27 proposed decision approving the uncontested 28 sale of that plant; correct?

That's correct. My understanding 1 Α 2 is it's on the Commission's consent agenda 3 for this Thursday. Okay. Thank you. On line 7 there, 4 0 5 the Tule River Facility. 6 Α Tule. 7 Excuse me. Yeah. Tule. 0 If I get 8 any of these other names wrong, please 9 correct me. So the Tule River Facility on 10 line 7, that was part of a June 2018 request 11 for offer where a prospective buyer was 12 selected. And, again, as of July, you would 13 expect to execute agreements for regulatory 14 approvals later this year; is that right? 15 Α Yes. And like DeSabla-Centerville, 16 it's a bit complicated. And it's likely 17 delayed until next year sometime. These 18 sales are very complicated and take a long time to execute. And until they're signed 19 and filed, there's a high likelihood -- or a 20 likelihood that they could fall apart. 21 22 Q Okay. A lot of challenges along the way. 23 Α 24 Q And the Kern Canyon Facility on 25 line 8 there is in the same position as the Tule River Facility? 26 27 Α Yes. 28 And then lastly on line 9, the Q

1	Narrows Number 1 Facility or Narrows 1
2	Facility, that's pending for sale before the
3	Commission currently; correct?
4	A Correct. That is also there's a
5	proposed decision issued, and hopefully we'll
6	be voted out on Thursday.
7	Q And that's uncontested as well;
8	correct?
9	A Uncontested.
10	Q Okay. So the facilities on lines 3
11	and 4, and 7 through 9 are either already
12	sold or in the process of being sold; is that
13	right?
14	A Double checking.
15	Q Those are lines 3, 4 and 7
16	through 9?
17	A Yes. All four of those projects
18	are either had sales agreements signed:
19	Deer Creek and Narrows. And the other two
20	we're in the process of discussing with the
21	parties counter parties.
22	Q And DeSabla-Centerville FERC
23	ordered you to try and sell that?
24	A Correct.
25	Q Okay.
26	ALJ LIRAG: So a total of five are in
27	the process of or at least PG&E's
28	beginning the process of selling?

So 3, 4, 7, 8 and 1 THE WITNESS: Yes. 2 9. 3 ALJ LIRAG: All right. Just avoiding a transcript correction for that. Correct at 4 5 the five instead of four. MR. LINDL: Thank you, your Honor. 6 Just a few more questions, Ms. Maggard. 7 So any funds that PG&E might earn 8 9 from a sale would be available to fund decommissioning other hydro assets; correct? 10 11 Α So if I may. At the time we Yes. 12 developed this decommissioning proposal, we 13 looked at all of our small hydro. Because small hydro is most likely to be 14 15 decommissioned. The large hydro, you know, 16 is low cost and doesn't have all this 17 It's good for customers. conveyance. 18 The small hydro in some cases will 19 be decommissioned. So we just looked at 20 We looked at the small hydro those. 21 projects. And we looked at all the small 22 hydro projects, which is what you see here 23 the 13 that are listed. 24 And in coming up with our 25 decommissioning estimate, we looked at the probability that we would go forward with the 26 27 decommissioning. And therefore -- so Narrows 28 and Deer Creek at the time we put this

together, we knew we were in the process of selling them. So we assigned a really low probability to those projects going forward with decommissioning. We felt they would likely be sold, and that they would have successful sales associated with them.

So if I was putting this together today, I'd assign a zero probability to both Narrows and Deer Creek. Because we don't have any of this funding in rates today. I would -- I think we should remove those from the calculation and lower the accrual a little bit as a result.

Going forward however, the timing
-- it just so happens we know that today. So
the timing works out well for those two. The
others we still don't know. We still don't
know if they're going forward or not. So I
would recommend leaving them in the
decommissioning accrual.

If in fact those sales are successful and, you know, go to fruition in the next GRC, we would just true-up what's remaining to be collected. We would take what's already been collected on those projects and allocate it to the other projects to reduce the request going forward all else equal.

1	Q Right. If you got revenue for one
2	of those sales, that would go into that
3	bucket of decommissioning funds?
4	A No. The revenue from the sales of
5	the projects don't float through the
6	decommissioning fund.
7	Q They don't float through?
8	A No.
9	Q Where do they float through?
10	A The ratemaking associated with the
11	asset sales flows through our UGBA, Utility
12	Generation Balancing Account. So we take the
13	different between the sales price and the
14	value, and that difference is recorded in the
15	UGBA.
16	ALJ LIRAG: Which ones again are
17	pending a Commission decision? Deer Creek
18	and?
19	THE WITNESS: And Narrows, which
20	is line 9.
21	ALJ LIRAG: Thank you.
22	BY MR. LINDL:
23	Q Okay. Now, California Public
24	Advocates proposed a \$10 million figure for
25	decommissioning; correct?
26	A Yes.
27	Q And the Joint CCAs proposed
28	\$7.2 million; right?

1	A That's correct.
2	Q If the Commission approves either
3	of those figures and that amount proves to be
4	too low to account for the actual
5	decommissioning costs, PG&E would still be
6	able to recover the difference; is that
7	correct?
8	A Yes. Our proposal is to again,
9	like we did with our fossil facilities would
10	be to true in each rate case true-up with
11	the latest estimates as well as reflect any
12	actual decommissioning costs that have been
13	incurred and then adjust the accrual
14	accordingly. We believe though that our
15	estimate is pretty conservative already.
16	Q Right. So but if the amount the
17	Commission approves ends up being too low,
18	you can adjust upwards the accrual estimates
19	in future rate cases if more detailed
20	commissioning studies show those adjustments
21	are warranted; right?
22	A Correct.
23	Q Okay. So in the end, PG&E would be
24	able to recover its actual costs here;
25	correct?
26	A Yes.
27	Q Okay.
28	MR. LINDL: Thanks very much,

1	Ms. Maggard.
2	I don't have any further questions,
3	your Honor.
4	ALJ LIRAG: Any questions, Ms. Shek?
5	MS. SHEK: No, your Honor.
6	ALJ LIRAG: Redirect, Ms. Post?
7	MS. POST: May I have a moment?
8	ALJ LIRAG: Let's take a five-minute
9	break. Do you have a Liotta?
10	Let's just go off the record.
11	(Off the record.)
12	ALJ LIRAG: Let's go back on the
13	record.
14	Ms. Post, redirect?
15	MS. POST: No redirect, your Honor.
16	ALJ LIRAG: Let's take up the exhibits.
17	Mr. Lindl, I assume you want to move
18	Exhibits 153 through 156 into the record?
19	MR. LINDL: We do, your Honor.
20	ALJ LIRAG: Any objections?
21	MS. POST: Yes, your Honor. PG&E
22	objects to the admission into the record of
23	Exhibits 154 and 155. No foundation or
24	relevance for these documents was provided.
25	Additionally, the documents can be
26	referenced in briefs through judicial notice.
27	They need not be submitted as exhibits in
28	this proceeding.

1	ALJ LIRAG: No objection to 153 and
2	156?
3	MS. POST: No, your Honor.
4	ALJ LIRAG: Let's take care of those
5	two then.
6	So Exhibit 153 and 156 are received
7	into the record.
8	(Exhibit No. 153 was received into evidence.)
9	(Exhibit No. 156 was received into
10	èvidence.)
11	ALJ LIRAG: I'll allow Mr. Lindl any
12	comments of the objections by Ms. Post?
13	MR. LINDL: Yes, your Honor. First I
14	think relevance is pretty clearly
15	demonstrated. I can talk you through that
16	objection if you like.
17	But I do want to propose that if
18	these aren't offered in as exhibits or if
19	your Honor doesn't want to do that, then we
20	would just request that you take judicial
21	notice of the exhibits at this time. They're
22	PUC documents.
23	ALJ LIRAG: I'll admit Exhibit-154 into
24	the record. This is a standard practice that
25	can be referenced. So 154 I'm not sure
26	about where is this document from
27	Exhibit-155?
28	MR. LINDL: So Exhibit-155 is the

1	Commission's most recent version of the
2	Avoided Cost Calculator. It's adopted in
3	various Commission Decisions D. 9-08-026, D.
4	15-11-042, and other decisions. It is
5	calculated by energy and environmental
6	economics, which is the firm E3. But it is
7	done for the Commission. I downloaded it
8	from the Commission's website.
9	ALJ LIRAG: All right. I can't verify
10	what you've said. I'm also not familiar with
11	this document.
12	Yes, Ms. Gandesbery?
13	MS. GANDESBERY: If I could, I'm
14	familiar with both of these documents.
15	They're used for demand side management
16	programs. We haven't used either document to
17	forecast anything in this proceeding.
18	They're used in other proceedings. There
19	isn't any relevance to this proceeding.
20	ALJ LIRAG: The standard practice we
21	sort of always refer to. It's readily
22	available. So I don't see any reason to
23	exclude that. And I've already admitted 154.
24	155 though. I'm not familiar with
25	this, Mr. Lindl. So I'm going to deny
26	admission of 155. You can use other means to
27	try and get the information in.
28	MR. LINDL: Are you open to more

1	argumentation on that point, your Honor?
2	ALJ LIRAG: It's not going to lead
3	anywhere. I'm not I can't verify what
4	you're saying. Granted they're probably
5	true. But I myself am not familiar with this
6	document. So I'd have to look it up. I
7	agree that there were not a Liotta of
8	questions asked. And I think Ms. Maggard was
9	totally unfamiliar with this document.
10	I made an allowance for the Standard
11	Practice because that's fairly common. But
12	this is a it's a report. It's not even
13	prepared by the PUC. It's prepared for the
14	PUC by someone else. So I'm not just going
15	to accept this as something that you can draw
16	facts from unless you further qualify it.
17	If judicial notice is the avenue to
18	get this in, then please explore that means.
19	So that would entail a motion.
20	MR. LINDL: Okay. That's what I was
21	going to ask. Thank you, your Honor.
22	ALJ LIRAG: All right. As an exhibit
23	then, Exhibit-155 is denied. And I admitted
24	154.
25	(Exhibit No. 154 was received into evidence.)
26	evidence.)
27	ALJ LIRAG: All right.
28	MR. LINDL: Thank you, your Honor.

1 MS. POST: Thank you, your Honor. 2 ALJ LIRAG: Any questions? 3 First thank you, Ms. Maggard. You are excused. 4 5 THE WITNESS: Thank you. ALJ LIRAG: So a little bit into the 6 7 schedule. So tomorrow there is no hearings. And then if there's any developments 8 9 regarding TURN's cross for -- I believe it will cover depreciation -- unless Ms. Goodson 10 11 wants to cover it. It's very interesting. 12 Please update me regarding any discussions 13 and scheduling changes. 14 But for now we'll continue on 15 Wednesday with the depreciation witnesses and 16 Mr. Middlekauff. And then I'll ask Ms. Gandesbery's 17 18 new assistant to provide progress regarding 19 the briefing outline that PG&E, I guess, 20 should be working on. 21 MS. GANDESBERY: We are working on the 22 briefing outline, and we'll circulate it to 23 the parties this week. 24 ALJ LIRAG: All right. Let me know on 25 Wednesday the exact timing regarding that. 26 And then we are still working on the 27 pending motions that are -- I think there's 28 just two motions. One is TURN's request

1	regarding the bankruptcy document the plan.
2	And then the other I guess the other is
3	not a motion. Just the Commission's decision
4	regarding how to move forward with the 1054
5	requirement. So we'll probably update you or
6	I'll probably update you sometime this week
7	if not on Wednesday.
8	All right. So with that, we're
9	adjourned until Wednesday October 9th at 9:30
10	a.m. Thank you.
11	Off the record.
12	(Off the record.)
13	(Whereupon, at the hour of 11:11 a.m. this matter having been continued
14	to 9:30 a.m. October 9, 2019 at San Francisco, California, the
15	Commission then adjourned.)
16	* * * *
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	

1	BEFORE THE PUBLIC UTILITIES COMMISSION
2	OF THE
3	STATE OF CALIFORNIA
4	
5	
6	CERTIFICATION OF TRANSCRIPT OF PROCEEDING
7	I, JASON STACEY, CERTIFIED SHORTHAND REPORTER
8	NO. 14092, IN AND FOR THE STATE OF CALIFORNIA DO
9	HEREBY CERTIFY THAT THE PAGES OF THIS TRANSCRIPT
10	PREPARED BY ME COMPRISE A FULL, TRUE, AND CORRECT
11	TRANSCRIPT OF THE TESTIMONY AND PROCEEDINGS HELD IN
12	THIS MATTER ON OCTOBER 7, 2019.
13	I FURTHER CERTIFY THAT I HAVE NO INTEREST IN THE
14	EVENTS OF THE MATTER OR THE OUTCOME OF THE PROCEEDING.
15	EXECUTED THIS OCTOBER 11, 2019.
16	
17	
18	
19	, A A
20	
21	JASON A. STACEY CSR NO. 14092
22	CSK NO. 14092
23	
24	
25	
26	
27	
28	

	147 2157:9 2158:22,25	2189:19,27 2193:16	300 2170:26
\$	148 2157:14 2158:22,27	20 2155:7 2160:14,21	34 2189:19
\$10 2172:28 2210:24	149 2157:19 2158:6,19, 22 2159:1	2161:1 2170:14 2180:16,18 2182:18	38 2173:3,25
\$100.5 2169:11	15 2166:20 2167:26	2186:21 2191:8	4
\$150 2189:10	2169:20 2172:12	2001 2196:2	
\$180 2171:16,18	2180:12 2192:17 2204:14	2017 2188:7,8	4 2155:27 2157:7
\$398 2169:24	15-11-042 2214:4	2018 2171:19,20 2173:7,26 2206:10	2158:7,11,12 2181:14 2183:5 2188:18
\$400 2170:4 2171:22	15.03 2174:12	2019 2155:2 2186:16	2197:26 2205:21
\$421 2169:28	150-C 2157:21 2159:3,	2196:25 2217:14	2207:11,15 2208:1
\$6 2169:16,18	17,21,24,26 2163:23	2020 2169:14 2202:15	5
\$60 2172:28	1503 2174:17,28	2022 2169:14 2202:15	
\$7.2 2210:28 \$83 2173:4 2174:2	151 2166:22 2177:5,10,	21 2160:14,17,21 2161:2	5 2157:18,23 2158:7,10 2162:1 2163:19,21,28 2182:17 2193:16
2188:9	152 2166:27 2169:5	21st 2185:6	2195:17,26 2200:24
\$830 2203:19	2177:5,11,13	22 2161:10,14	5-32 2174:15
	153 2186:8 2212:18	22nd 2185:7	5-5 2164:21,24
1	2213:1,6,8	23 2174:15 2175:14	528 2172:10
1 2156:3 2166:26	154 2186:12 2212:23 2213:25 2214:23	24 2176:4	530 2172:23
2172:12 2189:27	2215:24,25	241 2156:2	531 2172:23
2197:11 2207:1	155 2186:17 2212:23	242.7 2204:3,9	532 2175:13
10 2179:15,18,27 2180:8 2188:22,24	2214:24,26	245 2155:26 2163:5	
1054 2217:4	156 2186:22 2212:18 2213:2,6,9	2178:7	6
10:30 2185:24	16 2160:14,17,20,23	25 2175:14	6 2181:13
11 2155:7 2167:23	2191:8	26 2176:4 2178:24,27	
2180:13	160 2155:21	27 2167:10 2178:28	7
11-megawatt 2174:1	17 2160:14,21,24 2180:16,17 2192:17 2197:9 2204:14	28 2167:11,22	7 2155:2 2183:4 2206:4, 10 2207:11,15 2208:1
11:11 2217:13		29 2178:24	
13 2196:5 2203:5,19 2208:23	18 2160:14,21,26	29-108 2164:8	71 2162:8,10
14-226 2164:7	2166:26 2169:20 2191:15 2204:10	29-109 2164:8	
14-227 2164:7	18-and-a-half 2202:14	29-110 2178:25	8
		29-111 2178:26	8 2157:18 2164:21,24
14-231 2178:25	18th 2185:5		2178:18,19 2180:11
14-243 2178:25	19 2160:14,21,27 2163:26 2191:15		2186:7 2203:2 2206:25 2208:1
143 2155:23 2156:21,23		3 2155:22 2157:23	8-10 2191:8 2192:17
144 2155:28 2156:22,24	2	2158:7,10 2166:21 2194:8 2200:24 2205:4 2207:10,15 2208:1	2200:23 2203:21
145 2156:4,22,26	2 2157:7 2179:19		2205:4
146 2157:4 2158:18,21, 24	2180:4,9 2181:13 2186:7,21 2188:17	30 2170:15	8-11 2187:27 2188:1 8-12 2179:15,27
	2100.1,21 2100.11		,

Index: \$10..8-12

october 07, 2019			
2188:13,17	activities 2189:28	11,16,21 2158:4,12,18,	asset 2210:11
8-19 2194:8	2190:9	21 2159:3,12,19,24,28	assets 2204:18,26
8-20 2180:8	actual 2174:22,26	2160:6,12,16,20 2161:4,9,12,22 2162:5,	2208:10
	2175:4 2176:7 2211:4,	8,12,14,19,21,24	assign 2209:8
8-25 2189:18	12,24	2163:1,7 2164:23,26	assigned 2209:2
8-26 2179:15,27	Additionally 2212:25	2165:2,15 2166:3,5,14, 17,24 2167:1 2168:21	assistant 2216:18
8-4 2180:11	additions 2164:17	2173:12,15 2176:18,23,	
8-9 2193:14 2197:20,26	2179:12	26 2177:2,7,10,15,19,	assume 2212:17
2199:6	address 2163:3 2174:5	24 2178:2,8 2179:23	Attachment 2163:28
823 2203:2	2178:4,6 2184:25 2192:26	2180:3,5 2181:4 2184:17,21 2185:4,27	attempt 2204:17
826 2187:25		2186:10,14,19,24	attorney 2169:2
	addresses 2192:18	2202:8,10 2207:26	authority 2201:3,4
9	adjourned 2217:9,15	2208:3 2210:16,21 2212:4,6,8,12,16,20	-
	adjust 2211:13,18	2213:1,4,11,23 2214:9,	avenue 2215:17
9 2206:28 2207:11,16	adjusted 2204:3	20 2215:2,22,27	average 2170:3
2208:2 2210:20	adjustment 2191:11	2216:2,6,24	avoided 2186:15,16
2217:14	adjustments 2211:20	allocate 2169:4	2196:20,25 2197:13
9-08-026 2214:3	•	2209:26	2214:2
92-12-057 2174:21	ADMINISTRATIVE 2155:4	allocated 2188:14	avoiding 2208:3
9:30 2217:9,14		allowance 2215:10	aware 2171:6 2172:21
9:33 2155:2	admission 2159:19 2212:22 2214:26	amount 2170:27	2174:9 2184:26
9th 2217:9		2171:22 2184:9 2204:6	AY 2179:17 2180:1
Jul 2217.5	admit 2165:20 2177:4 2213:23	2211:3,16	2188:27
Α	admitted 2156:8	amounts 2174:24	
	2158:16 2161:19,21	analysis 2172:5	В
A-11 2180:18	2162:17 2165:25	annual 2204:11	back 2156:15 2166:5
a.m. 2155:2 2217:10,	2214:23 2215:23 admitting 2159:21 adopted 2214:2	annually 2169:19 2172:25 2 2175:18 2	2172:25 2173:2,15
13,14			2175:18 2176:26
abide 2200:6,18		appears 2159:5	2177:19 2185:27 2186:1 2200:23
2201:10	Advocates 2155:20	• •	2201:28 2202:10
abides 2200:7	2183:8 2210:24	applied 2204:4	2212:12
above-market	agenda 2206:2	apply 2159:15	balance 2189:4
2191:18	agree 2168:8 2170:8	approvals 2205:15	Balancing 2210:12
absolutely 2183:1	2173:23 2175:1	2206:14	bankruptcy 2217:1
accept 2215:15	2182:27 2183:8 2196:8,	approves 2211:2,17	based 2169:9 2182:23
account 2172:9	17 2197:15 2200:2 2201:26 2215:7	approving 2205:27	2193:28
2210:12 2211:4		approximately 2189:9	basis 2195:27 2199:20
accrual 2182:22	agreed 2183:26	April 2173:7,26	Beach 2173:22,25
2184:9 2204:11	agreements 2158:1 2205:14 2206:13	APS 2167:17	
2209:12,20 2211:13,18	2207:18		Beach's 2173:4
accrue 2169:19	ahead 2161:23	argumentation 2215:1	bearing 2193:23
2202:14		assesses 2194:20,25	2197:28 2198:24
accruing 2183:28	ALJ 2155:25 2156:1,6, 10,13,15,21,28 2157:6,	2195:7	beginning 2167:10
			2181:13 2182:18

Index: 8-19..beginning

2183:5 2207:28 calculation 2191:27 2180:14,18 compared 2172:17 2192:5 2198:7 2209:12 2175:4 2183:2 begins 2180:15 chapter 2158:10,11,12 Calculator 2186:15 2162:1 2163:19,21,27 compliance 2187:20 behalf 2173:22 2214:2 2178:18,19 2180:11 2201:19,22 complicated 2206:16, 2196:8 California 2155:1 18 believes 2203:7 2210:23 2217:14 **Chapters** 2157:7,18,23 comply 2200:13 belonging 2158:2 2158:7,10 call 2184:22 2185:15, components 2197:13, benchmark 2172:6 21.23 **charge** 2187:4,8 17 2175:26 2191:11 called 2162:26 2177:26 concluded 2165:19 beneficial 2189:4 2196:10 **checking** 2207:14 conclusion 2165:22 benefit 2193:25 **calls** 2197:12 chose 2170:23 2198:20 2199:6 benefits 2183:21 campgrounds **Chugach** 2167:17 condition 2189:5 2189:22 2190:2,15,20 2194:25 circulate 2216:22 2195:1,6 2196:16,18 **conduct** 2170:20 **Canyon** 2206:24 2198:3,21 2199:7 circumstance 2168:3 conducted 2169:9 **capacity** 2197:16 big 2196:26 **clarify** 2165:17 2190:9 capital 2179:17 2180:1 bit 2205:17 2206:16 clear 2184:3,5 2188:22 conference 2185:14, 2189:10 2209:13 2216:6 20 collected 2174:25 care 2156:6 2213:4 **boat** 2189:21 2182:11 2183:24 confidential 2157:22 case 2165:21 2169:7 2189:16 2209:24,25 2158:5 2159:4,7,9,14, break 2184:22 2185:2. 2182:14.15 2185:7 15 23,24 2186:1 2212:9 collections 2175:2 2199:14 2211:10 confidentiality **briefing** 2216:19,22 **collects** 2175:17 cases 2204:16 2208:18 2157:28 2176:5,6 briefs 2212:26 2211:19 confirm 2163:14 column 2203:21 brunt 2193:23 2197:28 **Category** 2179:17 2178:14 2198:24 2180:1 2188:27 combination 2198:17 **consent** 2206:2 caused 2190:11 bucket 2194:3 2210:3 comments 2159:8 conservation 2187:21 2213:12 built 2190:26 **CCA** 2192:7,11,12 conservative 2211:15 2200:3 2201:9.11 Commission 2185:19 **bundled** 2193:22 considered 2171:28 2187:18 2194:20,25,28 2197:27 2198:24 CCA's 2191:12 2195:6,27 2199:11,22 2201:5,12,24 considers 2195:1,6 **CCA-SPECIFIC** 2205:26 2207:3 burden 2183:15 2192:8 2210:17 2211:2,17 contained 2165:5 2214:3,7 2217:15 2180:22 CCAS 2157:13 **business** 2163:2 Commission's contingency 2167:26 2178:3,6 2166:18,20,25 2169:2 2172:26 2173:22 2195:16 2206:2 2214:1, 2168:2,4,9,12,15 **busy** 2161:5 2174:12 2186:6,20 8 2217:3 continue 2175:25,26 2192:21 2193:8 buyer 2200:12 2205:13 commissioning 2216:14 2198:17 2200:28 2206:11 2211:20 2201:16,17,26 2210:27 continued 2217:13 common 2215:11 C **Central** 2171:10 Contractors 2170:21 companies 2170:19 challenge 2192:19 conveyance 2208:17 Cal 2155:15,26 2156:2, company 2162:26 challenges 2206:23 **correct** 2158:8 2162:18 18 2183:8 2170:25 2177:27 2165:5 2167:17,18,21 change 2164:21,24 calculated 2173:5 **company's** 2168:17 2169:8,13 2170:2,6,22, 2180:6 2202:4 2196:18 2214:5 2183:15 25 2171:17,20,24,25 changed 2155:8 2173:1,2 2174:6

Index: begins..correct

2175:20,22 2180:23 2187:10,11,21,23 2188:4,11,15,20,25 2189:12 2190:6,12,28 2191:4,13,21,22 2192:14,22 2193:1 2199:28 2200:1 2201:7, 8,13 2202:22 2203:8,16 2204:12,23,24 2205:9, 28 2206:1,9 2207:3,4,8, 24 2208:4,10 2210:25 2211:1,7,22,25

correction 2179:2,24 2180:10 2188:22 2208:4

corrections 2164:17 2179:12 2180:21

cost 2167:16 2171:15, 24 2172:27 2174:1 2175:11 2188:17 2190:11 2194:25 2195:27 2199:13 2208:16 2214:2

cost-per-kilowatt 2172:16

costs 2163:21 2164:2 2167:19 2168:9.16 2169:15,24 2172:7,11 2174:23,26 2175:4,5, 16,26,28 2176:7 2179:16,17,20,28 2180:1 2182:7 2183:13, 16,24 2184:3 2186:15, 16 2187:9,14,16 2188:2,4,13 2189:2,13, 15,19 2190:10,13,26 2191:3,19,20,21,23 2193:25 2195:1 2196:16.21.25 2197:13 2198:1,13,25 2199:17 2201:5,12,21,22 2202:18 2203:7 2211:5, 12,24

counter 2207:21

County 2171:13

couple 2165:26 2179:14 2181:9

cover 2176:6 2216:10, 11

covering 2198:8

CPUC 2186:11 2201:16

CPUC's 2201:1

Creek 2200:16 2203:28 2205:22 2207:19 2208:28 2209:9 2210:17

cross 2155:16 2165:19 2185:12,16 2186:2 2216:9

cross-examination 2165:14 2167:3 2168:24 2181:3,6

2186:25

current 2196:2

customer 2198:24

customers 2174:19 2175:8 2182:3,14,15 2183:20 2190:17,18,19, 22 2192:7,12,20,26 2193:2,8,9,11,20,23 2194:2,3,4,10,11,12,15 2197:27 2198:4,16,18, 22 2199:1,8,19,20 2201:6,19,21,23,24 2208:17

D

data 2155:21,26 2156:2 2157:13 2166:20,25 2172:6 2174:16 2186:6, 21

dated 2196:1

day 2155:7 2182:12

days 2185:20

December 2188:8

decision 2174:21 2205:27 2207:5 2210:17 2217:3

decisions 2214:3,4

decommission

2169:5 2182:8,9 2203:18 2204:27

decommissioned

2170:11,17,26 2171:8 2175:25 2203:12,13,27 2208:15,19 decommissioning

2167:27 2168:13,15 2169:10,15,25 2170:4, 8,20 2171:3,15 2172:1, 2,4,20,27 2174:1,22 2175:2,10,12 2181:19 2182:25,28 2183:12,16, 19,22,25 2184:1,2,4,9 2187:6,19 2202:5,13, 17,24 2203:7,14,22 2204:21,28 2208:10,12, 25,27 2209:4,20 2210:3,6,25 2211:5,12

Deer 2200:16 2203:28 2205:22 2207:19 2208:28 2209:9 2210:17

define 2168:1,3,5

defined 2168:6

defining 2198:26

degree 2183:10

delayed 2206:17

deleted 2180:19 **demand** 2214:15

demand-side 2195:28

demonstrated

2213:15

denied 2215:23

deny 2214:25

departed 2192:7

departing 2192:20 2194:4

departure 2193:18 2194:9

depreciation 2185:12 2216:10,15

Desabla-centerville

2205:6 2206:15 2207:22

describing 2196:13

designed 2169:25

detailed 2170:24 2171:1 2184:12 2211:19

determine 2199:12

2203:11 2204:6

Index: correction..Double

determining 2195:27

developed 2208:12

developments 2216:8

difference 2182:12,13 2201:17,24 2210:14 2211:6

difficult 2203:11

direct 2163:9,18 2173:21 2178:10,17 2187:24 2203:1

direct-access 2202:1

direction 2164:14

discuss 2155:11 2191:10,23

discussed 2204:15 2205:23

discussing 2207:20

discussion 2187:13

discussions 2216:12

dismantle 2202:19

distributed 2166:8 2173:17 2186:4 2192:26 2193:9 2194:2, 16,21 2195:2,7,8 2198:2,4,16,18,21,28 2199:8,12,16,23

distribution 2160:11 2194:26

District 2190:20 2200:17,18

docks 2189:22

document 2157:12 2159:5,16 2173:18 2186:14 2195:19 2197:5,12 2213:26 2214:11,16 2215:6,9 2217:1

documents 2159:6 2212:24,25 2213:22 2214:14

dollars 2171:19 2202:14

Double 2207:14

/			
downloaded 2214:7 draw 2215:15	environmental 2190:2,3 2202:21	10 2164:5 2166:22,27 2173:11 2177:12,13	2160:4,11,17,20 2161:6 2165:5,20,24,26
due 2172:17	2214:5 EPRI 2173:27	2179:22 2180:11 2186:8,12,17,22 2196:6,26 2197:23	2166:8,13,18 2177:3,5, 10 2178:24,27 2180:22 2186:3 2212:16,18,23,
E	equal 2172:15 2174:26 2209:28	2202:27,28 2213:6,8,9 2215:22,25	27 2213:18,21 expect 2172:15
E-P-R-I 2173:28	errata 2164:6 2178:24	Exhibit-143 2155:19, 22	2176:10 2206:13
E3 2214:6	error 2180:12	Exhibit-144 2155:25	expected 2169:22 2205:14
early 2184:22	establish 2183:19 2184:8 2203:6	Exhibit-145 2156:1	expend 2182:9
earn 2208:8	estimate 2170:28	Exhibit-146 2157:1	expended 2174:27
easements 2187:21	2176:1,2 2182:6	2162:17 2163:17	expense 2179:18
economics 2214:6	2203:6,22 2208:25 2211:15	2178:17 2179:15,27 2187:25 2203:1	2180:2
economy 2172:18 effective 2199:13	estimated 2169:11 2173:28	Exhibit-147 2157:6 2158:6	expenses 2169:10 2189:10
effectiveness 2195:28	estimates 2167:17,20	Exhibit-148 2157:11	experience 2170:28
efforts 2172:20	2169:24 2176:11 2203:17 2211:11,18	Exhibit-149 2157:16	experienced 2172:3
electric 2160:10,11 2162:26 2173:6,26	evaluated 2159:13	2163:23 2178:21 2180:8	expert 2172:4 2192:2, 10 2193:4
2177:26	event 2168:2,6	Exhibit-151 2166:19	explain 2157:24
electricity 2190:12 2197:13	eventually 2203:18	2174:11 Exhibit-152 2166:24	explanation 2159:4,6 2182:1
embedded 2191:24	everyone's 2184:26	2167:1 2171:12	explore 2215:18
end 2155:11 2182:12	evidence 2156:23,25, 26 2158:24,26,27	Exhibit-153 2186:5	express 2165:9
2211:23 ends 2211:17	2159:1,26 2160:23,25, 26,28 2161:1,3,14	Exhibit-154 2186:10 2195:15 2213:23	expressed 2165:8 2180:25
energy 2157:2,8,17,23 2161:17,19,21 2175:8,9 2178:18 2187:17	2162:10 2177:12,14 2213:8,10 2215:25 exact 2216:25	Exhibit-155 2186:14 2196:24 2213:27,28 2215:23	extent 2182:11 2193:5 2200:8,11
2197:16 2214:5	EXAMINATION	Exhibit-156 2186:19	extra 2176:8
engaged 2172:3	2163:9 2178:10	Exhibit-160 2155:21	F
enhanced 2190:3	exclude 2214:23	Exhibit-19 2164:20	<u> </u>
enjoy 2190:20	excuse 2185:1 2194:27 2205:8 2206:7	Exhibit-21 2164:4	facilities 2169:6 2170:27 2175:24
enjoyed 2190:16	excused 2177:16	Exhibit-22 2161:8,12	2182:6 2183:3 2188:7
enjoying 2183:20	2216:4	Exhibit-26 2164:5	2204:22 2207:10 2211:9
enrolled 2193:9 2194:16	execute 2205:14 2206:13,19	Exhibit-27 2164:6	facilities' 2189:4
ensure 2189:3	exhibit 2155:23,28	Exhibit-51 2164:10 2179:4	facility 2170:11
entail 2215:19	2156:4,23,24,26 2157:4,9,14,19,21,25,	Exhibit-71 2161:16	2171:27 2205:6,9,11, 22,26 2206:5,9,24,26
entitled 2186:15	27 2158:24,25,27	2162:1,3,6 2163:26 2164:20 2191:7	2207:1,2
entity 2200:3,13 2204:18	2159:1,10,17,24,26 2160:7,14,23,24,26,27 2161:1,2,14,25 2162:8,	exhibits 2155:14,15	fact 2203:27 2209:21

Index: downloaded..fact

factor 2198:20

2199:5,7

factoring 2198:3

factors 2172:14 facts 2165:4 2180:22 2215:16 **fairly** 2215:11 fall 2206:21 **familiar** 2194:19 2195:5,10,18,20 2197:1,4 2214:10,14,24 2215:5 **FEA** 2167:6 2181:9 **Federal** 2187:17 felt 2209:4 **FERC** 2187:18 2188:18, 24 2189:5 2190:10 2200:9,10 2201:11 2205:8,10 2207:22 FERC's 2189:3 figure 2166:10,15 2173:5 2198:8 2210:24 figures 2211:3 file 2205:14 filed 2206:20 **finally** 2164:10 2179:4 finish 2161:24 2184:22 firm 2173:7 2214:6 fish 2188:6 2189:23 five-minute 2212:8 fixed 2169:25 **float** 2210:5.7.9 flows 2210:11 **forecast** 2214:17 forecasted 2188:13 forgetting 2202:28 forgot 2199:4 formatting 2180:12 **forward** 2184:12 2208:26 2209:3,14,18, 27 2217:4

fossil 2182:6 2211:9
foundation 2212:23
Francisco 2155:1
 2163:6 2178:7 2217:14
Fresno 2171:13
Friday 2155:14
fruition 2209:22
full 2196:15
fund 2208:9 2210:6
funded 2182:15
funding 2175:9
 2209:10
funds 2169:4 2181:19
 2182:9,11 2208:8
 2210:3

G

future 2175:28 2183:12

Gandesbery 2156:11, 17,19 2160:2,3,9,13 2161:6,7,16 2185:9 2214:12,13 2216:21

Gandesbery's 2216:17

2211:19

Gas 2162:26 2163:20 2164:1 2177:26

gears 2202:5

gen 2198:18 2199:16,

general 2182:1 2198:6

generally 2188:18

generate 2193:7

generating 2170:26

2200:4

generation 2163:20 2164:1 2169:6 2183:3 2187:10 2190:12,14,15, 17 2191:3,19,24 2192:8,12,26 2193:3,6, 10,19,22 2194:3,10,12, 16,21 2195:2,7,8 2197:15,16 2198:2,4, 11,16,21 2199:1,8,13 2201:18 2202:19 2210:12

generation-related 2192:4

give 2181:28

goal 2175:7

good 2155:6 2162:21, 23 2163:12,13 2167:5,7 2168:27,28 2177:22,23 2178:12,13 2181:8,11 2186:28 2187:1 2208:17

Goodson 2184:26 2185:9 2216:10

granted 2159:7 2215:4

GRC 2209:23

great 2192:16 2202:3

greatly 2155:8

guess 2159:13 2161:22 2183:14 2185:11 2216:19 2217:2

Н

habitat 2189:20

half 2171:22 2198:11, 15 2204:10

hand 2162:25 2177:25

handle 2199:22

hang 2155:17

heading 2196:16

.

heard 2159:3

hearing 2156:21 2158:21 2159:12,24 2160:20 2161:12 2162:8 2177:10 2184:27

hearings 2155:11 2185:4 2216:7

high 2175:17 2183:10 2206:20

high-level 2203:6,10

hiking 2189:21

historic 2188:2

Index: factor..include

historically 2182:5 2198:12 2199:18

Honor 2156:9,20 2157:26 2158:17 2159:11 2160:3 2161:16,27 2162:13 2163:11 2165:13 2166:13 2168:26 2173:20 2176:17,22 2177:1,6 2181:2 2184:20 2186:27 2208:6 2212:3,5,15,19, 21 2213:3,13,19 2215:1,21,28 2216:1

hope 2160:6

hour 2217:13

hundred 2196:27

hydro 2183:1,13,19,21, 25 2187:3,5,7 2188:3, 14 2189:11 2190:15 2193:24 2200:10,12,16 2202:5,12 2204:17,25 2208:10,13,14,15,18, 20,22

hydroelectric 2187:9 2189:3 2190:27 2199:27 2200:4 2203:5, 11

I

identification 2155:23, 28 2156:4 2157:4,9,14, 19 2159:17 2163:17 2166:22,27 2178:16 2186:8,12,17,22

identified 2158:6

identifies 2179:16,28

identify 2155:19 2156:28 2166:19 2186:3,5

impact 2194:20 2195:8 2196:10

impacted 2185:17

important 2174:13

include 2171:27

included 2167:16,20 2186:3,24,26 2187:1 long-term 2189:22 Κ 2191:27 2194:11 2202:11 2208:6 longer 2199:20 2210:22 2211:28 includes 2156:3 2212:17,19 2213:11,13, longish 2185:24 Kern 2206:24 2192:3 28 2214:25,28 2215:20, looked 2172:1 2208:13, kilowatt 2169:28 including 2194:2 19.20.21.25 2170:4 2171:16,18,23 incorrectly 2179:16, **lines** 2175:14 2176:4 2172:28 2173:5 2174:2 lost 2179:25 2194:5 21,28 2181:13 2188:17 knew 2209:1 2189:19,27 2191:8,10, lot 2206:23 increased 2190:5 15 2192:17 2193:16 knowledge 2165:6 **low** 2175:3 2208:16 2200:24 2204:14 incur 2190:26 2180:23 2209:2 2211:4,17 2207:10,15 **incurred** 2198:13 lower 2168:16 2209:12 **Liotta** 2166:9,11,16 2201:22 2204:8 L 2167:2,4,6 2168:19,22 2211:13 **LSES** 2200:28 2176:19 2181:5,7,9 lack 2201:2 Indifference 2191:11 **Lundy** 2173:7,28 2184:13,18 2212:9 **LADWP** 2190:23 2215:7 information 2157:27 2158:2,5 2184:11,25 М LIRAG 2155:4,25 **lands** 2187:20 2204:7 2214:27 2156:1,6,10,13,15,21, large 2193:18 2194:10, M-A-G-G-A-R-D 28 2157:6,11,16,21 initial 2184:8 12 2208:15 2178:6 2158:4,12,18,21 installed 2192:27 2159:3,12,19,24,28 large-scale 2171:28 **made** 2174:20 2180:7 2160:6,12,16,20 2175:23 installing 2189:21 2188:6,21 2215:10 2161:4,9,12,22 2162:5, larger 2172:9,16 **Institute** 2173:6,27 Maggard 2155:9 8,12,14,19,21,24 2163:1,7 2164:23,26 2177:22,26 2178:6,12 **lastly** 2206:28 interesting 2216:11 2181:8 2184:13 2165:2,15 2166:3,5,14, latest 2211:11 intervening 2183:6,9 17,24 2167:1 2168:21 2186:28 2208:7 2212:1 2215:8 2216:3 2173:12,15 2176:18,23, Laughter 2160:8 investments 2188:5 26 2177:2,7,10,15,19, Major 2179:16,28 **LAW** 2155:4 **Irrigation** 2200:17,18 24 2178:2,8 2179:23 2188:26 2180:3.5 2181:4 **lead** 2215:2 issued 2205:26 2207:5 2184:17,21 2185:4,27 make 2164:17 2176:7 **leaving** 2201:27 **issues** 2187:3 2186:10,14,19,24 2179:12 2185:24 2209:19 2202:8,10 2207:26 2199:6 2208:3 2210:16,21 **left** 2180:15 J making 2198:8,19 2212:4,6,8,12,16,20 2199:17 license 2189:6 2200:9, 2213:1,4,11,23 2214:9, **Joint** 2157:12 2166:18. 12,14,19,20 2204:20 20 2215:2,22,27 management 2187:19 20,25 2169:2 2172:25 2216:2,6,24 2214:15 **licenses** 2187:18 2173:22 2174:12 2188:18,24 2190:10 list 2197:12 **managing** 2189:21 2186:6,20 2191:12 2200:11 2210:27 listed 2167:16 2197:16 manual 2186:11 licensing 2200:6 2208:23 **JUDGE** 2155:4 2195:16 2196:1,3,10 2201:10 listen 2185:18 judgment 2165:10 Marianne 2161:4 lieu 2155:15 2180:27 lives 2169:20 2170:14 mark 2166:12,14,17 likelihood 2206:20.21 **judicial** 2212:26 **load** 2198:11,14 marked 2155:23,28 2213:20 2215:17 **Lindl** 2159:11 2162:13, 2201:27 2156:4 2157:4,9,14,19 14,15,20 2165:28 July 2205:12 2206:12 2159:17 2161:18 load-serving 2200:3 2166:1,9,12,16 2162:4 2163:16,22,25 June 2206:10 2168:23,25 2169:1 local 2190:1 2164:4,19,20 2166:22, 2173:17,19 2176:16,19 27 2171:11 2174:11 long 2160:1 2206:18 2177:4,6 2184:23 2178:16,20,23 2186:8,

Index: included..marked

12,17,22 2191:6 moved 2177:6 2179:18 2162:6 2213:1,16 owner 2205:1 2180:9.14 Market 2163:5 2178:7 objections 2156:18 Р moving 2160:17 2158:19 2159:21 **materials** 2164:13 2174:16 2160:4,16 2161:9 2179:8 2165:24 2177:7 PA's 2155:15,26 **Municipal** 2190:19 matter 2217:13 2212:20 2213:12 2156:2,18 means 2214:26 objects 2212:22 Pacific 2162:26 Ν 2215:18 2177:26 occur 2181:24.26.28 meant 2191:17 name's 2169:1 pages 2164:7 2172:23 **October** 2155:2 2178:25 2186:11 measurable 2168:10 2184:28 2185:5 2217:9, names 2206:8 2196:27 2183:17 **Narrows** 2207:1,19 paid 2175:18 **Measure** 2196:10 offer 2185:14 2206:11 2208:27 2209:9 2210:19 paragraph 2196:15 offered 2213:18 megawatts 2169:5 natural 2163:20 2164:1 part 2170:7 2171:13 Office 2155:20 mentioned 2205:5 2189:20 2200:8 2202:12 Mh-hm 2193:15 OM 2164:22,25 2206:10 **nature** 2159:5,10 mic 2164:26,27 ongoing 2199:20 parties 2158:1,3 **NBC** 2187:4,7,14,16 2159:9 2165:22 2183:7, Middlekauff 2216:16 open 2214:28 2188:3,14 2189:11,16, 9,26 2185:13,17,21 19 2190:10,11,26 million 2169:11.16.18 **operated** 2190:27 2207:21 2216:23 2191:3,21 2188:9 2189:10 operating 2170:15 party 2177:8 2202:14 2203:19 needed 2185:8 operation 2164:1 2204:10 2210:24.28 party's 2182:20 negotiations 2205:13 2202:19 mind 2191:7 2197:8 pass 2173:10 2201:12 netted 2182:10 Operations 2163:20 minute 2166:2 **passed** 2205:19 **Nevada** 2200:17 opinion 2181:23 minutes 2155:18 Patterson 2162:2 2183:14 2199:21 nodded 2173:24 **missing** 2172:7 **pay** 2175:11 2192:7,11, **opinions** 2165:8 non-participants 13 2193:3,6 2180:25 moment 2176:21 2194:17 2198:23,27 2202:7 2212:7 2199:9 **PCIA** 2191:12,17,28 **opposite** 2176:3 2192:2,13,18,25 **Monday** 2185:6 non-utility 2171:9 opposition 2182:21 **pending** 2207:2 monitoring 2189:22 nonbypassable optimistic 2205:18 2210:17 2216:27 2187:4,8 months 2205:18 option 2185:10,22 per-kilowatt 2169:24 nondisclosure **morning** 2155:6 ordered 2205:8,10 2157:28 percent 2167:26 2162:21.23 2163:12.13 2207:23 2167:5,7 2168:27,28 nonparticipants percentage 2193:19 orders 2187:19 2169:3 2177:22,23 2194:22 2195:9 2198:5 2194:10,12 2178:12,13 2181:8,10, **OS** 2164:21,25 notice 2212:26 2213:21 **perform** 2172:5 11 2186:1,28 2187:1 2215:17 2202:20 outline 2216:19.22 motion 2215:19 2217:3 number 2199:27 performed 2171:3,4 overcollection motions 2216:27,28 2207:1 2173:27 2175:22 2181:18,20,24, move 2156:7 2158:15 26,27 2182:14 **period** 2169:14 2160:5,14 2161:8,20 0 overcollections **pertain** 2161:25 2177:4 2180:3 2184:12 2182:2 2199:24 2212:17 pertaining 2158:5 objecting 2160:7 2217:4 owned 2190:27 2165:20,25 objection 2156:10,19

Index: Market..pertaining

PG&E 2157:2 2162:16 2163:19,26 2169:4,10 2170:3,19,23 2171:5,7 2175:4,17 2176:5,6,7, 14 2177:7 2182:5 2183:28 2187:8 2188:2 2190:25 2191:2,20,24 2193:3,9,10 2200:5,7 2201:12,22 2202:1,13 2203:5,7,17 2204:16, 25,26 2205:8,9,12 2208:8 2211:5,23 2212:21 2216:19 **PG&E's** 2155:25 2156:1 2163:26 2164:6 2166:19,24 2171:23 2175:2 2178:17,24 2182:21 2186:6,20 2187:19 2189:10 2190:10 2192:7 2193:2, 9,17 2194:15,26 2195:1,8 2198:4,11,21 2199:7,12,26 2200:19 2201:15 2207:27 **PG&E-05** 2157:3 2162:16 2163:18 **PG&E-71** 2180:11 **plan** 2217:1 2174:2 2205:28

plant 2169:19 2171:12

plants 2172:8 2190:28 2200:16 2203:5

point 2170:16 2175:21, 23 2183:24 2184:5 2199:17 2204:8 2205:18 2215:1

points 2187:5

poorly-worded 2194:7

posed 2192:19

position 2206:25

Post 2157:24,26 2158:9,17 2159:20 2161:27 2163:8,10 2165:3,12,16 2176:20, 21,28 2177:1 2178:9, 11,13 2180:20 2181:2,4 2184:17,19 2212:6,7, 14,15,21 2213:3,12 2216:1

Power 2173:6,26 2191:11

practice 2170:9 2186:11 2195:16 2196:9 2213:24 2214:20 2215:11

precise 2184:3

premarked 2157:3

prepared 2157:1 2163:18 2164:13 2179:8 2184:7 2215:13

present 2203:4

presented 2163:22 2178:20

pretty 2211:15 2213:14

previously 2161:18 2164:20 2171:7

price 2210:13

primarily 2187:17,22

primary 2182:20

prior 2162:1 2189:18

probability 2203:25 2204:5 2208:26 2209:3,

proceed 2180:5

proceeding 2163:16 2178:15 2212:28 2214:17.19

proceedings 2214:18

process 2207:12,20, 27,28 2209:1

procuring 2201:18

production 2183:21

professional 2165:9 2180:26

program 2195:11 2199:16

programs 2193:10 2194:17,21,26 2195:2, 3,9,28 2199:13,23 2214:16

progress 2216:18

project 2167:28 2168:13 2170:1 2171:8, 10,16 2184:4 2200:10 2204:27

projecting 2171:23

projections 2168:17

projects 2169:12,26 2170:5 2171:24 2172:17 2182:8,10,26 2183:1.13 2184:2 2203:12,19,26 2204:5 2207:17 2208:21,22 2209:3,26,27 2210:5

prompted 2193:17 2194:9

properties 2183:23

proposal 2193:17 2194:9 2202:13 2208:12 2211:8

propose 2213:17

proposed 2182:22 2205:27 2207:5 2210:24,27

proposes 2170:3

proposing 2169:4 2182:4 2183:18 2184:10 2187:8 2191:20 2202:13

proprietary 2158:2

prospective 2205:13 2206:11

protected 2157:27

protecting 2189:20

proves 2211:3

provide 2163:2 2178:3 2216:18

provided 2176:11 2212:24

provider 2202:1

providing 2198:5,22 2199:9

proxies 2184:8

public 2155:20 2190:5 2191:21,23 2193:24 2210:23

PUC 2213:22 2215:13, 14

purchased 2200:4

Index: PG&E..rates

purchaser 2200:5

purposes 2187:12

push 2172:25 2173:2

put 2208:28

putting 2209:7

PV 2171:12 2172:8

Q

Q-11 2180:14,15,17

Q-8 2180:14

qualifications 2164:11 2179:5,6

qualify 2215:16

quality 2189:23

question 2155:22,27 2156:3 2162:16 2166:21,26 2168:14 2175:1 2176:9 2179:24 2180:13 2186:7,21 2194:7

questions 2168:20 2176:16,19 2181:10 2184:14,18 2208:7 2212:2,4 2215:8 2216:2

quick 2162:15 quickly 2197:9

quoted 2175:13

R

R-O-Y-A-L-L 2163:5

raise 2162:24 2177:24

range 2168:12 2172:27

rate 2192:11 2201:1 2211:10,19

ratemaking 2175:6 2178:19 2210:10

Ratepayer 2196:10

ratepayers 2175:18 2181:22 2201:13

rates 2174:25 2191:3,

24 2192:8,9 2195:3 recovered 2191:28 represent 2180:26 review 2199:22 2201:15 2209:10 2199:18 request 2155:21,26 revisit 2175:27 read 2172:12 recovers 2191:2 2156:2 2159:13 **RIM** 2196:19 2166:20,25 2174:17 **readily** 2214:21 recreation 2188:6 risk 2175:22 2176:13 2186:7,21 2206:10 ready 2160:12 redirect 2176:18.28 2209:27 2213:20 2181:17 2201:27 2216:28 2177:1 2184:18,19 2202:2 real 2176:14 2197:9 2212:6,14,15 **Request-017** 2157:13 **Rita** 2167:5 2181:9 reason 2183:18 reduce 2209:27 requesting 2203:23 River 2206:5,9,26 2191:26 2198:14 2204:2 2214:22 refer 2167:8 2172:24 requests 2183:16 rooftop 2192:27 2181:12 2187:13 reasonable 2168:12 2193:2 2194:1,11 2194:15 2214:21 required 2200:5,13 2183:27,28 2201:10 2202:20 room 2185:7 reference 2172:26 **rebuttal** 2161:17,20 2173:11.18 requirement 2189:14 roughly 2198:12 2163:26,28 2165:27 2192:4 2217:5 referenced 2212:26 2167:9,10,23 2172:10, **Royall** 2155:9,17 22 2174:6,15 2181:13 2213:25 requirements 2200:6, 2160:1 2161:23,26,28 2182:18 2183:5 2191:6 14 2201:11 2162:22,26 2163:4,12, references 2173:25 2197:21.22 14 2165:25 2167:5 Research 2173:6,26 referencing 2173:8 2168:27 2173:23 recall 2173:3 reserve 2183:19 2177:15 referred 2198:23 received 2156:22,23, 2184:1,9 2185:5 Royall's 2165:23 24,26 2158:22,24,25,27 refine 2184:10 reserved 2184:27 2159:1,25,26 2160:21, rural 2171:13 reflect 2211:11 23,24,26,27 2161:1,2, resources 2170:8.14 13,14 2162:9,10 refunded 2182:2 2175:3 2187:10 2189:5 S 2177:11.12.13 2213:6. 2199:27 2201:18,19 regard 2162:3 2194:1 8,9 2215:25 2205:25 responded 2205:19 S-T-E-V-E 2163:4 recent 2200:15 2214:1 regulated 2201:15 response 2155:20,26 Sacramento 2190:19 recognize 2174:14 2156:2 2158:20 regulation 2201:2 safety 2190:5 2184:6 2203:24,25 2159:23 2160:19 regulatory 2187:17 2161:11 2162:7 **sale** 2200:16 2205:28 recognizes 2198:10 2205:15 2206:13 2166:20,25 2174:12,28 2207:2 2208:9 recommend 2209:19 2175:1 2177:9 2186:6, relate 2188:18 sales 2206:18 2207:18 20 2191:12 reconciled 2174:23 2209:6,21 2210:2,4,11, related 2187:9 2195:3 2175:18 responsibility 13 2204:28 relates 2188:24 record 2155:5 2156:8, **San** 2155:1 2163:5 responsible 2183:22 13,14,16,22 2158:16,23 relevance 2212:24 2178:7 2217:14 2159:22,25 2160:15,18, 2213:14 2214:19 restoration 2202:21 **Sargent** 2173:7,28 22 2161:8,13 2162:9,17 remaining 2169:19 2165:18 2166:1,3,4,6,7 result 2169:24 2189:2. savings 2196:20 2193:21 2201:23 2173:13,14,16 2176:24, 28 2190:9,13 2209:13 2209:24 scale 2171:9 2172:18, 25,27 2177:5,11,17,18, resulted 2193:21 20 20 2185:25,26,28 **Remind** 2198:26 2202:8,9,10 2212:10, results 2204:10 schedule 2155:8 remove 2202:20 11,13,18,22 2213:7,24 2185:11 2216:7 retiring 2204:20 2204:26 2209:11 2217:11.12 scheduled 2184:27 returned 2181:21 repeat 2179:23 recorded 2210:14 2185:5 2182:13 rephrase 2194:6,27 **recover** 2175:5 scheduling 2216:13 revenue 2189:14 2191:18 2201:4,20 report 2215:12 2192:4 2210:1,4 2203:23 2211:6,24 scope 2203:14

Index: read..scope

section 2196:12 2172:8 2174:2 2175:3, 2211:20 2189:18 2191:6,13 24 2182:5 2192:27 2197:19,21,23 2198:15 select 2186:10 **study** 2173:27 2174:5 2193:2 2194:1,11 2199:15 2203:1 **selected** 2206:12 **subject** 2201:1 **sold** 2204:1 2207:12 text 2195:26 selections 2157:12 2209:5 submitted 2212:27 things 2171:27 sell 2199:26 2204:17 sort 2214:21 successful 2209:6.22 2189:20,24 2205:9,10 2207:23 **sound** 2169:16 suggest 2172:26 **Thomas** 2173:22 selling 2207:28 2209:2 2192:25 sounds 2169:17 thought 2178:27 sells 2204:25 supervision 2179:9 specific 2172:24 Thursday 2206:3 **sentence** 2192:24 **Supplies** 2161:17 2207:6 specifically 2199:10 2196:15,22 **supply** 2157:3,8,18,23 tied 2190:11,14 **spell** 2163:2 2178:3 **service** 2201:28 2161:19,21 2178:18 tight 2155:17 sponsoring 2161:28 2196:20 **sets** 2195:2 2163:15,19,27 2164:7, Tim 2169:1 **supporting** 2157:7,17, setting 2185:14 11 2178:15,18,25 23 2158:10 time 2157:18 2164:18 2179:6 settled 2177:21 2166:13 2169:3,14 surrendering 2204:19 spreadsheet 2156:3 2179:13 2184:11 Seventy-one 2197:24 sustainability 2190:4 2197:7 2199:3 2203:25 **standard** 2186:11 **Shek** 2156:7,9 2212:4,5 2206:19 2208:11,28 2195:16 2196:9 sworn 2162:27 2177:27 2213:21 2213:24 2214:20 **shift** 2188:2 2189:11 system 2200:4 2215:10 timeline 2182:24.27 2191:21 start 2155:13 2180:13 timing 2209:14,16 **show** 2183:15 2211:20 Т 2183:28 2216:25 **shown** 2179:21 **starting** 2160:10 2203:20 title 2196:8 **table** 2179:15.27 2187:7 2187:27 2188:1,12,13, TLG 2170:20,23,25 side 2214:15 17 2197:11 2203:2,4,21 **state** 2163:1 2167:15, 2172:4 signed 2206:19 2205:4 25 2178:2 2181:16 **today** 2155:9,12,13 2207:18 2182:19 2183:5 tables 2189:9 2169:22 2175:9,28 2189:27 2190:1 significantly 2168:16 2198:11 2204:7 2209:8, taking 2193:6 2197:8 2191:16 2192:17 10,15 **Silverado** 2170:21,24 2193:16 2200:27 talk 2185:10,22 2187:2 2172:4 2204:15 told 2189:8 2213:15 Silverado's 2171:1 stated 2174:21 2184:26 Tom 2173:3 talked 2203:28 **similarly** 2179:20 statement 2164:11 tomorrow 2155:10 target 2187:22 2180:9 2216:7 2179:5,6 2198:7,9,10 technology 2170:18 site-specific 2172:5 states 2170:12 2174:21 top 2172:11 2189:26 territory 2201:28 2196:17 sites 2176:12 total 2188:9 2203:7,17, test 2196:9,11,19 statutory 2201:3 slip 2187:4 22 2207:26 testified 2162:3,27 **stem** 2187:17 totally 2215:9 small 2171:9,12 2172:8 2177:27 2203:5 2208:13,14,18, Stephanie 2177:26 tracker 2170:1 20,21 testimony 2157:2 2178:5 trails 2189:21 2161:17,19,21 2163:15, small-scale 2171:26 Steve 2162:26 2163:4 18,27,28 2164:6 transcript 2208:4 **smaller** 2172:17 Street 2163:5 2178:7 2165:23 2167:9 transferred 2200:12 2172:10 2173:4,21 solar 2159:6 2163:20 **studies** 2169:9 2174:6,9,15 2176:13 treatment 2159:7,14, 2164:1 2169:6,12,19,28 2170:20 2171:3 2178:14,17 2187:25 2170:8,10 2171:3,8,10 15 2172:25 2184:7,12

Index: section..treatment

Evidentiary Hearing October 07, 2019

true 2165:5 2176:5 2180:22 2211:10 2215:5 true-up 2209:23 2211:10 Tule 2206:5,6,7,9,26 turn 2185:12 2191:5 2196:4 **TURN's** 2185:16 2216:9,28 turned 2164:27,28 turning 2191:8 Twenty-eight 2167:13 type 2159:13 typical 2167:27 2168:13 typically 2170:14 U **U.S.** 2172:20 **UGBA** 2210:11,15 **ultimate** 2183:24 2184:1 ultimately 2183:22 unanticipated 2168:7 uncertain 2167:15 2182:23,28 2183:2 uncertainty 2168:6 2183:11 uncontested 2205:27 2207:7.9 uncorrected 2188:23 undercollection 2182:16

understand 2174:19 2175:27 2185:16 understanding 2192:1,3,11,15 2193:5 2206:1

Understood 2174:18 unfamiliar 2215:9

unforeseen 2168:2

unit 2202:19

United 2170:12

unknown 2172:19

2184:4

unlike 2193:8

update 2186:16 2196:25 2216:12 2217:5,6

upwards 2211:18

utility 2172:1,19 2175:24 2190:19 2210:11

utilized 2195:26

utility-owned 2169:6 utility-scale 2170:10

V

Valley 2171:10 vast 2170:27 verify 2214:9 2215:3 version 2157:22 2188:23 2214:1

versus 2172:5

voted 2207:6

W

wait 2165:19

warranted 2211:21

water 2189:5,23

watershed 2187:20

website 2214:8

Wednesday 2216:15,

25 2217:7,9

week 2216:23 2217:6

wildlife 2188:6 2189:23

wind 2202:18

witness's 2165:19

witnesses 2157:2

2216:15

wondering 2199:5

Index: true..yesterday

word 2168:1,3

Work 2179:17 2180:1

2188:26

working 2216:20,21,26

workpaper 2180:8

workpapers 2157:7, 17,22 2158:9 2163:21 2178:19 2179:21

2180:7

works 2209:16

wrong 2206:8

Υ

year 2169:16 2205:15, 17,20 2206:14,17

years 2169:20 2170:15

yesterday 2195:21 2197:7

PUBLIC UTILITIES COMMISSION, STATE OF CALIFORNIA SAN FRANCISCO, CALIFORNIA