BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

In Attendance: COMMISSIONER MICHEL PETER FLORIO ADMINISTRATIVE LAW JUDGE REGINA DEANGELIS, presiding

) HEARING
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)
Application of Southern California)
Edison Company (U338E) for Approval)
of the Results of Its 2013 Local) Application
Capacity Requirements Request for) 14-11-012
Offers for the Western Los Angeles)
Basin.)
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1	SAN FRANCISCO, CALIFORNIA
2	6 MAY, 2015 - 10:00 A.M.
3	* * * *
4	ADMINISTRATIVE LAW JUDGE DE ANGELIS:
5	All right, we'll be on the record.
6	Good morning. This is the time and
7	place for the continuation of the evidentiary
8	hearing for A.14-11-012.
9	This morning we're going to
10	continue with cross-examination. And first
11	thing we'll do is just go over what we will
12	expect to have happen this morning.
13	So perhaps Ms. Reyes Close, could
14	you explain the witness
15	MS. REYES CLOSE: Sure.
16	ALJ DE ANGELIS: order this morning.
17	MS. REYES CLOSE: Sure.
18	This morning, your Honor, we had
19	ordered the witnesses with Paul Hunt starting
20	us off. And Sierra Club will be crossing
21	Mr. Hunt and I think that may be
22	About ten minutes?
23	MR. VESPA: Mm-hmm.
24	MS. REYES CLOSE: of allotted time.
25	And then we had scheduled Mr. Fagan
26	between Paul and SCE's other witnesses
27	because it's our understanding that he has
28	a flight to catch. So that's why we slotted

1 him in. So Mr. Fagan will be up next. 2 And then I think there was 3 a request yesterday from NRG's counsel that 4 Mr. Nickolay be able to go -- I think the 5 preference was after Mr. Fagan or before? MS. COTTLE: Well, Ms. Sheriff from 6 7 CLECA is the one who wants to cross-examine Mr. Nickolay, so she asked if she could go 9 immediately after the lunch break, and that's 10 fine with us. 11 MS. REYES CLOSE: Okay. 12 ALJ DE ANGELIS: Okay. So we'll go 13 after the lunch break. 14 MS. REYES CLOSE: So then I think after 15 Mr. Fagan, Mr. Chinn, SCE's witness Garry 16 Chinn will go up. And then after that, our last witness Colin Cushnie. 17 ALJ DE ANGELIS: And Mr. Miller? 18 MR. PINJUV: Mr. Miller is scheduled 19 20 today. He's the ISO's witness and he has 21 a date certain for today as well. 22 ALJ DE ANGELIS: Okay. 23 will Mr. Miller be able to testify this 24 morning? 2.5 MR. PINJUV: Yes, he would be. 26 ALJ DE ANGELIS: Okay. So it looks as 27 though we'll have just Mr. Nickolay in 28 the afternoon.

1 Well, perhaps. Okay. Let's see 2 how we do. All right. 3 Any other logical issues that 4 parties would like to raise before we get 5 started? 6 MS. REYES CLOSE: Yes, please, your 7 Honor. 8 Oh, I'm sorry. 9 ALJ DE ANGELIS: Ms. Myers. 10 MS. MYERS: I have two actually. 11 is, if we could get done with the witnesses 12 scheduled for today and other witnesses that 13 are scheduled for tomorrow are available 14 today, can we proceed with them today is 15 the preference to have them go tomorrow? ALJ DE ANGELIS: I don't have 16 17 a preference. 18 MS. MYERS: Okay. 19 ALJ DE ANGELIS: So perhaps at a break, 20 you could discuss that with the parties. 21 MS. MYERS: Okay. 22 ALJ DE ANGELIS: And if you can arrange 23 it, I can accommodate that. 24 MS. MYERS: Okay, thank you. 2.5 ALJ DE ANGELIS: Ms. Reyes Close. 26 MS. REYES CLOSE: Yes. So a couple of 27 things. 28 One, yesterday I had identified

Exhibit SCE-3 and I think it didn't get marked into the record. So I was just wondering if we could do that as a housekeeping matter this morning before Mr. Hunt starts.

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And then also, Edison has two additional exhibits that I would like to identify and have marked. They have not previously been introduced. And I have checked with the parties to see if anybody has an issue with that, and they do not. One of them is a clean copy of the LCR RFO DR pro forma agreement that ORA just went over yesterday. It's just a clean copy.

And then the other one is SCE's

Track 1 procurement plan which Mr. Vespa has referenced yesterday which I mistakenly thought had been filed in the Track 1 proceeding, but I learned yesterday that it had not. So I just wanted to make sure that parties had an opportunity to see that document because I don't believe everyone has had the opportunity.

So those are the two exhibits.

ALJ DE ANGELIS: Okay. Why don't you go ahead --

MS. REYES CLOSE: Sure.

ALJ DE ANGELIS: -- and request that

1	all those documents be marked.
2	MS. REYES CLOSE: Okay. Your Honor,
3	I would like to mark as Exhibit SCE-3 which
4	is SCE-3 I think I'm sorry Appendices E
5	and F to Testimony of SCE on the Results of
6	Its Local Capacity Requirements Request for
7	Offers for the Western Los Angeles Basin; and
8	SCE-7 which is the Track 1 procurement plan
9	of Southern California Edison Company
10	submitted to Energy Division Pursuant to
11	D.13-02-015; and Exhibit SCE-08 which is
12	the 2013 LCR RFO pro forma Demand Response
13	Resource Purchase Agreement.
14	ALJ DE ANGELIS: Thank you.
15	MS. REYES CLOSE: Thank you.
16	ALJ DE ANGELIS: SCE-3, SCE-7 and SCE-8
17	are marked for identification.
18	(Exhibit No. SCE-03 was marked for
19	identification.)
20	(Exhibit No. SCE-07 was marked for
21	identification.)
22	(Exhibit No. SCE-08 was marked for
23	identification.)
24	MS. REYES CLOSE: Thank you, your
25	Honor.
26	MS. MYERS: And your Honor, I'm sorry.
27	I had one other housekeeping matter.
28	I was wondering if I could move at

1	this time for EnerNOC-02 to be admitted into
2	evidence. It was used yesterday as
3	a cross-examination exhibit.
4	ALJ DE ANGELIS: Okay. Any objections?
5	(No response.)
6	ALJ DE ANGELIS: EnerNOC-02 is moved
7	into evidence.
8	(Exhibit No. EnerNOC-02 was received
9	into evidence.)
10	MS. MYERS: Thank you.
11	MR. POWERS: Your Honor, I would like
12	to offer into the record the Bill Powers'
13	testimony for Bill Powers Engineering.
14	I will be leaving as soon as
15	Witness Cushnie is done on the stand.
16	ALJ DE ANGELIS: Could you remind me,
17	is that Powers-1 and 2?
18	Let's move all of
19	MR. POWERS: It is Powers-1 through
20	Powers-24. They are exhibits with testimony.
21	ALJ DE ANGELIS: Could you bring that
22	up to me, please?
23	MR. POWERS: Yes. (Handing document to
24	the ALJ.)
25	ALJ DE ANGELIS: And then Mr. Powers,
26	yesterday we marked for identification an
27	exhibit or two; is that correct?
28	MR. POWERS: That is correct.

1	ALJ DE ANGELIS: We marked two exhibits
2	for cross-examination.
3	MR. POWERS: Correct.
4	ALJ DE ANGELIS: Okay. So just to
5	clarify, you'd like to move into evidence
6	Powers-1 and 2, and those are the two
7	exhibits you used for cross-examination?
8	MR. POWERS: That is correct.
9	ALJ DE ANGELIS: And in addition, your
10	prepared testimony?
11	MR. POWERS: Yes.
12	ALJ DE ANGELIS: And just to clarify,
13	you handed me two copies of your prepared
14	testimony.
15	MR. POWERS: Correct.
16	ALJ DE ANGELIS: This will be marked
17	for identification as Powers-3, the entire
18	document.
19	(Exhibit No. Powers-3 was marked for identification.)
20	rdentification.
21	MR. POWERS: Very good.
22	ALJ DE ANGELIS: Okay. And I will now
23	enter into the record Powers-1, Powers-2, and
24	Powers-3.
25	(Exhibit No. Powers-1 was received into evidence.)
26	Into evidence.)
27	(Exhibit No. Powers-2 was received into evidence.)
28	inco evidence./

1	(Exhibit No. Powers-3 was received into evidence.)
3	MR. POWERS: Thank you, your Honor.
4	ALJ DE ANGELIS: Anything further
5	before we get started?
6	(No response.)
7	ALJ DE ANGELIS: All right. Would you
8	like to call your first witness?
9	MS. REYES CLOSE: Yes. Paul Hunt for
10	SCE.
11	ALJ DE ANGELIS: All right. Good
12	morning. I'll swear you in.
13	MR. HUNT: Good morning.
14	PAUL T. HUNT, JR., called as a
15	<pre>witness by Southern California Edison Company, having been sworn, testified as follows:</pre>
16	as 10110ws.
17	THE WITNESS: Yes, I do.
18	ALJ DE ANGELIS: Thank you.
19	All right, go ahead.
20	MS. REYES CLOSE: Thank you.
21	DIRECT EXAMINATION
22	BY MS. REYES CLOSE:
23	Q Good morning, Mr. Hunt.
24	Would you please state your current
25	position at SCE for the record?
26	A My position is director of
27	regulatory finance and economics.
28	Q Thank you.

And are you sponsoring Chapter 4 1 Section I as identified in the table of 2 contents of Exhibit SCE-1 and Exhibit SCE-1-C 3 4 titled Testimony of Southern California 5 Edison Company on the Results of its 2013 Local Capacity Requirements Request for 6 7 Offers for the Western Los Angeles Basin; your qualifications in Exhibit SCE-2 and 8 9 Exhibit SCE-2-C and a paragraph in Section 10 A-1-B in Chapter 2 as identified in the table 11 of contents of Exhibit SCE-6 titled 12 Residential Testimony of Southern California 13 Edison? 14 Α Yes. 15 With respect to the testimony you 16 sponsored, do you have any additions or corrections to make at this time? 17 18 Α No. 19 Was this testimony prepared by you 20 or under your supervision? 21 Α Yes. 22 Insofar as this testimony is 23 factual in nature, do you believe it to be 24 correct? 2.5 Α Yes. 26 Insofar as this testimony is in 27 the nature of opinion or judgment, does it 28 represent your best judgment?

Yes. 1 Α 2 MS. REYES CLOSE: Thank you, Mr. Hunt. 3 Your Honor, Mr. Hunt is available 4 for cross-examination. 5 CROSS-EXAMINATION BY MR. VESPA: 6 7 Good morning, Mr. Hunt. Matt Vespa for Sierra Club. 8 9 A Good morning. 10 You talked a little about this in 11 your opening, but could you explain 12 the difference between long-term debt as 13 reported in your annual financial statements 14 and debt equivalents? 15 Α Long-term debt is exactly that. Ιt 16 a long term obligation of the company to 17 pay -- repay principle and make periodic 18 payments of interest to bondholders. Debt 19 equivalents are a construction of the credit 20 rating agencies. 21 0 Mm-hmm. 22 And they are not, they do not 23 appear in the company's financial statements. 24 Okay. And each credit rating 2.5 agency has a different way of calculating 26 debt equivalents, is that right? 2.7 They differ in the details but they 28 do not differ in the overall approach.

So what the rating agencies are doing is they are looking at power purchase agreements and certain other obligations of the company and they are essentially saying that these obligations have the possibility of impeding cash flow to bondholders, essentially raising the possibility of default to bondholders even though they're not carried on the books of the company.

So what the credit rating agencies do is they essentially impute a debt amount based on the capacity payments under a power purchase agreement. And then they also impute interest expense and depreciation expense which they use to adjust income statements as well as flow statements.

Q And in determining credit rating, are there other factors besides debt equivalents that goes into that determination?

A Yes.

2.5

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Q Can you talk a little bit about what those other factors are?

A They're essentially two overall factors that the rating agencies come up with. One is what they call a business profile which reflects the business that the company is in, the composition of the

company's customers and the composition of the demand for the company's output.

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For a regulated utility, they will also take into account the regulatory and legislative environment in the state that the utility operates in. They will make certain other qualitative judgments to come up with what they call a business profile. And they will also do a financial profile of the company where they will take the company's financial statements and make what they believe are appropriate adjustments to those financial statements, come up with credit ratios, and then they come up with an overall financial risk metric for the company, and they combine those two to come up with an overall credit rating for the company.

Q You mentioned Moody's in your testimony. What other credit ratings or credit rating agencies evaluate SCE?

A Moody's, Standard & Poor's and Fitch, to my knowledge.

Q Okay. And what is SCE's current credit rating from each of these agencies?

A The corporate credit rating of the Standard & Poor's corporate rating is triple B plus. The Moody's credit rating,

corporate credit rating is A-3. And 1 2 I believe that Fitch credit rating is A 3 minus. Q Okay. Now I want to turn to your 5 rebuttal testimony, that's SCE-6, on page 5. I'm on line 11. And here you say: 6 7 If SCE's debt equivalents increase 8 by a significant amount, it could 9 result in a downgrade of SCE's 10 credit rating. 11 I'm trying to get a sense of what 12 "significant" means. 13 What is the current debt 14 equivalents, for example, from Moody's that 15 they have assigned to SCE? 16 The current debt equivalents is 17 probably on the order of I would say around I would have to check that 18 \$2 billion. 19 number to be exact, but it's in that 20 neighborhood. 21 And if the storage project was 22 characterized as a capital lease, that is 23 where the issue is of that, those payments 24 being assigned as debt equivalents, is that 2.5 right? 26 Yes. The -- if it's a -- well, what would happen is if it's a capital lease, 27

the discounted the net present -- the present

28

value of the capacity payments will be added 1 2 as debt by the credit rating agencies to 3 the balance sheet. 4 And the embedded put option and 5 those other measures were intended to avoid that outcome, correct? 6 7 What the embedded put option does Α 8 it is prevents the contract from being 9 a capital lease, we hope. In which case, 10 the net present value of payments would be 11 multiplied by a 25-percent risk factor. 12 So the debt equivalent on the --13 imputed by the credit rating agencies would 14 only be about a quarter of what it would be 15 if it were a capital lease. 16 Okay. So for the hundred megawatt 17 storage project if this was ultimately 18 classified as a capital lease, what would 19 that add to SCE's current debt equivalents? 20

A I actually don't know that precise number. I apologize. I don't know the number for those contracts.

21

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Q Okay. It would be a 75-percent increase from what it would have been if it was not categorized as a capital lease, right?

A Well, the capital lease would be four times the operating lease.

Q Okay. You know what, I'm trying to understand, you know, when you say if debt equivalents increase by a significant amount.

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It sounds like you've already got two billion that's currently characterized as debt equivalents. You know, what would be around a significant amount given all these other factors that are involved in credit ratings that could potentially result in a downgrade?

A Well, I think I would submit that a significant amount would be in order of hundreds of millions of dollars. But of course, keep in minds that this is not the only contract we're signing as a result of the RFO. We're signing all the other contracts who have debt equivalents in those as well. So it's not just the energy storage contract, but it's all the other contracts as well that add debt equivalents to the balance sheet.

Q But it sounded like in some of your testimony you were able to avoid a lot of that through these other, you know, an RA-only contract or the put option or other mechanisms, correct?

A Yes, but -- that's correct. But the total debt equivalents even with that is

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I think on the order of a billion dollars.
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2
     I have that number in my direct testimony.
 3
               Oh.
                    I saw that. So that was
 4
     a billion with all of the measures you took.
5
               I had read that as a billion absent
     a lot of the steps you took to minimize that.
 6
               I believe that is a billion dollars
7
           Α
8
     after the embedded put option is applied.
9
               Okay. And you don't know how much
10
     of that would be from hundred megawatts of
11
     storage?
12
               No, I do not.
                                                  1
13
           MR. VESPA: Is that something I get
14
     from a data request?
15
           ALJ DE ANGELIS: Could you talk
16
     directly.
17
           MR. VESPA:
                        I'm wondering if there's a
18
     way to get that information in a subsequent
19
     data request.
20
           ALJ DE ANGELIS:
                             Is that possible?
21
           MS. REYES CLOSE: You can ask us.
22
           MR. VESPA: I can ask you. So I quess
23
     it's possible.
24
               That's all the questions I have for
2.5
           Thank you. Yeah.
                               Thanks.
     you.
26
           ALJ DE ANGELIS: Is there any further
27
     questions?
28
               (No response.)
```

1 ALJ DE ANGELIS: Any redirect? 2 MS. REYES CLOSE: No, your Honor. 3 Thank you. 4 ALJ DE ANGELIS: Thank you, Mr. Hunt. 5 You're excused. 6 All right. And we have Mr. Fagan 7 next. Mr. Vespa, would you like to call? 8 MR. VESPA: Oh, yeah. Sierra Club 9 calls Mr. Fagan. 10 ALJ DE ANGELIS: Thank you. 11 MS. REYES CLOSE: Your Honor, just so 12 you know, Rebecca Meiers-DePastino, who is 13 also an Edison attorney, will be crossing Mr. 14 Fagan. 15 ALJ DE ANGELIS: Thank you. 16 MS. MEIERS-DE PASTINO: Thank you. 17 ALJ DE ANGELIS: Good morning. ROBERT FAGAN, called as a witness by The Sierra Club, having been sworn, 18 testified as follows: 19 20 ALJ DE ANGELIS: Okay. Mr. Vespa. 21 DIRECT EXAMINATION 22 BY MR. VESPA: 23 Mr. Fagan, you submitted testimony 24 on behalf of Sierra Club in this matter, 2.5 correct? 26 Α Yes. 27 You submitted a public version of 28 your testimony and a confidential version of

1	your testimony, correct?
2	A Yes.
3	Q Do you have any corrections to this
4	testimony you'd like to make at this time?
5	A Yes. I have three minor
6	corrections.
7	Q Okay. Lets go through those. And
8	we'll use the public version. Okay. What
9	are those corrections?
10	A The first is on page 3 at line 3.
11	Where it currently says in the beginning of
12	the line "resource adequacy" it should say
13	"resource adequacy and energy."
14	ALJ DE ANGELIS: And that's in the
15	prepared testimony?
16	MR. VESPA: Yes, your Honor.
17	ALJ DE ANGELIS: Let's just mark it so
18	we know. For the record let's mark it as
19	Sierra Club-8.
20	MR. VESPA: Your Honor, would it be
21	okay to mark it Sierra Club-2? Because we
22	skipped that number, and then we don't have
23	to people don't have to wonder about it.
24	ALJ DE ANGELIS: We'll mark it as
25	Sierra Club-2.
26	(Exhibit No. SIERRACLUB-02 was marked for identification.)
27	marked for identification.
28	ALJ DE ANGELIS: Okay.

1 THE WITNESS: The second correction is 2 on page 9, line 27. Where it currently says 3 "spinning reserve" it should say "spinning and nonspinning reserve." 4 5 And the third correction is on page 14 at line 9. In the beginning where it 6 7 currently says "The gas-fired share," strike that and replace it with "The increase of the minimum for gas-fired resources." 9 10 And also on the same line a little 11 further down where it says "of total LCR 12 capacity," strike that. 13 MR. VESPA: Q Mr. Fagan, do you have 14 any more corrections? 15 Α No. 16 MR. VESPA: Your Honor, I'd also like 17 -- we marked Exhibit Sierra Club-2 as Mr. 18 Fagan's testimony. And I'd also like to mark 19 Exhibit 2-C. 20 ALJ DE ANGELIS: Thank you. We'll mark 21 as Exhibit 2-C the confidential version of 22 the prepared testimony. Thank you. 23 (Exhibit No. SERRIACLUB-03-C was marked for identification.) 24 2.5 MR. VESPA: Before we begin, Sierra 26 Club did introduce other exhibits yesterday. 27 Are those in the record, or do I need to move

those into the record at this time, or should

28

1	that happen later on?
2	ALJ DE ANGELIS: Go ahead and move them
3	into the record now.
4	MR. VESPA: Okay. Sierra Club would
5	like to move Exhibit Sierra Club 1 through
6	Sierra Club 7 into the record.
7	ALJ DE ANGELIS: Sierra Club-1, Sierra
8	Club
9	MR. VESPA: 1-C.
10	ALJ DE ANGELIS: 1-C.
11	MR. VESPA: And then.
12	ALJ DE ANGELIS: 3, 4, 5, 6, and 7 are
13	entered into the record.
14	(Exhibit No. SIERRACLUB-01 was received into evidence.)
15	reserved into evidence.
16	(Exhibit No. SIERRACLUB-01-C was received into evidence.)
17	2002100 21100 012001001,
18	(Exhibit No. SIERRACLUB-03 was received into evidence.)
19	
20	(Exhibit No. SIERRACLUB-04 was received into evidence.)
21	
22	(Exhibit No. SIERRACLUB-05 was received into evidence.)
23	
24	(Exhibit No. SIERRACLUB-06 was received into evidence.)
25	
26	(Exhibit No. SIERRACLUB-07 was received into evidence.)
27	,
28	ALJ DE ANGELIS: And let's just go

1	ahead and move into the record Sierra Club-2
2	and Sierra Club-2-C.
3	(Exhibit No. SIERRACLUB-02 was received into evidence.)
4	received into evidence.
5	(Exhibit No. SIERRACLUB-02-C was received into evidence.)
6	received into evidence.
7	MR. VESPA: Thank you.
8	ALJ DE ANGELIS: Thank you.
9	MR. VESPA: Okay. Mr. Fagan is ready
10	for cross.
11	MS. MEIERS-DE PASTINO: Thank you.
12	CROSS-EXAMINATION
13	BY MS. MEIERS-DE PASTINO:
14	Q Good morning, Mr. Fagan.
15	A Good morning.
16	Q In your testimony you describe
17	yourself and your expertise as mechanical
18	engineering and energy economics, correct?
19	A That's correct.
20	Q Based on the resume you attached to
21	your testimony as Attachment 1, you don't
22	appear to have significant in-front-of-the-
23	meter energy storage experience; is that
24	correct?
25	A There's very little in-front-of-
26	the-meter energy storage throughout the
27	country. I'm not sure that there's many
28	people who might claim that. What's

important is that storage is a resource, an outputting resource or a charging resource.

And in many respects it's not unlike the action of other resources on the grid.

2.5

So I'm familiar enough with the way resources and load works on the grid that I can use my knowledge and expertise in that area to think through the issues related to in-front-of-the-meter energy storage.

THE REPORTER: Related to what?

THE WITNESS: In-front-of-the-meter energy storage.

MS. MEIERS-DE PASTINO: Q So if I understand --

ALJ DE ANGELIS: Excuse me. Is your microphone on, Mr. Fagan? Can you just tap it. Maybe just move it a little closer to you so that the reporter can hear you. Thank you.

MS. MEIERS-DE PASTINO: Q So to paraphrase, if I understand your testimony correctly, you're saying there isn't a lot of historical experience with this technology because it's new and emerging. Is that fair?

A No. I didn't say that. I think that might be true, but what I was characterizing is the way that I understand analyzing this issue is through the lens of

how existing resources, historical resources 1 2 and load acts on the grid, resource planning, 3 which is my area of expertise. 4 And you would agree, though, that 5 it's an emerging technology, correct? I did not testify to that. So I'm 6 7 not going to make a claim to the extent that 8 storage is an emerging or not an emerging 9 technology. 10 You didn't testify to it in your 11 written testimony? 12 Α That's correct. 13 I'm asking you now. I think --14 Α 15 MR. VESPA: It's outside the scope of 16 his testimony. 17 ALJ DE ANGELIS: Mr. Vespa, if you have 18 an objection. 19 MR. VESPA: I object. It's outside the 20 scope of his testimony. He's just said it's 21 not in his testimony. 22 MS. MEIERS-DE PASTINO: All right. 23 I'll let it go. 24 So would you agree that the market 2.5 at least, given that you're an economic 26 analyst, is emerging in this area for this 27 particular technology? 28 The market is well established Α No.

in California, the wholesale market. 1 This 2 technology will participate in that market, 3 but the market is well established. 4 So if you would turn to your 5 testimony on page 2, line 12, you 6 characterize Edison's hundred megawatt cap on 7 in-front-of-the-meter energy storage as 8 arbitrary; is that correct? 9 That's correct. 10 0 And on that same page you say that 11 energy storage resources would provide 12 significant grid benefits, correct? 13 Could you say specifically what 14 you're referring to? 15 I think it's on that same page. Let me see if I can locate the line number. 16 At lines 19 and 20 of the 17 18 confidential version. I quote from the 19 confidential portion of the independent 20 evaluator report. 21 Q Okay. 22 In regards to what you just Α 23 questioned me on. 24 I don't think that's what I'm 2.5 referring to. 26 Well, I'll just ask you. 27 think that they provide significant grid 28 benefits?

1 Α I do state -- the answer is yes. 2 do state on lines 16 and 17. 3 Q Okay. 4 That the ancillary service benefits 5 attributed to those resources in SoCal 6 Edison's evaluation are fundamentally logical 7 following from the technical merits of the resource. 9 Okay. Would you also agree that 0 10 there's no historical evidence of 11 in-front-of-the-meter energy storage 12 utilizing battery technology in -- at their 13 participation in the CAISO market? 14 I'm not testifying to that effect. 15 I'm testifying to SoCal Edison's approach to 16 evaluating this resource. So I actually am 17 not fully aware of how much of that stuff is 18 on the California grid now and how much is 19 not on the grid now. 20 Okav. Isn't it true that Edison 21 did not have interconnection studies at the 22 time of the LCR solicitation on this 23 particular technology? 24 Α I don't know the answer to that 2.5 question. 26 Okay. And at the time of the

solicitation do you know whether or not SCE

would have known whether there were charging

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1 constraints that would have impacted the 2 value of an in-front-of-the-meter energy 3 storage offer? I don't know what SCE knew at that 5 time. I couldn't testify to something like 6 that. 7 And do you know if the charging constraint issues that exist for this 8 9 particular technology have been resolved? 10 Based on the information in the 11 CAISO November 2014 report, I would assert 12 that there are not significant charging 13 issues as respect -- in respect to the 14 resources' ability to provide resource 15 adequacy in most of the ancillary service 16 benefits and the energy benefits that SoCal Edison documented in its evaluation of this 17 18 resource. 19 MS. MEIERS-DE PASTINO: One minute, 20 please. 21 ALJ DE ANGELIS: Mr. Fagan, when you 22 say SoCal -- when you say Edison documented, 23 what are you referring to, what document? 24 THE WITNESS: The thrust of my 2.5 testimony is --26 ALJ DE ANGELIS: Could you just answer 27 that one question. What document are you --28 THE WITNESS: I'm referring to SoCal

Edison's modeling of the benefits of the 1 2 storage technology --3 ALJ DE ANGELIS: Okay. 4 THE WITNESS: -- as part of their 5 process. 6 ALJ DE ANGELIS: Okay. Thank you. 7 MS. MEIERS-DE PASTINO: Q. Didn't the 8 CAISO report direct the energy storage 9 projects to go to the PTO for charging 10 studies? 11 I believe that may be the case. 12 But more to the point, what that study also 13 said is that for the purposes of resource 14 adequacy and grid interconnection, the CAISO 15 didn't have to worry about that because they 16 didn't think that there was a charging 17 problem. Their focus was, when this 18 technology is being used as a resource, a 19 resource adequacy eligible resource, they're 20 interested in what's happening on the grid 21 during the four hours when this resource is 22 outputting at its maximum discharge 23 capability. That was their focus. They were 24 less concerned and did not seem to indicate 2.5 reliability concerns associated with the 26 other periods of the day when the resource 2.7 would need to charge. 28 So, but charging impacts valuation,

does it not?

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A Yes. It should impact valuation in that there's costs to charge. So the energy valuation for a storage resource would depend in part upon when the resource buys the energy to charge, as an example.

Q And if you could only charge during limited times, wouldn't that also have an impact on valuation?

Well, it would, but I don't agree with the premise of your question. could only charge during limited times is what you said. What CAISO lays out is -- is that there's clearly the rest of the day other than the peak periods when you can charge. And just looking at the fundamentals, the resource has to be available to put out for four hours during the times when the grid is stressed. That's what the resource adequacy obligation is for this resource. That leaves the rest of the day to charge. And to charge at a rate, a megawatt rate much lower than the maximum megawatt rate at which it's obligated to produce output.

So for example, the hundred megawatt selected IFOM resource has to discharge at a hundred megawatts for four

consecutive hours. That's what it has to do.

But it doesn't have to charge at a hundred

megawatts. It can charge at 10 megawatts for

10 hours.

2.5

And you've basically got the rest of the day, day in and day out, for it to charge. And there is an understanding of the patterns on the grid that allows the resource to optimally figure out when is the best time to charge.

Q So it is your contention that there just simply are no charging issues?

A I didn't say there were no charges issues. What I said is for the purposes of evaluating the benefits of these resources, which SoCal Edison did, and you assigned energy ancillary service and resource adequacy benefits to each resource. The resource adequacy and the energy benefits, there are no charging limitations associated with that valuation.

For the ancillary services, SoCal Edison claimed that there might be some limitations in your evaluation because of concerns that it might have to charge during peak periods. So, for example, you said that it might not be able to provide regulation down. But SoCal Edison never provided

evidence that indicated here is the periods when it might have to provide regulation down, when there might be a charging issue so we should discount our evaluation of the ancillary service benefits because of that.

Q So you are saying -- let's go back to my original question. My question was do -- you now claim there are no charging issues, and you are saying you didn't say that.

My question for you is: Are there charging issues in your mind that exist or not?

A That is a very general question.

Q Yes, it is.

2.5

A Because the PTOs have not done all of the analyses that might uncover certain times when there are charging issues. That doesn't imply that the benefits that you attributed to the storage resources in your evaluation are exaggerated. If there are charging issues that occur, for example, during two or three or seven hours of the day, what that generally means is the resource is going to charge at different times of the day. There is a lot of room to charge all the other hours.

And...

1	MS. MEIERS-DE PASTINO: Can we take a
2	short break?
3	ALJ DE ANGELIS: Let's take would a
4	10-minute break be okay?
5	MS. MEIERS-DE PASTINO: I think a
6	minute break would be okay.
7	ALJ DE ANGELIS: Let's take a break
8	until a quarter till.
9	Off the record.
10	(Recess taken.)
11	ALJ DE ANGELIS: Back on the record.
12	Go ahead.
13	MS. MEIERS-DE PASTINO: Q So
14	Mr. Fagan, would you concede that charging
15	constraints can impact valuation?
16	A No, I wouldn't. That is not what
17	my testimony says. I mean
18	Q I think your answer is "no."
19	So as renewables build as
20	renewable buildout occurs, there is a
21	potential for prices during certain times of
22	the day to become depressed; is that right?
23	A That is correct. More than
24	"potential," that is already evident.
25	Q Okay. If that were to occur, for
26	energy storage facilities to achieve their
27	maximum benefits, they would want to charge
28	the device at those low-priced hours. Would

1 | you agree with that?

2.5

A Energy storage providers would most likely want to do their charging during lower priced hours; that is correct.

Q Okay. If a charging constraint were to occur during those hours, wouldn't that impact value?

A Yes, it could, in theory. But, you know, again, let's deconstruct that premise. The premise is if a charging constraint occurs during low-priced hours. That is what you said.

So in this case when we are talking about the in-front-of-the-meter energy storage devices, and in particular the large in-front-of-the-meter energy storage devices located at relatively high voltage points on the grid where there is a lot less congestion, dory periods of low-priced energy, it is relatively unlikely that there is going to be charging constraints cropping up all the time. The energy storage resource has a large selection of hours to do its charging.

Q Okay. Thank you.

So I would like to turn now to page 8 line 11 of your written testimony. Let me know when you are there.

1 A Go ahead.

2.5

Q I think that you say there that the concerns expressed by SCE have been largely resolved, or maybe that is a paraphrase; is that right?

A No, that is exactly what it says.

Q Okay. That sentence is written in the present tense, correct?

A Yes. And that is in reference to the reasons given by SoCal Edison in your testimony for questioning your own valuation of the energy storage resource benefits.

Q Okay. So are the concerns to which you are referring in that sentence the access charges and the discharge issues, in particular?

A The current concerns that I'm referring to is in my direct testimony at page 7 on lines 22 to 29. And those are interconnection requirements, tariffs for charging and discharging, whether or not the resource needs to charge during peak periods, and concerns that the ancillary service valuation overestimates actual value.

Q And your testimony at line 8 -- sorry, page 8 line 11 and -- in that paragraph relies upon the CAISO's November 18th, 2014, proposal for its authority,

1 correct? 2 In part. It also relies upon 3 information in the independent evaluator 4 report. 5 I think the footnote at the bottom Q of that sentence is Footnote 21, correct? 6 7 ALJ DE ANGELIS: You are looking at what exhibit? 8 9 MS. MEIERS-DE PASTINO: This is his 10 written testimony on page 8 lines 11 through 11 15 followed by Footnote 21. 12 0 Is that correct? 13 Hold on just a second. Footnote 21 14 refers to the second sentence. I'm double 15 checking to make sure I have the context. 16 Yes. Essentially, CAISO said they 17 did not think a charging deliverability 18 assessment was required. Therefore, they 19 didn't need to change the terms of the 20 generation interconnection portion of the 21 tariff. 22 Okay. And the CAISO proposal is 23 dated November 18th, 2014, correct? 24 Α That is correct. 2.5 And SCE's LCR RFO selection 26 occurred in October of 2014, is that right, 27 to the best of your knowledge? 28 MR. VESPA: Objection. He hasn't

1 testified to this in his testimony. ALJ DE ANGELIS: I can't hear you. 2 3 MR. VESPA: Objection. It is out of 4 scope. This is not something he testified 5 about. 6 MS. MEIERS-DE PASTINO: Actually, he is 7 relying on a citation right now. It is 8 relevant. 9 ALJ DE ANGELIS: You can go ahead with 10 the question. 11 MS. MEIERS-DE PASTINO: Q Thank you. 12 I believe SCE's filing was in 13 November, a couple of days after this draft 14 report. 15 ALJ DE ANGELIS: Do you have a copy 16 that you can provide the witness? 17 MS. MEIERS-DE PASTINO: Of when our 18 selection was made? The question was: Isn't it true 19 that SCE's LCR RFO selection occurred in 20 21 October of 2014? 22 A That sounds reasonable, if you 23 filed it in November. 24 The point I was making is I'm not 2.5 testifying as to what SCE knew about the 26 interconnection process at the CAISO that 27 resulted in CAISO's report in November of 28 2014. I would presume that SCE is aware of

these issues and was aware of these issues. 1 2 There was a straw proposal put out by CAISO in June of 2014. I don't know how these 3 issues got worked out in the stakeholder 4 5 process that occurred during the second half of 2014. 6 7 Okay. So let's turn to page 2 Q lines 18 to 20 of your written testimony. 8 9 Actually, we won't go there. I think we've 10 actually already covered this ground. 11 So let's turn instead to page 7 12 lines 26 to 29. You talked about this 13 earlier that these were the uncertainties 14 that you feel that SCE had identified, 15 correct? 16 Α Yes. It wasn't my feeling. It was 17 based on discovery response by SoCal Edison 18 indicating where the areas of concern --19 where SoCal Edison's areas of concern lay. 20 Okay. And the uncertainties 21 that -- those uncertainties that you list you 22 claim do not justify SCE's 100 megawatt 23 limit, correct? 24 Α Yes. 2.5 The treatment or the accounting 26 treatment of energy storage contracts is not 27 on your list, correct?

That is correct.

28

Α

1 Okay. Do you know the difference 2 between an operating lease and a capital 3 lease? 4 Α No. 5 And do you know the impact of each on a balance sheet? 6 7 MR. VESPA: Your Honor, I'm going to 8 object. This is beyond the scope of his 9 testimony. He hasn't testified to those 10 issues. 11 MS. MEIERS-DE PASTINO: I think that is 12 the point, your Honor. 13 ALJ DE ANGELIS: You can go ahead. 14 MS. MEIERS-DE PASTINO: He did not --15 ALJ DE ANGELIS: Go ahead. 16 MS. MEIERS-DE PASTINO: -- testify on 17 those important issues. 18 Are you familiar with the term 19 "debt equivalence"? 20 Α Yes. 21 Do you know how debt equivalence 22 are calculated for energy storage or 23 payments? 24 Not specifically, no. Α 2.5 Do you understand that the total 26 amount of debt equivalence on SCE's balance 27 sheet can have an impact on SCE's credit 28 rating?

1	A I can't respond to that question.
2	Q Okay. Just as a fundamental
3	matter, would you agree that it is important
4	that utilities remain investment grade?
5	MR. VESPA: Your Honor, I'm going to
6	object.
7	THE WITNESS: I can't respond to that.
8	ALJ DE ANGELIS: Objection sustained.
9	MS. MEIERS-DE PASTINO: So we will move
10	on from debt equivalence.
11	Q On page 11 line 1 of your written
12	testimony, I guess it is line 1 through 5,
13	you say that SCE should not have imposed an
14	arbitrary limit on storage procurement based
15	solely on concern that the company's own
16	methodology might be overestimating the value
17	of these resources; is that right?
18	A That's correct.
19	ALJ DE ANGELIS: In the future, just
20	please read a little slower
21	MS. MEIERS-DE PASTINO: Oh, I'm sorry.
22	ALJ DE ANGELIS: for the record.
23	Thank you.
24	MS. MEIERS-DE PASTINO: Of course.
25	Q Isn't it true that SCE's that
26	SCE had identified more risks than just
27	overvaluation?
28	A I think that's true, yes.

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SCE also identified the financial
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            0
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     credit risk that I just asked you about, is
 3
     that right?
 4
           Α
               Yes.
 5
            Q
               Okay.
 6
               Which I'm not testifying to.
7
               I understand.
                              But it's your
8
     overall conclusion then that SCE should have
9
     disregarded those risks despite their
10
     potential impact on cost to customers?
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            Α
               I made --
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           MR. VESPA: Your Honor, that is --
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     I would object to that question. It's not --
     I mean, he's not saying that in his
14
15
     testimony.
16
           ALJ DE ANGELIS: Let's just let
17
     the witness clarify that.
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           MR. VESPA:
                        Okay.
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           ALJ DE ANGELIS:
                             Thank you.
20
            THE WITNESS: Can you repeat
21
     the question?
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           MS. MEIERS-DE PASTINO: Q
                                        I said is it
23
     your overall testimony that SCE should have
24
     disregarded the risks that it identified
2.5
     among those you conceded was financial credit
26
     risk despite the fact that it could have
2.7
     a cost impact to customers?
28
               I need to stand with my testimony.
```

1	I think the limit on IFOM,
2	<pre>in-front-of-the-meter storage was arbitrary</pre>
3	based on the concern and it appears that
4	that's a major concern that the resources
5	are not as valuable as your own valuation
6	indicated.
7	Q So your testimony is limited to
8	the valuation issues and you are not going to
9	make an opinion on whether or not
10	the financial impacts could justify a cap?
11	A My testimony does not cover that
12	area. My testimony
13	Q Okay.
14	A is focused on those other areas,
15	on the physical and the ancillary service,
16	energy and resource adequacy valuation.
17	MS. MEIERS-DE PASTINO: Okay. Thank
18	you. I have no further questions.
19	ALJ DE ANGELIS: Thank you.
20	MR. VESPA: Anyone else crossing?
21	ALJ DE ANGELIS: Any further cross?
22	(No response.)
23	ALJ DE ANGELIS: All right. Any
24	redirect?
25	MR. VESPA: Yeah. I might need a read
26	back or maybe counsel could help.
27	ALJ DE ANGELIS: Mr. Vespa, we
28	typically don't read back.

1	MR. VESPA: Okay.
2	ALJ DE ANGELIS: If you need a few
3	minutes to let's take a break
4	MR. VESPA: Okay.
5	ALJ DE ANGELIS: would be my
6	preference.
7	MR. VESPA: Just one minute is fine.
8	If you want more, we can do more.
9	ALJ DE ANGELIS: We'll take a we'll
10	break for five minutes.
11	MR. VESPA: Okay.
12	ALJ DE ANGELIS: Let's break until 11.
13	Off the record.
14	(Recess taken.)
15	ALJ DE ANGELIS: All right, let's be
16	back on the record.
17	Mr. Vespa.
18	REDIRECT EXAMINATION
19	BY MR. VESPA:
20	Q Okay. Mr. Fagan, midway through
21	SCE's cross you were asked: Would you
22	concede that charging constraints can have an
23	impact on valuation.
24	You were in the midst of answering
25	that question when you were interrupted by
26	SCE's counsel and were not allowed to finish.
27	Would you like to finish your response?
28	A Yes.

My testimony focuses in large part on the valuation that SoCal Edison did for the energy storage resources. Its initial findings were that these resources were very valuable and that, indeed, more than 400 megawatts should have been selected. It was done on valuation alone.

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that their valuation might have exaggerated the benefits associated with energy storage resources. And a significant part of that questioning appeared to be from the fact that it's unclear whether or not charging restrictions might limit that valuation.

Now, there's three components to that valuation. It's three components to the benefits associated with that valuation:

Resource adequacy benefits, energy benefits, and ancillary service benefits. And SoCal Edison quantified these benefits in its workpapers that I looked at as part of my analysis.

And in my testimony in one of the tables, Table 1 which is -- the bulk of which is confidential, I indicated what portions of value were assigned to the energy storage resources for energy resource adequacy and ancillary services.

Now, I don't believe that there's any way that a charging restriction impacts the resource adequacy value. The resource adequacy value is the physical capacity of the resource. It's there. There's got to at least be an assumption since energy storage resources were allowed to participate in the RFO that battery storage can serve as capacity resource.

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So I don't think there's any question that the resource adequacy component of the valuation is at all undermined by any concern about charging restrictions.

Ancillary service benefits, ancillary service benefits generally pay the resource for being prepared to deliver energy to the grid. Now, once the resource is charged, there's no charging restriction associated with a resource standing by to provide the ancillary service benefit.

Now, you could question, well, are there charging restrictions that might prevent it from getting ready to provide ancillary service benefits. Well, the question is yes, you could look at that just like you could look at whether or not there's charging restrictions associated with the resource providing energy value.

And to answer those two questions, you have to go back to what are the periods of time over the course of the day, day in and day out, that the resource can pull energy from the grid and charge, and at what rate does it have to do that.

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Now, generally the rate at which it has to pull energy from the grid and charge is much lower than the rate at which it is obligated to discharge, which means that it's acting as a relatively small, non-firm load during periods of time when the grid has a lot of headroom, so to speak. There's very little congestion associated with the grid for most hours of the year. And this is documented clearly in the market monitor reports and other instances where congestion is described by CAISO and by others.

So I think the fundamental nature of the obligation to discharge for four hours along with the understanding that most of the hours of most of the days of the year are associated with availability to take energy from the grid.

And this is a especially true at relatively thick, higher voltage points at which some of these energy storage resources are proposed to be installed, places where

there exists significant amounts of existing qeneration, for example.

So based on those premises, I think it's very clear that there is not necessarily degradation of the value that SoCal Edison assigned to these resources, you know.

And furthermore in the independent evaluator report in the confidential sections, there's other information that could ascribe an even higher level of value to some of these resources, depending upon what happens to the ancillary service market as a result of this new relatively fast dispatchable flexible technology showing up on the grid in larger amounts.

Q Is it your understanding that the concerns about debt equivalents stem from concerns about uncertainty in energy storage valuation?

A No.

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Q Okay.

A It's my understanding that the debt equivalency issues don't really have anything to do with the physical and economic issues that I've addressed in my testimony.

MR. VESPA: Okay. Thank you.

ALJ DE ANGELIS: Thank you, Mr. Fagan. You're excused.

1	THE WITNESS: Thank you.
2	ALJ DE ANGELIS: Ms. Reyes Close, would
3	you like to call your next witness?
4	MS. REYES CLOSE: Yes. Garry Chinn,
5	please.
6	ALJ DE ANGELIS: Good morning,
7	Mr. Chinn.
8	MR. CHINN: Good morning.
9	ALJ DE ANGELIS: Can I swear you in.
10	MR. CHINN: Sure.
11	GARRY CHINN, called as a witness by Southern California Edison Company,
12	having been sworn, testified as follows:
13	IOIIOWS:
14	THE WITNESS: I do.
15	ALJ DE ANGELIS: Thank you.
16	Go ahead, Ms. Reyes Close.
17	DIRECT EXAMINATION
18	BY MS. REYES CLOSE:
19	Q Good morning, Mr. Chinn. Would you
20	please state your current position at SCE for
21	the record?
22	A I'm a manager in transmission
23	planning with Southern California Edison.
24	Q Thank you.
25	And are you sponsoring Chapter 4
26	Section G as identified in the table of
27	contents of Exhibit SCE-1 and Exhibit 1-C
28	titled Testimony of Southern California

1	Edison Company on the Results of its 2013
2	Local Capacity Requirements Request for
3	Offers for the Western Los Angeles Basin,
4	your qualifications in Exhibit SCE-2 and
5	Exhibit 2-C, and Chapter 5 as identified in
6	the table of contents of Exhibit SCE-6 titled
7	Rebuttal Testimony of Southern California
8	Edison?
9	A Yes.
10	Q With respect to the testimony
11	sponsored by you, do you have any additions
12	or corrections to make?
13	A No.
14	Q Was this testimony prepared by you
15	or under your supervision?
16	A Yes.
17	Q Insofar as this testimony is
18	factual in nature, do you believe it to be
19	correct?
20	A I do.
21	Q Insofar as this testimony is in
22	the nature of judgment or opinion, does it
23	represent your best judgment?
24	A It does.
25	MS. REYES CLOSE: Your Honor, Mr. Chinn
26	is available for cross-examination.
27	ALJ DE ANGELIS: Okay, Ms. Myers.
28	MS. MYERS: Yes. I can go first.

1 CROSS-EXAMINATION 2 BY MS. MYERS: 3 Q Good morning, Mr. Chinn. My name 4 is Megan Myers and I represent EnerNOC Inc. 5 I would like to direct your attention to your opening testimony, Exhibit 6 7 SCE-1 at page 27 starting at line 9. 8 Α Okay, I'm there. 9 And in your testimony, you state 10 that there were discussions between Edison 11 and the CAISO regarding minimal operational 12 characteristics of each preferred resource 13 type; is that correct? 14 A That's correct. 15 Okay. I'd also like to refer you 16 to what's been marked as Exhibit EnerNOC-02. 17 Do you have that in front of you? 18 I can provide you a copy if --19 Α I don't think mine is marked. 20 Here. I'll -- (handing document to 0 21 the witness.) 22 Α Thank you. 23 And I previously provided a copy of 24 this exhibit to your counsel. 2.5 Α Okay. 26 And to the judge. Q 27 Have you seen this document before? 28 I have. Α

1	Q Okay. And this document is
2	a Edison response to an EnerNOC data request
3	regarding the meetings between CAISO and
4	Edison; is that correct?
5	A That's correct.
6	Q And this document identifies who
7	was present at these meetings from the CAISO
8	and Edison, correct?
9	A Yes. There's a list of names.
10	Q And it indicates that there were
11	three meetings: February 7, 2014; May 22,
12	2014; and June 4, 2014, is that correct?
13	A That's correct.
14	Q Were you present for all of those
15	meetings?
16	A I believe I was present for all
17	three meetings.
18	Q And were there any additional
19	meetings other than the three identified in
20	this exhibit?
21	A I don't recall there was more than
22	that.
23	Q And it's my understanding that
24	these were teleconference meetings; is that
25	correct?
26	A Yes. I believe all three were
27	conducted over the phone.
28	Q And was there any discussion of

1 demand response at these meetings? 2 Yes, there was. 3 Was there any discussion of 4 the response time requirement for demand 5 response resources to participate in the RFO? I guess the context was what was 6 7 ISO interested in terms of performance for 8 demand response. 9 I'd like to sort of refer back to 10 your testimony SCE-1. 11 Α Okay. Page 27, lines 18 to 20. 12 Q 13 Α Okay. 14 You indicate that Edison reduced 15 the maximum response time requirement of demand response resources to 20 minutes 16 because of the CAISO's studies and direction. 17 18 Do you see that portion? 19 Α I do. 20 0 Is that -- was that the case? 21 Α That was the case. Was it during one of these three 22 23 meetings that that change was made? 24 Α I can't recall the specific meeting 2.5 but it would likely be one of them. 26 Do you recall what the previous 27 requirement was? 28 I don't think we discussed what Α

1 the previous requirement was. 2 The discussion was about DR 3 response and in relationship to the critical 4 contingency. The critical contingency was 5 known as the N-1-1 in which half an hour is provided by reliability standards to make an 6 7 adjustment. And the discussion centered around well how fast does DR need to respond 8 9 within that 30 minimal indication. 10 But your testimony reflects that 11 you had reduced it from another number down 12 to 20 minutes. So that's what I'm asking is 13 if you recall what the previous requirement 14 was. 15 I think it was just referencing the 30-minute that was allocated as the potential 16 17 maximum that it could have had. 18 Do any other resources have to meet 19 a 20-minute dispatch requirement in order to 20 qualify as a local capacity resource? 21 I don't know the answer to that 22 question. 23 And it's your testimony that 24 the 20-minute requirement was adopted during 2.5 one of these three meetings with CAISO? 26 At the meeting, we talked about, 2.7 again, the 30-minute allocation for

Good observation - SCE says it did not pursue mature, longer duration battery storage because all resources had to compete on 4 hr per day, 3 consecutive day playing field, yet DR held to additional "20 minutes or less" standard.

reliability standards that was the maximum

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available for response time. And ISO 1 2 indicated to us that they were interested in 3 allowing 20 minutes for the response to DR. 4 And that was the feedback we got back. 5 Exactly when the decision was made to go with 20 minutes in terms of the bids or 6 the valuation, that was outside that meeting. 7 8 But all of these meetings occurred after the December deadline for bidders to 9 10 make their offers into the RFO, is that 11 correct? 12 A I do not know that. 13 How were bidders notified of this 14 20-minute requirement? 15 That's probably a question better 16 directed towards Mr. Bryson since he was 17 involved in the bidding process. 18 And during these meetings, was 19 there anyone else on the conference other 20 than people from Edison and the CAISO? 21 No. A 22 And did you notify the Commission 23 of this 20-minute requirement? 24 I don't believe we did. 2.5 And do you know if the Commission SCE and CAISO are judge and jury in 26 has adopted a 20-minute requirement for coming up with requirement for DR that effectively negates DR as factor in 2.7 demand response resources? bidding process, despite Public Utilities Commission law to do DR first. 28 I don't believe that has been Commission is AWOL.

1 determined yet. 2 Okay. So I'd now like to turn your 3 attention back to your testimony on page 27, 4 starting at line 22 to page 28, line 7. 5 Again, this is Exhibit SCE-1. 6 MS. REYES CLOSE: What page is it, 7 Megan? 8 MS. MYERS: I'm sorry. Pages 27 and 9 28. 10 THE WITNESS: Lines 22 through line 7 11 of page 28? 12 MS. MYERS: Q Yes. 13 Α Okay. 14 Is it your testimony that Edison 15 developed additional hypothetical LCR 16 portfolios to the CAISO? 17 Α Yes. 18 And that the results of the Edison 19 studies suggested that up to 150 megawatts of 20 two-hour dispatch discharge resources will be 21 effective until meeting or reducing 22 the identified LCR need in the LA basin, is 23 that correct? 24 That's correct. 2.5 Q Who performed those studies at 26 Edison? 27 I don't think anyone at Edison 28 performed those studies. The results of

1 the study came from the ISO. 2 But then -- okay. All right. that's fine. 3 4 And then, but you also note in your 5 testimony that CAISO did not study the effectiveness of two-hour resources in 6 7 meeting the system RA requirement beyond the local area, is that correct? 9 That's correct. That centered Α 10 around whether two hour counts for RA. 11 Okav. And based on the CAISO's or 12 the fact that the CAISO was not prepared to 13 support any system RA value for two-hour 14 resources, Edison ultimately excluded 15 consideration of them, is that correct? 16 I don't think ISO took a position 17 one way or another regarding that. They just 18 didn't take a position, therefore we --19 But ultimately Edison excluded 20 is that correct? them, 21 That's correct. 22 Did Edison include requests Okay. 23 for two-hour resources in the initial RFO? 24 I can't answer that question. 2.5 And is it a Commission-adopted 26 requirement that for demand response 27 resources to meet system RA requirement, they 28 must be available for four hours a day for

1 three consecutive days? 2 Α Yes. 3 So demand response -- okay. Let me 4 backtrack a little. 5 But the Commission has not yet adopted a 20-minute dispatch requirement 6 7 for demand response, is that correct? 8 Not to my knowledge. 9 0 Okay. So do demand response 10 resources that qualify as system RA resources 11 have to meet a 20-minute dispatch 12 requirement? 13 Α I don't know that answer to that 14 question. 15 And then do you know if generating 16 resources other than demand response have 17 different RA requirements in order to qualify 18 for system or local RA other than 19 the requirement to be located within a local 20 area in order to qualify for local RA? 21 MS. REYES CLOSE: Objection, your 22 Honor. This is outside the scope of 23 Mr. Chinn's testimony. 24 MS. MYERS: I'm trying to determine why 2.5 some of these requirements were not adopted 26 by Edison or why they changed. 2.7 ALJ DE ANGELIS: You can proceed with 28 the question. Just say it again.

1 MS. MYERS: Sure. 2 Do generating resources other than 3 demand response have different RA 4 requirements in order to qualify for system or local RA? 5 Yeah. I'm not familiar with the 6 7 qualification parameters for RA. 8 MS. MYERS: All right. Thank you. 9 further questions. 10 ALJ DE ANGELIS: Thank you. 11 Mr. Powers. 12 MR. POWERS: Thank you. 13 CROSS-EXAMINATION 14 BY MR. POWERS: 15 Good morning, Mr. Chinn. 16 Powers, Powers Engineering. I have a few 17 questions. 18 The first one is in your rebuttal 19 testimony at line 27. 20 ALJ DE ANGELIS: Page number, please. 21 MS. REYES CLOSE: Page number, please. 22 MR. POWERS: Excuse me. Line 27, 23 page 19. 24 ALJ DE ANGELIS: Let's give the witness 2.5 a moment to get there. 26 THE WITNESS: Page 19. What line? 27 What line again? 28 MR. POWERS: Q It's line 27.

1	A Okay. I'm there.
2	Q The question is, is this statutory
3	responsibility of the ISO the same statutory
4	responsibility that the Commission has?
5	A I don't know the answer to that
6	question.
7	Isn't the Commission also
8	responsible for ensuring just and reasonable
9	rates?
10	MS. REYES CLOSE: Your Honor, this is
11	outside the scope of Mr. Chinn's testimony.
12	MR. POWERS: The initial answer is
13	acceptable.
14	ALJ DE ANGELIS: Okay. Thank you.
15	MR. POWERS: Q I'd like you to turn to
16	page 21 of your rebuttal testimony, line 12.
17	A Okay.
18	Q This is requesting a clarification.
19	You stated on line the direction received
20	in the Track 4 decision. You're not
21	asserting that this is in the record of
22	the Track 4 decision?
23	A I am not.
24	Q What is the federal transmission
25	planning standard, NERC and WECC transmission
26	planning standard?
27	A It's TPL-001-1 through -4. That's
28	the titles of those network reliability

1 standards. 2 Thank you. 3 Could you also state it as N-1 with 4 no loss of load? 5 It encompasses a wide range of 6 contingencies, including that one that you 7 mention. The ISO planning standard is not 8 9 intended to duplicate the federal standard, 10 correct? 11 MS. REYES CLOSE: Objection. 12 understanding the relevance of this line of 13 questioning. 14 ALJ DE ANGELIS: Could you perhaps be 15 a little more specific? 16 MR. POWERS: Mr. Chinn's testimony is 17 that the ISO has just made its standard more 18 rigorous. What I'm trying to get at is that 19 there is a federal requirement and that 20 the ISO requirements are complementary, are 21 extra to a base federal requirement. 22 ALJ DE ANGELIS: Okay. You can go 23 ahead and ask the question again. 24 I want to suggest that that's 2.5 something that's a legal argument that you 26 could make in your brief. 2.7 MR. POWERS: Very good. 28 Do you know if the ISO transmission

planning standards are meant to duplicate or 1 2 substitute for the federal standards? 3 I would not characterize the ISO standard as substituting. It's typically 4 5 adding additional requirements. Thank you. 6 7 And the Commission did authorize load shedding in the Track 4 decision, 8 9 correct? 10 My testimony says -- based on my 11 testimony, I did not testify that that is 12 what they authorized. 13 I think your testimony is saying that the new ISO transmission planning 14 15 standard does not allow load shedding? 16 Where in your testimony do you say 17 that Track 4 did not authorize load shedding? I think I stated that 18 Α 19 the Commission decision on load shedding 20 wasn't necessarily as you characterize, that 21 they authorized load shedding. 22 I think the Commission authorized 23 that, on line 10 of page 21 of rebuttal, the Commission stated: Load shedding through an 24 2.5 SPS instituted or continued by ISO should 26 only be used judiciously as mitigation of 2.7 contingencies. 28 And my testimony is it's just

pointing to the fact that the ISO did 1 2 consider it judiciously by having 3 a stakeholder process review when load 4 shedding or when load shedding or not load 5 shedding would be appropriate. 6 Mr. Chinn, you just read or you 7 quoted Conclusion of Law No. 9 from 8 the Track 4 final decision. There are also Conclusions of Law 10, 11 and 12 on the same 9 10 issue. 11 Your Honor, I have one copy of 12 the Conclusions of Law from Track 4. Could 13 I have Mr. Chinn read those into the record? 14 MS. REYES CLOSE: Your Honor, 15 objection. Mr. Chinn did not reference those 16 in his testimony. I would state that those 17 are not within the scope of his testimony. 18 ALJ DE ANGELIS: Mr. Powers, you 19 don't -- I don't think we need to read them 20 into the record. You can just cite to them. 21 MR. POWERS: Very good. 22 ALJ DE ANGELIS: If you have questions 23 regarding those, we need to provide 24 the witness with a copy and give the witness 2.5 an opportunity to review those before you ask 26 questions. 27 MR. POWERS: I really have no

questions, your Honor. They simply make

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1
     statements that --
2
           ALJ DE ANGELIS: You can -- actually,
 3
     I think that would be appropriate to state in
     your brief.
 5
           MR. POWERS: Okay. Thank you, your
 6
     Honor.
7
           ALJ DE ANGELIS:
                             Thank you.
                                                  1
8
           MR. POWERS:
                         Thank you, your Honor.
9
           ALJ DE ANGELIS:
                             Thank you.
10
           MR. POWERS: Q A couple of questions,
11
     Mr. Chinn, about the stakeholder process at
12
     the ISO that resulted in these planning
13
     standards. Is that an evidentiary process?
14
           A
               No.
15
               Do you know who the stakeholders
16
     are?
17
           A
               I personally do not know.
18
               Does the ISO list the stakeholders
19
     on a web page, or is there some way to find
20
     out who the stakeholders are?
21
               That's probably a better question
22
     for the ISO, but my understanding is they do
23
     track all participants who made comments to
24
     the process.
2.5
           MR. POWERS: I have no further
26
     questions, your Honor.
27
           ALJ DE ANGELIS:
                             Thank, you Mr. Powers.
28
           MR. VESPA: Your Honor, I have some
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1 questions for Mr. Chinn. 2 MS. REYES CLOSE: You didn't identify 3 it. 4 MR. VESPA: We have a question that Mr. 5 Bryson. MS. REYES CLOSE: I'm sorry, Matt. 6 7 MR. VESPA: So I had some questions. 8 ALJ DE ANGELIS: Go ahead, Mr. Vespa. 9 MR. VESPA: Okay. Well, this relates 10 to what was admitted as Sierra Club 11 Exhibit 6, the 2019 local capacity technical 12 analysis. I will ask Mr. Chinn these 13 questions. 14 CROSS-EXAMINATION 15 BY MR. VESPA: Do you have that there? 16 17 ALJ DE ANGELIS: It was identified as? MR. VESPA: Sierra Club-6. 18 19 Were you here yesterday as I 20 started to go into those questions? 21 Yes, I was here yesterday. Okay. So we're at page 79 of 22 23 SCE-1. That's the opening testimony. And I 24 had asked Mr. Bryson about a statement at the 2.5 end of that page, which, at lines 18 to 19 26 there. 27 Α I think you mean 71. 28 I think -- no. 79 of SCE-1 No.

1 Oh, no. I'm talking about first the 2 testimony. 3 Α Okay. 4 Sorry. It's page 71 of that 5 document. ALJ DE ANGELIS: All right. And please 6 7 don't talk over each other. 8 THE WITNESS: I don't have page 71. 9 It's not part of my testimony. 10 MR. VESPA: Q 79 of --11 Okay. Α 12 I can read. Are you there? Q 13 Α Yes. I do have that page. 14 So at lines 18 to 19 it states: As 15 identified by CAISO's study report, 16 generation sited at Barre had the highest 17 effectiveness factor at meeting a certain 18 limiting constraint. And then the footnote 19 there goes to meet 2015 and 2019 local 20 capacity technical report by CAISO. 21 Α That's correct. 22 And so the questions I had were on 23 that report. So this is where Exhibit 6 24 comes in. 2.5 Α Okay. 26 Okay. So we could turn to page 71 2.7 of that document. And I was just trying to 28 understand what some of this means.

1 So we're on the bottom of page 71. 2 And the first line there is the generator name is B-A-R-P-K-G-E-N. Am I correct in 3 4 assuming that's a generator located at the 5 Barre substation? 6 Yes, it is a generator located at 7 the Barre. "Baree"? 8 Q 9 Α That's Barre. It's pronounced 10 "berry." 11 Oh, it's "berry"? 12 Α Yes. 13 Okay. There's a Pennsylvania joke 14 in there I'll omit. 15 Okay. So what generator is that? 16 Α It's a 50-megawatt peaker plant. 17 Okay. And so that is assigned an effectiveness factor of 28? 18 19 Α Correct. 20 And what does that mean, a 28 21 effectiveness factor? This section of the ISO report is 22 23 referring to the Western LA Basin subarea. 24 This is not the same area regarding the San 2.5 Diego contingency. So this subarea, the 26 critical contingency is the loss of the 2.7 Serrano-Villa Park No. 2 line followed by the 28 loss of the Serrano-Lewis line, which results

in overload of the Serrano-Villa Park No. 1 1 2 line. 3 So having generation located at --4 or having that particular unit located at 5 that -- where it's located, which is at Barre substation, has a 28 percent effectiveness in 6 7 reducing the overload on the Serrano-Villa Park No. 1 line. 8 9 All right. So that's 28 out of a 10 hundred percent? 11 Α Correct. 12 Okay. And so going down, there's 13 this DowlingCTG. And I'm assuming that is --14 am I correct in assuming that is generation 15 at a different substation in the Western LA 16 Basin? 17 Α Correct. 18 Which one is that? 19 I do not recall off the top of my head where that one is located. 20 21 Okay. But there is another 22 substation in the LA Basin that would have a 23 27 percent effectiveness factor for 24 generation? 2.5 Α Correct. 26 Do you know if the CanyonGTs that 2.7 are listed are in the same substation as the 28 DowlingCTG?

1 Α I do not know where -- if they're 2 the same. 3 Q Okay. Well, it isn't the same because the 4 5 bus numbers are different. 6 So these would presumably be a different substation? 7 8 Α Correct. So there's two substations with a 9 0 10 27 percent effectiveness factor? 11 Α Right. That's correct. Okay. And then moving on, these 12 0 13 next two have a 24 percent effectiveness 14 factor. I'm guessing from the name that's 15 Huntington Beach; is that right? That's correct. 16 Α 17 Okay. So while the testimony says 18 the Barre substation -- locating generation 19 at the Barre substation has the highest 20 effectiveness factor, you could locate 21 generation, different types of storage, for 22 example, at Barre, or other substation in the 23 LA Basin would have a relatively similar 24 effectiveness at meeting this particular 2.5 constraint? 26 Right. Effectiveness factor is 2.7 neutral as to what the technology is. 28 Right. But if it was in, for

1 example, these other two. I mean Barre is 2 the highest. 3 Α Right. My point is the next highest, the 4 5 next -- after that it's just 1 percent difference? 6 7 There's a 1 percent difference. That's correct. 8 9 So as a practical matter, there's 10 multiple locations within the West LA Basin 11 that have roughly the same effectiveness in 12 terms of setting generation to meet this 13 constraint? 14 They're close, within a percent. MR. VESPA: 15 Okay. No further 16 questions. Thank you. 17 ALJ DE ANGELIS: Mr. Kerner. CROSS-EXAMINATION 18 BY MR. KERNER: 19 20 Good morning, Mr. Chinn. Douglas 21 Kerner. I'm one of the lawyers for the 22 Stanton Energy Reliability Center. I just 23 have a few very general questions for you. 24 Thank you. 2.5 My understanding is you agree that 26 one of the underpinnings of the Track 4 2.7 authorization was a concern over the 28 potential for catastrophic voltage, the

collapse or shortfall; is that right?
Voltage support?

2.5

A Right. The critical contingency for the Track 4 procurement was the loss of the 5 kV lines in San Diego, which is a -- characterized as a voltage collapse situation.

Q Right. And the shutting down of SONGS was a part of that consideration, right?

A SONGS along with OTC units.

Q Right. So the authorization to procure the generation, was that -- was the provision of voltage support a specific criterion in the selection, or was that just it went along with the projects?

A I don't -- no. The specific criteria to provide voltage support was not a criteria.

Q All right.

MR. VESPA: Your Honor, I'm just a little concerned we might be broaching friendly cross at this juncture, which my understanding is not allowed in these types of proceedings. I mean this is an entity that has a potential contract with a contracting party.

MR. KERNER: Well, these are

1 | valuations.

2.5

ALJ DE ANGELIS: Could you say a little bit more about it.

MR. VESPA: Typically my understanding is when parties are aligned in their interests, that is occasionally looked at as friendly cross, and we don't do that in these types of proceedings. So these two entities would seem to have aligned interests. And I'm not sure it's appropriate to continue with this line of questioning.

MR. KERNER: How about if I continue and see? I'm not sure I'm going to address these things.

MR. VESPA: Okay.

MR. KERNER: Q Do you have a view, Mr. Chinn, on in terms of the provision of voltage support on the value of, for example, the synchronous condenser? Is that something you're familiar with?

A Synchronous condenser as a technology is -- does support voltage.

Q All right. Let me ask you something else. Let me ask you if you're familiar. Do you have an understanding in the -- the CAISO 20 report is part of this case. Are you aware, familiar with that?

MS. REYES CLOSE: Objection. Will you

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please clarify that question? I don't 1 2 understand that. 3 ALJ DE ANGELIS: Could you clarify, 4 please. 5 MR. KERNER: Sure. 6 Well, I'll just ask you. 7 California ISO 2014-15 transmission plan is 8 part of this proceeding. Is that your 9 understanding? 10 Yes. That particular transmission 11 plan was referenced. 12 Okay. Do you have an understanding 13 of what is called a frequency response 14 obligation that was part of that report? 15 MS. REYES CLOSE: Your Honor, I'm 16 questioning the relevance and also the scope 17 of this information. 18 ALJ DE ANGELIS: Mr. Kerner, where are 19 you going with this? 20 MR. KERNER: Q I'm trying to -- well, 21 to the extent he is not familiar with 22 frequency response obligations, I'm 23 interested in asking him, to the extent that 24 a project that you were looking at provided 2.5 that assistance, would that -- was that 26 evalua -- let me --27 Was that evaluation criterion in 28 your selection of resources?

1 ALJ DE ANGELIS: Could you restate 2 that. Could you restate the complete 3 question. 4 MR. KERNER: Q Was the provision of 5 frequency -- was the contribution to meeting 6 a frequency response obligation a decision 7 criterion in your selection of projects? 8 Α No. 9 To the extent that a project could 10 provide that and you knew that, would you 11 regard that as being of some value? 12 MS. REYES CLOSE: Your Honor, again, 13 this is outside the scope of Mr. Chinn's 14 testimony. He was not involved in the 15 selection process. Mr. Singh is the witness 16 for valuation and selection questions. 17 ALJ DE ANGELIS: All right. Your 18 objection is sustained. 19 MR. KERNER: Thank you. 20 ALJ DE ANGELIS: Any redirect? 21 MS. REYES CLOSE: Your Honor, please, 22 just a moment. 23 Okay, your Honor. 24 REDIRECT EXAMINATION 2.5 BY MS. REYES CLOSE: 26 Mr. Chinn, I just have one follow-up question. Was the response time, 27 28 the 20-minute response time discussed in the

CAISO's 2013-2014 TPP? 1 2 Yes. The 20-minute response time was discussed in the '13-'14 TPP as one of 3 4 the characteristics the ISO was studying. 5 And in fact, in the '14-'15 Commission plan they stated that that is going to be the 6 7 requirement, the 20-minute response time. 8 MS. REYES CLOSE: Thank you, Mr. Chinn. 9 Your Honor, I don't have any 10 additional questions. 11 ALJ DE ANGELIS: Thank you, Mr. Chinn. 12 You're excused. 13 THE WITNESS: Thank you. 14 MS. REYES CLOSE: Your Honor, Mr. 15 Cushnie is identified as the next witness. 16 don't know if you want to go ahead and start 17 with him or go to lunch or start. 18 ALJ DE ANGELIS: Let's go ahead and 19 start. 20 MS. REYES CLOSE: Okay. Sounds good. 21 ALJ DE ANGELIS: If everyone can bear 22 with me for 15 more minutes. 23 MS. MYERS: I had reserved I think it 24 was 35 minutes. I don't think mine will take 2.5 that long. I could try to get my cross done 26 before lunch if that works. 2.7 ALJ DE ANGELIS: All right. Well, 28 perhaps we might shift lunch, keep the entire

1 hour but maybe shift it a few minutes. Does 2 anyone have any objections to that? 3 MS. MYERS: Or if someone has a shorter 4 estimate, they can go before me. 5 ALJ DE ANGELIS: Okay. 6 Good morning. 7 THE WITNESS: Good morning. 8 COLIN CUSHNIE, called as a witness by Southern California Edison Company, 9 having been sworn, testified as follows: 10 11 ALJ DE ANGELIS: Thank you. All right. 12 DIRECT EXAMINATION 13 BY MS. REYES CLOSE: 14 Good morning, Mr. Cushnie. 15 you please state your current position at SCE 16 for the record? 17 I am Vice President of Energy 18 Procurement and Management. 19 Thank you. Are you sponsoring 20 Chapters 1 through 3 and 10 as identified in 21 the table of contents of Exhibit SCE-1 and 22 Exhibit SCE-1-C titled Testimony of Southern 23 California Edison Company on the Results of 24 its 2013 Local Capacity Requirements Request 2.5 for Offers for the Western Los Angeles Basin, 26 your qualifications in Exhibit SCE-2 and 27 Exhibit SCE-2-C, and Chapters 1 and 7 as 28 identified in the table of contents of

Exhibit SCE-6 titled Rebuttal Testimony of 1 southern California Edison? 2 3 Α I am. 4 With respect to the testimony 5 sponsored by you, do you have any additions or corrections to make? 6 7 Α I do not. Was this testimony prepared by you 8 Q 9 or under your supervision? 10 Α It was. 11 In so far as this testimony is 12 factual in nature, do you believe it to be 13 correct? 14 Α Yes. 15 In so far as this testimony is in 16 the nature of opinion or judgment, does it 17 represent your best judgment? 18 Α It does. 19 MS. REYES CLOSE: Your Honor, Mr. 20 Cushnie is available for cross-examination. 21 ALJ DE ANGELIS: All right. Ms. Myers. 22 CROSS-EXAMINATION 23 BY MS. MYERS: 24 Good morning, Mr. Cushnie. 2.5 is Megan Myers, and I represent EnerNOC, Inc. 26 I would like to start by referring you to 2.7 EnerNOC Exhibit 2. I don't know if you have 28 a copy up there. I can provide you with one.

1 Α I believe I do. 2 And have you seen this document 3 before? 4 I received it yesterday and looked 5 at it briefly. And this is a Edison response to an 6 7 EnerNOC data request regarding meetings between the CAISO and Edison regard this RFO; 9 is that correct? 10 Α Yes. 11 And this document identifies three dates in 2014 where meetings took place; is 12 13 that correct? 14 Α Yes. 15 Were you present for these three 16 meetings? 17 I do recall being present at two 18 meetings. I don't recall if I was present at 19 all three. 20 Do you recall which of those 21 meetings were the two that you attended? 22 Α I do not. 23 And this document also identifies 24 people from the CAISO and Edison that were 2.5 present at these meetings. Does this list 26 identify the people that were present, or 27 were there additional people present at these 28 meetings?

And

This list contains the Edison 1 Α 2 personnel that I can recall being at these 3 meetings. I can't speak with certainty as to 4 the CAISO personnel. 5 Was DR or demand response discussed at these meetings? 6 7 I don't have a specific recollection on that. I'll elaborate. 8 9 did discuss demand response issues with the 10 CAISO. I just can't tell you that it was at 11 these specific meetings. 12 Did you have any discussions with 13 the California ISO regarding response time 14 requirements for demand response in this RFO? 15 We did have conversations around 16 response times. 17 What was said? 18 At a high level, the issue we were 19 grappling with is how quickly do demand 20 response resources have to respond in order 21 to meet a critical contingency need. And we 22 ultimately planned it on 20 minutes. 23 Was there a previous requirement in 24 this RFO for demand response, a response time 2.5 requirement for demand response resources? 26 SCE's initial pro forma contracts 27 that were put out through the market for bid

had a one-hour response time, I believe.

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1 then we subsequently changed that to 2 20 minutes. 3 MS. MYERS: And counsel, is that --4 what has that been -- has that been marked as 5 an exhibit? MS. REYES CLOSE: Which one? 6 7 MS. MYERS: The pro forma contract. 8 ALJ DE ANGELIS: Ms. Myers, could you 9 ask the question. 10 MS. MYERS: I may use it as an exhibit. 11 MS. REYES CLOSE: Talking about the DR 12 pro forma contract? 13 ALJ DE ANGELIS: Just in terms of 14 capturing this for the record, we need to direct the questions to me. 15 16 MS. MYERS: Okay. I apologize. 17 ALJ DE ANGELIS: Thank you. MS. MYERS: I'd like to refer to SCE 18 19 exhibit -- sorry. Can we go off the record 20 for a second? 21 ALJ DE ANGELIS: Of course. 22 (Off the record.) 23 ALJ DE ANGELIS: Back on the record. 24 MS. MYERS: Q Mr. Cushnie, I'd like to 2.5 direct you to what has been marked as SCE-08, 26 which is identified as the 2013 LCR RFO pro 2.7 forma demand response resource purchase 28 agreement. And is that the document you're

1 referring to? 2 Without doing a thorough review, it does look like the document I'm referring to. 3 4 And I believe that may be an 5 updated version of the original 2013 pro forma contract? 6 7 Α Yes. So I am aware that we updated 8 the demand response pro forma contract at 9 least once, possibly more, and that that one 10 update that I'm referring to changed the 11 response time from one hour to 20 minutes. 12 There may have been other changes. We had 13 multiple pro forma contracts, and I wasn't 14 responsible for all the day-to-day changes in 15 the contracts. 16 Q Do you know when the original 2013 17 pro forma contract was made available? 18 Α I don't know the specific date, but 19 I would imagine it was on or about the time 20 that we issued our RFO, which was in 21 September of 2013. 22 And I know you're not sure exactly 23 when the change was made, but was it sometime 24 in 2014? 2.5 Yeah. I believe it was in May of 26 2014 based on some information I recently 27 saw. 28 And that would have been after the

deadline to submit indicative offers and
completed offer submittal packages; is that
correct?

2.5

- A That would have been after the indicatives were submitted, correct.
- Q How was this change communicated to the bidders, the one hour to the 20-minute response time requirement?

A I'm not aware of how it was specifically communicated to bidders. Generally we have a process where our contract managers reach out to the counterparties that they're dealing with and make them aware of pro forma contract changes that are going to be important for the negotiations. We also put notices out on our web site, encourage the bidders to look at the web site periodically. So I couldn't tell you how this one was specifically communicated.

Q And during the meetings that you had with the CAISO was anyone present other than people from the CAISO and Edison?

A Our independent evaluator, Segue
Consulting, may have participated in some of
those calls. I don't have a recollection.

If he did, it would -- in particular, this
gentleman, Alan Taylor, typically

1 participated via phone. And so I'm not -- my 2 recollection of who was on the phone call 3 isn't that good. 4 Do you know if any stakeholders or 5 bidders were part of these meetings? 6 Not the specific meetings that were 7 referenced here. 8 Sorry. Just to clarify, meaning Q 9 they were not present? 10 They were not present. 11 And I'd like to turn your 12 attention to Decision D.13-02-015. I have a 13 copy if you'd like me to provide it to you. 14 I would appreciate a copy. 15 you. 16 Turning your attention to page 86, 17 towards the bottom of the page, the decision states that SCE Witness Cushnie contends 18 19 certain preferred resources just aren't going 20 to be viable, in parentheses, an all-source 21 solicitation, and that he is not aware of a 22 preferred resource ever prevailing against a 23 conventional resource in an all-source RFO. 24 Do you see that language? 2.5 Α Yes, I do. 26 Was that something you testified to 27 previously? 28 I believe the citation here in this Α

decision came from my testimony here at the CPUC.

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2.7

Q And do you now believe that an all-source RFO process is appropriate for demand response?

resources, you know, can be included in an all-source solicitation, and they have an opportunity to be competitive, particularly if we don't constrain ourselves to some of the existing DR rules that are in place. So it's just a matter of balancing the I'll say desires of some to maintain programs within the current context versus trying to think outside the box and use resources more creatively than we have historically as an industry.

My testimony here, I do recall it, was -- was because Edison was looking to target preferred resources in order to meet our LCR needs, and we were concerned that if it had to be strictly a head-to-head competition with conventional resources, we wouldn't get as many preferred resources as we hoped to.

Q And do you think that there were any shortcomings in this RFO process that is the subject of this application?

1 Α I think the largest concern that I 2 personally had with our solicitation was we 3 had asked for more time to prepare to issue 4 our bid docs so that we could engage with the 5 industry to understand what their concerns might be with our pro forma agreements and 6 7 then try to deal with those proactively. And Had SCE been given the additional time it 8 the Commission felt a lot of pressure, I felt it needed to prepare adequate bid believe, to get the solicitation started 9 documents, more preferred may have been selected. The predetermination in soon as possible because getting gas-fire 10 Track 1 to award 1,000+ MW of gas actually undercut a fair bidding process 11 generation contracted, permitted, and bui for preferred resources. 12 is a very long lead time activity, and wanted 13 to make sure we had at least that part of the 14 portfolio constructed by 2020. So there were 15 some other pressures pushing Edison to issue 16 its solicitation sooner than we might have 17 otherwise cared to. 18 0 And it's true that only 19 75 megawatts of demand response resources 20 were selected in this RFO; is that correct? 21 Α That's correct. 22 And is it also correct that Edison 23 is still short preferred resources? 24 Edison still has an Yes. 2.5 obligation to provide approximately 26 99 megawatts of preferred resources and energy storage to meet the 600-megawatt 2.7 28 minimum that the Commission authorized in the

Track 1 and Track 4 decisions. 1 2 Do you have any recommendations on 3 how to improve the process for procurement of 4 demand response resources? 5 I don't have anything specific There will be very detailed 6 right now. 7 recommendations that Edison can provide with 8 respect to our contracts based on lessons 9 learned. 10 And do you think if you had had 11 more time, as you indicated, that that could 12 have improved the procurement process for 13 demand response? 14 I think it would have improved the 15 procurement process for all technology types. 16

Q And are you familiar with the The rushing of the bidding process, to accommodate gas procurement, hurt the procurement of preferred resources. the demand response rulemaking.

A I'm aware that it exists, yes.

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Q Are you also aware that there are issues being -- attempted to being resolved in that proceeding regarding the ability of demand response to compete in the wholesale market?

MS. REYES CLOSE: Your Honor, I believe this is outside of the scope of Mr. Cushnie's testimony. It is a decision in another proceeding. He is not familiar, intimately

familiar with it. 1 2 ALJ DE ANGELIS: Ms. Myers. 3 MS. MYERS: I'm leading up to another 4 question about resolving these issues prior 5 to the next RFO. So I'm laying the foundation for that. 6 7 ALJ DE ANGELIS: Okay. Go ahead. 8 Could you restate the question, 9 please? 10 MS. MYERS: Sure. 11 Are you aware that there are issues 12 regarding the ability of demand response to compete in the wholesale market? 13 I'm aware of a number of technical 14 15 challenges in integrating demand response 16 resources into the wholesale market. And I'm 17 also aware that across the industry there is 18 different schools of thought as to how to 19 compensate demand response resources in the 20 market. 21 And these challenges are still 22 ongoing; is that correct? 23 Α That is correct. 24 And so they were not resolved at 2.5 the time that Edison issued the RFO; is that 26 correct? 27 A The issues I just referred to were 28 not resolved at the time that we issued the

RFO. But we did provide in our contract a mechanism for compensating the DR resources that we would contract with in a way that would provide some certainty to bidders.

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Q And do you think resolving these issues prior to holding the next RFO would lead to better results for demand response?

A I mean I think resolving any issues that are of concern or are outstanding for any technology type is going to be beneficial to bidders in participating in a future solicitation.

Q Are you planning to hold another RFO in this -- for this procurement.

that yet. We are planning on continuing to procure preferred resources in energy storage in our existing procurement processes. And we are going to wait and see what the Commission's final decision is on this application. And if through our incremental procurement activities and a favorable Commission decision we have met or 600 megawatt minimum, then we probably will not issue another solicitation.

MS. MYERS: Thank you. No further questions.

ALJ DE ANGELIS: Thank you, Ms. Myers.

1	So we have Sierra Club and Stanton.
2	MR. KERNER: No, we will withdraw our
3	request.
4	ALJ DE ANGELIS: Okay. Sierra Club and
5	Mr. Powers.
6	MR. POWERS: Yes, your Honor.
7	ALJ DE ANGELIS: And how long do you
8	think that your cross will take?
9	MR. POWERS: I don't think it will take
10	more than 10 minutes.
11	MR. VESPA: No more than 10.
12	ALJ DE ANGELIS: How would you like to
13	proceed? We could break for lunch or try to
14	finish. Let's break for lunch.
15	MS. REYES CLOSE: Break for lunch, yes,
16	please.
17	ALJ DE ANGELIS: We will break for
18	lunch, convene a little bit after 1:00. We
19	will reconvene at 1:00.
20	Off the record.
21	(Whereupon, at the hour of 12:00 p.m. a.m., a recess was taken until
22	1:00 p.m.)
23	* * * *
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1	AFTERNOON SESSION - 1:00 P.M.
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3	* * * *
4	ALJ DE ANGELIS: Let's go on the
5	record.
6	Mr. Vespa.
7	MR. VESPA: Sure.
8	CROSS-EXAMINATION
9	BY MR. VESPA:
10	Q Mr. Cushnie, Matt Vespa from Sierra
11	Club.
12	A Good afternoon.
13	Q I just had a couple of clarifying
14	questions on page 97 of SCE-1, which is your
15	opening testimony. And that is where you
16	talk about needing residual procurement.
17	A I have that.
18	Q Okay. So I'm on, let me see, lines
19	11 to 12 where you say:
20	[Reading]
21	Before undertaking any major
22	procurement initiative to procure
23	additional preferred resources, SCE
24	will request that CAISO update its
25	LCR studies to account for planning
26	transmission upgrades, load forecast
27	updates, and SCE's proposed LCR
28	procurement to determine what

residual reliability may exist,
including needed resource attributes
and changes to locational
effectiveness.

I was a little confused about some of this. It is my understanding that CAISO every year automatically updates their LCR needs, correct?

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A Currently the Cal ISO has an annual transmission planning process.

Q Well, I meant -- I don't know if you are familiar with Sierra Club-6. It was a 2019 local capacity study that was dated April 30th, 2014. My understanding is that they just did a new one, which is local capacity requirements for 2020 just this last April, right?

A Correct. So I have not looked at a Cal ISO local capacity requirement study in a few years. My recollection is they are looking at what I would characterize to be near-term local capacity requirement needs as opposed to a long-term local capacity requirement needs. So you might want to ask Cal ISO witness Mr. Miller that question.

But my understanding, again, is that is more of a near-term outlook. What we are looking at here are long-term LCR needs.

1 Q So like 10 years out do you mean, 2 or what do you mean by "long-term"? 3 Correct, in our case post-2020. 4 Q Okay. 5 Α So the Cal ISO studies that you might be referring to set the local capacity 6 7 requirements in each of the utility service 8 territories for subsequent year. 9 And for 2020, this one would go to 2020? 10 11 This one would go to 2020, but --12 because of the passage of time. 13 My testimony that you are referring 14 to here was really looking at refreshing the 15 studies that the Cal ISO did that set the LCR 16 need that the Commission utilized for giving 17 us our procurement authorization. 18 And that would be something then in LTPP that would occur? 19 20 Α No. 21 Okay. Q 22 This would be something that -- for 23 efficiency sake that -- we are proposing that 24 Edison just check in with the Cal ISO to make 2.5 sure that the need determination that we are 26 working under is still valid. If it isn't, 27 then we would potentially come back to the 28 Commission and ask for a change presumably in a petition for modification.

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So if -- okay. So if the TTP, for example, showed less future need than originally forecast, you may ask the PUC to **VP Cushnie - SCE would reduce** eliminate or reduce this residual

authorization if updated CAISO

requirement. Is that what you are saying? forecast supported this action.

Correct, potentially. We would have to look at the specifics. If it showed more need and the need fit within our current authorization, then presumably we wouldn't have to do anything. We could just continue to contract under our current procurement authorization.

And when you say -- you said we would check with the CAISO on this. I'm wondering the timing, you know, what with this take? When would a new RFO happen, assuming you feel the need to do these things?

So the tentative timeline, I'm hopeful that the CPUC will issue a final decision in this proceeding by the end of third quarter, and Edison would engage the Cal ISO at that time. And it will really depend on how many resources Cal ISO has to look at this issue. They may have already done these studies that we can leverage and make some simplified assumptions around.

through some combination of meeting with the Cal ISO, looking what the CPUC has approved in terms of the contracts that we submitted for approval, and any other additional information we might have, we would then determine how best to meet the residual procurement need.

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- Q Okay. Presumably any additional procurement that might be necessary should the Commission reject some of these contracts?
- A Correct. If the Commission rejects contracts, then our current 99 megawatt short position on preferred resource becomes less, or becomes greater, I'm saying it differently. We would have to buy more.
- Q Okay. On this page you also reference the Track 1 procurement plan regarding other mechanisms to procure various resources, correct? It is on the Footnote 105 at the bottom.
 - A That is correct.
- Q So I looked at those pages you cited. I'm happy to provide you a copy. I just didn't see a lot there in terms of actual procurement and the timing of proposed future procurement that could meet this residual need. So could you talk a little

bit about maybe what is in the pipeline currently for SCE's procurement that might transcript to this?

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A Yes. So the section of our procurement plan that you are referring to was a recap of the various resource types that we were seeking to require in the LCR solicitation. In there we identified conceptually some of the things that we could do to increase the amount of procurement of these preferred resources and other resource types.

To answer your specific question,
Edison has a series of procurements underway
and also planned. These typically take the
form of things like our feed-in tariffs for
renewable resources, our annual RPS
solicitation. We have a solicitation looking

for distributed generation in the Johanna-Santiago Substation regions which would qualify as Western LA Basin resources.

This solicitation is specifically intended to displace gas resources w preferred resources.

So we have a number of different procurement solicitations underway, or about to launch, where we would look at purchasing resource incremental to what we would otherwise be doing under those solicitations, and it would be those incremental resources that we could count towards the procurement

authorization that we received in Track 1 and
Track 4.

Q And you also have a new storage
RFO, correct?

A Correct. We have an energy storage
RFO that is on the street right now. We will

2.5

RFO that is on the street right now. We will be launching another one in two years. So between the combination of those two we could also buy incremental resources to meet the LCR need.

Q What is the timing of the current RFO for storage in terms of you would announce the bid?

A I don't have the exact date with me. We are in the process of finalizing our shortlisting of the offers. We will notify the shortlisted counterparties some time this month. And then we will finalize negotiations and get final bids from them. So it is sometime this year. I don't recall the exact date.

Q Are you prioritizing some of those bids for the LCR area to potentially contribute to this need?

A Meeting an LCR need is something we consider in all of our procurement solicitations right now. It is an additional subject or qualitative criteria that we look

1 at.

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Q Okay. Was there a cap on what you would be procuring through that RFO or some sort of size limit for bids?

A Energy storage, we have a minimum amount of capacity that we have to procure to meet or initial period target.

Q Right.

A I believe that is 16.3 megawatts. I don't recall. I don't think we put a cap in the proposal itself on the total amount of megawatts, but we let bidders know that we are not buying a lot of megawatts in this particular round. So our definition, the bids weren't large.

Q Okay. In the beginning, this is earlier in your testimony, I'm not citing anything specific, you seem to suggest that the contracts were signed. They were done. You really couldn't go back.

I'm just wondering about SCE's view on a potential remedy in this case. So, for example, if the storage cap was determined to be unreasonable and then you needed to procure additional storage. There is a significant shortlist from this RFO for storage, correct?

A So we still have all of our

valuation materials, and we still have the old offers, if that is what you are asking. The offers were only effective to the point in time that we made our final award selections, in which case in time the offers are no longer valid.

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So Edison is always able to go back and ask bidders if they are willing to refresh bids, but I would recommend against that. If we were going to do something like that, it would make more sense to reissue a solicitation targeted to meeting our LCR need and give bidders equal opportunity to participate.

- Q So you would reopen -- you would do a new RFO, reopen to all resources?
- That would be my recommendation at this point in time. That is -- we know more now than we did at the time, and we would want to reissue documents to reflect what we know, with better contracts effectively.

The other thing I'll add here on energy storage, it is something that we pointed out quite a bit in the past, is there is a general belief in the industry, and we certainly hold out that the technology is evolving, prices are coming down over time. There is not an urgency for us to do energy

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      storage at this moment. If we do energy
 2
      storage at a later point in time, presumably
 3
      it will be at a lower cost or with a more
 4
      developed technology, which will benefit our
 5
     customers. As long as it is installed by
      2021, that will be sufficient for meeting the
 6
 7
     need.
                 So it is your view you could better
 8
 9
      take advantage of procurement space here
10
      should the determination be made that the cap
                                                 However ES cap now
11
     was unreasonable through a subsequent
                                                 assures 1,000+ MW of gas,
12
     solicitation?
                                                  while elimination of ES cap
                                                 means at least 98 MW less
13
                Correct.
                                                  gas (Stanton Energy).
14
             MR. VESPA: Okay. That is all I have.
15
      Thank you.
16
             ALJ DE ANGELIS: Thank you. Mr. Vespa,
     any redirect?
17
18
             MR. VESPA: I think Bill has to go
19
     still.
20
             MS. REYES CLOSE: Yeah, I think Bill
21
      Powers still has to go.
22
             ALJ DE ANGELIS: Okay.
                                        Mr. Powers.
23
                 Welcome Commissioner Florio.
                                                   Thank
24
     you for joining us a few minutes ago.
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             COMMISSIONER FLORIO:
                                      I came in to
26
      scare Mr. Cushnie.
                                                  BP - This "old pals" exchange did
                                                  not inspire much confidence in
27
             THE WITNESS:
                            Duly scared.
                                                  Commission neutrality.
28
                 (Laughter)
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1 ALJ DE ANGELIS: Mr. Powers. 2 CROSS-EXAMINATION 3 BY MR. POWERS: 4 Hello, Mr. Cushnie. Bill Powers, 5 Powers Engineering. My first question relates to Powers 6 7 Engineering Exhibit 2. I don't know if you have that exhibit, or if Commissioner Florio has the exhibit. I have copies with me? 9 10 Is that the printout of the UC San 11 Diego article? 12 0 Yes. 13 Α I have that. 14 My first question is relating to 15 this article about two-thirds of the way 16 down. There is a statement that you make 17 about bids, and I just wanted to confirm that 18 you consider this an accurate statement in the article. 19 20 Are you referring to the statement that indicates I said the utility collected 21 22 fewer qualified bids than it would have 23 liked? 24 That is correct. 0 2.5 Yes, I did make a statement to that 26 effect. But the context of it was why didn't 27 Edison sign up more preferred resources than 28 what we submitted to the Commission for

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1 approval. It wasn't limited to just energy Rushed bidding process, as 2 storage. acknowledged by VP Cushnie, to accommodate gas procurement, And in the context of preferred 3 compromised integrity of preferred resources procurement 4 resource as defined in preferred loading and resulted in less than optimal order, Edison did not receive as many bidspreferred resources procurement. 5 it would have liked to allow us to fully meet 6 7 our preferred resource requirement. 8 I would like to turn to SCE Exhibit 9 2 Appendix D page D-35, and take a look at 10 the third paragraph on the issue of bid. 11 You said SCE-2? 12 SCE-2 Appendix D page-35, it is the 13 third paragraph down that starts "Sedway 14 Consulting concluded." 15 THE WITNESS: Yes. Excuse me for a minute, Mr. Powers. 16 17 I need to ask my counsel what is Exhibit 2. 18 19 MS. REYES CLOSE: Yes. This is a good time to note this is not Mr. Cushnie's 20 21 sponsored testimony. Mr. Bryson sponsored 22 Appendices A through D. So he doesn't have 23 this. I can provide it to him. I'm making a 24 note it is not within the scope of the 2.5 testimony. 26 THE WITNESS: So I have that document. 2.7 And you said it is on page 32? 28 MR. POWERS: Q Page 32 which is also

1 marked as page D-35. 2 I have that document. 3 Q Third paragraph. If you could take a look at that, and I'll ask a question on 5 it. I have that. 6 Α 7 So my question is: You indicate 8 here that you didn't get enough bids, less 9 than your minimum. Yet the independent 10 evaluator indicates SCE did a good job. 11 was quite robust, and you got almost 2,000 12 final offers. 13 And would you consider that not to 14 be a robust bidding process? 15 So to be clear, our bidding process I do believe was robust. And we did receive 16 17 several thousand offers. Many of them are 18 multiple offers for the same project. 19 And my earlier statement that we 20 referred to that was represented in the San 21 Diego Tribune was referring to why wasn't 22 Edison able to fully meet the preferred 23 resource minimum procurement authorization in 24 this solicitation. 2.5 And in regard to that very specific 26 question, Edison did contract with all the competitively priced preferred resource 27 28 offers we received. They were not sufficient

in their totality to meet the 600 megawatt 1 2 minimum authorization when combined with 100 3 megawatts of in-front-of-the-meter energy 4 storage that Edison procured for AES. 5 So we did receive a lot of offers, 6 but not enough to meet the 600 megawatt 7 minimum. Do you recall approximately how 8 Q 9 many energy storage offers you got? 10 MS. REYES CLOSE: Objection, your 11 Honor. This is outside of the scope of Mr. Cushnie's testimony. It is Mr. Bryson's 12 13 testimony. 14 ALJ DE ANGELIS: Objection sustained. 15 MR. POWERS: Your Honor, I didn't hear 16 your response. 17 ALJ DE ANGELIS: Objection sustained. 18 You can move to your next question. 19 MR. POWERS: May I may make one 20 comment? 21 ALJ DE ANGELIS: Sure. 22 MS. POWERS: I was redirected to 23 Mr. Cushnie on the issue of robustness of 24 bids yesterday when I was asking Mr. Bryson 2.5 this. So I'm caught in a bit of a do-loop on 26 my ability to get an answer from SCE on this 2.7 issue. 28 ALJ DE ANGELIS: Okay. Ms. Reves

1 Close, can you respond to that? 2 MS. REYES CLOSE: Sure. I don't recall 3 the specifics of that. I think the 4 robustness of the LCR RFO, you can ask 5 questions of Mr. Cushnie about that 6 particular issue. If you are asking 7 Mr. Cushnie about the number of energy 8 storage offers we received, that is a very 9 specific amount, and that is a number that is 10 in Mr. Bryson's testimony. That is different 11 than the robustness, I think, general 12 robustness of the LCR RFO. MR. POWERS: 13 True. 14 ALJ DE ANGELIS: Mr. Powers. 15 MR. POWERS: Excuse me, your Honor. 16 ALJ DE ANGELIS: You can respond to me. 17 MR. POWERS: The exhibit addresses both 18 issues. The cross was cut off at the request 19 of SCE counsel, because it was addressing one 20 issue. 21 ALJ DE ANGELIS: You said that that 22 number is in the testimony of Mr. Bryson? 23 MS. REYES CLOSE: It is in the 24 confidential testimony. 2.5 What I recall from that discussion 26 is that Mr. Powers was asking about a 2.7 statement that Mr. Cushnie made in an 28 article. I said if he wants to ask

1 Mr. Bryson about a statement that Mr. Cushnie 2 made, he should probably ask Mr. Cushnie 3 about that statement. It was limited to 4 I wasn't telling him he couldn't ask 5 about the LCR RFO. ALJ DE ANGELIS: Can we move forward, 6 7 and you can look at that number in the 8 confidential documents, provided that you 9 signed the necessary nondisclosure agreement? 10 MR. POWERS: Your Honor, may I speak on 11 this point? I have not signed a confidential 12 agreement. 13 And Mr. Cushnie was making 14 statements about the robustness of the bids. 15 He must have an idea of the basic categories, 16 and how many bids they got. 17 ALJ DE ANGELIS: Okay, but you are 18 asking for a specific number here rather than 19 basic idea. So perhaps you would like to 20 rephrase your question, and we could move 21 forward. Thank you, your Honor. 22 MR. POWERS: 23 Mr. Cushnie, do you have any 24 approximate idea of how many energy storage 2.5 bids out of these nearly 2,000 bids SCE 26 received? 2.7 A I don't have a recollection of a 28 specific value in terms of the number of bids

SCE got in the range of 200 energy storage bids according VP Cushnie, and yet 4 of 7 counterparties that received energy storage contracts are Susan Kennedy LLCs w no experience, no employees (at time of contract signing), no collateral, and no site control.

we received. It was somewhere in the neighborhood of a couple of hundred.

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Q My next question is: How does a bid that includes no specific technology, no bidder experience, no creditor collateral, or no site control qualify as the robust bids that you referred to? I'm specifically talking about the four building hybrid counteroffers that you signed.

A Okay. So those offers we did consider to be sufficiently robust. We did our due diligence and determined that the counterparty had relevant energy experience, had the resources available to them to perform. They were required to post development security like any other bidder that we award a contract with. They would be financially penalized if they didn't perform.

So the combination of understanding that they were going to be using commercially available technology, they had the expertise within their company to do this work, and the fact that they were going to be signing our pro forma contract with minor modifications put us in a position saying that we will accept the offers that they submitted to us. It is actually I think very consistent with what happened in the solicitation, which is

This Cushnie statement contradicts Bryson (Day 1) who acknowledged that AMS has no experience.

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1
     we had a lot of counterparties that were
 2
     fairly new in our space bringing us bids.
 3
     had to make some determinations as to whether
                                                        But SCE got ~200 energy
 4
     or not we should contract with them.
                                               We.
                                                        storage bids. There was
 5
     erred on the side, clearly, of trying to do
                                                        plenty of opportunity to do
                                                        more business with more
 6
     more business than less business.
                                                        qualified ES firms.
 7
                Just to be clear, Powers Exhibit 1,
 8
     I don't know if you have that --
 9
                I don't have that.
            Α
10
                -- exhibit before you?
11
                I might have it.
            Α
12
                On the last page of that exhibit
            0
13
     there is a quote.
14
            Α
                I do not have that with me.
15
            MS. REYES CLOSE: We have one copy,
16
     your Honor.
                   That is my copy.
17
                Do you have another copy,
18
     Mr. Powers?
19
            MR. POWERS: I actually gave my copies
20
     to --
21
            MS. REYES CLOSE: Actually, that is
22
     okay. We have a couple of extra copies.
23
            MR. POWERS: I think we have plenty of
24
     copies.
2.5
                (Document handed to the witness.)
26
            MR. POWERS: Q If you could go to the
27
     last page, Mr. Cushnie, the second paragraph,
28
     first sentence. Could you read that
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1 sentence. 2 Is that the one begins "If that 3 goes well"? It begins "Advanced Microgrid is." 4 Q You want me to read it internally? 5 Α 6 0 Yes. 7 I've read that. Α 8 Q I would like you to read it into 9 the record so I could ask you a question 10 about it. 11 ALJ DE ANGELIS: It is not necessary. 12 MR. POWERS: O No? 13 ALJ DE ANGELIS: No. For the purposes 14 of the record, we can read that document. 15 MR. POWERS: 0 SCE awarded their seven 16 counterparties that received contracts for 17 energy storage. Four of them are owned by 18 the same parent, Advanced Microgrid 19 Solutions. This is saying that Advanced 20 Microgrid is going to look to buy batteries 21 and look to buy software at some point in the 22 future. 23 And that is your understanding that 24 Advanced Microgrid is going to be essentially 2.5 shopping for batteries and software at some 26 point in the future to fulfill this contract 27 obligation? 28 That is correct. All of the

counterparties that we're contracting with 1 2 will be entering into procurement 3 arrangements with manufacturers of the 4 technology that they will be deploying. 5 I would like to look at SCE-2 6 Appendix D page D-40. 7 MS. REYES CLOSE: What was that, Mr. Powers? 8 9 ALJ DE ANGELIS: D-40 did you say? Excuse me, what page did you say. 10 11 MR. POWERS: It is D-40. 12 ALJ DE ANGELIS: Thank you. 13 (Document handed to the witness.) 14 THE WITNESS: I'm at page D-40. 15 MR. POWERS: O Was the selection 16 price -- was the selection in the term 17 "robustness" used solely in the context of 18 price? 19 Price is an input into our valuation. We also have to value what the 20 21 projected market revenue streams will be from 22 the source, and we also have to look at the 23 resources' capability of meeting the 24 technical need. So there is a variety of 2.5 things that we look at. I believe Edison 26 witness Ranbir Singh addressed that in 2.7 cross-examination as well as his direct and 28 reply testimony.

1 Q Yesterday under cross-examination 2 of Mr. Bryson, I asked if Advanced Microgrid 3 Solutions has done any projects, or if they 4 have any projects in the pipeline other than 5 these projects, and he said no. My question is under project viability in looking at 6 7 these bids, which is letter C, says 8 technology, bidder experience, credit and 9 collateral, site control, you determined that 10 these four counteroffers met all of these 11 conditions relative to the other 200 energy 12 storage bids that you received? 13 MS. REYES CLOSE: Objection, your 14 Honor. This is within the scope of Ranbir 15 Singh's testimony regarding valuation. 16 Mr. Powers wanted to ask questions about 17 valuation in the select process, he should 18 have done so with Mr. Singh. 19 ALJ DE ANGELIS: The witness can go 20 ahead and answer the question to the best of 21 your ability. 22 THE WITNESS: So with respect to 23 the -- these four offers, we looked hard at AMS has no technical personnel 24 this company. We looked at their financial at the time the contracts were wherewithal. They had to demonstrate that signed with SCE. 2.5 26 they had sufficient financing. We looked at

the personnel as to whether or not they had \swarrow

the expertise to do what they said they would

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AMS declined to describe what battery technology would be deployed, at least 1 do. in Exh 2. 2 We had to look at the technology 3 that they said they would deploy. We had to 4 look at the plans that -- the preliminary 5 plans that they had for delivering on their 6 proposals. And in total, they we were deemed If AMS was deemed, 7 to be sufficient to be able to make sufficient, then all 2,000 contract offers should have 8 contracts. been deemed sufficient. 9 Again, we were seeking to be as 10 progressive as possible in our contracting, 11 looking to bring on as many different 12 counterparties and technologies as possible, 13 particularly in the preferred resource space. 14 And these four offers were among the best The only criterion that apparently mattered 15 offers that we received. was price, even if bidder had no background, no technology, no collateral, 16 MS. REYES CLOSE: Your Honor, if and no site control. This conflicts w 17 I'd like to correct the record. independent evaluator criteria and SCE stated criteria by Cushnie. 18 Mr. Powers said that Mr. Bryson 19 responded to the question "Do you know if 20 Advanced Microgrid Solutions has any projects 21 in development besides potentially these 22 projects?" That was the question Mr. Powers 23 And Mr. Bryson said "Not that I know had. 24 of." He didn't say no. 2.5 ALJ DE ANGELIS: Okay. Thank you for 26 that correction. 2.7 Mr. Powers. I'm not asking you to 28 responsibility to the correction.

1 Do you have further questions of 2 Mr. Cushnie? 3 MR. POWERS: Yes, your Honor. 4 This company was formed two months 5 after the solicitation started. And are you 6 personally aware of any of the employees at 7 the company had at the time? 8 I am not personally aware of any 9 employees. The determination as to their 10 capability was done by Southern California 11 Edison procurement staff and I believe some 12 of our engineering personnel as well looked 13 into their technology, but I personally was 14 not involved in the day-to-day scrubbing of 15 the offers. 16 Q Thank you. 17 Switching gears to SCE's rebuttal 18 testimony page 1, pages 1 and 2, lines 18 to 19 22 and page 2, line 1 to 6. And this begins 20 with the sentence: SCE cannot go back to 21 counterparties. 22 Α I have that. 23 And it ends with the statement: 24 the Commission were to order SCE to make such 2.5 modifications at this point in time, it would 26 be equivalent to rejecting the contract. 2.7 The Commission can reject or change 28 specific contracts it has issues with,

correct?

2.5

A The Commission can clearly reject contracts. The Commission could also presumably say contracts were approved with X, Y, and Z modifications and Edison would not be able to impose those modifications on our counterparties. We could request that the counterparties modify. But depending on the nature of the modifications, it may require further changes to the balance of the terms that the parties struck. And presumably we'd have to bring any revised contract back to the Commission for approval if we deviated beyond what the Commission asked us to do.

From my perspective, any substantial change to the contracts means we would be better off just seeking to enter into new contracts through a separate solicitation.

Q And that leads into my next question is I wasn't clear in this statement where if you were saying that any request by the Commission to modify any contract would result in SCE saying "Let's reject all the contracts and start anew." Is that what you were saying?

A No. Edison would not reject all

the contracts. Edison would move forward with all the contracts that the Commission approved.

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declined to approve unless certain

modifications were made, if the Commission

were to so act, we would have to look at

those specific modifications the Commission

was requesting and, you know, we would

certainly engage the counterparties as to

their willingness to accept those modified

terms.

But if Edison was not willing to accept the modified term and/or the counterparty was not willing to accept the modified term, then we would not have a contract that could be made effective and we would have to recontract for the -- for those megawatts.

Q My next question relates to, in the same paragraph, quote: Intervenors such as ORA that are participating in SCE's Procurement Review Group had the opportunity to suggest contract modifications.

Do you know who's part of SCE's Procurement Review Group?

A I'm fairly familiar with the participants in the Procurement Review Group,

1 yes. 2 Q And who are they? 3 The Office of Ratepayer Advocates 4 participates. Energy Division staff 5 TURN participates. participates. NRDC has 6 recently joined our PRG. CCUE participates. 7 The Department of Water Resources 8 participates. There may be one or two 9 others, but those would be the primary 10 participants. 11 Very good. 12 And so how does it work? Is it 13 evidentiary? Is it majority vote? 14 If someone in the PRG says "I have 15 a issue with how you structure your demand 16 response contracts" for example, is there 17 some formal process so that SCE incorporates 18 that or does SCE just hear from someone on 19 the PRG and you decide one way or the other 20 whether you're going to incorporate or not 21 that suggestion? 22 So the Procurement Review Group 23 process a consultive process. There is no 24 membership, per se. The entities that 2.5 participate that are not Commission staff 26 sign nondisclosure agreements. 27 The Commission personnel participate under 28 the Commission's confidentiality Public

Utility Code requirements.

2.5

2.7

And it is a process in which Edison as the utility puts forward its procurement recommendations and it seeks feedback from these participants. And it's an iterative process at times. It is certainly a dialogue. But at the end of the day, there's no vote taken. Edison takes the feedback that it gets under advisement, and then it moves forward.

In this particular case, we are just saying here that ORA had an opportunity to raise concerns with this form of contract and did not do so at the time that we were entering into the contract. And we now believe that raising those concerns after the contract is executed is a little late in the process for us to be able to act on that information.

Q I appreciate that.

My takeaway from this is that

parties like Powers Engineering who are not

part of the PRG have no opportunity to

suggest any modifications prior to an

application actually being filed. That is

the case.

A That's correct. And so this testimony should not be inferred as to

suggest that somehow you could have told us
to do something at the time that we were
contracting. This is just referring to ORA's
challenge to our contracts. Edison will
respond to Powers Engineering and any other
intervenor's concerns to our contracts
through this hearing process.
MR. POWERS: Thank you, Mr. Cushnie.
I have no further questions.
ALJ DE ANGELIS: Thank you, Mr. Powers.
Ms. Reyes Close.
MS. REYES CLOSE: May I have just one
moment, please?
Okay, your Honor. We have one
follow-up question.
REDIRECT EXAMINATION
BY MS. REYES CLOSE:
Q Mr. Cushnie, would modifications to
contracts potentially result in changes to
contract price or to the negotiated contract
price?
price? A Are you asking could a
A Are you asking could a
A Are you asking could a Q Could
A Are you asking could a Q Could A modification the Commission
A Are you asking could a Q Could A modification the Commission could order, if that's what you're asking.

1	willing to accept that term.
2	Q But that could potentially result
3	in a change in the contract price?
4	A So if a counterparty may agree
5	to a changed term subject to a revised price,
6	which would then potentially cause the
7	contract not to have the same net value that
8	we had originally valued and cause us to not
9	want to move forward with the deal.
10	MS. REYES CLOSE: Thank you,
11	Mr. Cushnie.
12	That's all I have, your Honor.
13	ALJ DE ANGELIS: All right, thank you.
14	Thank you, Mr. Cushnie. You're
15	excused.
16	THE WITNESS: Thank you.
17	ALJ DE ANGELIS: All right, Ms. Cottle.
18	MS. COTTLE: Thank you, your Honor.
19	NRG would like to call to the stand Clive
20	Nickolay.
21	And your Honor, I was going to ask
22	for this to be marked as NRG-1.
23	Does anyone need
24	(Distributing document)
25	ALJ DE ANGELIS: Good afternoon.
26	CLIVE NICKOLAY, called as a witness by NRG Distributed Generation PR LLC,
27	having been sworn, testified as follows:
28	

1	ALJ DE ANGELIS: Thank you.
2	Ms. Cottle, go ahead when you're
3	ready.
4	MS. COTTLE: Yes. For the record, your
5	Honor, we would like to ask that our
6	testimony be marked as Exhibit NRG-1.
7	ALJ DE ANGELIS: We'll mark
8	the prepared testimony of NRG as NRG-1.
9	(Exhibit No. NRG-1 was marked for identification.)
10	identification.)
11	MS. COTTLE: Thank you.
12	DIRECT EXAMINATION
13	BY MS. COTTLE:
14	Q Good afternoon, Mr. Nickolay.
15	Could you state your name and
16	current position for the record, please.
17	A Clive Nickolay. I'm the president
18	of reliability solutions for NRG.
19	Q And do you have before you
20	the document that has been marked for
21	identification as Exhibit NRG-1 which is
22	titled Prepared Testimony of Clive Nickolay
23	on Behalf of NRG Distributed Generation PR
24	LLC?
25	A I do.
26	Q Was this testimony prepared by you
27	or under your supervision?
28	A It was.

1	Q Do you have any changes or
2	corrections to the testimony?
3	A I do not.
4	Q And did you adopt Exhibit NRG-1 as
5	your sworn testimony in this proceeding?
6	A I do.
7	MS. COTTLE: Thank you, your Honor.
8	The witness is available for cross-
9	examination.
10	ALJ DE ANGELIS: All right.
11	Commissioner Florio has a few questions.
12	EXAMINATION
13	BY COMMISSIONER FLORIO:
14	Q Good afternoon, Mr. Nickolay.
15	On page 3 you give an emission
16	comparison for the technology that you're
17	contemplating using as compared to a diesel
18	generator.
19	One aspect that I didn't see that
20	I'm curious about is what kind of heat rate
21	do you expect from these units?
22	Approximately is certainly fine.
23	A Yeah, I'm not familiar with the
24	exact number but they are somewhere in
25	the range of mid thirties in terms of their
26	simple cycle efficiency.
27	Q Mid thirties. Okay. That's 30,000
28	MMBtu per kilowatt hour?

1 Α Forgive me. I only think in terms 2 of those units. 3 Q Okay. 4 Mid thirties would be somewhere in 5 the kind of 34 to 36 percent efficient range. 6 Q Oh, okay. 7 Α I think that equates -- I'm really not sure. 8 I can't quite do the math in my 9 head. Sorry. 10 Okay. Now, you indicated at the 11 bottom of page 2, you made a reference to 12 building codes which mandate installation of 13 backup generators. What are you referring to 14 there? 15 So that part of the testimony talks 16 to the fact that it's relatively common 17 practice for certain types of 18 commercial/industrial consumers to install 19 backup generation. And on occasion, that's 20 mandated by building code. So for example, 21 life safety systems in office buildings would 22 come under that category. 23 Do you know to the extent -- or is 24 this a lot of buildings have this requirement 2.5 or just a few? 26 Α I couldn't speak to the proportion 2.7 of buildings where it's mandated versus, you 28 know, building owners or business owners

doing it by choice. I'm not familiar with that number.

2.5

2.7

Q Do you anticipate that most of your installations under this contract will be replacement of an existing generator or putting a new generator where one doesn't exist now?

A As of now, we don't really have a vision as to how -- what proportion would be from which source. And we are relatively neutral in terms of whether or not it's a site that currently has no resiliency and wishes to add it in a cleaner way than they would do with a backup generator. Or whether it would be a host site that would simply prefer to remove the higher emitting diesel engine and replace it with a cleaner natural gas engine.

Q And you're looking primarily at microturbines, is that correct?

A So that terminology has been used a number of times in the last couple of days, and I think it's been used in a very generic sense. In actual fact, we're looking primarily at reciprocating engines, not microturbines.

COMMISSIONER FLORIO: Okay. That's all I have. Thank you very much.

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1 THE WITNESS: Thank you. 2 ALJ DE ANGELIS: Thank you, 3 Commissioner. 4 CLECA? 5 THE VIDEOGRAPHER: Thank you, your 6 Honor. 7 CROSS-EXAMINATION BY MS. SHERIFF: 8 9 Good afternoon. My name is Nora 0 10 Sheriff. I represent CLECA, the California 11 Large Energy Consumers and Users Coalition. 12 No. California Large Energy Consumers 13 Association. Sorry. 14 Were you in the room yesterday 15 afternoon when I was asking Mr. Bryson some 16 questions? 17 Α I was. 18 And do you have copies of what has 19 been marked for identification as CLECA-1, 20 the South Coast Air Quality Management 21 District Rule 1470 and CLECA-2, 22 the California Independent System Operator 23 Operating Procedure 4420? 24 Α I do. 2.5 Have you had a chance to review 26 CLECA-1, the Rule 1470 on the use of diesel 27 emergency standby generators? 28 I would say I've kind of scanned Α

both documents. I wouldn't say I've read
them in any great detail.

2.5

Q Is it your understanding that
Rule 1470 limits the use of diesel backup
generators to either an emergency
circumstance or pursuant to an interruptible
service contract between a utility
distribution company and a nonresidential
retail customer?

A Yes, absolutely.

Q So would you agree that under that South Coast Air Quality Management District Rule 1470, the permitted use of a diesel emergency standby generator for emergency circumstances for interruptible service contracts is very limited?

A Yes. And that's why for the project proposed we won't be permitting under that standard.

Q Okay, because that rule wouldn't permit flexible use of that type of generation?

A That's correct.

Q And there are other rules under the South Coast Air Quality Management District that would govern the reciprocating engines that you're looking at in terms of the distributed generation technology that

you would be using? 1 2 Α Yeah, that's correct. 3 intending to permit under Rule 1110-2. 4 Q Thank you. 5 Now on page 3, you discussed briefly with Commissioner Florio 6 7 the emissions comparison. 8 Α Yes. You don't list under here PM 2.5. 9 10 Do you have a general sense of what that 11 comparison would be? 12 Α So when you look at the 13 proportional difference between PM-10 between 14 a Tier 2 emergency diesel generator and the 15 gas engines that we're considering, you'll see about a six-fold differential. 16 The differential for PM2.5 I would 17 18 be of a similar proportion. 19 I don't actually have data 20 available for exactly what proportion of 21 the PM10 number would be made up of PM2.5. 22 Q Thank you. 23 And then lastly on page 4 of your 24 testimony exhibit NRG-1, line 13, you 2.5 reference commercial customers. Are 26 commercial customers your primary target 2.7 here? 28 I would say they're our Yes.

```
1
     primary target. Certainly not residential
2
     customers, they would not be a target.
 3
     any customer within the right service
     territory that had an appropriate size load,
5
     we would be happy to have those part of
 6
     the portfolio.
7
               And what would be the appropriate
     size load?
8
9
               Currently we're looking at kind of
10
     a load in the -- a total of now around
11
     500 kilowatts as being kind of a minimum
12
     required, but that may be subject to change
13
     as we get more market data.
14
           THE VIDEOGRAPHER: Okay. Thank you.
15
               Thank you, your Honor. I have no
16
     further questions.
17
           ALJ DE ANGELIS:
                             Thank you.
18
               Ms. Cottle.
19
           MS. COTTLE: Your Honor, would it be
     possible to take just a quick break?
20
21
           ALJ DE ANGELIS: Okav. Let's take
     a five-minute break. Off the record.
22
23
               (Recess taken.)
24
           ALJ DE ANGELIS: On the record.
2.5
               Ms. Cottle.
26
           MS. COTTLE: Thank you. We do have
2.7
     some brief redirect.
28
     ///
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1	REDIRECT EXAMINATION
2	BY MS. COTTLE:
3	Q Mr. Nickolay, Commissioner Florio
4	earlier asked you about the heat rate of
5	these engines. Is there any additional
6	information you can provide regarding
7	expected heat rate?
8	A So I did some checking of the math
9	and the effective heat rate would be a little
10	over 10,000.
11	COMMISSIONER FLORIO: Oh.
12	THE WITNESS: So it would be equivalent
13	to a very efficient, modern, simple cycle gas
14	peaking unit.
15	MS. COTTLE: Nothing further.
16	ALJ DE ANGELIS: All right. Thank you,
17	Ms. Cottle.
18	Thank you, you're excused.
19	Okay. I believe that we're done
20	with the witnesses that were scheduled for
21	today.
22	Are we able to
23	MR. PINJUV: We actually had one more
24	scheduled for today. Mr. Millar from the ISO
25	is set to
26	ALJ DE ANGELIS: Would you like to call
27	the next witness?
28	MR. PINJUV: Thank you. The ISO would

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1	call Mr. Neil Millar to the stand.
2	COMMISSIONER FLORIO: Sorry. I have a
3	meeting across the hall. No offense to
4	the excellent witness.
5	ALJ DE ANGELIS: Thank you,
6	Commissioner.
7	MR. MILLAR: Thank you.
8	ALJ DE ANGELIS: Mr. Miller, can
9	I swear you in.
10	NEIL MILLAR, called as a witness by
11	California Independent System Operator, having been sworn, testified as
12	follows:
13	THE WITNESS: I do.
14	ALJ DE ANGELIS: Thank you.
15	MR. PINJUV: And at this time, I'd like
16	to mark Mr. Millar's Prepared Direct
17	Testimony as Exhibit ISO-1.
18	ALJ DE ANGELIS: All right. We'll mark
19	as CAISO-1
20	MR. PINJUV: CAISO-1, yes. Let's do
21	that.
22	ALJ DE ANGELIS: Mr. Millar's
23	prepared testimony.
24	(Exhibit No. CAISO-1 was marked for identification.)
25	identification.)
26	MR. PINJUV: If I could, I'd like to
27	mark the Prepared Direct Testimony of Robert
28	Sparks at this time as well as CAISO

1	Exhibit 2.
2	Mr. Sparks was scheduled to have
3	cross-examination from only the Energy
4	Center. And if the cross-examination of
5	Mr. Millar is sufficient, Mr. Sparks will
6	have his cross waived from my understanding.
7	ALJ DE ANGELIS: We will mark as
8	CAISO-2 the Prepared Testimony of Mr. Sparks.
9	(Exhibit No. CAISO-2 was marked for
10	identification.)
11	MR. PINJUV: Thank you.
12	DIRECT EXAMINATION
13	BY MR. PINJUV:
14	Q Would you state your name and your
15	position at the ISO for the record, please?
16	A Neil Miller. I'm the executive
17	director of infrastructure development with
18	the California Independent System Operator.
19	Q And do you have in front of you
20	what's been marked as Exhibit CAISO-1?
21	A Yes, I do.
22	Q And was that exhibit prepared by
23	you or under your supervision?
24	A Yes, it was.
25	Q Do you have any changes to your
26	testimony at this time?
27	A No, I don't.
28	MR. PINJUV: The witness is tendered

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1 for cross. MS. MYERS: I can start if that works 2 3 or --4 ALJ DE ANGELIS: All right. Go ahead, 5 Ms. Myers. 6 CROSS-EXAMINATION 7 BY MS. MYERS: Good afternoon, Mr. Millar. 8 Μy 9 name is Megan Myers. I represent EnerNOC, 10 Inc. 11 I'd like you to turn to your 12 testimony at CAISO-1 at page 5, line 19 to 13 page 6, line 13. 14 Α Yes, I have that. 15 Is it your testimony that there were discussions between Edison and CAISO to 16 confirm that the location and characteristics 17 18 of the procured resources would meet 19 the local capacity needs? 20 Α Yes. As we've set out in 21 the testimony, we've provided locational 22 effectiveness factors and we had other 23 discussions about the necessary 24 characteristics. 2.5 And now I'd like you to refer to 26 EnerNOC-02, which I believe is in front of 27 you. And I previously given a copy to your 28 counsel. Have you seen this document before?

1	A Yes. It was given to me before
2	I took the stand.
3	Q And this document is a Edison
4	response to data request by EnerNOC regarding
5	discussions between CAISO and Edison
6	regarding this RFO; is that correct?
7	A Yes.
8	Q On this document, it lists
9	personnel from CAISO and Edison as being
10	present at these meetings. Do you see that
11	portion of the document?
12	A Yes.
13	Q Were you present at these meetings?
14	A Yes. I think two out of three but
15	I haven't checked which ones. I didn't think
16	I made it to all three.
17	Q And the dates on the exhibit, are
18	those the dates that the meetings were held?
19	A I didn't double check but that was
20	my recollection.
21	Q Do you know which of the two that
22	were you at?
23	A No, I don't.
24	Q And these were teleconferences,
25	correct?
26	A Yes, they were.
27	Q During these meetings, was there
28	any discussion of demand response?

1 Α Yes. 2 Was there any discussion of 3 the response time requirement for demand 4 response in this RFO? 5 Α Yes. 6 Do you recall which meeting that 7 occurred at? 8 Α Not particularly, no. 9 And what was said, do you recall? 0 10 No. I don't recall exact wording 11 obviously but I do recall that the gist of it 12 is that the -- on the demand response issue 13 that we saw the need for a 20-minute response 14 from demand response in order to be 15 meaningful in helping us address the specific 16 local capacity needs we had in the area and 17 the reliability issues in the area. 18 Because previously, Edison had had 19 a one-hour response time requirement, is that 20 correct? 21 I couldn't -- when you say they had 22 a one-hour, in what context? 23 Originally in their RFO materials, 24 it had a one-hour response time requirement 2.5 for demand response resources to participate. 26 MR. PINJUV: I'm going to object to 27 that question because I don't think my 28 witness has personal knowledge of the RFO

requirement that's been put out. 1 2 ALJ DE ANGELIS: All right. Sustained. 3 MS. MYERS: Q But at some point there 4 was discussion of a 20-minute response time 5 requirement, is that correct? 6 Α Yes. 7 And did you know what the previous response time requirement was from Edison? 8 9 I did not know what was in their 10 RFO. 11 At these meetings, were there any 12 stakeholders or bidders present? 13 No, not to my -- actually, let me 14 rephrase. No, there weren't. 15 Was anyone from the Commission 16 present? 17 A No. 18 Were the results of these meetings 19 provided to the Commission? 20 I think the results were summarized 21 in Edison's testimony, but that would be the only venue that I'm aware of. 22 And do you know if the results of 23 24 these meetings were ever made public? 2.5 We were expecting Edison to provide 26 that information in their stakeholder --27 their RFO process in this proceeding. 28 MS. MYERS: Thank you. No further

1 questions. 2 ALJ DE ANGELIS: Thank you, Ms. Myers. 3 Mr. Kerner. 4 MR. KERNER: Thank you. 5 CROSS-EXAMINATION BY MR. KERNER: 6 7 Good afternoon. Thank you for 8 being here. Douglas Kerner for the STEM 9 project. 10 In your testimony, you cite and refer the reader to Mr. Sparks' testimony. 11 12 Thank you for that. 13 I'm particularly interested in are 14 you familiar -- in addition, he attached 15 the CAISO transmission study '14- '15? 16 The 2014- '15 transmission plan was 17 attached to Mr. Sparks' testimony. 18 Right. I'm just looking for 19 a little clarification on the point if you 20 might. And in 3.4 of the study, there's 21 22 a discussion of the impact of older -- as 23 I understand it, older generation creating 24 a frequency response obligation. Is that 2.5 something you're familiar with? 26 Well, Section 3.4 is the study of 27 how well the ISO would comply with its 28 frequency response obligation looking ten

years out into the future.

2.5

Q Okay. And the frequency response obligation is a continuing obligation on your part, something you cannot comply with, right?

A But the frequency response obligation that we're talking about is part of a network standard necessary to, for each system to do their part in managing total system reliability during a major contingency and especially during a major loss of resources.

So there's a framework in place that's part of a mandatory standard.

The ISO's required to comply with that. It's a new standard being phased in.

But this study was focusing on the addition of significant amounts of renewable generation that have different characteristics in the future: What would our performance look like on the path we're on; are there issues that we would need to identify and mitigate. And we are obliged to maintain compliance with those standards.

Q I think as the study concludes, that there may be indeed be issues associated with compliance that will be looked at. Is that fair?

The study identified --1 Α More renewables as you point out? 2 3 Α The study identified that There 4 would be issues that we will need to manage 5 and mitigate to maintain compliance with that 6 standard, yes. 7 To the extent now that the ability 8 of a particular resource option to be 9 beneficial or helpful in terms of meeting 10 this requirement is related to 11 the characteristics of that particular 12 resource, right, the resources or not? 13 It would be. We are at the very 14 beginning of this -- of exploring this issue. 15 This study was the first really of its kind 16 to dive in, looking at the new generation. 17 It's a systemwide issue, so we started in 18 this cycle doing this initial study really to 19 identify if there's an issue there or not 20 that will require further analysis and 21 mitigations in the future. 22 In particular as I think you said 23 in the likely expected event, policy to 24 increase the number of -- the types of 2.5 resources that don't provide this capability?] 26 Yes. Or to avoid having to operate 27 those in a different way that they may not

28

like.

1	Q Understood.
2	A In order to manage the frequency.
3	Q All right. To that extent, to the
4	extent that the company, you say Edison is in
5	a position to acquire and install the type of
6	a resource that you're looking for which can
7	provide or contribute to the subrogation, you
8	would find that to be a helpful and valuable
9	thing to do?
10	A Yes. So where resources are being
11	acquired, we would like to see them provide
12	as broad a range of service as possible so
13	that they can play their part on a range of
14	these issues instead of only dealing with one
15	issue at a time.
16	MR. KERNER: Thank you, sir.
17	Your Honor, that's all I have for
18	now.
19	ALJ DE ANGELIS: Thank you.
20	MR. KERNER: And thank you for the
21	courtesy, Counsel.
22	ALJ DE ANGELIS: Any redirect?
23	MR. PINJUV: No. I don't have
24	redirect.
25	ALJ DE ANGELIS: Okay. Thank you.
26	You're excused.
27	THE WITNESS: Thank you very much.
28	MS. COTTLE: Your Honor, I realize I

1	neglected to move my exhibit into evidence.
2	ALJ DE ANGELIS: Why don't you do that
3	now.
4	MS. COTTLE: I'd like to move the
5	admission of the Exhibit NRG-1 into the
6	record.
7	ALJ DE ANGELIS: NRG-1 is entered into
8	the record.
9	(Exhibit No. NRG-01 was received into evidence.)
10	inco evidence.)
11	MS. COTTLE: Thank you.
12	MS. SHERIFF: Your Honor.
13	ALJ DE ANGELIS: Go ahead, Ms. Sheriff.
14	MS. SHERIFF: Your Honor, I would also
15	like to move Exhibits CLECA-1 and CLECA-2
16	into the record.
17	ALJ DE ANGELIS: CLECA-1 and CLECA-2
18	are entered into the record.
19	(Exhibit No. CLECA-01 was received into evidence.)
20	into evidence.
21	(Exhibit No. CLECA-02 was received into evidence.)
22	inco evidence.
23	ALJ DE ANGELIS: Mr. Kerner.
24	MR. KERNER: Thank you. Just to
25	confirm Counsel's observation at the
26	beginning, we will not have any
27	cross-examination for Mr. Sparks.
28	ALJ DE ANGELIS: Thank you for that

1	clarification.
2	MS. REYES CLOSE: Your Honor, may
3	Edison move its exhibits into the record as
4	well. Edison would to like to move Exhibit
5	SCE-1, SCE-1-C, SCE-2, SCE-2-C, SCE-3, SCE-4,
6	SCE-5, SCE-6, SCE-7, and SCE-8 into the
7	record, please.
8	ALJ DE ANGELIS: Those exhibits are
9	moved into the record.
10	(Exhibit No. SCE-01 was received into evidence.)
11	into evidence.)
12	(Exhibit No. SCE-01-C was received into evidence.)
13	into evidence.)
14	(Exhibit No. SCE-02 was received into evidence.)
15	into evidence.)
16	(Exhibit No. SCE-02-C was received into evidence.)
17	into evidence.)
18	(Exhibit No. SCE-03 was received into evidence.)
19	into evidence.)
20	(Exhibit No. SCE-04 was received into evidence.)
21	into evidence.)
22	(Exhibit No. SCE-05 was received into evidence.)
23	into evidence.)
24	(Exhibit No. SCE-06 was received into evidence.)
25	into evidence.)
26	(Exhibit No. SCE-07 was received into evidence.)
27	THEO EVICENCE.)
28	(Exhibit No. SCE-08 was received into evidence.)

1 2 MS. REYES CLOSE: Thank you. 3 MR. PINJUV: The ISO would go ahead and 4 move Exhibits CAISO-1 and CAISO-2 into the 5 record as well. 6 ALJ DE ANGELIS: Those two exhibits are 7 entered into the record. (Exhibit No. CAISO-01 was received 8 into evidence.) 9 (Exhibit No. CAISO-02 was received 10 into evidence.) 11 12 ALJ DE ANGELIS: All right. Now we've 13 completed all the witnesses that were 14 scheduled for today. So tomorrow it looks as 15 though two witnesses left, or do we have Mr. 16 Sparks? Is there any cross of Mr. Sparks? 17 MR. PINJUV: No, there's no Sparks, 18 that I know of at least for Mr. Sparks. 19 ALJ DE ANGELIS: Okay. So we have two 20 witnesses scheduled for tomorrow. Have 21 parties had an opportunity to talk about 22 whether we could have those two witnesses 23 testify today? Mr. Ralph. 24 MR. RALPH: Thank you, your Honor. 2.5 Both witnesses are ORA witnesses. And ORA is 26 prepared to have Ms. O'Hara testify this 27 afternoon if parties would like to proceed

for purposes of efficiency and see how far we

28

1 get. 2 ALJ DE ANGELIS: And for your second 3 witness. 4 MR. RALPH: I think if we have time for 5 his testimony he can be available, but he was 6 planning on testifying tomorrow. But if we 7 end up with an hour at the end of the afternoon for his testimony, then I think we 9 can do him today as well. 10 ALJ DE ANGELIS: Okay. So my 11 preference would be to move forward. 12 any party have an objection? 13 (No response.) 14 ALJ DE ANGELIS: Okay. Let's take a 15 5-minute break. Well, let's take a break 16 until -- wait a second. Let me figure this 17 out. Let's take a break until 2:20. And we will start with ORA's first witness. 18 19 Off the record. 20 (Recess taken.) 21 ALJ DE ANGELIS: On the record. 22 Mr. Ralph, would you like to call 23 your first witness. 24 MR. RALPH: Thank you, your Honor. 2.5 calls Ms. O'Hara. 26 ALJ DE ANGELIS: Let me swear you in. 27 ROSANNE O'HARA, called as a witness by The Office of Ratepayer Advocates, 28 having been sworn, testified as follows:

1 2 MR. RALPH: Your Honor, I'd like to 3 mark for identification Second Amended 4 Testimony on Southern California Edison 5 Company's Application for Approval of the 6 Results of its 2013 Local Capacity 7 Requirements Requests For Offers For the 8 Western Los Angeles Basin as the next exhibit 9 in order, ORA Exhibit 2-C referring to the 10 confidential version, ORA Exhibit 2 referring 11 to the public version. I believe that's how 12 other parties have identified their two 13 versions of their testimony. 14 ALJ DE ANGELIS: We'll mark the second 15 amended testimony of ORA as ORA-2 and the 16 confidential version as ORA-2-C. 17 (Exhibit No. ORA-02 was marked for identification.) 18 19 (Exhibit No. ORA-02-C was received into evidence.) 20 21 ALJ DE ANGELIS: Thank you. 22 MR. RALPH: Thank you, your Honor. 23 DIRECT EXAMINATION 24 BY MR. RALPH: 2.5 Good afternoon, Ms. O'Hara. Can 26 you please state your current position at the 27 Office of Ratepayer Advocates? 28 I am a Regulatory Analyst.

1	Q And are you sponsoring Chapter 5 as
2	identified in the table of contents of ORA
3	Exhibit 2?
4	A Yes.
5	Q And are your qualifications
6	contained in Appendix A1 of Exhibit ORA-2?
7	A Yes.
8	Q With respect to the testimony
9	sponsored by you, do you have any additions
10	or corrections to make to your testimony
11	today?
12	A No.
13	Q Was this testimony prepared by you
14	or under your supervision?
15	A Yes.
16	Q Do you believe this testimony to be
17	an accurate representation of your opinion?
18	A Yes.
19	MR. RALPH: Your Honor, Ms. O'Hara is
20	available for cross-examination.
21	CROSS-EXAMINATION
22	BY MS. MEIERS-DE PASTINO:
23	Q Good afternoon, Ms. O'Hara. So you
24	described all of your background and
25	experience in your testimony. I don't want
26	to go over that with you again.
27	I want to ask, though, do you have
28	any technical accounting experience or

background? 1 2 No technical accounting. So at the time of the LCR 3 solicitation isn't it true that SCE didn't 4 5 have any interconnection studies that had been completed at that time? 6 7 At the time of the solicitation, 8 no, there weren't completed interconnection 9 studies. 10 Okay. And there was no time to 11 complete interconnection studies in advance 12 of selection; isn't that right? 13 MR. RALPH: Objection, your Honor. 14 Edison's possession of studies or ability to 15 do studies is beyond the scope of the 16 witness's testimony. 17 MS. MEIERS-DE PASTINO: I'm not sure I 18 agree with that, your Honor. ALJ DE ANGELIS: Go ahead and answer to 19 20 the best of your ability, please. Thank you. 21 THE WITNESS: I was going to actually 22 ask, can you clarify what you mean? 23 MS. MEIERS-DE PASTINO: In the time 24 that we had before we could make contract 2.5 selection, was there time to conduct and 26 complete interconnection studies? 27 MR. RALPH: Objection, your Honor. 28 That's beyond the witness's expertise.

MS. MEIERS-DE PASTINO: Then I think 1 2 the appropriate answer is "I don't know." 3 ALJ DE ANGELIS: Would you please answer to the extent you're able. Thank you. 5 THE WITNESS: I don't know if SCE could 6 have. 7 MS. MEIERS-DE PASTINO: Q. Okay. Αt 8 the time of the solicitation, wasn't it also 9 unclear to what degree charging constraints 10 could affect the valuation? 11 Based on SCE's testimony, it was 12 unclear what degree the in-front-of-the-meter 13 energy storage device -- I don't know if I need this so close -- could or could not 14 15 incur charging constraints. 16 Okay. And at the time of contract Q 17 selection isn't it also true that the CAISO 18 tariff did not specify whether a transmission 19 access charge would be assessed for 20 in-front-of-the-meter energy storage? 21 I'm not sure when exactly Edison 22 chose contracts. I know that CAISO had 23 issued their straw proposal in June of 2014 24 where its -- it highlighted that it would not 2.5 actually assess a transmission access charge 26 on energy storage devices that charge 27 whenever. 28 And its final proposal, which you I

believe cite in your testimony, is dated 1 2 November 18, 2014; is that right? 3 Α Yes. 4 Does October 2014 sound right to 5 you for contract selection? 6 Α Yes. 7 Would you agree that at the time that SCE made its selections regulatory 8 9 uncertainty did exist? 10 MR. RALPH: Objection, your Honor. 11 Vague and ambiguous as to regulatory 12 uncertainty. Could Counselor identify what 13 she's referring to. 14 MS. MEIERS-DE PASTINO: Yes. 15 Okay. So you talked about in your 16 testimony and I think just now the CAISO 17 proposal that came out on November 18th, 18 2014, which I think you contend in your 19 testimony resolved some uncertainties, 20 correct? 21 Α Correct. 22 So, and I think you also just 23 testified that October 2014 roughly sounded 24 right to you for contract selection? 2.5 Α Correct. 26 So what I'm asking you is, the 27 regulatory uncertainties that were in your 28 mind resolved by the CAISO's November 2014

report, did those exist at the time of 1 contract selection in October 2014? 2 3 The clear statement by CAISO did not occur until November. 4 5 Okay. Thank you. On page 5-11 of Q your second amended testimony. 6 7 Is this the public version? Α This is the public version. If you 8 0 9 would look at line 17. Are you there? 10 Α Yes. 11 Okay. You say -- I'm sorry. 12 say that credit ratings are important to 13 utilities and ratepayers alike. Is that right? 14 15 Α Yes. 16 Okay. And I assume that you stand Q 17 by that statement today. 18 Α Yes. 19 All right. Would you therefore 20 agree that it's important that utilities 21 remain investment grade? I would say that it's important for 22 23 utilities to consider the cost of borrowing. 24 And do you say that because if 2.5 interest rates went up on borrowing, 26 ratepayers would then bear the burden of 2.7 those increased costs? 28 They could, yes. Α

1	Q And if the utilities' investment
2	grade or credit rating dropped, would it also
3	make make transacting with us more
4	expensive for suppliers?
5	A It could potentially.
6	Q And would those costs also get
7	passed on to ratepayers?
8	A They could potentially.
9	Q In addition, if utilities'
10	investment grade is diminished, would that
11	also make it more difficult for SCE to access
12	capital?
13	A Theoretically, yes.
14	Q If storage devices had significant
15	operational constraints built into their
16	interconnection agreements, do you think that
17	that could also trigger capital lease
18	treatment?
19	A It depends on how significant, I
20	think.
21	Q Okay. Let's turn to page 5-12 of
22	your testimony and to lines 6 through 7.
23	A Yes.
24	Q Okay. You say, "an embedded put
25	option" "As such," I'll start at the
26	beginning of the sentence:
27	As such, SCE included an embedded
28	put option into in-front-of-the-

1 meter energy storage contracts to 2 disqualify it from capital lease 3 accounting treatment. 4 Correct? 5 Correct. Α 6 Q Okay. Isn't it true that the put 7 option mitigates the risk but doesn't 8 disqualify those contracts from risk? 9 According -- yeah, according to 10 SCE's testimony, the put option acts as a 11 hedge against the capital lease accounting 12 treatment. 13 When you say "disqualify," do you 14 mean kind of mitigate as opposed to 15 eliminate? 16 Α Correct. 17 Okay. Thank you. So let's turn to 18 pages 5-14, line -- let's see. You reference 19 in lines 22 to 23 in the public portion of 20 that testimony that the wellhead projects 21 incur similar capital lease treatment to 22 in-front-of-the-meter energy storage; is that 23 right? 24 Α Right. The contracts, the 2.5 contracts will. 26 What is the basis for your 2.7 assertion that wellhead would have the same 28 capital lease treatment as in-front-of-the-

1 meter energy storage? 2 Edison's testimony, their opening 3 testimony. Isn't it true that the wellhead 4 5 contracts are RA only? Right. So they were gas-fired 6 7 generation peakers. These contracts associated with them had to be reformatted 8 9 into RA-only contracts in order to limit the 10 risk of capital, capital accounting 11 treatment. 12 Okay. So do you believe they have Q 13 capital lease treatment or not? 14 So as of now with the RA only, the 15 RA-only contracts, it's my understanding that 16 Edison doesn't believe that capital 17 accounting treatment would apply. 18 MS. MEIERS-DE PASTINO: Okay. So 19 you're not saying that they are going to be 20 treated as capital lease. Okay. Thank you 21 for the clarification. 22 I have no further questions. Thank 23 you. 24 THE WITNESS: Sorry. Ready to go. 2.5 (Laughter.) 26 ALJ DE ANGELIS: Who would like to go 2.7 next? Any further questions? Any redirect? 28 ///

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1	REDIRECT EXAMINATION
2	BY MR. RALPH:
3	Q Ms. O'Hara, do you have any
4	advanced degrees?
5	A I do. I have a master's from the
6	London School of Economics.
7	MR. RALPH: No further redirect. Thank
8	you.
9	ALJ DE ANGELIS: Thank you. You're
10	excused.
11	Would you like to call your next
12	witness.
13	MR. RALPH: Yes, your Honor. If people
14	hear me. Your Honor, if all of the other
15	parties are fine, we'd like to proceed
16	with actually, can you give me just a
17	minute to speak with my other witness just to
18	confirm that he's available.
19	ALJ DE ANGELIS: Of course. Let's take
20	until let's take five minutes.
21	(Recess taken.)
22	ALJ DE ANGELIS: Let's go back on the
23	record.
24	MR. RALPH: We are missing Edison's
25	counsel.
26	ALJ DE ANGELIS: We will wait a few
27	minutes.
28	Mr. Ralph, would you like to call

1	the next witness?
2	MR. RALPH: Yes, your Honor. ORA would
3	like to call Mr. Gokhale.
4	SUDHEER GOKHALE, called as a witness
5	by Office of Ratepayer Advocates, having been sworn, testified as
6	follows:
7	ALJ DE ANGELIS: Thank you. Go ahead,
8	Mr. Ralph.
9	DIRECT EXAMINATION
10	BY MR. RALPH:
11	Q Good afternoon, Mr. Gokale.
12	A Good afternoon.
13	Q Please state your current position
14	for Office of Ratepayer Advocates.
15	A I am with Senior Utilities
16	Engineer, and in the bracket called
17	Specialist.
18	Q And are you sponsoring Chapters 2
19	and 3 and 4
20	A That is correct.
21	Q as identified in the table of
22	contents of Exhibit ORA-2?
23	A Yes.
24	Q And are your qualifications
25	contained in Appendix A-1 of Exhibit ORA-2?
26	A Yes.
27	Q With respect to the testimony
28	sponsored by you, do you have any additions

1 or corrections to make to your testimony? 2 Yes, I have a few corrections I 3 would like to make. 4 Please identify them. 5 Again referring to Exhibit 2 on Α 6 page 2-1, several places. For example, on 7 line 16, 17, 18, 19, et cetera, you see text is underlined. It is just by error in the 9 drafting area. So those underlines should 10 not be there. 11 That error was corrected in the second amended testimony, I believe. It did 12 13 not exist in the second amended testimony. 14 Thank you for drawing our attention to that. 15 Okay. The next correction is on 16 page 2-4, and Footnote 17 I give a reference 17 for CPUC resource adequacy requirements 18 there. And just to clarify where that is, I 19 want to add pages 21 and 22 to that footnote. That is additional information. 20 21 Thank you. Q 22 The next one is on page 2-6. Α 23 it refers to DR pro forma contract Section 24 3.2, and it should be actually 3.4. 2.5 ALJ DE ANGELIS: That is in Footnote 26 25? 27 THE WITNESS: Footnote 26. 28 ALJ DE ANGELIS: Okay.

THE WITNESS: Finally, I have a correction on my statement of qualifications. I think it is page labelled A-1. At line 16 it says from the November 1980 to June 2005 I was employed by PG&E. I was actually employed from November '86 to June 2005. So instead of 1980, it should be 1986.

ALJ DE ANGELIS: Thank you.

THE WITNESS: Those are all the corrections I have.

2.5

MR. RALPH: Your Honor, ORA would like to ensure that the record -- that we have identified the complete testimony and attachments for the record. There has been three versions of this testimony that we have served on the parties. We thank the parties' patience for that.

I've been informed that the second amended version, the version which is the most recent version, did not have the appendix qualifications attached to it.

ORA, with the parties' agreement, would like to serve that this afternoon electronically to the service list. In addition to that, we can include the attachments of the testimony. Because the Appendix A and the attachments were included in the earlier versions of the testimony so

the parties have it, but I don't believe they 1 2 are included in the second amended testimony that we served and intend to enter into the 3 4 record today. 5 ALJ DE ANGELIS: Let's agree to an exhibit number. Would you late file that as 6 7 an exhibit? 8 MR. RALPH: Yes, your Honor. I believe 9 that would be --10 ALJ DE ANGELIS: And is there any 11 objections to moving that into the record? 12 (No response.) 13 MR. RALPH: I believe that would be ORA 14 Exhibit 3. 15 ALJ DE ANGELIS: Okay. We will mark 16 for identification those documents that were 17 inadvertently left out of the amended version of ORA's -- of ORA-2. 18 19 (Exhibit No. ORA-03 was marked for identification.) 20 21 MR. RALPH: Correct, your Honor. Wе 22 thank yourself and the parties for their 23 appearance and clarifying the record. 24 ALJ DE ANGELIS: Okay. We will move 2.5 that into evidence now. 26 MR. RALPH: Your Honor, ORA would like 2.7 to move in Exhibits ORA Exhibits 1, 2 and 3 28 into the record.

1	ALJ DE ANGELIS: I will move those into
2	the record.
3	(Exhibit Nos. ORA-01, ORA-02, ORA-03 were received into evidence.)
4	were received into evidence.)
5	ALJ DE ANGELIS: And you will provide
6	that document to me today or tomorrow?
7	MR. RALPH: We can provide it to you
8	today later this afternoon after the hearing.
9	ALJ DE ANGELIS: Okay. Thank you. You
10	will serve it on the service list?
11	MR. RALPH: I will serve it
12	electronically on the service list. If any
13	parties would like paper copies, I can
14	provide them.
15	ALJ DE ANGELIS: Thank you. Perfect.
16	MR. RALPH: Thank you, your Honor.
17	Q Mr. Gokale, returning to your
18	testimony. Was this testimony prepared by
19	you or under your supervision?
20	A Yes.
21	Q Do you believe this testimony to be
22	a correct representation of your opinion?
23	A Yes.
24	MR. RALPH: Your Honor, Mr. Gokale is
25	available for cross-examination.
26	ALJ DE ANGELIS: All right.
27	Ms. Reyes Close?
28	MS. REYES CLOSE: We had not reserved

1	time with this witness, your Honor.
2	ALJ DE ANGELIS: Who would like to
3	proceed. Ms. Sheriff?
4	MS. SHERIFF: Thank you, your Honor.
5	CROSS-EXAMINATION
6	BY MS. SHERIFF:
7	Q Good afternoon, Mr. Gokale.
8	A Good afternoon.
9	Q My name is Nora Sheriff, and I
10	represent CLECA.
11	I have a clarifying question for
12	you on page 2-4 of what has been identified
13	as Exhibit ORA-2 on line 8?
14	A Let me get there. Just a second.
15	Q Sure.
16	A Okay. I'm there. Thanks.
17	Q Okay. On line 8 you say:
18	[Reading]
19	To assure performance, an all-event
20	hour is also consistent with the
21	CPUC's resource adequacy (RA)
22	requirement that specifies that DR
23	needs to perform a minimum of 24
24	hours a month and four hours per day
25	for three consecutive days to
26	receive RA credit.
27	In terms of that word
28	"performance," is your understanding of the

performance requirement for demand response, 1 2 which is a use-limited resource, is your 3 understanding of that performance requirement that it is a requirement to bid in or offer 5 into the CAISO market? What I meant there by perform 6 Yes. 7 is really perform according to the 8 requirements of the must-offer obligation, which is the resource has to be offered to 9 10 Cal ISO. 11 MS. SHERIFF: Thank you. No further 12 questions. 13 MS. MYERS: I had reserved some cross 14 for Mr. Gokale as well. 15 ALJ DE ANGELIS: Go ahead, Ms. Myers. 16 CROSS-EXAMINATION BY MS. MYERS: 17 18 Good morning, Mr. Gokale. 19 Α Good afternoon. 20 My name is Megan Myers, and I 21 represent EnerNOC. I was wondering if you could please 22 23 turn to page 2-2 of your testimony, looking 24 at line 13 to 14. 2.5 Α Okay. 26 Is it your testimony that similar 27 to prior AMP contracts if the seller performs 28 poorly, it faces to capacity penalty but may

1 have an energy penalty? 2 Α Correct. 3 And what are you basing that 4 opinion on? 5 Are you saying what my opinion is about this particular contract or the 6 7 previous AMP contract? Let's start with the previous AMP 8 9 contracts. What are you basing that opinion 10 on? 11 It is just the simple language of 12 the previous AMP contract which provided for 13 no capacity penalty if the seller performs 14 poorly but there was an energy penalty. 15 And what is your definition of 16 poorly, "performs poorly"? 17 It can be varied, but it could be 18 performing less than 50 percent of --19 providing less than 50 percent of contract 20 capacity when an event is called. 21 And that is the same for these AMP 22 contracts in in is proceeding? 23 Correct, but this is with respect Α 24 to capacity payment. 2.5 Are you familiar with decision 26 D.14-02-033 which adopted PG&E's petition for 27 modification of its AMP contracts in 28 D.13-01-024?

I don't recall now. 1 Α 2 Okay. Would you agree that AMP 3 contracts in general are paid on a linear 4 basis for their capacity performance during 5 demand response events up until they reach 75 percent performance? 6 7 Α That is correct. 8 Q Would you also agree that 9 performance less than 75 percent of the 10 contract commitment, but more than 60 11 percent, would result in a 50 percent derate 12 of the delivered capacity? 13 Can you repeat that question, 14 again, please? 15 Sure. Would you agree that 16 performance less than 75 percent of an AMP 17 contract commitment, but more than 60 18 percent, would result in a 50 percent derate of the delivered capacity? 19 I don't have the AMP 20 Α Yeah. 21 contract in front of me, but I remember 22 something like that. 23 Okay. Would you also agree that 24 performance of less than 60 percent would 2.5 result in the AMP contract receiving no 26 revenue for delivered capacity and paying the 27 utility a penalty? 28 MR. RALPH: Your Honor, I'm going to

object to the extent that the line of questioning is about the AMP contract, if she, if counsel has a copy of the contract for him. He doesn't have the provisions of the AMP contract in front of him.

2.5

MS. MYERS: I'm just asking generally what his knowledge is about AMP contracts.

ALJ DE ANGELIS: If you could please answer to the best of your ability.

general memory about what the AMP contracts where, and the general structure of the AMP contracts. They had a certain prorated capacity payment for a certain performance about certain limit which was -- I think it was 75 percent. I could be wrong. And then performance below that, they either get no penalty or there is no penalty or they just don't get any payment for that capacity.

MS. MYERS: Q But would you agree that a 50 percent derate for delivered capacity, less than whatever, 75 percent of the commitment but more than 60 percent of the commitment, would represent a penalty?

MR. RALPH: Your Honor, I'm going to reassert my objection. To the extent this line of question is specifics to the AMP contracts -- I mean Mr. Gokale, if you can

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1
     answer it, that is fine. But it is asking a
2
     lot of him to answer the question without
 3
     having the contract.
 4
           ALJ DE ANGELIS: If you could answer to
5
     the best of your ability.
           THE WITNESS: Yeah, I don't want to be
 6
7
     wrong. So I would like to refer to either
     the AMP contract or answer these questions
9
     for this particular contract.
10
           ALJ DE ANGELIS: Ms. Myers.
11
           MS. MYERS: Can I have one minute,
12
     please?
13
           ALJ DE ANGELIS: Yes.
14
           MS. MYERS: Thank you. I can go back
15
     now.
16
           ALJ DE ANGELIS: Go ahead, Ms. Myers.
17
           MS. MYERS: No further questions.
18
     Thank you.
19
           ALJ DE ANGELIS: Any additional cross?
20
               (No response.)
21
           ALJ DE ANGELIS: Any redirect?
22
           MR. RALPH: No, your Honor.
23
           ALJ DE ANGELIS: Thank you. You are
24
     excused.
2.5
           THE WITNESS: Okay. All right.
26
     believe we've come to the end of our
27
     witnesses; am I correct?
28
           MS. REYES CLOSE: Yes.
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1 ALJ DE ANGELIS: So in terms of moving 2 forward, I know that there was a few 3 questions at the last break. But I suggest we take it on the record. 5 Mr. Vespa, do you still have a 6 question? 7 MR. VESPA: I was able to resolve that 8 with SCE's counsel. Thank you. 9 ALJ DE ANGELIS: Okay. Go ahead. 10 MS. REYES CLOSE: Sure. Thank you, 11 your Honor. Edison would like to know if we 12 have corrections to the transcript, how 13 should we submit those corrections and by 14 when, please. 15 ALJ DE ANGELIS: I would like you to 16 file a motion with those corrections, and 17 let's give parties a few days to respond and 18 object. And then they will be in the docket 19 card, and we can all refer to them easily. 20 Any other questions? 21 (No response.) 22 ALJ DE ANGELIS: All right. So we have 23 a briefing schedule already set in the 24 scoping memo. 2.5 MS. SHERIFF: Yes. 26 MR. VESPA: Yes, we do. 27 (Laughter.) 28 ALJ DE ANGELIS: And I look forward to

1 reading your briefs. So other than that, is 2 there anything else that parties would like 3 to talk about before we adjourn? 4 MR. VESPA: Just a reminder for 5 everyone to electronically serve all of their exhibits with the numbers. I'll do that for 6 7 Sierra Club. It might be easier for 8 recordkeeping. People can do that. I know 9 that was asked by NRG yesterday. 10 ALJ DE ANGELIS: Okay. I have asked 11 Edison to serve a document with all of the 12 exhibit numbers on it so that we are all on 13 the same page. Okay. That will happen today 14 or tomorrow. 15 So thank you, everybody. 16 (Whereupon, at the hour of 3:01 p.m., this matter having been submitted 17 upon reply briefs due June 24, 2015, the Commission then adjourned.) 18 19 2.0 2.1 2.2 23 2.4 25 26 27 28

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

Application of Southern California)
Edison Company (U338E) for Approval)
of the Results of Its 2013 Local) Application
Capacity Requirements Request for) 14-11-012
Offers for the Western Los Angeles)
Basin.)

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

I, Alejandrina E. Shori, Certified Shorthand Reporter No. 8856, in and for the State of California do hereby certify that the pages of this transcript prepared by me comprise a full, true and correct transcript of the testimony and proceedings held in the above-captioned matter on May 6, 2015.

I further certify that I have no interest in the events of the matter or the outcome of the proceeding. EXECUTED this 6th day of May, 2015.

Alejandrina E. Shori CSR No. 8856

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

Application of Southern California Edison Company (U338E) for Approval of the Results of Its 2013 Local Application Capacity Requirements Request for 14-11-012 Offers for the Western Los Angeles Basin.

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

I, Ana M. Gonzalez, Certified Shorthand Reporter No. 11320, in and for the State of California do hereby certify that the pages of this transcript prepared by me comprise a full, true and correct transcript of the testimony and proceedings held in the above-captioned matter on May 6, 2015.

I further certify that I have no interest in the events of the matter or the outcome of the proceeding. EXECUTED this 6th day of May, 2015.

Ana M. Gonzalez

)

CSR No. 11320

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE

STATE OF CALIFORNIA

Application of Southern California)
Edison Company (U338E) for Approval)
of the Results of Its 2013 Local) Application
Capacity Requirements Request for) 14-11-012
Offers for the Western Los Angeles)
Basin.)

CERTIFICATION OF TRANSCRIPT OF PROCEEDING

I, Thomas C. Brenneman, Certified Shorthand
Reporter No. 9554, in and for the State of California
do hereby certify that the pages of this transcript
prepared by me comprise a full, true and correct
transcript of the testimony and proceedings held in
the above-captioned matter on May 6, 2015.

I further certify that I have no interest in the events of the matter or the outcome of the proceeding. EXECUTED this 6th day of May, 2015.

Thomas C. Brenneman CSR No. 9554

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