

DOCKETED

Docket Number:	15-AFC-01
Project Title:	Puente Power Project
TN #:	221283
Document Title:	Transcript of 09/14/2017 Evidentiary Hearing
Description:	N/A
Filer:	Cody Goldthrite
Organization:	California Energy Commission
Submitter Role:	Committee
Submission Date:	9/21/2017 11:12:20 AM
Docketed Date:	9/21/2017

Before the Energy Resources Conservation and Development

Commission of the State of California

In the Matter of:)
)
Application for Certification)
For the PUENTE POWER PROJECT) Docket No. 15-AFC-01
_____)

EVIDENTIARY HEARING

PUENTE POWER PROJECT

OXNARD PERFORMING ARTS CENTER

800 HOBSON WAY

OXNARD, CALIFORNIA

TUESDAY, SEPTEMBER 14, 2017

9:01 A.M.

Reported by:
Martha Nelson

APPEARANCES

COMMISSIONERS

Janea Scott, Presiding Member

Karen Douglas, Associate Member

ADVISORS

Rhetta DeMesa, Advisor to Commissioner Scott

Matthew Coldwell, Advisor to Commissioner Scott

Jennifer Nelson, Advisor to Commissioner Douglas

Kristy Chew, Commissioners' Technical Advisor on Siting
Matters

HEARING OFFICER

Paul Kramer

ENERGY COMMISSION STAFF

Kerry Willis, Assistant Chief Counsel

Michelle Chester, Staff Attorney

Leonidas Payne, Project Manager

PUBLIC ADVISER'S OFFICE

Eunice Murimi, Diversity Analyst

APPLICANT:

Michael Carroll, Esq. , Latham & Watkins, LLP

George Piantka, PE, Director of Environmental Services,
NRG Energy, Inc.

Dawn Gleiter, NRG Energy, Inc., Director of Development
for NRG West, Director for the Puente Power Project

Ben Herhold, Associate Director for the Puente Power
Project

APPEARANCES (CONT.)

INTERVENORS:

Ellison Folk, Shute, Mihaly & Weinberger, LLP, City of Oxnard

Matthew Vespa, Senior Attorney, Sierra Club,
Environmental Coalition and Environmental Defense Center

Shana Lazerow, California Environmental Justice Alliance (CEJA)

Lisa T. Belenky, Center for Biological Diversity

Kevin P. Bundy, Center for Biological Diversity

Dr. Grace Chang, Fighting for Informed Environmentally Responsible Clean Energy (FFIERCE)

ALSO PRESENT

Jordan Pinjuv, California Independent System Operator (CAISO)

Neil Millar, CAISO

Nebiyu Yimer, CAISO

Brian Theaker, NRG Energy, Inc.

James Caldwell, City of Oxnard

Doug Karpa, Clean Coalition/Center for Biological Diversity

Mark Hesters, California Energy Commission

Matt Owens, Director of Business Development, STEM

Andy Schwartz, Tesla

Tristan Reyes Close, Southern California Edison

Garry Chinn, Southern California Edison

Randir Sekhon, Southern California Edison

APPEARANCES (CONT.)

PUBLIC COMMENT:

Mike Stubblefield, Sierra Club, Los Padres Chapter

Shirley Godwin

Gary Ross, Highwave

Cheri Cabral, California State Building and Construction
Trades Council, and Labor Management Trust

Lauraine Efress

Nancy Lindholm, Oxnard Chamber of Commerce

Tony Skinner, Tri County Building and Construction Trades
Council, and IBEW Local 952

Lucas Zucker, CAUSE

Mark Spellman

Ruben Flores

Fatima Contreras

Jeff Boady, IBEW Local 952

Charles McLaughlin, Ventura County Taxpayers Association

Victor Cortes

Jose Lopez

Lily Bello

Rosalinda Flores

Tom Cady

Raina Coria

Rafael Escobello

Michael Wynn Song

Elma Del Aguila

APPEARANCES (CONT.)

PUBLIC COMMENT (cont'd)

Richard Neve

Kitty Merrill

Martin Rodriguez

Dick Jaquez

Lupe Angiano

Vicki Paul

Sean Paroski, Ventura County Coalition of Labor,
Agriculture and Business

Kevin Ward

David Nix, Heat and Frost Insulators and Allied
Workers, Local 5, Los Angeles

Cameron Gray, Community Environmental Council

Deborah Baber

Tim Redondo

Jonathan Garza

Bruce Markovich

Chris Huston

Helen Conly, Citizens for Responsible Oil and Gas

Dan Smith, Electrical Workers of Ventura County

Leslie Purcell

Gabriela Valencia

Woodrow Davidson

Justin Deckard

APPEARANCES (CONT.)

PUBLIC COMMENT (cont'd)

Steve Earhart, Ventura County Electrical Apprenticeship Program

Michael Kile

Shane Boston, Plumbers and Pipefitters UA Local 484

Brian True

Roseline Aka

Alejandro Arellano

Tim Nafziger, Showing up for Racial Justice, Ventura County, and Ojai Valley Green Coalition

Christine Brown

Margarita Moran

Celine Washington

Ron Whitehurst

Kurt Oliver, Tri County Building and Construction Trades

Armando Delgado, United Brotherhood of Carpenters Local 150

Dane Sutherland

Dan Pruett

Jonathan Horton

Joaquin Echabarria

Shannon Lopez

Reinhold Nestved

Alyssa Saldana

Jessica McCurdy

APPEARANCES (CONT.)

PUBLIC COMMENT (cont'd)

Idalia Robles de Leon

Alejandra Melgoza

Jan Dietrich

Dulce Setterfield

PUBLIC COMMENT

Ocil Herrejon

Pat Brown

Jessica Tuomala

Stephen Oden

Monica de la Hoya

Delores Mondragon

Wendy Lofland

Casey Quinn

Karen Hannah (via WebEx)

I N D E X

	<u>Page</u>
Meeting Agenda	
1. Call to Order, Introductions	1
2. Prehearing Matters	5
3. Evidentiary Hearing	5
4. Public Comment	362
5. Closed Session	
6. Adjournment	514
Reporter's Certificate	515
Transcriber's Certificate	516

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

P R O C E E D I N G S

SEPTEMBER 14, 2017 9:01 A.M.

COMMISSIONER SCOTT: Okay, good morning everyone. I want to welcome you to the Puente Power Project Evidentiary Hearing.

And I will start with the introductions. I am Commissioner Janea Scott. I'm the Presiding Member over this proceeding.

Two people over to my right is Commissioner Karen Douglas. She's the Associate Member for this proceeding.

Sitting right next to me, to my right is Paul Kramer. He is our Hearing Officer.

To my left are my two Advisors, Rhetta DeMesa and Matt Coldwell.

And to Commissioner Douglas' right is her Advisor, Jennifer Nelson.

We are also joined by Kristy Chew, the Commissioners' Technical Advisor on Siting Matters. And she's in the back, next to our translators, waving there at you.

And now, let us have the parties introduce themselves, starting with the Applicant, please.

1 MR. CARROLL: Good morning, Mike Carroll
2 with Latham & Watkins, on behalf of the
3 Applicant. On my left is Dawn Gleiter, Director
4 of Development for NRG West, and also the
5 Director for the Puente Power Project.

6 On my right is George Piantka, also with
7 NRG, Director of Environmental Services.

8 And just joining us is Ben Herhold,
9 Associate Director on the project, from NRG.
10 Thank you.

11 COMMISSIONER SCOTT: Good morning.

12 And now, let's turn to the Energy
13 Commission staff, please.

14 MS. WILLIS: Good morning. Kerry Willis,
15 Assistant Chief Counsel for staff, with Michelle
16 Chester, Counsel for staff, and Lon Payne, our
17 Project Manager.

18 COMMISSIONER SCOTT: Great. Good morning.

19 Let's turn to Intervenors, starting with
20 the City of Oxnard.

21 MS. FOLK: Good morning. Ellison Folk on
22 behalf of the City of Oxnard.

23 COMMISSIONER SCOTT: Good morning.

24 And how about Environmental Coalition,
25 Environmental Defense Center, and Sierra Club?

1 MR. VESPA: Good morning. Matt Vespa on
2 behalf of those parties.

3 COMMISSIONER SCOTT: Hi, good morning.

4 Do we have Intervenor Bob Sarvey on the
5 line? Hold on, we're unmuting everyone. If you
6 are on the line, Intervenor Bob Sarvey, please
7 introduce yourself, say hello.

8 Okay, hearing nothing I will assume that
9 he is not there.

10 Let us now turn to California
11 Environmental Justice Alliance. Are you on the
12 line? If so, please say hello.

13 MS. LAZEROW: Good morning. This is Shana
14 Lazerow on behalf of CEJA.

15 COMMISSIONER SCOTT: Good morning.

16 And Center for Biological Diversity,
17 please?

18 MS. BELENKY: Yes, good morning. This is
19 Lisa Belenky with the Center for Biological
20 Diversity. And Kevin Bundy is on the phone, as
21 well.

22 MR. BUNDY: Good morning.

23 COMMISSIONER SCOTT: Okay, excellent,
24 good morning.

25 How about Fighting for Informed

1 Environmentally Responsible Clean Energy? Dr.

2 Chang, if you're on the line please say hello.

3 Okay. Terrific. Now, let us turn to

4 others. From the California Independent System

5 Operator, please either the mic in the middle or

6 one of the mics at the table would be great.

7 Please introduce yourself.

8 MR. PINJUV: Good morning. Jordan Pinjuv

9 from the California ISO. And I have with me Neil

10 Millar and Nebiyu Yimer.

11 COMMISSIONER SCOTT: Great, good morning.

12 How about Southern California Edison?

13 Oh, okay.

14 Do we have anyone from the California

15 Coastal Commission?

16 Oh, can you unmute the lines, please, so

17 people have a chance to introduce themselves, if

18 they're there? Okay, thank you. Everyone is now

19 unmuted.

20 If you are from the California Coastal

21 Commission and would like to say hello, please

22 do.

23 Okay, do we have anyone from the U.S.

24 Geological Survey?

25 How about any State or Federal Wildlife

1 Agencies? If so, please introduce yourself.

2 And then let me check, do we have any
3 other federal, tribal, state, regional or local
4 officials who would like to introduce themselves?
5 If so, and you're in the room, please come on up
6 to the mic. And if you're on the phone, please
7 say hello.

8 Okay, great. So, with that I will now
9 turn the conduct of this hearing over to our
10 Hearing Officer, Paul Kramer.

11 Oh, I'm sorry, let me -- we do have our
12 Public Adviser. We're going to have Eunice here,
13 at some point. I don't see her at the table. But
14 as soon as she's there, we will let you know. If
15 you are a member of the public and would like to
16 make a comment, she will have blue cards with
17 her. You fill out your name on those blue cards
18 and that's how we know that you would like to
19 speak with us.

20 Okay, now I'll turn it over to Paul
21 Kramer.

22 HEARING OFFICER KRAMER: Okay, thank you
23 and good morning, everyone.

24 The purpose of today's hearing is to hear
25 evidence on the Application for Certification of

1 the Puente Power Project. Specifically, we're
2 down to discussing the report that the California
3 Independent System Operator prepared. We're
4 calling it, generally, the ISO study for
5 shorthand.

6 And again, public comment is -- we've set
7 aside time beginning at 5:30 this evening. So, if
8 we were to finish before then, we could take some
9 public comments at that point in time. But
10 realistically, I think the expectations will be
11 that we'll start taking public comment at 5:30.

12 We took care of all of our prehearing
13 matters that I am aware at the Committee
14 Conference on Tuesday.

15 Are there any other issues, prehearing
16 issues to address? Does any party have anything?

17 MS. FOLK: The only thing I have is we're
18 not able to get on to the Wi-Fi here, which I
19 realize is not exactly a prehearing conference
20 issue.

21 HEARING OFFICER KRAMER: I'm sorry. Can I
22 get a little more volume on my monitor? I'm
23 getting more room echo and that's ugly. I'm
24 having trouble understanding people.

25 Okay, so did you have any -- I couldn't

1 understand you at all, Ms. Folk.

2 MS. FOLK: Oh, I'm sorry. All I was
3 saying is that we're actually having a hard -- we
4 don't have access to Wi-Fi right now.

5 HEARING OFFICER KRAMER: Okay.

6 MS. FOLK: So, we're trying to figure
7 that out while you're talking.

8 HEARING OFFICER KRAMER: Let me give you
9 the -- well, actually, Michelle knows the
10 password and she knows how to figure it out for
11 the one we're using up here. We were trying to
12 bifurcate things so we didn't overload.

13 MS. CHESTER: It's working for me, not
14 them.

15 HEARING OFFICER KRAMER: Oh. There is
16 wireless in the room here. I know what the words
17 are, but I don't know the capitalization. So, if
18 our facility host could provide that password to
19 you? It's not the fastest Wi-Fi, apparently, and
20 that's why we're still using our hot spots.

21 But during the break we'll see if we can
22 figure out what's going on with our hot spots.
23 Maybe there's a limit on the number of
24 connections that I'm just now aware of, something
25 like that. Or, maybe we can get the other one

1 working, as well.

2 MR. CARROLL: Mr. Kramer, we also have an
3 extra hot spot. I don't know, there could be some
4 problems security-wise, but we'll give it to the
5 Intervenor and let them see if it -- if it works
6 for them, great.

7 HEARING OFFICER KRAMER: Oh, okay, great.

8 Okay, so with that, then, we go right
9 into the hearing. So, the plan, as we discussed
10 it on Tuesday, was that we were going to hear
11 from the ISO witnesses first. But we were going
12 to get everyone seated up at our very, very long
13 table, to quote from "Spamalot," I think. And
14 then begin with the ISO and then continue on with
15 all the other witnesses.

16 So, if all the witnesses could assemble
17 at the table?

18 Mr. Pinjuv, you might want to take the
19 corner there, on the Applicant's side.

20 MR. PINJUV: Sounds good, yeah.

21 (Pause for seating)

22 HEARING OFFICER KRAMER: And then, again,
23 we're expecting the Southern California Edison
24 folks to call in at about 10:00 a. m. They'll
25 probably announce themselves during a pause in

1 our speaking.

2 Okay, let's begin on my right, closest to
3 Mr. Pinjuv. And, sir, if you can introduce
4 yourself and spell your first and last names, so
5 our court reporter will properly -- you'll be
6 able to Google yourself at some later point, when
7 you're bored.

8 I don't think that his mic's on. The
9 other thing we have to do here, folks, is get
10 pretty close. I think sometimes we've coined the
11 phrase "rock star close," so you are right on
12 that microphone.

13 I don't think there's a switch there.
14 Just in the back room they're trying to switch us
15 on and off so that we don't get extraneous noise.
16 But just bring it up like I have, you know, and
17 give it a shot.

18 MR. MILLAR: Is this better?

19 HEARING OFFICER KRAMER: Very much.

20 MR. MILLAR: Sure. I'm Neil Millar, N-e-
21 i-l M-i-l-l-a-r, with the California Independent
22 System Operator.

23 MR. YIMER: Nebiyu Yimer, N-e-b-i-y-u Y-
24 i-m-e-r, with the California Independent System
25 Operator.

1 MR. THEAKER: Good morning. I'm Brian
2 Theaker, B-r-i-a-n T-h-e-a-k-e-r, with NRG
3 Energy.

4 MS. GLEITER: Good morning, I'm Dawn
5 Gleiter, spelled D-a-a-w-n G-l-e-i-t-e-r, with
6 NRG's Development team.

7 MR. CALDWELL: I'm James Caldwell, J-a-m-
8 e-s C-a-l-d-w-e-l-l, for the City of Oxnard.

9 DR. KARPA: I'm Doug Karpa, D-o-u-g K-a-
10 r-p-a, Policy Director with the Clean Coalition,
11 with the Center for Biological Diversity.

12 MR. HESTERS: I'm Mark Hesters, M-a-r-k,
13 the last name H-e-s-t-e-r-s. I'm with the
14 California Energy Commission.

15 MR. OWENS: Good morning. My name is Matt
16 Owens, M-a-t-t O-w-e-n-s. And I'm Director of
17 Business Development with STEM.

18 MR. SCHWARTZ: Good morning. My name is
19 Andy Schwartz, A-n-d-y S-c-h-w-a-r-t-z. I'm here
20 on behalf of Tesla. Thank you.

21 HEARING OFFICER KRAMER: Okay, the
22 organization, Mr. Owens, that you said STEM?

23 MR. OWENS: Correct.

24 HEARING OFFICER KRAMER: Could you expand
25 the acronym for us?

1 MR. OWENS: No, it doesn't stand for
2 science, technology, engineering and mathematics.
3 It's just our company name.

4 HEARING OFFICER KRAMER: Oh, okay.

5 MR. OWENS: Yeah.

6 HEARING OFFICER KRAMER: Okay. So, what
7 we were going to start with was a summary from
8 the ISO of their study, as that is the star
9 attraction today, at this hearing.

10 Oh, yes, I'm supposed to swear you in.
11 Thank you for reminding me.

12 If you could raise your right hand?

13 Do you swear or affirm that the testimony
14 you're about to give in this proceeding is the
15 truth to the best of your ability?

16 (Collected Affirmations)

17 HEARING OFFICER KRAMER: Okay, they all
18 do. Thank you.

19 So, I don't know if it's Mr. Millar or
20 Mr. Yimer, but either of you go ahead, please.

21 Yeah, and understand that although you
22 may think that everyone here has read and
23 understands your report, we're also providing
24 this information for an audience of people here,
25 people who may be listening on WebEx, and also

1 people who may later be reading the transcript.
2 And perhaps a judge or two who, you know, was not
3 going to be as technically savvy as you are.

4 MR. MILLAR: Thank you. It's Neil Millar
5 here, with the ISO.

6 HEARING OFFICER KRAMER: Move closer.

7 MR. MILLAR: What we've prepared was
8 actually -- or, what I prepared was an opening
9 statement today that touched not so much on the
10 content of the report, itself, which we believe
11 was a technical document that, to some extent,
12 speaks for itself. But to provide some additional
13 interpretation of that report, our view of what
14 the results actually mean in that report.

15 So, with your permission, I would just
16 like to move through and perhaps read in this
17 opening statement.

18 HEARING OFFICER KRAMER: Can I ask you to
19 really project? And if you're hearing too much
20 of yourself back that's causing you to back off,
21 ignore that.

22 MR. MILLAR: Okay, I will try to do that.

23 So, first off, the ISO filed the Moorpark
24 Subarea Local Capacity Alternative Study on
25 August 16th, 2017, in keeping with the Energy

1 Commission's direction.

2 The study focused on the results of our
3 analysis and did not discuss the ISO's view of
4 the implications of those results in this
5 proceeding.

6 In this opening statement I wish to offer
7 several comments on how we view the study
8 results.

9 First, the study does demonstrate that
10 there are technologically feasible alternatives
11 relying on preferred resources that could meet
12 the need otherwise met by the proposed Puente
13 Project. These alternatives meet the relevant
14 mandatory planning standards the ISO considers in
15 our studies of grid reliability.

16 These preferred resource alternatives do
17 offer various tradeoffs of other impacts and
18 benefits. For example, environmental, economic,
19 grid reliability, and other performance
20 considerations.

21 In conducting this study, the ISO sought
22 to determine whether preferred resource
23 alternatives to the Puente Project were feasible
24 in addressing grid reliability, which is the
25 question we understand the Energy Commission was

1 asking.

2 The study was not attempting to determine
3 the lowest cost combination of preferred
4 resources to meet that need.

5 The ISO study approach was therefore to
6 establish the boundary conditions of achieving
7 satisfactory technical performance by adding
8 sufficient resources to meet the required
9 planning criteria.

10 This involved topping up preferred
11 resource scenarios with grid-connected batteries,
12 and then also exploring the contribution that
13 materially-sized reactive support could provide.

14 The ISO's original intention was not to
15 include cost information in the study. However,
16 as the study progressed, the focus of the study
17 had shifted from testing fixed portfolios of
18 preferred resources on a pass/fail basis to a
19 focus of adding or topping up portfolios with
20 additional preferred resources until successful
21 system performance was achieved.

22 This approach led us to include some cost
23 level information on the preferred resource
24 alternatives being considered in determining the
25 viability of those levels of resource additions.

1 That cost information included high-level
2 capital costs, only, that were drawn from
3 publicly available material through various
4 formal or informal regulatory processes. We
5 anticipated it to provide a starting point for
6 the cost considerations, while recognizing that
7 the preferred resource costs are trending
8 downward and are reasonably expected to be lower
9 in the future.

10 Similarly, lifecycle costs are not
11 considered, but could have a meaningful impact on
12 the considerations of the options we identified.

13 Ultimately, however, it will fall to the
14 Energy Commission to decide what weight, if any,
15 to give to the cost information made available by
16 the ISO or other parties.

17 The ISO does not believe that the capital
18 costs identified in the ISO study render the
19 preferred resource alternatives infeasible. The
20 ISO does not believe that feasible options need
21 to be the least expensive, either on an up-front
22 or lifecycle basis in order to be feasible.
23 Especially given the other environmental and
24 performance issues that need to be considered.

25 Further, the only way to test the

1 economic feasibility of the preferred resource
2 options is to conduct an RFO specifically
3 targeted to procuring those resources.

4 The ISO acknowledges that there is a
5 large range of combinations of resources that
6 could work together to meet the need, but
7 considers further attempts to optimize at this
8 point unnecessary to demonstrate the feasibility
9 of preferred resource alternatives to meet that
10 need and beyond the scope of the proceeding.

11 Other cost data is being provided through
12 this process for consideration by the Commission,
13 but costs will only truly be known after an RFO
14 is conducted.

15 Also, further attempts to fine tune
16 analysis with different load profiles are also of
17 little use at this time. The analysis conducted
18 was based on reasonable and admittedly
19 conservative overall assumptions, and
20 demonstrated the viability of the preferred
21 resource alternatives.

22 The planning assumptions, themselves,
23 will also firm up over time.

24 We therefore consider the approach taken,
25 basing the analysis on reasonable assumptions,

1 recognizing that there are offsetting puts and
2 takes in those assumptions, to be the most
3 appropriate way to study the issue; especially
4 given the challenging nature of the analysis and
5 the limited time available for the study.

6 In summary, the ISO does consider the
7 study to demonstrate that there are feasible
8 preferred resource options and that an optimal
9 mix of preferred resources can be only determined
10 through an RFO or further study. Thank you.

11 HEARING OFFICER KRAMER: Okay, thank you.

12 And then, what the parties wanted to do
13 was ask some questions of you, about your report,
14 before we get into the more general roundtable
15 discussion among all the parties.

16 Okay, so let's begin then with the
17 Applicant, Mr. Carroll.

18 And I apologize, I have to move around
19 and check my power because it's obviously not on
20 and I don't want my hot spot to go down. So, go
21 ahead while I'm walking around.

22 MR. CARROLL: Thank you. Mike Carroll for
23 the Applicant. We do not have any questions for
24 the CAISO witness at this time. But thank them
25 for all the work that went into the study and for

1 being here today to expand upon it, and respond
2 to question. But at this time we don't have any.
3 Thank you.

4 HEARING OFFICER KRAMER: Okay, then let's
5 move on to the City, Ms. Folk.

6 Before you, IT guys, our power strip
7 doesn't have any power up here as far, as I can
8 tell. So, if you could come and try to fix that?

9 Go ahead.

10 MS. FOLK: Good morning.

11 HEARING OFFICER KRAMER: You may have to
12 wait for him to go around back there and turn you
13 on.

14 MS. FOLK: Okay. Good morning and thank
15 you for being here, and for the work that you've
16 done.

17 I have some questions about the
18 assumptions that went into the CAISO report that
19 I'd like to just ask you a few questions about.

20 So, starting with the base case. Each of
21 the scenarios in the CAISO study starts with a
22 base case of 135 megawatts of preferred
23 resources. And that you developed these through a
24 discussion with CEC staff. Is that correct?

25 MR. MILLAR: No, these were -- no, these

1 were developed through discussion with Southern
2 California Edison staff.

3 MS. FOLK: Oh, I'm sorry. Yeah, Edison
4 staff, sorry.

5 Who did you work with at Edison to
6 develop these resources?

7 MR. MILLAR: I'm sorry, I don't have the
8 list of names with me.

9 MS. FOLK: Okay.

10 MR. MILLAR: There were quite a few
11 people in the room.

12 MS. FOLK: Okay. And can you tell me why
13 each of the scenarios starts with 135 megawatts?

14 MR. MILLAR: The goal was to establish
15 various scenarios of preferred resources based on
16 what was viewed as the reasonable ceiling of what
17 could be procured.

18 When Edison provided us with these values
19 and we realized that all in still wouldn't meet
20 the need, then all of our scenarios took that as
21 the base and then topped up with additional
22 resources, the grid-connected resources.

23 There could have been a different
24 approach taken if the initial feedback from
25 Edison more than met the need and opened up the

1 door to different combination, but that wasn't
2 the case.

3 MS. FOLK: Okay.

4 MR. MILLAR: If we had simply stuck with
5 the original discussion, we would have studied
6 135 megawatts, found that that fell short and
7 stopped.

8 MS. FOLK: But I guess my -- so, then,
9 the 135 megawatts was Edison's estimate of what
10 was reasonably available?

11 MR. MILLAR: For resources other than the
12 grid-connected resources, which we saw as
13 something you could then top up until you got to
14 meeting satisfactory system performance.

15 MS. FOLK: Okay. Can you just explain to
16 me what you mean by grid-connected resources --
17 other than grid-connected resources?

18 MR. MILLAR: So, the other resources
19 would include things like demand response, or
20 perhaps distribution-connected -- well, actually,
21 there's the list of the other alternatives that
22 add up to the 135 megawatts.

23 These were various resources that we saw
24 would depend on the success of an RFO process to
25 identify the volume that actually is available.

1 But it was assumed that if one went out to
2 procure transmission-connected battery storage,
3 and a certain amount was sought, that if you're
4 willing to pay for it, you would be able to get
5 the amount that you're asking for.

6 MS. FOLK: Okay.

7 MR. MILLAR: So, we used the forecast for
8 the other types of resources and then used
9 transmission-connected batteries to top up to get
10 adequate system performance.

11 MS. FOLK: Okay, the transmission-
12 connected batteries would be the in-addition-to-
13 the 135?

14 MR. MILLAR: Yes.

15 MS. FOLK: Okay. So, do you know, does
16 the base case scenario include the battery
17 station at Santa Paula, the Wakefield Battery
18 Station?

19 MR. MILLAR: I don't know.

20 MS. FOLK: Would you ask that -- would
21 you recommend I ask that question to Edison, do
22 you think they would know?

23 MR. MILLAR: Yes.

24 MS. FOLK: Okay. Does the base case
25 scenario include the upgrade at the McGrath

1 Peaker, with the EGT technology?

2 MR. MILLAR: This might be -- we might
3 need to confirm this with Edison, as well. Our
4 understanding was that we viewed that addition to
5 really fall into the same category as another
6 grid-connected battery, whether it's an existing
7 generation facility or not.

8 MS. FOLK: Okay, so that --

9 MR. MILLAR: Either way it's a new grid-
10 connected -- a new resource.

11 MS. FOLK: So, that would not be -- your
12 understanding is it's not within the 135?

13 MR. MILLAR: I don't believe so.

14 MS. FOLK: Okay. And then, with respect
15 to the resources that you identify in the study
16 as part of that 135, you identify, or the study
17 identifies 80 megawatts of demand response,
18 coupled with behind-the-meter storage.

19 And in that case are you really talking
20 about batteries, as well?

21 MR. MILLAR: Well, yes, the table you're
22 referring to is on page 8 of the report, where we
23 list these out. And the 80 megawatts was the
24 indication from Edison that, in their view, the
25 most likely demand response to be achieved was

1 behind-the-meter storage being added at existing
2 loads, as opposed to any other form of demand
3 response.

4 MS. FOLK: And what other form of demand
5 response would there be?

6 MR. MILLAR: Presumably, an actual load
7 reduction.

8 MS. FOLK: Right, okay. And are you
9 familiar with the Lawrence Berkeley National Lab
10 report on the availability of demand response in
11 the Moorpark area?

12 MR. MILLAR: Not terribly and we didn't
13 rely on it. We were following the direction of
14 the Commission and we worked with Edison for the
15 input.

16 MS. FOLK: Okay, so Edison was really the
17 entity that gave you the --

18 MR. MILLAR: Base cases.

19 MS. FOLK: Okay. Do you know if the base
20 case included resources that were bid into the
21 Goleta RFO before it was suspended?

22 MR. MILLAR: I don't know.

23 MS. FOLK: Okay. So, I think what I'll do
24 is ask my questions about what's in the base case
25 to Edison, when they're here.

1 In the base case there's also an
2 assumption that there's 30 megawatts of demand
3 response, what's called slow demand response in
4 the Moorpark area. And it's my understanding that
5 this is demand response that already exists. Is
6 that correct?

7 MR. MILLAR: Well, the slow demand
8 response is demand response products that aren't
9 required to respond sufficiently quickly enough
10 to address the criteria --

11 MS. FOLK: Right.

12 MR. MILLAR: -- for voltage collapse
13 situations. So, the actual load response is
14 already an existing product. What we did have to
15 add was a small amount of energy storage to
16 bridge the time frame between the performance
17 that's required and what the performance
18 currently -- the performance expectation
19 currently is for the demand response resources.

20 MS. FOLK: Right. And so, do you know if
21 there's actually 45 megawatts of slow demand
22 response in the Moorpark area?

23 MR. MILLAR: We understood that there was
24 60 megawatts -- or, sorry, 30 megawatts of this
25 slow demand product. Just a minute.

1 Yes, the 30 megawatts is an
2 approximation.

3 MS. FOLK: Okay.

4 MR. MILLAR: So, getting a precise
5 number, I wouldn't have that available.

6 MS. FOLK: Okay. And if demand response
7 could response within 20 minutes would it need to
8 be paired with batteries in order to count
9 towards the LCR?

10 MR. MILLAR: No. If it met the
11 performance requirements on its own, then we do
12 not need the additional battery.

13 MS. FOLK: Okay.

14 MR. MILLAR: The battery was to bridge
15 the performance gap.

16 MS. FOLK: Okay. So, I was going to ask
17 you a few questions about the synchronous
18 condenser and the cost associated with that. The
19 report indicates that the cost estimate was based
20 on the Santiago synchronous condenser project,
21 which was estimated at \$50 million to \$100
22 million dollars. And was the Santiago synchronous
23 condenser project a stand-alone synchronous
24 condenser?

25 MR. MILLAR: Yes, it is.

1 MS. FOLK: Okay, so it was built from the
2 ground up?

3 MR. MILLAR: Yes, at an existing
4 substation.

5 MS. FOLK: Okay. And I understand there
6 are two generating stations at Huntington Beach
7 that were converted to synchronous condensers. Is
8 that correct?

9 MR. MILLAR: There were two units at
10 Huntington Beach, yes.

11 MS. FOLK: And did you look at the cost
12 of that conversion?

13 MR. MILLAR: No, we didn't because the
14 conversion at Huntington Beach was a stop-gap
15 measure to address the somewhat unplanned early
16 retirement of the San Onofre Nuclear Generating
17 Station.

18 We are not expecting those units to be
19 continuing in service as synchronous condensers
20 in 2018. It was a short-term measure. Because
21 while we were very grateful that we were able to
22 get those converted and use them for a few years,
23 it's not a long-term solution.

24 MS. FOLK: So, it was used as a bridge to
25 when further resources came online, is that

1 correct?

2 MR. MILLAR: Right.

3 MS. FOLK: And so it's my understanding
4 that it took approximately nine months from the
5 time the application was filed to make that
6 conversion at Huntington Beach to the time they
7 were actually brought online. Is that correct?

8 MR. MILLAR: I don't recall the timing of
9 the filing. But the conversion was done very
10 quickly.

11 MS. FOLK: Okay. Could Mandalay 1 and 2
12 also be converted to synchronous condensers in a
13 similar fashion?

14 MR. MILLAR: We haven't had the specific
15 discussion with NRG on that issue. We're not
16 aware of any reasons it couldn't, but we haven't
17 had the discussion with NRG.

18 MS. FOLK: Okay, but you believe it would
19 be technically feasible, then?

20 MR. MILLAR: Depending on the
21 construction of the plant, the physical
22 arrangement in the plant, it could be feasible.

23 MS. FOLK: Okay. And are you familiar
24 with what the cost to do a conversion of the
25 existing Mandalay 1 and 2 units would be?

1 MR. MILLAR: Not without some engineering
2 behind it. The conversion at Huntington Beach was
3 a bit of an extreme situation that we were
4 actually paralleling two different technologies
5 as possible ways to effect the conversion. And we
6 were ultimately able to move forward with the
7 more conventional. But it really does depend on,
8 when you're retrofitting these old plants, the
9 specifics.

10 MS. FOLK: And would it be correct to say
11 that the conversion at Huntington Beach was
12 somewhat complicated, technically?

13 MR. PINJUV: Your Honor, I'm going to
14 object to this line of questioning as being out
15 of the scope. I don't believe this was covered in
16 our study. The Huntington Beach units have their
17 own unique characteristics.

18 I let this go on for a little while, but
19 I don't think it's relevant to the actual study
20 that we've done, assessing the alternatives to
21 the Puente Project.

22 MS. FOLK: Well, it goes to the issue
23 that there is an alternative that includes a
24 conversion of a synchronous condenser, and it's a
25 stand-alone conversion, which is more expensive

1 than doing a conversion of an existing unit. So,
2 that's why I was asking questions about it.
3 Because there's another example that we can look
4 at. I'm not trying to harass him. I'm just trying
5 to get more information about it.

6 MR. PINJUV: And I think that's fair
7 except for the fact that, I mean, the Huntington
8 Beach units have their own unique circumstances
9 and those are not necessarily at issue in this
10 case.

11 I think what is at issue in this case is
12 whether an SVC can meet the actual electrical
13 requirements of the grid.

14 MS. FOLK: Well, actually --

15 HEARING OFFICER KRAMER: Okay, hold on.
16 Let's adopt a new paradigm for handling
17 objections during this set of hearings. That an
18 objection will be stated and then we may offer
19 one opportunity for a response, but we won't keep
20 going back and forth, until we ask for more
21 information.

22 MS. FOLK: Okay.

23 HEARING OFFICER KRAMER: We'll have a
24 chance to think and perhaps issue a ruling, and
25 then go forward.

1 I think this illustrates what I suspect
2 is going to be one of the tensions today, which
3 is how deeply we are going to go into the facts
4 that support, or do not, some kind of alternative
5 design of the system in this area.

6 Just to set the ground, this all came up
7 because there was the potential that there will
8 be need to override some either law
9 inconsistencies, or environmental impacts.

10 And then the question is, is this project
11 needed? Because that is quite often a
12 justification for having -- yeah. And need is
13 kind of encapsulated in a phrase that's in the
14 Warren-Alquist Act with relation to LORS laws.
15 Called the public necessity and convenience, I
16 think. I actually have it written down here, but
17 I won't look it up. But that's need.

18 But what we want to be clear, as we tried
19 to be the other day, is that we are not here to
20 try to redesign the project to -- or, rather, the
21 electrical system in the area or to decide that,
22 you know, some other way of setting it up is
23 going to be the way going forward.

24 We're asked to give a yes or no answer to
25 a request for a permit for Puente. And as far as,

1 you know, procurement, approving the procurement,
2 that's in the hands of the California Public
3 Utilities Commission.

4 So, I think you've made your point, Ms.
5 Folk, that there are other technologies. And
6 Huntington Beach to some degree may be an example
7 of using synchronous condensers, temporary or
8 not, to bridge an immediate gap, if you will, in
9 the generation supply.

10 But getting further into the details
11 doesn't seem necessary at this point, so we'll
12 sustain the objection.

13 MS. FOLK: Okay. The reason I was asking
14 about it is because they did put a cost number in
15 there and I wanted to get at the fact that the
16 Huntington Beach conversion was much cheaper than
17 the cost number.

18 HEARING OFFICER KRAMER: Yeah, but then
19 we spend -- if we go down that road, then we have
20 to point out that the Huntington Beach, you know,
21 equipment might have been different, and we deal
22 with a lot of details that I'm not sure that
23 these witnesses are intimately familiar with. It
24 certainly wouldn't have occurred to them to study
25 that as a part of this study, I don't believe.

1 So, if you can move on to another topic?

2 MS. FOLK: Sure. So, can you tell me what
3 load shedding is?

4 MR. MILLAR: Load shedding would --
5 actually, I should ask if there's a particular
6 context.

7 MS. FOLK: Well, so one of --

8 MR. MILLAR: Because it's just as a
9 general term as well as more specifically at
10 times so --

11 MS. FOLK: I think I'm talking about it
12 as a general term.

13 MR. MILLAR: As a general term I would
14 refer to it as unplanned interruption of firm
15 load, other than a demand response program that
16 load shedding would be curtailing firm load.

17 MS. FOLK: And is demand response a form
18 of planned load shedding?

19 MR. MILLAR: I wouldn't normally consider
20 demand response to be a "load shedding".
21 Normally, when we use the term in the industry
22 it's firm load that's being dropped as opposed to
23 someone that's contracted and offered that
24 service into the market.

25 MS. FOLK: Okay. And if you're talking

1 about -- when you say firm load that's being
2 dropped that's what you mean when you said load
3 shedding?

4 MR. MILLAR: Yes, something that's not
5 demand response and contracted to drop that load.

6 MS. FOLK: Okay. So, it's my
7 understanding that the power's not just turned
8 off, but that there's a process for implementing
9 firm load drop. Is that correct?

10 MR. MILLAR: I'd have to ask you the
11 specifics because -- I'd have to ask the
12 specifics because some load shedding occurs under
13 all sorts of different processes.

14 MS. FOLK: Okay. In Scenario 2 there's a
15 discussion in the CAISO study that it may require
16 load shedding. And is it true that this load
17 shedding would only occur when the LCR
18 contingency is triggered?

19 MR. MILLAR: Well, our studies assume --
20 from the study perspective, yes. In real life --
21 well, let me back up. Our studies assume a
22 certain set of events based on a certain set of
23 conditions and assuming that everything else in
24 the system is operating perfectly and operates
25 exactly the way it was planned to.

1 In those study circumstances the load
2 shedding would only occur for these
3 contingencies.

4 MS. FOLK: And that would be on the
5 hottest day in ten years, that's the LCR's
6 standard.

7 MR. MILLAR: From the study perspective,
8 yes. It would take a fairly high temperature,
9 high load, for that to occur. Agreed.

10 MS. FOLK: Okay.

11 MR. MILLAR: Yeah, Mr. Yimer was just
12 reminding me it doesn't have to be at the full
13 one-in-ten peak. There are other load levels, but
14 it does require a higher load level for the load
15 shedding to be a risk.

16 MS. FOLK: Okay. So, I don't know if
17 you'll know the answer to these questions. If
18 not, just let me know.

19 So, are you familiar with the Encina
20 facility?

21 MR. MILLAR: Somewhat.

22 MS. FOLK: And can you tell me what it
23 is?

24 MR. MILLAR: Are we referring to the gas-
25 fired power plant?

1 MS. FOLK: Yes.

2 MR. MILLAR: It's a gas-fired power plant
3 in San Diego.

4 MS. FOLK: In Carlsbad?

5 MR. MILLAR: Yes.

6 MS. FOLK: Okay. And is it expected to be
7 replaced with the Carlsbad Energy Center?

8 MR. MILLAR: Yes.

9 MS. FOLK: And are you aware that when it
10 was -- it was expected to comply with the OTC
11 deadline and be retired by December 31st, 2017?

12 MR. MILLAR: Yes.

13 MS. FOLK: And are you aware that the
14 State Board extended the retirement date for
15 Encina to December 31st, 2018?

16 MR. MILLAR: They have provided an OTC
17 compliance extension to that date.

18 MS. FOLK: Okay. And do you know why that
19 happened?

20 MR. MILLAR: Yes. The reliability
21 requirement was such that the technical committee
22 that was formed under part of the OTC compliance
23 recommended the extension to ensure reliability
24 in the area, due to the delay of the in service
25 of the Carlsbad facility.

1 MS. FOLK: All right, it had to do with
2 the delay of bringing the Carlsbad Energy Center
3 online?

4 MR. MILLAR: Yes.

5 MS. FOLK: And the Carlsbad Energy Center
6 is a gas-fired power plant, is that correct?

7 MR. MILLAR: Yes.

8 MS. FOLK: Okay. So, I just have a couple
9 more questions and this goes to the energy
10 efficiency piece of the -- I guess it would be
11 the base case scenario.

12 And it's my understanding that Edison had
13 already identified 15 megawatts of energy
14 efficiency resources that could be procured in
15 the Moorpark area. Do you know where that 15
16 megawatts comes from?

17 MR. MILLAR: I don't have the specifics
18 with me.

19 MS. FOLK: Okay. But that amount was not
20 included in the CAISO base case, is that correct?

21 MR. MILLAR: There is additional
22 achievable energy efficiency included in our
23 study and that is larger than 15. And we
24 considered, in discussions with Edison, that the
25 15 megawatts would reasonably be part of that

1 larger AAEE amount.

2 MS. FOLK: But it's not included in the
3 base case?

4 MR. MILLAR: I'm confused by the question
5 because AAEE is included in our modeling.

6 MS. FOLK: Okay, in your load assumption?

7 MR. MILLAR: It's not a procured
8 preferred resource.

9 MS. FOLK: Yeah, okay. I understand,
10 yeah. Sorry. That's all I have.

11 COMMISSIONER SCOTT: Before we go on to
12 the next set of questions, I just wanted to
13 recognize that we've been joined by a few folks.
14 We've been joined by Intervenor Shana Lazerow,
15 from CEJA.

16 We have also been joined by Dr. Grace
17 Chang from FFIERCE.

18 And our Public Adviser, Eunice Murimi is
19 there in the back of the room. And she can get
20 blue cards to anyone from the public who would
21 like to make a comment. So, Eunice can you wave
22 at us so that people can just see who you are and
23 where you are. There she is.

24 And I'd also like to note that we've been
25 -- on our state, local and federal officials, we

1 have been joined by Mayor Pro Tem Carmen Ramirez,
2 as well. So, welcome. Good morning.

3 Yes?

4 AUDIENCE MEMBER: Would you please ask
5 the gentleman speaking on behalf of CAISO to
6 speak louder or pull his microphone closer?
7 (inaudible)

8 COMMISSIONER SCOTT: Sure. So, the
9 acoustics in this room, as you all know, are not
10 the best. So, if you can get right up in the
11 microphone, if you sound really loud to yourself
12 then you're probably at the right volume for
13 people to hear you.

14 So, if everyone can please get up close
15 and talk loud that will make our members of the
16 public very happy.

17 Go ahead.

18 MS. LAZEROW: Sorry, Shana Lazerow. I was
19 on the WebEx for the first half-hour and it was
20 almost impossible to hear anyone. When Mr. Kramer
21 started talking I unmuted myself and tried to
22 indicate that we couldn't really hear.

23 COMMISSIONER SCOTT: Okay.

24 MS. LAZEROW: So, I don't know if it's
25 possible to generally turn up the sound on the

1 WebEx, but I hope I won't be repeating questions
2 that Ms. Folk asked you. I couldn't really hear
3 the questions or the answers.

4 MR. MILLAR: Okay.

5 COMMISSIONER SCOTT: Okay, great. Let me
6 turn this back over to Paul Kramer.

7 HEARING OFFICER KRAMER: Okay, any
8 questions from staff at this point?

9 MS. WILLIS: No.

10 HEARING OFFICER KRAMER: Okay, she said
11 "no." Her mic's not on, but she said "no" for the
12 record.

13 (Laughter)

14 HEARING OFFICER KRAMER: Next would be
15 the Sierra Club.

16 MR. VESPA: Thank you. Good morning. And
17 CAISO, thank you for the study and thanks for the
18 opening comments.

19 I first had a couple of questions on some
20 of the cost issues. And so, you had a stakeholder
21 call on June 30th to allow stakeholders to review
22 and comment on the draft scenarios, correct?

23 MR. MILLAR: Yes, we did.

24 MR. VESPA: And at that point in time
25 there was a slide and you had stated the study

1 would not include cost information, correct?

2 MR. MILLAR: Correct. And that's
3 consistent with what we also raised with the
4 Energy Commission when we first discussed the
5 study.

6 MR. VESPA: Right. And so you indicated
7 in your opening comments that at a certain point
8 in time you decided to do that. At what point in
9 time did you decide to include cost information?

10 MR. MILLAR: After the stakeholder
11 session and as we were grinding through the
12 results, we realized that the topping up strategy
13 was an effective strategy, but clearly left this
14 deficiency of no information about the
15 feasibility, overall, of the preferred resource
16 scenarios. So, we saw adding at least some high
17 level information as a necessary starting point.

18 MR. VESPA: And when you decided to
19 include cost why didn't you inform stakeholders
20 this will be included in the scope, and just
21 maybe allow a couple of days to get some input?

22 MR. MILLAR: With the timelines we were
23 working on there really wasn't an opportunity to
24 do that. We were literally working on this study
25 the day before it was filed.

1 MR. VESPA: Okay. And I'd like to just
2 look at the assumptions you did use. So, on page
3 24 of the study you cite to a CEC consultant
4 report dated July 2016, for the cost of PV and
5 battery storage, and the other resources,
6 correct?

7 MR. MILLAR: Yes.

8 MR. VESPA: And so can we pull up a TN
9 number on the screen?

10 HEARING OFFICER KRAMER: Yes. Amanda, if
11 you can make me the presenter. Is it an exhibit?

12 MR. VESPA: Yeah. Well, I filed all of
13 these things at the prehearing conference.

14 HEARING OFFICER KRAMER: Do you have the
15 number?

16 MR. VESPA: I have the TN number. Do you
17 want the exhibit number?

18 HEARING OFFICER KRAMER: Mine are sorted
19 that way.

20 MR. VESPA: I can figure that out.

21 HEARING OFFICER KRAMER: And going
22 forward, during the break if people have
23 documents they know they're going to want me to
24 project, if you could give me a list then I'll
25 get them queued up so we'll have a little bit

1 less delay having to do that.

2 MR. VESPA: Okay, well, this would be
3 Exhibit Number 4049. And I am going to go through
4 some of the subsequent exhibits, so 4050, and so
5 forth, as I question CAISO.

6 (Pause)

7 HEARING OFFICER KRAMER: Okay, which
8 page?

9 MR. VESPA: Well, I'm going to page 41 of
10 the document. I did want to confirm, I guess page
11 1, this is the report that you were referring to
12 in the footnote?

13 MR. MILLAR: Yes.

14 MR. VESPA: Okay, so if we go to page 41,
15 which is what the footnote cites to. And that's
16 41, like page 41, so it might not be the same
17 exact --

18 HEARING OFFICER KRAMER: Yeah, not even
19 close.

20 MR. VESPA: Okay, so this is it. And so,
21 I saw as I looked that up to see where you were
22 getting information, and then if look -- it's
23 hard to read. If you scroll down to the bottom of
24 this page? Yeah, so the source information for
25 this goes to a footnote 21, which is right there.

1 And that is citing to -- for the source of that
2 cost date is citing to a Navigant research report
3 published in the 3Q 2014.

4 I tried to find that online and that is
5 not a full cite. Do you have the full cite for
6 this study?

7 MR. YIMER: We have a copy of the report.

8 HEARING OFFICER KRAMER: Did we get where
9 we need to? You don't have to touch the mic, but
10 if you can get really close, it will really help.

11 MR. YIMER: We worked from a copy of the
12 report we had. We didn't pull it from a website.

13 MR. VESPA: So, you looked at the
14 underlying report from 2014 or you only looked at
15 this report?

16 MR. YIMER: We only looked at this
17 report.

18 MR. VESPA: Okay. Were you aware when you
19 looked at this report that the source of the data
20 was from 2014?

21 MR. YIMER: Yes.

22 MR. VESPA: So, you knew it was over
23 three years old when you put this cost
24 information in?

25 MR. YIMER: It was used in this 2016

1 study that was performed for, I believe, for the
2 CEC.

3 MR. VESPA: It was. But the supporting
4 analysis was for 2014 estimates.

5 MR. PINJUV: Objection, asked and
6 answered.

7 MR. VESPA: Okay. And did you think to
8 review more recent studies on costs of solar and
9 storage information when you were deciding what
10 amounts to use?

11 MR. MILLAR: We tried to look at what we
12 saw that was already being used by either the
13 Energy Commission or the Public Utilities
14 Commission relatively recently. So, while it
15 dated back to relying on 2014 work the fact that
16 it was being used relatively recently seemed to
17 be a reasonable starting point.

18 MR. VESPA: Okay, thanks. And on page 1
19 of your testimony you state that you developed
20 the alternative scenarios in consultation with
21 Southern California Edison or SCE, correct?

22 MR. MILLAR: Yes.

23 MR. VESPA: And did those conversations
24 include any sort of check on pricing to see if
25 maybe this information was even remotely within

1 the ballpark of the bids they were receiving in a
2 more general way?

3 MR. MILLAR: I don't recall circling back
4 to have a discussion about the costing at the
5 time. It was more what was available, what they
6 saw could reasonably be acquired.

7 MR. VESPA: Oh, so your conversations
8 were limited to the scenario amounts of
9 particular resources, not necessarily the cost of
10 those resources?

11 MR. MILLAR: That was the focus. I
12 honestly can't recall, in all of those
13 conversations, if costs were discussed or not.

14 MR. VESPA: Okay, so you don't recall
15 asking if the information that you used from a
16 cost perspective was consistent with what they
17 were seeing in recent RFOs?

18 MR. MILLAR: I don't recall that, no.

19 MR. VESPA: Okay. And these are estimates
20 for capital cost of the resource that you used,
21 correct?

22 MR. MILLAR: Yes.

23 MR. VESPA: And the service we're looking
24 for here is for local capacity, correct? In
25 other words we're looking to procure for local

1 capacity in the LCR?

2 MR. MILLAR: Yes.

3 MR. VESPA: Okay. So, it's the cost of
4 the local capacity that would be passed to
5 ratepayers, not necessarily the capital cost of
6 the resource, correct?

7 MR. PINJUV: Objection, I think that's
8 outside the scope of my client's knowledge.

9 MR. VESPA: Well, if you know?

10 MR. MILLAR: I think that depends too
11 much on the structure of how resources are
12 procured for me to give an answer at this time.

13 MR. VESPA: Okay. Well, is it CAISO's
14 view that when we evaluate the cost of a resource
15 for purposes of meeting local capacity need that
16 we should be looking at the cost of the capacity
17 or the total capital cost of the resource?

18 MR. MILLAR: I do think that generally we
19 have to look at the costs that will be ultimately
20 showing up to ratepayers.

21 MR. VESPA: Okay.

22 MR. MILLAR: The question is how far down
23 do you have to go into the analysis to ask the
24 question that we're trying to answer.

25 And as I indicated in my opening

1 statement, the question we were trying to answer
2 was whether or not the preferred resources were
3 feasible. We're not trying to conduct an actual
4 procurement exercise. We're trying to get our
5 foot against whether or not the costs are
6 prohibitive from a feasibility point of view.

7 We concluded they weren't.

8 MR. VESPA: Okay.

9 MR. MILLAR: So, we didn't see the need
10 to pursue the cost exercise further. One has to
11 take cost exercises as far as they need to,
12 depending on the question they're trying to
13 answer.

14 MR. VESPA: Okay, thank you. I want to
15 move on to some of the load assumptions, now.
16 Page 9 of your testimony you say you used the
17 one-in-ten year, 2022 Moorpark Subarea peak load
18 of 1,723 megawatts, which includes 72 megawatts
19 of AAEE. And you based this off of the CEC's load
20 forecasts.

21 So, can we pull up Exhibit 4050, it would
22 be the next one?

23 HEARING OFFICER KRAMER: What was the
24 number?

25 MR. VESPA: 4050. So, if we can move down

1 to the actual page. So, this is hard to read, but
2 this is the one-in-ten forecast you referred to.
3 And, of course, this does not actually have load
4 for the Moorpark area. It does have load for the
5 SCE service area of Big Creek Ventura.

6 So, did you just take a fraction of that
7 load to get to your Moorpark number?

8 HEARING OFFICER KRAMER: Isn't it part of
9 the Big Creek area or am I wrong?

10 MR. VESPA: It is. So, there's SCE, Big
11 Creek Ventura, and Moorpark is a subarea. So, I'm
12 just wondering what they did to get the Moorpark
13 number. Because you'll see here, for 2022, I
14 believe it says 3,768 megawatts for the entire
15 area. So, I just want to understand the
16 methodology.

17 MR. YIMER: So, the methodology in terms
18 of how we obtained the AAEE number or just --

19 MR. VESPA: No, no, right now just the
20 load. We'll do the AAEE next.

21 MR. YIMER: Yeah, so there is a flow
22 chart or a process diagram in our study report
23 that shows how these numbers are translated into
24 substation-by-substation load. And that is done
25 by Southern California Edison.

1 HEARING OFFICER KRAMER: You say that's
2 in your report? Could you tell us at which page,
3 so we can find it later, if we need to?

4 MR. YIMER: That would be on page 10.

5 HEARING OFFICER KRAMER: Thank you.

6 MR. VESPA: I saw that. I wasn't super
7 clear. I mean, did SCE give you this number? I
8 ran the numbers for this and so like the 1,723,
9 for example, is like 46 percent of the total Big
10 Creek. So, I'm just wondering if you took a
11 percentage cut from the Big Creek number to get
12 to 1,723, or how that worked?

13 MR. YIMER: Again, I think, you know,
14 this process diagram fully explains that. And
15 since SCE did it, it will be difficult for me to
16 get into that.

17 MR. VESPA: Okay. So, they told you it
18 was 1,723, basically. Because this is really
19 complicated, I mean.

20 MR. YIMER: It was more than in our base
21 cases that we used for this study.

22 MR. VESPA: Wait, I don't -- I'm a little
23 unclear. My question really is, you know, you
24 cite to this forecast. But, obviously, like the
25 Moorpark area isn't there. It's a smaller part of

1 Big Creek Ventura. So, it's apparently 1,723 is
2 around 46 percent of Big Creek Ventura. So, did
3 you just cut out the load based on the percentage
4 of load? I mean, how did you get to that number?
5 This flow chart doesn't really tell me how you
6 got the number. If SCE just gave it to you, fine,
7 but I'm just trying to understand what happens.

8 MR. YIMER: So, my understanding based on
9 this last box, on this diagram, the CEC applies a
10 ratio of adjusted CEC total load to adjusted
11 distribution total load, and then they multiply
12 by their substation load. So, they prorate I
13 think. They distribute the load based on a
14 proportion of each substation's load in terms of
15 the total system load.

16 MR. VESPA: Okay. And SCE just said -- I
17 mean, you didn't do this. SCE told you what it
18 was. I mean, that would be the answer.

19 MR. YIMER: Yes, SCE did that, yes.

20 MR. VESPA: Okay, so the 1,723.

21 MR. YIMER: And when we get base cases
22 what we do is we follow this process to make sure
23 that the total load more than in our base cases
24 match with what is presented in this CEC table.
25 And in this case it did match.

1 MR. VESPA: Okay. I don't want to get too
2 bogged down on this. Partly why I'm asking is I
3 was trying to figure out, for example, what would
4 be the peak load for Moorpark for like the one-
5 in-two year, for example. And so, this 1,723 is
6 like 46 percent of the Big Creek Ventura area.
7 So, would I just apply that same ratio to get to
8 the one-in-ten peak load for Moorpark, if you
9 were just scaling it down?

10 MR. PINJUV: I'm sorry, can you clarify
11 that question?

12 MR. VESPA: I'm just trying to
13 understand. You know, they obviously went through
14 a process to understand what the Moorpark area
15 load was from the original Big Creek number. So,
16 they got through this process and they got that
17 number. The number is a certain percentage of the
18 Big Creek total.

19 Could you apply that same percentage to
20 the other forecast year, like the one-in-two load
21 and have an accurate estimate of Moorpark one-in-
22 two load from the one-in-two Big Creek number?

23 MR. MILLAR: So, as Mr. Yimer indicated,
24 the methodology was to prorate the load based on
25 the relative share of peak loads already

1 experienced because we need to be able to model
2 the loads at individual busses. The voltage
3 collapse does depend on location of loads and
4 resources within the area. It's not a linear
5 thermal issue.

6 So, Edison followed this methodology for
7 this load. I don't think we would be aware of a
8 problem of using that same methodology for a
9 different peak, but that would have to be asked
10 of Edison in case there were any subtleties there
11 that we weren't aware of, specific to a different
12 load level.

13 MR. VESPA: All right, thank you. And
14 then, you had mentioned the 72 megawatts of AAEE.
15 Now, is that basically the low mid-AAEE forecast
16 applied to the Moorpark area?

17 MR. YIMER: Yes, it is a low mid.

18 MR. VESPA: Okay. So, I was trying to
19 then understand, you know, when you say low mid
20 what do you mean as compared to the mid case. And
21 the low mid case is conservative, correct?

22 MR. PINJUV: That adjective depends on
23 your perspective--

24 (Laughter)

25 MR. VESPA: Okay, let's not. You know,

1 let's move on.

2 Can we put up the Exhibit 4051? It's the
3 next one. And then go to page 58. This is the CEC
4 kind of more narrative demand forecast, and we
5 can go to page 58. And that's the actual, you
6 know, page of the document.

7 MR. MILLAR: I should explain. We only
8 have these documents by TN number, so that's why
9 there's a delay.

10 MR. VESPA: Oh, yeah.

11 MR. MILLAR: So, we wait to see the TN
12 number and then root for the document.

13 MR. VESPA: Oh, okay. I can say these by
14 TN number, instead, going forward, if that's
15 easier.

16 HEARING OFFICER KRAMER: Well, say both.

17 MR. VESPA: Say both, okay.

18 HEARING OFFICER KRAMER: Because for the
19 record, if somebody's trying to piece this
20 together they'll probably -- well, I'll certainly
21 be looking by exhibit number. So, selfishly
22 speaking.

23 MR. VESPA: Okay. So, I guess this now
24 gets to sort of the adjective of conservative or
25 not, but just for purposes of what low mid

1 assumes versus mid assumes, for example. This
2 outlines the difference between the low mid AAEE
3 scenarios and the mid scenarios. And, for
4 example, the low mid that you used does not
5 assume any additional Title 24 or Title 20
6 updates.

7 Are you aware of some of the differences
8 between low mid and mid?

9 MR. MILLAR: We're generally aware of the
10 differences. But I do need to be clear that to
11 the extent we could, we did this study on the
12 basis of the planning assumptions that were
13 arrived at by the Public Utilities Commission and
14 the Energy Commission for our annual transmission
15 planning processes. And that documentation
16 clearly directs us to use the low values for AAEE
17 for local studies because of the inherent
18 uncertainty of getting the location right on a
19 bus-by-bus basis.

20 MR. VESPA: Yeah.

21 MR. MILLAR: So, we're generally aware
22 but we aren't rooting through the detail of
23 saying we're excluding a particular component of
24 AAEE because of our judgment.

25 MR. VESPA: Yeah, I understand the

1 planning standards. I'm just trying to understand
2 what those assumptions mean and, you know, that
3 may indicate the potential for future procurement
4 availability. That's all.

5 MR. MILLAR: Well, I would refer you to
6 the Energy Commission and the Public Utilities
7 Commission in addressing the locational issue.

8 MR. VESPA: Okay.

9 MR. MILLAR: Which is the reason that
10 we're using a mid-forecast, but a lower level of
11 AAEE in our local capacity studies.

12 MR. VESPA: Okay. And none of the low
13 AAEE, or the mid in this particular scenario,
14 including the SB 350 doubling of efficiency in
15 their assumptions.

16 MR. MILLAR: Correct. And that's also
17 consistent with the direction we received from
18 the Public Utilities Commission and the Energy
19 Commission for all planning activities in this
20 planning cycle.

21 MR. VESPA: Okay, thank you. So, we'll
22 move on to a different topic. I appreciate that
23 response.

24 I want to ask you some questions about
25 thermal overload, now, and specifically Scenario

1 2. And so, on page 22 you say, "Unlike Scenario 1
2 and 3 and the Puente option the reactive support"
3 -- this would be the scenario where you do the
4 voltage support -- "does not help in reducing
5 loss of load through load shedding to avoid
6 thermal overload."

7 So, first, can you give a layman's
8 description of what thermal load is -- thermal
9 overload is?

10 MR. MILLAR: A thermal overload is where
11 we're moving more electricity through a high
12 voltage transmission line than its thermal rating
13 allows, which results in either the conductor
14 sagging to a dangerous level, violating clearance
15 standards, or damaging the conductor when it
16 cools by annealing the aluminum conductor.

17 So, there could also be limitations on
18 termination equipment, circuit breakers and
19 switches that can't handle that level of current
20 flow, as well.

21 So, any of those where we're moving more
22 power through a conductor than the thermal rating
23 of that equipment can tolerate.

24 HEARING OFFICER KRAMER: Couldn't it also
25 be transformers limited?

1 MR. MILLAR: Or transformers, any
2 equipment that's --

3 MR. VESPA: And so, let me give you kind
4 of my impression of it and see if I'm right. You
5 know, you have these N-1-1 contingencies so you
6 lose these transmission pathways, then. So,
7 you've got the remaining transmission pathways
8 that are still there and they can only safely
9 import so much power.

10 And so demand in your local capacity area
11 may be higher than what you can import, and what
12 your in-basin resources provide. And when you
13 have that imbalance that's where you start
14 getting a thermal overload. Is that about right?

15 MR. MILLAR: That's one scenario.

16 MR. VESPA: Okay. And the way of
17 correcting for a thermal overload would be to
18 reduce load in the in-basin area to below that
19 you can safely import and what is provided in-
20 basin?

21 MR. MILLAR: That's reasonable.

22 MR. VESPA: Okay. And, now, the voltage
23 collapse issue was the one where you have to set
24 it up pre-contingency, instantaneous upon the
25 second contingency, correct?

1 MR. MILLAR: Well, voltage collapse you
2 don't have time for operator action after the
3 initiating event. It's just a race of can your
4 protection equipment protect you faster than the
5 system collapses. And if you lose the race, the
6 whole area goes black. And if you're really
7 unlikely, which is why there are harsher
8 standards on voltage collapse, if you're really
9 unlucky it will cascade and take out a larger
10 part of the grid.

11 MR. VESPA: Okay. And then, the thermal
12 overload is a little bit different because you
13 have time before these things heat up so you can
14 react after the contingency?

15 MR. MILLAR: Well, we normally require an
16 automatic action as opposed to counting that the
17 operators can get around to deciding it. Because
18 if something's going wrong, we can't guarantee
19 the operators are just focused on that situation
20 at the time. So --

21 MR. VESPA: But the automatic -- oh, I'm
22 sorry.

23 MR. MILLAR: So, the criteria does allow
24 for load shedding for these more multiple events.
25 The minimum planning standard does require load

1 shedding or does allow for some level of load
2 shedding, and it's a question of can you protect
3 the equipment and wait until the event occurs.
4 Or, after the first event do you need to dump
5 load ahead of time to be ready for the second.
6 It's a case of how well the system is prepared to
7 protect for the second contingency.

8 MR. VESPA: Okay, but you -- I'm a little
9 confused by that. You could have an automatic
10 kind of load shed that you're not waiting for --

11 MR. MILLAR: Yes.

12 MR. VESPA: -- in place to be executed,
13 you know, upon if and when that second
14 contingency occurs. Correct?

15 MR. MILLAR: Correct.

16 MR. VESPA: So, here if you had the plan
17 in place, you have your N-1, you know, you're
18 getting ready. You have a plan in place to drop
19 load in the event of the second contingency, so
20 after your N-1-1?

21 MR. MILLAR: Yes.

22 MR. VESPA: Okay.

23 MR. MILLAR: And that's why we indicated
24 that while these various options meet the minimum
25 planning standard, they do provide different

1 levels of actual performance.

2 MR. VESPA: Right. And so what I wasn't
3 clear on was -- I guess my questions now are the
4 extent of the resource deficiency to address a
5 thermal overload. And so, I guess I wasn't sure
6 what the load-serving capability was for a
7 thermal overload under the N-1-1.

8 So, for example, I looked at page 36 of
9 your testimony, where you run some of the
10 numbers.

11 MR. MILLAR: Page 36.

12 MR. VESPA: And on column 5 there,
13 there's a load-serving capability number of 1,582
14 megawatts. But I wasn't sure if that was for the
15 voltage collapse, or for the thermal overload, or
16 if that would be sort of the -- you know, at what
17 point does -- where is the load level where you
18 have to start dropping under this scenario?

19 MR. YIMER: In this analysis we focused
20 on the voltage stability issue rather than the
21 thermal loading issue.

22 MR. VESPA: You know, I guess it's
23 important to understand the risk and the extent
24 of the load drop, and the hours it might occur.
25 And so, do you have any estimate of what load

1 would have to exceed to have to drop load in the
2 event of N-1-1, considering how much you can
3 import through your remaining pathways and what's
4 in-basin under the 290 you assume that's already
5 there and the 135 that you're assuming is
6 procured under Scenario 2?

7 MR. MILLAR: So, we did not attempt to
8 nail that number down precisely because we still
9 saw that it met the minimum planning standard
10 requirements, which meant both the reactive
11 support alternative or the battery storage
12 alternatives met the minimum planning standards.
13 And any further refinement of combinations could
14 take place later, if we end up in an RFO process.

15 MR. VESPA: Okay. Well, I'm going to ask
16 a couple more questions on this because I do
17 think it matters when you say, you know, the
18 reliability risk. What is that risk? What is the
19 consequence of that risk? You know, what all has
20 to happen to load shed and how much would you
21 have to?

22 So, I'd like to show you TN221080, which
23 is also Exhibit 4053.

24 HEARING OFFICER KRAMER: Did you say 53?

25 MR. VESPA: Yeah, 4053, I'm skipping one.

1 And I'd like to turn to page 18 of this
2 document.

3 Are you familiar with this? This is a
4 Moorpark study you did in 2013.

5 MR. MILLAR: I'm sorry, how did you
6 characterize it?

7 MR. VESPA: The study? Well, it's
8 looking at alternatives to, I guess, conventional
9 generation.

10 MR. MILLAR: Well, this document was
11 actually a framework we put out to help our
12 stakeholders understand how we were proposing to
13 explore using preferred resources or, as we said,
14 alternatives to transmission and conventional
15 general to address local capacity needs.

16 So, this was a very preliminary document
17 put out explaining how we were developing a
18 conceptual framework for exploring using
19 preferred resources.

20 It was the starting point in a
21 discussion, recognizing that I believe we're
22 still the only U.S. ISO that uses preferred
23 resources to mitigate transmission contingencies.
24 So, this was a preliminary document.

25 And we used the Moorpark load shape data

1 as an example of exploring this methodology
2 simply because we had it available at the time as
3 part of other study work.

4 MR. VESPA: Yeah.

5 MR. MILLAR: So, it wasn't a Moorpark-
6 specific study. It was a general framework
7 document that used that area as an example.

8 MR. VESPA: Okay. Well, it's very
9 fortuitous that you chose Moorpark. Because the
10 one thing I want to ask you about here is this
11 graph, which is the load curve for Moorpark on an
12 hourly basis. And this was actual data that you
13 had when you put this in?

14 MR. MILLAR: Yes.

15 MR. VESPA: So, I'm wondering, you know,
16 we talked about what would trigger thermal
17 overload, and you have to have demand exceeding
18 your import capability plus whatever you have in-
19 basin that's generating.

20 And you can see from here that, you know,
21 there's really no hour for example in the winter
22 or the spring where load goes above 1,000
23 megawatts.

24 So, if you had, you know, an N-1-1
25 contingency occur, and it happened to happen on

1 the --

2 MR. CARROLL: I'm going to object to the
3 -- I mean, I've been very quiet. But the form of
4 these questions that are long soliloquys on Mr.
5 Vespa's part where he's essentially testifying
6 and then asking the witness to confirm the
7 testimony I don't think is appropriate. If
8 there's a question for the witness, you should
9 ask the witness the question.

10 MR. VESPA: I was about to finish the
11 question. I can do a couple different pieces of
12 that, if that's preferable.

13 HEARING OFFICER KRAMER: Okay. Well, why
14 don't you try to restate it. But can somebody
15 explain what the numbers at the bottom of the
16 graph mean?

17 MR. VESPA: Well, I could, but then I'll
18 be objected to by defining them.

19 HEARING OFFICER KRAMER: Well, maybe when
20 Mr. Millar answers your next question he can add
21 that in.

22 MR. VESPA: Okay. So, my understanding of
23 this graph, and you can confirm, is that this is
24 the load shape for Moorpark on a seasonal basis,
25 looking at the number of hours per each season

1 where load exceeds certain numbers. Is that
2 correct?

3 MR. MILLAR: Well, yeah, the load
4 duration curve, and maybe just to explain the
5 graph, first. The load duration curve basically
6 takes all of the load levels on an hourly basis,
7 experienced over a period of time, and sorts them
8 from high to low. So, those are load levels
9 experienced, just sorted from high to low.

10 Normally, you'd see a load duration curve
11 cover an entire year. So, there would be one line
12 and the number would go out to 8,760 hours, or
13 84, if it was a leap year.

14 Here what we did was we took each of the
15 four seasons and did a separate load duration
16 curve, plotting the load levels in the area from
17 high to low for each season, separately.

18 So, the number of hours along the bottom
19 only go out to a quarter of a year, as opposed to
20 a whole year.

21 So, it's hours on the bottom, megawatts
22 on the Y axis.

23 Now, this data wasn't -- I honestly don't
24 recall. We were using generic load shape type
25 information. I don't recall what year of

1 information this was. We picked it up to use in
2 this paper that we started early in 2013. So, I
3 don't recall the vintage of the load shape or the
4 load duration curve. I don't know which year it
5 was representing, but it was data that we had.
6 Actual data that we had available at the time.

7 MR. VESPA: And do you recall, from the
8 CEC forecast we looked at earlier today, that the
9 one-in-ten forecasts are basically flat, or if
10 not, slightly declining year over year through
11 2026, for the Big Creek area?

12 MR. MILLAR: I think that's subject to
13 check. But I also have to point out that the load
14 shapes are getting modified through the years
15 because behind-the-meter generation would also
16 pull down some of those load levels. And how that
17 affects the seasonal graph versus the annual, I
18 don't know.

19 MR. VESPA: Okay. Is it your view that,
20 for example, and let's start with spring and
21 winter, given this data, if an N-1-1 contingency
22 occurred in those seasons, given where load is,
23 would you expect the need to load drop?

24 MR. MILLAR: I think we already indicated
25 we did not establish the precise level. So,

1 obviously, there's a higher risk of load shedding
2 in those two seasons than the others.

3 MR. VESPA: Yeah.

4 MR. MILLAR: But we started this by
5 saying we hadn't established a precise amount.
6 So, I'm not really comfortable guessing at the
7 amount based on some older load data.

8 MR. VESPA: Okay. I mean, this is --
9 under 1,000 megawatts is pretty low when you've
10 still got two 230 Kb lines going in. So, you
11 don't have any ability to estimate that?

12 MR. PINJUV: Asked and answered.

13 MR. VESPA: Okay. I'd like to go to --
14 this is actually an old document. It's Exhibit
15 4009. Well, I don't know if you'll have the TN
16 number because this is from a while ago. So, it's
17 215433-4.

18 MR. PINJUV: Just for the record here, my
19 witness would not have anything from prior to the
20 ISO study process. We have not reviewed prior
21 exhibits submitted in this proceeding.

22 MR. VESPA: I'm just going to ask a
23 general question and if he can't answer it, he
24 can't answer it. Otherwise, I'll ask SCE.

25 And I'd like to go to page, I think it's

1 25 of this document.

2 MR. CARROLL: I'm sorry, could somebody
3 please repeat the TN number?

4 MR. VESPA: 215433-4.

5 HEARING OFFICER KRAMER: Okay, this
6 document is obviously not 90 pages long so --

7 MR. VESPA: No, it's excerpts.

8 HEARING OFFICER KRAMER: Okay.

9 MR. VESPA: So, it's 25, page 25 of the
10 actual document. So you might go up a little bit.

11 HEARING OFFICER KRAMER: Well --

12 MR. VESPA: Is it not in there?

13 HEARING OFFICER KRAMER: Yeah, these are
14 all just the indices and then it goes right to --
15 unless it's out of order, it goes right to page
16 63.

17 MR. VESPA: Maybe try keep going. Maybe
18 try 25 of the PDF.

19 HEARING OFFICER KRAMER: Yeah, it's only
20 17 pages long.

21 MR. VESPA: Oh, well, we can move on.

22 So, you had mentioned earlier that the
23 contingencies would likely be triggered on high
24 demand days, correct?

25 MR. MILLAR: Yes.

1 MR. VESPA: Okay. And could you structure
2 -- if a resource is able to provide the LCR need
3 on high demand days, you know, and you have a
4 procurement structure that only requires
5 performance during high demand days, for example
6 the summer months, would that satisfy the LCR
7 need?

8 MR. MILLAR: Well, as we've established
9 in this methodology, we did look at whether or
10 not a suite of portfolios could meet the local
11 capacity need focusing on the voltage collapse
12 situation. So, I'm sorry, I'm not sure I
13 understood the question.

14 MR. VESPA: The question gets to, you
15 know, when the resource would need to be
16 available to provide capacity.

17 MR. MILLAR: Okay. So, the higher
18 likelihood of the need for the resource is during
19 the higher load hours.

20 MR. VESPA: Yeah.

21 MR. MILLAR: Agreed? And there is a load
22 duration curve for the area that shows that the
23 load does change quite a bit over the course of a
24 year.

25 Now, the one qualifier I just wanted to

1 pull back, and remind people, was that the local
2 capacity criteria is based on a study scenario of
3 assuming that everything else is in service,
4 everything else works exactly the way it's
5 supposed to, and a very specific contingency
6 occurs.

7 That does not mean that there won't be
8 other times of the year, perhaps during
9 maintenance outages, although those are scheduled
10 to the best ability to avoid putting more of the
11 system at risk. Or, at other load levels there
12 could be other combinations of outages or
13 construction outages that some other event also
14 requires us to call on the local capacity
15 resource.

16 So, if you're asking when it could be
17 called on, it could be called on at times other
18 than the standard that caused it to be put in
19 place.

20 And I have to admit most of my experience
21 with system disturbances have been at some
22 condition other than the actual peak load that we
23 studied and the idealized outage that we studied.
24 So, there's a difference between could you ever
25 call on it some other time versus what is the

1 standard to which you've determined what is an
2 acceptable level of resource.

3 MR. VESPA: Okay. And I wanted to go into
4 the planned outage scenario, which would
5 potentially be in place after an N-1-1. Now,
6 could a utility sort of direct that outage to
7 circuits, for example with less critical
8 services, when deciding how to have a planned
9 outage?

10 MR. PINJUV: Objection, outside the scope
11 of our testimony.

12 MR. VESPA: Okay. Just moving on, there's
13 been a discussion of the retirement of Elwood and
14 Mandalay 3. Now, before a resource can retire,
15 CAISO does a reliability assessment. And if it's
16 determined that it's needed for reliability it
17 can require it to stay online through the
18 capacity procurement mechanism, correct?

19 MR. PINJUV: Objection, this is also
20 outside the scope of our testimony.

21 MR. VESPA: Well, do you know the answer
22 to that.

23 MR. PINJUV: Objection still stands.

24 MR. VESPA: Well, you do have a scenario
25 that assumes Elwood is offline and Mandalay 3 is

1 referenced in the study, so it gets to some of
2 those questions.

3 HEARING OFFICER KRAMER: If they don't
4 know that's one thing. But, frankly, we would
5 appreciate their expertise, if they can provide
6 it.

7 MR. MILLAR: Yes, there is a review
8 before a facility retires and we do have
9 mechanisms to seek to retain that facility.

10 MR. VESPA: Okay, thank you. Just one
11 moment.

12 HEARING OFFICER KRAMER: Okay. And let me
13 just point out we're going to have a roundtable
14 later, so this isn't your only shot.

15 MR. VESPA: All right. Well, done for
16 now, thank you.

17 HEARING OFFICER KRAMER: Although, I fear
18 the implications of having said that.

19 (Laughter)

20 HEARING OFFICER KRAMER: Okay, next would
21 be CEJA, Ms. Lazerow.

22 MS. LAZEROW: Hi, good morning. My name
23 is Shana Lazerow, on behalf of the California
24 Environmental Justice Alliance. Thank you so much
25 for being here this morning. I know it's never

1 fun to be cross-examined. And we really
2 appreciate the time you took to do this study,
3 and we appreciate the study, itself.

4 Fortunately, probably for both of you,
5 Ms. Folk and Mr. Vespa asked most of my
6 questions. But I did want to follow up, first, on
7 the question of cost, and a little bit about the
8 process.

9 Well, I'll go ahead and ask you my cost
10 questions. So, you testified that you decided to
11 include your high level cost analysis after the
12 June 30th call, correct?

13 MR. MILLAR: Yes.

14 MS. LAZEROW: Did any representatives of
15 Southern California Edison discuss cost with you
16 prior to that decision?

17 MR. MILLAR: As I indicated earlier, when
18 we were discussing the base portfolios of what
19 could be procured, the 135 megawatts, I didn't
20 recall specifically what level of cost discussion
21 we got into. There must have been some, but just
22 by participating in all of those conversations, I
23 don't recall what level.

24 When we made the decision to add some
25 high level cost information after, I don't recall

1 any conversation with Edison about our sources.
2 I'll double check if Mr. Yimer -- Mr. Yimer
3 indicates, no, he wasn't involved in any such
4 conversation, either.

5 MS. LAZEROW: Thank you. And I would have
6 the same question with respect to communications
7 with any representative of NRG?

8 MR. MILLAR: No, I don't believe so. That
9 also wasn't an issue I canvassed with everyone
10 working on the study, but I'm not aware of any
11 conversations.

12 MS. LAZEROW: And with respect to any
13 representatives of the California Public
14 Utilities Commission?

15 MR. MILLAR: I'm not aware of any
16 conversations.

17 MS. LAZEROW: Did you have any
18 conversations about cost prior to making the
19 decision to include it with any representative of
20 the CEC?

21 MR. MILLAR: Not to my knowledge, no.

22 MS. LAZEROW: And, finally, have you had
23 any communications with the Governor's Office
24 about costs in this case?

25 MR. MILLAR: Not to my knowledge.

1 MS. LAZEROW: Thank you.

2 And so, you testified that with respect
3 to cost you looked at publicly available
4 documents. Did you have any conversations with
5 anyone outside of the CAISO, in addition to the
6 documents that you referenced in this study
7 regarding the cost of resources?

8 MR. YIMER: No, we did not.

9 MS. LAZEROW: All right, thank you.

10 Maybe I have one final question regarding
11 costs. In your Scenario 2, when you're
12 considering the active power, you say that the
13 results are independent of the source of MVARs.
14 Did you assess the costs of different sources?
15 So, you mentioned that they could have been
16 supplied by adding that capacity to batteries, or
17 from looking at a synchronous condenser and you
18 relied on the synchronous condenser, I believe,
19 for the cost estimate.

20 MR. MILLAR: For the cost estimate, we
21 referred to a static var compensator that has the
22 benefit of being a standalone device that we
23 could direct the procurement of and understand
24 the cost implication of.

25 We did acknowledge that there were other

1 potential sources of reactive power. And if we
2 moved down that path, we would expect that to
3 need to be explored.

4 The important part for us here was to get
5 our foot against some level of cost understanding
6 to see if the costs were such that we honestly
7 couldn't accept the alternatives as being
8 feasible.

9 When we saw that the costs did not, in
10 our view, render the alternatives infeasible, we
11 stopped. We didn't have a lot of time to do this,
12 but that's what we looked at.

13 So, we do acknowledge that there may be
14 other alternatives. Some of the battery inverter
15 discussion that we've received has been
16 definitely confusing at times. But we certainly
17 agree that recognizing we need both the megawatts
18 and Mega VARs at the same time that there can be
19 alternatives to get the incremental reactive
20 power out of an inverter, associated with a
21 battery.

22 MS. LAZEROW: Thank you. I can't imagine
23 any of this being confusing at times.

24 (Laughter)

25 MS. LAZEROW: I think there's been

1 extensive questioning about the role of the AAEE
2 assumptions. But I actually was confused about
3 one point. Were the low mid case AAEE assumptions
4 for the LCR for the Moorpark subarea that you
5 used for this analysis the same assumptions that
6 were used in the 2012 LTPP? Did I understand
7 that correctly or did I miss it?

8 MR. MILLAR: So, the scenario was the
9 same of using a low AAEE value representing the
10 uncertainty of location. But without checking,
11 I'd have a very hard time believing it's the same
12 number of megawatts.

13 MS. LAZEROW: All right, that might be
14 the source of my confusion. Thank you.

15 Let's see, you mentioned the assumption
16 of a 53 megawatt load shift and you based that --
17 that is, the report basis that number on the CEC
18 recommendation for previously approved projects.

19 And I wondered, the report didn't
20 identify any of those projects, do you know any
21 projects?

22 MR. MILLAR: The peak shift that we're
23 referring to is resulting -- the load
24 modification adjustment identified by the Energy
25 Commission, associated with behind-the-meter or

1 rooftop solar, not individual grid-connected
2 projects. So, we don't have that detail. That
3 information is rolled up by the Energy Commission
4 in their forecasting.

5 And maybe the term peak shift is creating
6 some confusion. When we refer to a peak shift,
7 we're assuming that the gross load or the
8 consumption stays the same, but instead of having
9 the peak emerge at some time like 4:00 in the
10 afternoon, if more customers connect behind-the-
11 meter solar generation, they're gross consumption
12 stays the same. The sales profile and what we
13 serve off the grid changes. That what have might
14 otherwise -- the gross consumption at 4:00 may
15 have been what we otherwise saw on the grid, now
16 we see a lower level of net sales from the grid
17 at 4:00. And what is now the peak load that shows
18 up at the substation is later in the evening.

19 So, our time of peak at that substation
20 has shifted. It's not that the load, itself, has
21 moved from one period to another, it's just when
22 we see the peak has shifted.

23 HEARING OFFICER KRAMER: But is the peak
24 amount the same level or is it a different level,
25 also?

1 MR. MILLAR: Well, that, we would
2 normally expect it to be slightly lower than the
3 -- to some extent lower than the original 4:00 in
4 the afternoon peak because of the effect of
5 behind-the-meter generation.

6 But then the question is how much lower
7 than that new 7:00 peak is the load throughout
8 the rest of the afternoon. And what occurs after
9 the peak is still without the benefit of the
10 solar generation.

11 So, you would expect some downward
12 pressure until the peak -- or, until the 4:00
13 peak equals the 7:00 peak. After that, more solar
14 generation won't have any impact on the peak load
15 the substation sees because it's already a peak
16 that's outside of the solar window.

17 MS. LAZEROW: Thank you. I may want to
18 come back to that when we talk as a panel. But I
19 think I understand what you're saying.

20 And I'm not quite sure about the
21 procedure for this, but I was very interested in
22 your testimony. I had noted to ask you to explain
23 what thermal overloads are and the comparison of
24 the Scenario 2 versus Puente Scenarios 1 and 3,
25 providing benefits to address loss of load,

1 because I hadn't seen that discussion in the rest
2 of the report.

3 And I don't know whether now would be the
4 appropriate time to make a motion to strike that
5 portion of the report as having no foundation. It
6 sounds from the testimony that, in fact, there
7 was no analysis of loss of load or the loss of
8 load contingency for this report. And I think
9 that was established by Mr. Vespa's line of
10 cross-examination.

11 So, I would ask to make that motion at
12 this time or when would be the appropriate time
13 to make it.

14 HEARING OFFICER KRAMER: Okay. So, can
15 you more precisely describe which portion you'd
16 like -- are you talking about their conclusion --

17 MS. LAZEROW: Yes.

18 HEARING OFFICER KRAMER: -- that Scenario
19 2 might result in some load shedding?

20 MS. LAZEROW: That is what I'm
21 discussing. On page 22 there is a sentence. It
22 doesn't actually conclude that it might result in
23 load shedding, it states that Scenario 2 lacks
24 the benefits of other scenarios in addressing
25 potential loss of load.

1 HEARING OFFICER KRAMER: And this would
2 be on the basis that they can't put a particular
3 value on the amount of load shedding?

4 MS. LAZEROW: In fact, I think that Mr.
5 Millar testified more extensively that they don't
6 have any information about the situation in which
7 load shedding would occur in the Moorpark
8 subarea. But, rather, that they're aware that it
9 could occur, that it is allowed in this
10 contingency.

11 HEARING OFFICER KRAMER: Well, we'd
12 certainly want all the other parties to be able
13 to ask questions about that ahead of time.

14 Mr. Carroll? Can you turn on Mr.
15 Carroll's mic? He's the far side, over here now.

16 MR. CARROLL: Thank you. Mike Carroll, on
17 behalf of the Applicant. I'll defer to the CAISO
18 to respond to the substance of the motion.

19 But I would point out that the Committee
20 orders directed that any motions, objections with
21 respect to the testimony, be filed as of last
22 Friday. This, you know, was not hidden within the
23 testimony. It's an issue that has a fair amount
24 of discussion about it in the testimony.

25 And so, if Ms. Lazerow had concerns about

1 it, then it would have been appropriate and
2 required that that motion be made last Friday.

3 MR. VESPA: I would like to add something
4 to this, also, at the right moment.

5 HEARING OFFICER KRAMER: I'm sorry, turn
6 on Mr. Vespa.

7 MR. VESPA: Yeah, I think the concern I
8 have and I think what Ms. Lazerow articulated is
9 the report does talk about a potential
10 reliability consequence with Scenario 2. So,
11 there could potentially be load shedding after an
12 N-1-1 event. And I had assumed, in preparing
13 questions that CAISO would be able to articulate
14 more fully, you know, what that risk is. In other
15 words, you know, how much load would you have to
16 have before you even need to load shed at all?
17 And, therefore, how much do you need to shed?
18 How much of an impact that would be? And what
19 are the odds of that occurring that you'd have an
20 N-1-1, you know, on those high load days?

21 And we haven't been able to get any
22 clarity on that, which makes it very difficult to
23 understand what, if any, added reliability issue
24 there is associated with Scenario 2.

25 So, that's the issue and that's ripe

1 right now because, you know, we haven't been able
2 to get any information of any granularity on it.

3 MR. PINJUV: Your Honor?

4 HEARING OFFICER KRAMER: Mr. Millar, did
5 you want to address the -- I think it's fair to
6 call it a criticism of your analysis?

7 MR. PINJUV: I was going to jump in right
8 now. And I was going to explain that, obviously,
9 our study, as explained in the study the Scenario
10 2, the SBC device provides reactive power. It
11 doesn't provide real power. The other scenarios
12 do provide real power, which mitigates any load
13 shedding. So, to the extent that they provide
14 real power, you don't have to shed load for that
15 amount.

16 I think that's explained in the study. We
17 obviously didn't quantify the exact number
18 because we haven't gone through the analyses.

19 And to Mr. Vespa's point, we have not put
20 odds on specific scenarios happening because
21 that's not a part of what we do in our analysis.

22 So, I will defer to Mr. Millar to see if
23 there's anything else he wants to add on the
24 substantive issues, but I do think that the
25 report supports the fact that the reactive -- the

1 SVC provides only reactive power. It doesn't
2 provide real power.

3 HEARING OFFICER KRAMER: Okay. Well,
4 we're going to deny the motion. You know, you've
5 made your point that it's unclear the degree to
6 which load shedding might occur. You know,
7 frankly, that's a question that occurred to us.

8 And the only thing -- so, we're going to
9 deny the motion.

10 The question having just been put very
11 clearly. Mr. Millar, did you have anything you
12 wanted to say in response to that?

13 MR. MILLAR: Yes. I think the other thing
14 I need to clarify is we were pushing back on
15 trying to identify, years in advance, exactly how
16 many megawatts and exactly how many hours of load
17 shed would be experienced.

18 There are so many parameters that affect
19 that between now and then that I felt we were
20 being challenged with providing an artificial
21 level of precision now, that no one could
22 reasonably provide.

23 What our studies have clearly
24 demonstrated is that thermal overloads would
25 occur under these scenarios, and we would be

1 talking about in the hundreds of megawatts of
2 load shed requirement under some of the scenarios
3 we studied.

4 So, that information does fall out of our
5 study results because we had to validate both the
6 thermal and voltage collapse situations to make
7 sure that these are viable scenarios.

8 The limiting condition was the voltage
9 collapse, so it gets most of the attention.

10 So, we are talking about material amounts
11 of load shed under these very extreme conditions.
12 They are permitted under the planning criteria
13 because they're a localized issue, and the
14 planning standards allow us to take those actions
15 under these relatively extreme, relatively
16 infrequent planning events.

17 We also, though, couldn't simply ignore
18 that there is that issue. So, our goal here is to
19 provide a complete picture. But we also were not
20 willing to be drawn into pretending that we have
21 an artificial level of accuracy that allows us to
22 be so precise five years into the future.

23 MR. VESPA: I just want to say I'm a
24 little concerned by part of that response because
25 Mr. Millar just stated it would require hundreds

1 of megawatts of load shedding, when I wasn't able
2 to get an answer about, you know, what can you
3 actually import and what do you have by in-basin,
4 to understand what the delta is. And is that
5 hundreds of megawatts in the one-in-ten peak?

6 You know, just some number. And, you
7 know, I had a slide up there showing winter and
8 spring, at least under that scenario was under
9 1,000 demand, and couldn't get an answer.

10 So, now we're hearing it's hundreds of
11 megawatts when I couldn't get a number about
12 around where we are. And it does matter in terms
13 of assessing risk and consequence for something
14 that already is extremely, extremely unlikely to
15 occur.

16 MR. CARROLL: Again, you know, if Mr.
17 Vespa wants to argue this in his brief, he's free
18 to do that. But the witness has testified and I'm
19 not sure what Mr. Vespa's doing now. He's not
20 asking a follow-up question. It's badgering the
21 witness or arguing his case, one of the two.

22 MR. VESPA: I'm not badgering the
23 witness. I just heard the witness say hundreds of
24 megawatts of load drop in the event of this
25 contingency. And I hadn't heard anything about

1 that in questioning or where that hundreds of
2 megawatts number came from.

3 HEARING OFFICER KRAMER: Okay, Mr.
4 Millar, do you want to explain?

5 MR. MILLAR: Yes.

6 HEARING OFFICER KRAMER: I mean, you did
7 just say hundreds of megawatts so --

8 MR. MILLAR: Yes, I did. And to be clear,
9 I've been trying to answer the questions that
10 were asked. So, being presented with graphs of
11 many years' old data, and asking the relevance I
12 was not able to deal with.

13 The analysis that we did, and that Mr.
14 Yimer did, focused on assessing were there
15 thermal overloads that we were observing in doing
16 the analysis? For cases that survived the
17 voltage collapse situation, we're able to look at
18 say, well, the line is being overloaded. So, it
19 would take about X megawatts of reduction to
20 alleviate that overload.

21 That's a little different than doing a
22 complete study to assess exactly the import level
23 into the area under various combinations, and
24 then applying a load duration curve to it.

25 We were testing these boundary

1 conditions. We observed the overloads, but we did
2 not take it into the full analysis. And so,
3 that's where my hundreds of megawatts comment
4 came from.

5 What we were being asked about earlier,
6 which is different, is to examine exactly the
7 thermal import limit and give a precise number of
8 the duration of hours that those limits would be
9 exceeded and we did not do that analysis.

10 So, that's the gap between having a high
11 level number of the worst case megawatts versus
12 the very detailed information I was being asked
13 to provide that we don't have available.

14 HEARING OFFICER KRAMER: And now, if you
15 were being asked to do a transmission study for a
16 new solar project in Thousand Oaks, you would go
17 into more details, probably, than you did --
18 regarding those issues, than you have done for
19 this study, correct?

20 MR. MILLAR: Yes. We are not trying to
21 pick the best alternative here. We were trying to
22 explore if there was a reasonable range of
23 preferred resource scenarios that were feasible.
24 And we saw them both being feasible. They do have
25 differences in performance that when an ultimate

1 decision would be made to pick between a
2 combination of resources, some of these issues
3 would have to be taken into account.

4 We knew that we wouldn't have that level
5 of information available here. But as I indicated
6 in my opening statement, we weren't trying to
7 identify and didn't consider it possible in the
8 time available to try to identify the optimal
9 combination of resources, especially when we see
10 that the cost information really requires an RFO
11 to get precise about the cost information,
12 anyway.

13 HEARING OFFICER KRAMER: Okay. Any more
14 questions, Ms. Lazerow?

15 MS. LAZEROW: Those were all my
16 questions, thank you.

17 HEARING OFFICER KRAMER: Ms. Belenky,
18 from the Center for Biological Diversity?

19 MS. BELENKY: Hello? Oh, yes, actually,
20 Kevin Bundy, on the phone, may have a few
21 questions. I think a lot of ours were
22 overlapping, so we don't want to repeat anything.

23 HEARING OFFICER KRAMER: Okay, can --

24 MR. BUNDY: Oh, thank you. This is Kevin
25 Bundy at the Center for Biological Diversity. And

1 I do think that pretty much all of our questions
2 were asked, already.

3 I just have a very, very general
4 question. Normally, the kind of thing you might
5 hear at the very beginning of testimony, but here
6 we'll do it towards the end.

7 I just wanted to ask the ISO's witnesses
8 whether you've discussed the substance of the
9 testimony that you're presenting here, today,
10 with anyone at the Energy Commission prior to
11 today?

12 And here, I'm talking about your oral
13 testimony today, not the written study.

14 MR. MILLAR: On the technical side, no. I
15 assume there was some procedural discussion that
16 our -- but I'll look to Mr. Pinjuv to see if
17 there was any procedural discussion. But I'm not
18 aware of any content discussion.

19 MR. PINJUV: This is Mr. Pinjuv --

20 MR. BUNDY: And he can clarify. I mean, I
21 understand that there are some e-mails in the
22 public docket about the procedural discussion.
23 But, yes, I'd appreciate hearing from Mr. Pinjuv
24 about that.

25 MR. PINJUV: This is Mr. Pinjuv. There's

1 nothing beyond what was on the record.

2 HEARING OFFICER KRAMER: Yeah, I docketed
3 the e-mail conversation I had with Mr. Pinjuv to
4 cause these gentlemen to -- well, to confirm that
5 they were going to be here. I think that they had
6 always --

7 (Laughter)

8 HEARING OFFICER KRAMER: -- they had
9 always planned. You weren't trying to get away
10 with not coming.

11 MR. PINJUV: That's not a question,
12 right?

13 HEARING OFFICER KRAMER: No.

14 (Laughter)

15 MR. BUNDY: And that's fair, now I'll
16 just ask the same question as to whether you
17 discussed the substance of the testimony. And I'd
18 say on the technical side, as Mr. Millar just put
19 it, with anyone at NRG or any of the
20 representatives?

21 MR. MILLAR: So, I haven't been involved
22 in any conversations with NRG. But it's a large
23 company. I can't speak on behalf of anyone else
24 at the ISO that's not here.

25 HEARING OFFICER KRAMER: And you deal

1 with NRG on many issues that are unrelated to
2 this case, I presume?

3 MR. MILLAR: Oh, yeah, I assumed we were
4 talking about this issue. I have -- I should
5 clarify, I have been in discussion with other NRG
6 staff about other issues, but not this, since we
7 completed the study.

8 MR. BUNDY: And again, I'm asking about
9 the testimony that you're presenting today, at
10 this evidentiary hearing on this study, not about
11 other projects.

12 I take it your answer is no?

13 MR. MILLAR: I'll let Mr. Yimer speak for
14 himself. But for myself, no.

15 MR. YIMER: I had one interaction with a
16 person from NRG and it was a question as to
17 whether, in our analyses, the contingencies were
18 already applied.

19 HEARING OFFICER KRAMER: And what was
20 your answer?

21 MR. YIMER: Yes, was my answer.

22 HEARING OFFICER KRAMER: Okay, thank you.

23 Dr. Chang, for FFIERCE, any questions?

24 Mr. Bundy, you were done, I gather,
25 correct?

1 MR. BUNDY: I was. Thank you very much,
2 appreciate it.

3 HEARING OFFICER KRAMER: Okay, Dr. Chang?

4 DR. CHANG: Yes, I just have two
5 questions. One is --

6 HEARING OFFICER KRAMER: Could you get
7 really close to the mic?

8 DR. CHANG: Yes. Is this good enough?
9 Even closer, really?

10 HEARING OFFICER KRAMER: And then don't
11 be soft spoken because you're close.

12 DR. CHANG: Okay, I just have one
13 question. If you wouldn't mind explaining, just
14 in lay terms, your statement that cost
15 information really would require an RFO, just in
16 lay terms?

17 MR. MILLAR: Well, putting it bluntly,
18 we've seen multiple sources of cost information.
19 We've seen other people already submitting cost
20 information alternatives into this proceeding.
21 It's all speculative until someone's actually
22 making a commitment to build a facility or
23 acquire a resource at a specific cost.

24 So, we can do all the research we want,
25 but we won't really know what the costs are going

1 to look like, especially in a fast-changing
2 industry, until there's actually a procurement
3 effort where someone's committing to deliver at a
4 certain cost. In simple terms, that's about it.

5 DR. CHANG: Okay, great. Thank you. And
6 this is going to seem like a disingenuous
7 question. So, I apologize. It's a genuine
8 question.

9 For the general public, if a member of
10 the general public would like to understand the
11 results of your study, given that all the experts
12 in the room have expressed that there is
13 difficulty in following some of the details of
14 these issues, is there a source within your
15 agency, or would you direct members of the
16 general public how to best comprehend the results
17 of your study?

18 MR. MILLAR: Well, at this time I think
19 the best explanation is both the study and the
20 earlier presentation on assumptions, and then my
21 opening statement.

22 I don't think there's an easier, one
23 single source to explain the different issues.

24 I would actually refer, though, anyone
25 that's interested in how we do these studies

1 overall to our annual transmission plan document.
2 The document, itself, is normally in the 700 page
3 range. But we do try to put a fairly concise
4 executive summary. And chapter one in that plan
5 lays out how we do the transmission planning,
6 where the assumptions are drawn from, and the
7 kind of issues we're dealing with.

8 So, those first two pieces of the annual
9 transmission plan do provide more of a general
10 discussion before you get into the heavy
11 analytics behind it.

12 DR. CHANG: Thank you.

13 HEARING OFFICER KRAMER: Okay. We're
14 about to take a break. But let me ask, did our
15 folks from Southern California Edison join us? I
16 don't see the names on the list.

17 Could we unmute everyone to see if
18 they're there? We're in the process -- okay, say
19 it again?

20 MS. REYES CLOSE: Hello? This is Tristan
21 Reyes Close, Edison counsel. And I have with me
22 Garry Chinn and Randir Sekhon.

23 HEARING OFFICER KRAMER: Okay.

24 MS. REYES CLOSE: There's a lot of
25 background noise.

1 HEARING OFFICER KRAMER: Yeah. I'm going
2 to talk to our audio folks during the break about
3 that.

4 Okay, so you're call-in user number 9,
5 let's remember that.

6 And so, we're going to take a 15-minute
7 break right now, and we'll be back to get started
8 -- well, let's make it -- let's go with 17
9 minutes, so 11:15.

10 MR. CARROLL: Mr. Kramer, when we return,
11 then is it your intention to go to Southern
12 California Edison or who will be up?

13 HEARING OFFICER KRAMER: What would the -
14 - does anybody have a preference? We could
15 certainly do that. I think that flows logically
16 because some of the questions that could not be
17 answered precisely related to the inputs they
18 gave to the study.

19 MR. CARROLL: I would agree.

20 MR. VESPA: Okay, but they're not
21 presenting. So, I didn't know if made sense to
22 have the opening comments from the panelists, to
23 have all that our there? Because I don't know if
24 SCE -- SCE is here to answer questions, not
25 necessarily introduce -- they have no testimony

1 to introduce.

2 HEARING OFFICER KRAMER: No, I don't
3 think they'll be presenting.

4 MR. VESPA: Yeah.

5 HEARING OFFICER KRAMER: But just for the
6 flow, you know, one of the reasons we have panels
7 is so that we talk about one issue as much as we
8 can, and exhaust it, and it just makes for an
9 easier read of the transcript, and easier for
10 everyone to follow it.

11 So, clearly those questions about what
12 they were thinking with those inputs seems like
13 the next logical thing to get to in this.

14 MR. CARROLL: And I'm not sure exactly
15 what Edison's plans are. I don't know that
16 they're not planning to make some sort of an
17 affirmative presentation. I don't know that they
18 are, but I don't know.

19 HEARING OFFICER KRAMER: We'll check with
20 them when we come back. And now, a real 15
21 minutes.

22 MS. FOLK: Well, I had one other thought,
23 which is whether it made sense, if the panelists
24 had questions of Mr. Millar, to do that first or
25 if --

1 HEARING OFFICER KRAMER: Okay, we already
2 went off the record.

3 (Off the record at 10:59 a.m.)

4 (On the record at 11:20 a.m.)

5 COMMISSIONER SCOTT: We're going to get
6 started. So, if you are one of our parties or one
7 of our witnesses, please come back to the table
8 so we can get going again.

9 Let me make sure that we are back on the
10 record with our -- excellent.

11 While we're waiting for people to come to
12 the table, let me just double check whether or
13 not we have been joined by Intervenor Sarvey. If
14 I could get you to just unmute the phones for
15 just one minute?

16 Okay, everyone is unmuted. Intervenor
17 Sarvey, if you are on the line, please speak up
18 and introduce yourself.

19 Okay, hearing nothing, I'll ask you to go
20 ahead and mute the lines, except for our parties.

21 And I will turn this back over to our
22 Hearing Officer, Paul Kramer.

23 HEARING OFFICER KRAMER: Okay. And so,
24 let me get the Southern California Edison folks
25 identified and sworn in. Can you hear us?

1 MS. REYES CLOSE: We can hear you. I want
2 to let you know that we're each on separate cell
3 phones, so because of the speaker phone issue.
4 So, I may be caller number 9, but we may want to
5 identify for you all where Mr. Sekhon and Mr.
6 Chinn fall on that list of numbers. So, do we
7 want to do a test? They can speak and you can
8 identify them, or I'm not sure how it works.

9 HEARING OFFICER KRAMER: Okay, so you
10 called in separately on cell phones, each of you?

11 MS. REYES CLOSE: Yes.

12 HEARING OFFICER KRAMER: Okay. So, yes,
13 can the other two witnesses -- I've misplaced my
14 sheet with your names. So, identify yourselves
15 and I'll figure out which ones you are, on our
16 list?

17 MR. CHINN: Hello, this is Garry Chinn.

18 HEARING OFFICER KRAMER: Okay, so that's
19 number 18. And then the other?

20 MR. SEKHON: Hello, this is Randir
21 Sekhon.

22 HEARING OFFICER KRAMER: Okay, so number
23 14. So, we need to keep open 9, 14 and 18.

24 So, if you could -- Ms. Reyes Close,
25 you're not going to testify, right?

1 MS. REYES CLOSE: I am not. I do want to
2 make a brief statement, but should I do that
3 after the witnesses are sworn in or now?

4 HEARING OFFICER KRAMER: Yes. And that's
5 not by way of testimony, but by way of process?

6 MS. REYES CLOSE: Yes, exactly.

7 HEARING OFFICER KRAMER: Okay. So, if
8 your other two gentlemen could raise your right
9 hand and I'm going to swear you in.

10 Do you swear or affirm that the testimony
11 you're about to give in this proceeding is the
12 truth to the best of your ability?

13 (Collective affirmations)

14 HEARING OFFICER KRAMER: Okay. Then let's
15 begin and have each of you, including Ms. Reyes
16 Close, spell your names for our court reporter.

17 So, go ahead, Tristan, first?

18 MS. REYES CLOSE: This is Tristan Reyes
19 Close. Sorry, can you hear me? I think I'm
20 getting feedback here. I don't know what that is.

21 Okay, so my name's Tristan Reyes Close,
22 spelled T-r-i-s-t-a-n. And then, R-e-y-e-s C-l-o-
23 s-e.

24 HEARING OFFICER KRAMER: Okay, next?

25 MR. CHINN: This is Garry Chinn. G-a-r-r-

1 y C-h-i-n-n.

2 HEARING OFFICER KRAMER: And finally?

3 MR. SEKHON: Yes, this is Randir Sekhon,
4 spelled R-a-n-d-i-r, Sekhon, S-e-k-h-o-n.

5 HEARING OFFICER KRAMER: Okay, thank you.
6 Go ahead with our statement, Ms. Reyes Close.

7 MS. REYES CLOSE: Thank you. I want to
8 let you know that SCE's witnesses won't be making
9 presentations today, for those who are wondering.
10 But they will be making brief statements
11 primarily for the purpose of identifying the
12 scope of issues they're prepared to speak to
13 today. And I ask that the parties respect the
14 scope of the issues identified by Mr. Chinn and
15 Mr. Sekhon. Thank you.

16 HEARING OFFICER KRAMER: Okay. Garry, why
17 don't you go ahead with your -- Mr. Chinn, with
18 your statement.

19 MR. CHINN: Sure. Again, my name's Garry
20 Chinn. I'm a Manager in the transmission planning
21 with the Southern California Edison. I've been
22 with the company for about 16 years. I'm here
23 today to answer questions regarding information
24 that we had provided to ISO in assisting them to
25 make their study.

1 We basically provided three areas of
2 information. The first one is the load forecast
3 that's in the case. ISO develops those cases for
4 ISO, we basically translate the PUC's forecast
5 into those cases.

6 The second area is the historical load
7 shapes. The ISO requested that we provide the
8 load shapes for those three substations located
9 inside the Moorpark subarea.

10 And the third area is the ISO's
11 interested in our experience in obtaining DERs,
12 and we provided similar historical information of
13 the level procured in other areas as a reference.
14 So, those are the three areas that we can answer
15 questions regarding. Thank you.

16 HEARING OFFICER KRAMER: Okay. One of the
17 things we wanted to follow up right away, we
18 understand you can all be available until 3:00.
19 So, we're going to eventually have a round robin
20 kind of panel discussion.

21 But to begin with, probably before you
22 came on the line there were some questions that
23 were asked of the ISO witnesses about the inputs
24 that you gave them to their study. And they
25 suggested that those questions would best be

1 asked of you. So, let me go around through the
2 parties and ask them to repose any of those
3 questions. And if they have a couple of other
4 brief questions for you that are along those same
5 lines, to ask those as well.

6 So, let's begin with staff, did you have
7 any?

8 MS. WILLIS: No.

9 HEARING OFFICER KRAMER: She says "no".

10 Ms. Folk, City of Oxnard.

11 MS. FOLK: Sure. And I believe my
12 questions would go to Mr. Chinn, though I'm not a
13 hundred percent sure.

14 So, good morning, Mr. Chinn.

15 MR. CHINN: Good morning.

16 MS. FOLK: I had some questions about the
17 base case scenario that is in the CAISO study for
18 each of the alternatives. And it's my
19 understanding, based on Mr. Millar's testimony
20 this morning, that Edison developed the base case
21 scenario. Is that correct?

22 MR. CHINN: Well, the base case contains
23 a lot of things. I think more specifically, we
24 put into the cases the load forecast that's
25 developed by the Energy Commission. I believe ISO

1 actually also used some of the information we
2 provided regarding the potential DER targets, as
3 well. So those two areas, in particular, we did
4 provide input to the ISO.

5 MS. FOLK: So, maybe I should be more
6 specific. Did Edison come up with the 135
7 megawatts that comprises the base case of
8 preferred resources?

9 MR. CHINN: That's 135 megawatts, you
10 said?

11 MS. FOLK: Yes.

12 MR. CHINN: We did provide some of those
13 numbers. I think the breakdown of the 135 is the
14 80 watts of demand response, 25 megawatts of PV,
15 and 30 megawatts of accelerating the slow DR.
16 Yes, we did provide those numbers.

17 MS. FOLK: Okay. And is there a reason
18 why each of the scenarios starts with this base
19 case of 135? In other words how did -- well,
20 I'll just leave it at that. Was that Edison's --
21 sorry.

22 MR. CHINN: That may be a better question
23 to answer by the ISO, but I'm going to suggest
24 that the ISO's is requesting we provide what's
25 available, potentially, in the area. And we

1 provided that potential. So, I think that
2 potential is kind of the foundation which the ISO
3 built off of. So, they added that piece as the
4 foundation and then they realized they needed
5 more, and they added other things to get to the
6 extent to which they met their reliability
7 requirements, and their LCR requirements.

8 MS. FOLK: Okay. And does the base case
9 scenario, the 135, does that include the battery
10 station, the Wakefield Battery Station in Santa
11 Paula?

12 MR. CHINN: Those are non-specific
13 numbers. They were actually -- these numbers were
14 derived from our experience with the preferred
15 resources pilots. We did not have actual data
16 regarding procurements; at least not recent data
17 for the area.

18 So, what we offered the ISO was the
19 actual procurements results from our most recent
20 procurements for DERs, and that was the preferred
21 resources pilot, which is centered around the
22 Johanna and Santiago substations. So, those are,
23 I guess, reference numbers. They're not
24 reflecting a specific project.

25 MS. FOLK: Okay. Okay, so you did not

1 include any specific projects from the Moorpark
2 area when determining that base case, is that
3 correct?

4 MR. CHINN: Correct.

5 MS. FOLK: Okay. And did you -- did
6 Edison look at any of the resources that were bid
7 into the Goleta RFO before it was suspended, when
8 coming up with the base case?

9 MR. CHINN: No, that was not provided to
10 the ISO because I think that's an ongoing
11 process.

12 MS. FOLK: And it's my understanding that
13 the 80 megawatts of demand response that's
14 included in the base case is really behind-the-
15 meter storage with batteries. Is that correct?

16 MR. CHINN: I believe that's how the ISO
17 modeled it, yes.

18 MS. FOLK: Is that how you provided it to
19 the ISO?

20 MR. CHINN: Yes, we did indicate that
21 that you stored would be an enabler of additional
22 DR.

23 MS. FOLK: I guess what I'm getting at is
24 that 80 megawatts, did you give that 80 megawatts
25 of demand response to the ISO as just a demand

1 response number or was it specifically behind-
2 the-meter battery storage?

3 MR. CHINN: We indicated that it was a DR
4 number that we would be expecting to use energy
5 storage to enable to reach those values.

6 MS. FOLK: Okay. Was it -- so, it's not,
7 actually. The number you gave to the ISO, did
8 that call for actual load drop or was it just
9 battery-supplied storage?

10 MR. CHINN: It was actual load reduction
11 in terms of -- yeah, in terms of the modeling, it
12 is a net reduction in load in the area --

13 MS. FOLK: Okay, when Edison gave this
14 number to the ISO, I'm just trying to figure this
15 out, was it exclusive -- was that 80 megawatts of
16 demand response exclusively grid-connected
17 resources or was it supposed to be just demand
18 reduction -- load reduction, sorry.

19 MR. CHINN: I think we described how that
20 DR could be obtained. In the model, itself, I
21 think it was just a reduction in the load in the
22 model.

23 MS. FOLK: Okay. And on the demand
24 response that's included in the base case
25 scenario, it's the 30 megawatts of what you refer

1 to as slow demand response in the Moorpark area.
2 Am I correct that this is demand response that
3 already exists in Moorpark?

4 MR. CHINN: That's correct. This is
5 existing demand response for the area that's
6 considered greater than 20 minutes.

7 MS. FOLK: And it was my understanding
8 that there's actually more than 30 megawatts of
9 existing demand response in the Moorpark area. Is
10 that correct?

11 MR. CHINN: At the time this case was
12 built that was the most recent data available at
13 the time the case was built. Which was, I think,
14 early 2017, late '16.

15 MS. FOLK: Early 2017, late 2016? I'm
16 trying to -- so, it was my understanding that
17 there's at least 45 megawatts of existing demand
18 response in the Moorpark area. And I'm just
19 trying to understand if that's correct or not,
20 currently?

21 MR. CHINN: Well, I guess I need a
22 reference to where's the 45 you're speaking of?

23 MS. FOLK: You don't understand that to
24 be that many?

25 MR. CHINN: What's that?

1 MS. FOLK: Is it your view that there's
2 not 45 megawatts of demand response existing in
3 the Moorpark area, currently?

4 MR. CHINN: Well, I can only speak to
5 what was in the case when we built it. When the
6 case was built, typically at that point in time
7 we would survey what's enrolled in the demand
8 response programs at that point in time. Demand
9 response is typically a program, and the amount
10 of megawatts in it can move around over time. So,
11 at the time this case was built, the 30 megawatts
12 was considered the slow DR.

13 If we poll the program in another point
14 in time, you would get a different number.

15 MS. FOLK: Okay. And then just to
16 confirm, when was the base case developed, then?

17 MR. CHINN: I think it was late 2016,
18 maybe early '17.

19 MS. FOLK: Was it developed specifically
20 for this study?

21 MR. CHINN: Are we referring to this
22 study that the ISO is presenting, now? It was
23 not. It was developed for the LCR study back in
24 early '17.

25 MS. FOLK: I'm sorry, it's very hard -- I

1 apologize. It's a little bit hard to understand
2 you and maybe it's the cell phone. But you were
3 saying it was actually the 135 was developed in
4 connection with your DER study of 2016. Is that
5 what I understood?

6 MR. CHINN: Let me back up. The 30
7 megawatts that was being, I guess, asked of, the
8 demand response, the slow one, that number was
9 developed specifically from the earlier study in,
10 I guess, early 2017. The totality of the 135
11 megawatts was developed specifically for this
12 study.

13 MS. FOLK: Okay, okay.

14 MR. PINJUV: Your Honor, I think my
15 witnesses can clarify an item.

16 HEARING OFFICER KRAMER: Can you turn on
17 Mr. Pinjuv? Try again.

18 MR. PINJUV: All right. I think my --
19 now, I'm on. I think my witnesses can clarify an
20 item regarding how this was studied.

21 HEARING OFFICER KRAMER: Are you open to
22 that, Ms. Folk?

23 MS. FOLK: Sure.

24 HEARING OFFICER KRAMER: Okay, great. We
25 want clarity here.

1 MR. MILLAR: Okay, thank you. Yes, there
2 are really just two issues I quickly wanted to
3 touch on. One is that when Mr. Chinn was
4 referring to a base case, that's a term we use
5 applied to a power flow model. So, the base
6 assumptions for the additional preferred
7 resources were called the base assumptions. But
8 I'm afraid when he was hearing base case, he's
9 talking about a power flow model that was
10 constructed from scratch some time ago.

11 So, there was just a little bit of
12 terminology confusion there.

13 But more importantly, I do want to
14 clarify that in our analysis the 135 megawatts
15 refers to 30 megawatts of slow DR that could
16 become effective to address voltage collapse by
17 having some batteries added to it.

18 Our analysis did include, without it
19 needing to be added to the 135, that there is 16
20 megawatts of fast DR that already works. Or,
21 sorry, 18 megawatts. My eyesight's failing. 18
22 megawatts of fast DR that is considered an
23 existing resource and it's taken advantage of as
24 an existing resource. So, there is more DR in the
25 area, but the amount that would be needing some

1 work to convert it to be effective was the 30.

2 So, that might be the source of the
3 confusion between this 45 number and the 30
4 number. But the 18 megawatts of fast DR that is
5 already there was relied on in Mr. Yimer's
6 analysis, in the study.

7 MS. FOLK: Okay, just to clarify --
8 that's helpful. I was trying to understand
9 whether there was actually more slow DR in the
10 area than the 30 megawatts.

11 MR. MILLAR: Okay, sorry. In that case I
12 misunderstood.

13 MS. FOLK: I'm not sure we know the
14 answer based on what I've gotten so far.

15 So, it's going to take me a second.

16 (Pause)

17 MS. FOLK: So, Mr. Chinn, when you were
18 evaluating demand response for the Moorpark area,
19 the 80 megawatts that you came up with was -- was
20 that number based on -- well, it sounded to me,
21 before, that that number was not necessarily
22 based on a specific analysis of the Moorpark
23 area, is that correct?

24 MR. CHINN: That's correct.

25 MS. FOLK: Okay, so --

1 MR. CHINN: We provided the most recent
2 procurement we had for something -- for DERs and
3 we referenced the preferred resources pilot,
4 which is a different area.

5 MS. FOLK: Okay. So, did you evaluate the
6 potential for demand response from large
7 institutions in the Moorpark area? For example,
8 from the Navy Base or U.C. Santa Barbara?

9 MR. CHINN: It was not a specific
10 analysis of the load in the region. We did do a
11 comparison between the preferred resources pilot
12 region against the Moorpark region. The
13 population is somewhat similar. The load amounts,
14 the peak load amounts, it's maybe a difference of
15 100 megawatts difference. So, the magnitude of
16 those differences weren't significant. So, using
17 our PRP as a reference, we extrapolated what was
18 available in the Moorpark area. But we did not
19 look at the details, what's inside the Moorpark
20 area, other than customer count and peak load.

21 MS. FOLK: Okay. Okay, so I'm not sure if
22 these questions will go to Mr. Chinn or Mr.
23 Sekhon. And they have to do to some extent with
24 the cost of some of the preferred resource
25 estimates that were in the CAISO report.

1 So, I'll start with you, Mr. Chinn, and
2 just ask if you were involved in the 2014 RFO
3 that led to the selection of the Puente Project?

4 MR. CHINN: I was.

5 MS. FOLK: And I understand that there
6 were some preferred resources bid into that RFO.
7 Is that correct?

8 MR. CHINN: That's correct.

9 MS. FOLK: And can you tell me anything
10 about the costs of those resources relative to
11 Puente?

12 MR. CHINN: I only know that the
13 magnitude of the procurement, with these 12
14 megawatts, I did not know the cost values --
15 Randir maybe better answer that.

16 MS. FOLK: Mr. Sekhon, do you know the
17 answer to that?

18 MS. REYES CLOSE: So, I'm not sure how we
19 should do this, but do you want -- Hearing
20 Officer Kramer, do you want one my witnesses to
21 go first and then the other, or how do you want
22 to do the questioning? Go back and forth?

23 HEARING OFFICER KRAMER: Well, what we
24 try to do, whenever we can, is if somebody's not
25 sure about who the question should be directed to

1 is they just ask the question and whoever has the
2 answer, or whomever answers it.

3 So, in this case either of them can
4 answer, or both.

5 MS. REYES CLOSE: Okay. Okay, thank you.

6 MR. SEKHON: So, this is Randir speaking.
7 So, from the perspective of the preferred
8 resources procurement that was executed back in
9 2014, yes there were preferred resources
10 submitted into the all source procurement
11 activity that we executed starting in 2013 and
12 concluded in 2014.

13 We had about 12 megawatts of preferred
14 resources bid in. They were equally split between
15 solar PV and energy efficiency. And, you know,
16 for the most part they were very cost effective,
17 cost competitive with the other resource that we
18 selected to meet the minimum requirements, which
19 was the Puente Project.

20 I can't go into details on the exact
21 pricing because that's confidential information,
22 but they were competitive and that's why we chose
23 all 12 megawatts of preferred resources to meet
24 the reliability need that existed then.

25 We were required to pick a GAs resource

1 at that time because there was not sufficient
2 preferred resource to meet the minimum
3 requirement of 215 megawatts, and so we picked
4 the most cost effective resource, which happened
5 to be Puente, which was also a brown field
6 resource.

7 MS. FOLK: I'm going to object to the
8 characterization of the Puente site as a brown
9 field. Just so you know, it's been identified as
10 coastal wetlands.

11 But in any event, we can move on.

12 (Laughter)

13 MS. FOLK: So, you can't -- are you able
14 to tell me what the cost of Puente is?

15 MR. SEKHON: No, again, that's
16 confidential information. I can't share that.

17 MS. FOLK: Can you tell me the operation
18 and maintenance costs of Puente?

19 MR. SEKHON: No, I cannot share that,
20 either.

21 MS. FOLK: And it's my understanding --

22 MS. REYES CLOSE: Ms. Folk, this is
23 Tristan. I mean, I've cautioned Hearing Officer
24 Kramer before these hearings that we cannot speak
25 to confidentiality on any issues that involve

1 confidential information because our information
2 is not protected at this forum and at this
3 hearing. So, I would ask you to please refrain
4 from asking information that you know will elicit
5 a confidential response or could. Thank you.

6 MS. FOLK: Well, the reason I ask is that
7 one of the issues here is the relative cost. And
8 there's a comparison being made between the cost
9 of preferred resources and the cost of Puente,
10 and so it's very difficult to make an assessment
11 of that if we don't actually know the cost of
12 Puente. But I understand.

13 And the reason I was asking was just to
14 make clear on the record that --

15 HEARING OFFICER KRAMER: Well, let me
16 jump in here for just a second. He did speak to
17 what I would characterize as the relative costs a
18 minute ago.

19 So, Ms. Reyes Close, is it acceptable to
20 speak in relative terms? For instance, of
21 significantly more expensive, or roughly
22 equivalent? Is that acceptable?

23 MS. REYES CLOSE: No, it's not. I think
24 what Mr. Sekhon was speaking to was cost
25 effectiveness. And so, that's different than

1 comparing or saying one thing is more expensive
2 or significantly more expensive than another. So,
3 I would ask him not to speak in those terms.

4 HEARING OFFICER KRAMER: Oh, not even in
5 terms of cost effectiveness?

6 MS. REYES CLOSE: He can say something is
7 cost effective, which he did. And, you know, we
8 can go down the line of questioning and he can
9 respond, and you can let me know if you want more
10 information or let them know, and we'll let you
11 know if we can provide it.

12 HEARING OFFICER KRAMER: Okay. So, could
13 he define, then, what he meant by cost effective?

14 MR. SEKHON: Yes. So, again, this is
15 Randir speaking. So, when I talk about cost
16 effective and sometimes I use the term cost
17 competitive because a lot of the procurement that
18 we get in LCR was really around cost competitive
19 around one offer being competitive with another.

20 Cost effective generally means that when
21 you're looking at the cost of the resource
22 portfolio that you've constructed that the cost
23 of those resources are sort of in line with each
24 other. That you're not paying a premium for one -
25 - you know, a significant premium, let's say

1 that, for one resource over another that they are
2 generally in line with each other.

3 For the Moorpark area, because we
4 executed an all sources solicitation, without any
5 restrictions in terms of minimum requirements or
6 any type of category of resource, it was a true
7 cost competitive type procurement.

8 And based on the resources that bid in to
9 us, I can say that all the resources were cost
10 competitive, and the renewable resources and the
11 energy efficiency resources that we procured were
12 cost competitive with the Puente Project.

13 We were required to buy the Puente
14 Project to meet our minimums.

15 Now, in contrast, we also executed a very
16 similar all sources solicitation for the L.A.
17 Basin at the same time. But in that solicitation
18 we did have minimum requirements set on us for
19 certain resource categories, including preferred
20 and storage.

21 Now, from that perspective, you know, the
22 cost competitiveness didn't play as big a role
23 because we had minimum targets to meet.

24 And so, when you do get renewable
25 resources, and storage resources bidding in to

1 solicitations where there are minimum
2 requirements, you do see, you know, that there
3 are some competitive resources that you would
4 say, yes, these are cost effective and cost
5 competitive. But because of those minimum
6 requirements you may go up the stack and procure
7 resources that you would say, if I had a true all
8 sources station, where I was just doing a
9 competitive analysis, I may not go as deep as I
10 would have gone.

11 HEARING OFFICER KRAMER: But ultimately,
12 components of your assessment of cost
13 competitiveness include capital costs, operating
14 costs, maintenance costs, is that fair to say?

15 MR. SEKHON: Yeah, so when we're looking
16 at the resources as we value them, we look at the
17 bid prices that are bid in. The bid prices
18 generally will contain the capital cost
19 structures of the developer. They will also
20 contain other parameters such as, you know, the
21 cost of financing, any risk premiums that they
22 see, the type of profit that they want to extract
23 from the deal and any other contingencies.

24 We then take that cost and assess it
25 against the value streams that will be generated

1 for the customer and those value streams can
2 range. If it's strictly a capacity-only product,
3 then the only value stream they're getting is the
4 reliability value stream in terms of capacity.

5 But if it's like, say, a full product
6 where we have full control, then we may be able
7 to extract energy rents ancillary service rents,
8 and other types of value from the assets. We do a
9 net present value calculations, so benefits minus
10 costs, and then we sort of rank projects based on
11 that sort of net calculation to determine, you
12 know, how far deep into the stack do we need to
13 go.

14 And then also, like I said, in some
15 procurement activity we have constraints put on
16 us that force us to go deeper into the stack
17 because of required minimums of some particular
18 category.

19 HEARING OFFICER KRAMER: Okay. And then,
20 ultimately -- this morning the ISO said that the
21 ultimate measure was the cost to the ratepayers.
22 Is that basically the way your calculations
23 focus, as well?

24 MR. SEKHON: Correct. Our calculations
25 focused on the net cost to customers. And

1 sometimes they're called ratepayers, or we call
2 them customers. But, yeah, it's really the net
3 cost to customers that we focus on. And so, in
4 order to calculate that net cost there's more
5 that goes into the calculation than just strictly
6 capital costs. Like I said, the capital costs are
7 just one component of any analysis in terms of
8 customer cost.

9 HEARING OFFICER KRAMER: So, Ms. Folk, go
10 ahead.

11 MS. FOLK: I think that's all I have
12 right now.

13 HEARING OFFICER KRAMER: Thank you.

14 Mr. Vespa, for the Sierra Club.

15 MR. VESPA: (Inaudible)

16 HEARING OFFICER KRAMER: Mr. Carroll, he
17 wants you to jump ahead of him in line.

18 MR. CARROLL: Sure. I just have a couple
19 of questions.

20 Mr. Chinn, this is Mike Carroll, on
21 behalf of NRG. And I wanted to follow up on some
22 of the questions that Ms. Folk asked you in terms
23 of how you developed the 135 megawatts as the
24 starting base case upon which the CAISO then
25 applied its scenarios.

1 And I believe that your testimony was
2 that you looked first to the results of the pilot
3 project that SCE recently conducted in Southern
4 California, and then did look at the Moorpark
5 subarea in a general way in order to do an
6 extrapolation from the pilot project data. Is
7 that correct?

8 So, I think you said you did not do a
9 detailed specific analysis of the Moorpark area,
10 but you did look at the general loads, perhaps
11 the CNI base.

12 Can you just, perhaps, explain again how
13 you extrapolated from the pilot project data to
14 the Moorpark subarea?

15 MR. CHINN: Sure. Using the reference
16 that we had, which was a procurement in Southern
17 California, we looked at that region in terms of
18 its peak load, in terms of its peak hours, in
19 terms of its population, in terms of its
20 breakdown in terms of customer classes. And we
21 compared that to the Moorpark region. So, we're
22 doing a fairly high level comparison between the
23 two regions to see if there are any differences
24 between the two regions.

25 And accounting for some of those

1 differences, we made estimates of what may be
2 available in the Moorpark area. That's an
3 extrapolation, basically, of the procurement that
4 we had acquired in the PRP area.

5 So, starting from what we knew from
6 recent procurements, and then running this
7 comparison between the two regions, in terms of
8 the characteristics, we made some estimates of
9 what the Moorpark potential targets for DER would
10 be.

11 MR. CARROLL: Thank you. And with respect
12 to the PV solar plus storage component of that
13 base case, you assumed 25 megawatts of capacity.
14 Do you know what was procure in the pilot project
15 in terms of that particular resource?

16 MR. CHINN: The actual procurement in the
17 PRP region was 10 megawatts. But given that
18 Moorpark was a little bigger, we went up to 25.

19 MR. CARROLL: Thank you. Those are my
20 only questions.

21 HEARING OFFICER KRAMER: Thank you. And
22 he's throwing it back to you, Mr. Vespa.

23 MR. VESPA: Okay, thank you. Matt Vespa
24 from Sierra Club.

25 Just to close the loop on the sort of PRP

1 extrapolation, when did the bids close for the
2 PRP 2 solicitation?

3 MR. CHINN: I don't have the dates, but
4 Randir may.

5 MR. SEKHON: Yes, so I can't completely
6 remember exactly when the bids closed, but it was
7 earlier this year, probably February/March
8 timeframe.

9 MR. VESPA: Wait, the PRP 2 in Orange
10 County? I'm talking about when did you stop
11 taking bids and then process the bids, prepared
12 your application and so on. I thought that was
13 quite a long time ago.

14 MR. SEKHON: Yeah, that would have been
15 back in 2016.

16 MR. VESPA: Okay.

17 MR. SEKHON: But again, I can't remember
18 off the top of my head. I'd have to -- if you can
19 give me a second, I can look that up while you
20 continue asking Garry some questions.

21 MR. VESPA: Okay. And that's the
22 solicitation you're talking about when you're
23 extrapolating from, right?

24 MR. SEKHON: That's correct.

25 MR. VESPA: Okay. Yeah, if you could

1 confirm that?

2 And then, from what I recall, that
3 solicitation did not allow behind-the-meter
4 resources that receive SGF, or self-generation
5 incentive program funds, to bid. Is that correct?

6 MR. SEKHON: So, this is Randir again.
7 Yeah, so we weren't allowing dual participation
8 in multiple programs. So, yeah, those particular
9 projects, to my knowledge, yes, they were not
10 allowed to bid if they were getting SGF funding.

11 MR. VESPA: And I saw, I was reviewing
12 the papers for the Goleta RFO, which you had
13 issued some months ago and have since sort of put
14 on hold, and that seemed to contemplate allowing
15 SGF projects to participate. Is that correct?

16 MR. SEKHON: Yeah, so we are still
17 working on the fine details of that. But, yeah,
18 the needs are very different. The Goleta need is
19 a resiliency need. Whereas the Moorpark area need
20 is a reliability need. So, they are two different
21 types of need.

22 And in the context of resiliency, we are
23 considering to allow SGF projects to potentially
24 bid in to sort of lower the total cost to
25 customers in meeting that resiliency objective.

1 MR. VESPA: Okay. But in the Goleta RFO,
2 the projects you would likely procure would be
3 able to meet the local capacity need or
4 contribute to the local capacity need in the
5 greater Moorpark area, as well as contributing to
6 this localized resiliency need in the Goleta
7 area, correct?

8 MR. SEKHON: It depends. Yeah, so some of
9 those projects may well be able to meet both
10 needs, but some of them may not. It depends on
11 how the offer is structured. If they don't meet
12 the minimum criteria for providing resource
13 adequacy, then they will not be able to meet the
14 larger Moorpark need. They will only be able to
15 meet the resiliency need in the Goleta area.

16 And then, as the CAISO study outlines,
17 the need has increased from a traditional four-
18 hour product, which was what our RA was defined
19 as, into these 9- and 10-hour buckets, which is
20 something new that we haven't really looked at or
21 evaluated before.

22 So, from that perspective I can't say,
23 guarantee that anything that we procure to meet
24 the Goleta resiliency needs will meet the
25 Moorpark needs.

1 In addition, some of the needs for
2 resiliency have sort of specific hours that we
3 have to meet and some of the products may be
4 targeting those hours for Goleta resiliency
5 perspectives. And those hours may not coincide
6 with the sort of peak RA or also LCR needs in the
7 Moorpark area. And so, those products may not be
8 a one-for-one mitigation. So, they may be a
9 fraction of a mitigation, but they won't be a
10 one-for-one mitigation.

11 So, you know, it's more complex than it
12 sounds.

13 MR. VESPA: And would you expect allowing
14 behind-the-meter resources that qualify or
15 receive SGF funding to both expand the potential
16 for BTM resources to bid and lower potential
17 capacity prices?

18 MR. SEKHON: Again, that's not a topic
19 that I'm prepared to discuss at this time. It's
20 ongoing discussions internally around whether we
21 even allow them for the Goleta resiliency
22 efforts.

23 MR. VESPA: Okay.

24 MR. SEKHON: I think from a reliability
25 perspective we'll have to look at that. But we

1 also have to look at what's already being assumed
2 in our forecast. So, generally, when we have
3 programs, such as the existing DR programs, or
4 the solar PV programs, or NEMIC Programs
5 (phonetic), or the SGF program, some level of
6 assumptions are already made for the types of
7 uptake we will see in those programs. They're
8 already embedded in our load forecast. So, the
9 whole rationale, if I'm excluding something like
10 SGIP was to make sure that we weren't double
11 counting things. And so, that would be a more
12 complex analysis that we would have to undertake.

13 MR. VESPA: Okay. And if you could just
14 let me know when the PRP applications or the bids
15 closed at some point that would be very helpful.

16 MR. SEKHON: Yeah, so the PRP bids came
17 in on February of 2016. The official submittal
18 deadline was February of 2016.

19 MR. VESPA: Okay. And there was -- you
20 were only looking in that procurement for I think
21 125 megawatts, right?

22 MR. SEKHON: We were looking for 100
23 megawatts and we ended up procuring 125
24 megawatts. And the reason for that is we don't
25 always get all of the projects that we're

1 contracting with actually delivering. We do have
2 a lot of termination sometimes.

3 MR. VESPA: So, when you extrapolated
4 from the results of the PRP 2 to Moorpark, were
5 you looking at the volume of bids you got,
6 considering you were looking for maybe a lower
7 target, or just the fact that you were procuring
8 125?

9 MR. SEKHON: Can you restate the
10 question? I haven't quite understood the
11 question.

12 MR. VESPA: Yeah, I'm just wondering, you
13 know, you had a smaller -- you were looking for
14 fewer resources, potentially, in that
15 solicitation, 100, you went with 125. So, I'm
16 just wondering when you sort of used that as a
17 way to extrapolate to Moorpark, did you look at
18 the fact that you were procuring 125 or did you
19 look more at the entire range of bids you had to
20 see sort of where the market was at that point in
21 time?

22 MR. SEKHON: I don't think I can provide
23 you a good answer for that. I mean, we looked at
24 the data that we received in the PRP RFO 2, just
25 to look at sort of the depth of the market

1 response we got for a targeted solicitation of an
2 area. And then from that we could extrapolate
3 what we potentially may get in the Moorpark area.

4 MR. VESPA: Okay.

5 MR. SEKHON: If we were to do some sort
6 of targeted solicitation there.

7 I think, you know, you, Matt, were part
8 of the LCR solicitation that was -- you know, we
9 ran it through all sources solicitations in the
10 Moorpark area. We did extensive outreach to the
11 community there for, you know, preferred
12 resources, storage, EE. We did a couple of
13 seminars and webinars. And we got very low
14 response in that initial LCR RFO.

15 Since then, we've continued to sort of
16 target the Goleta area for resources and, you
17 know, in all of our solicitations, the RPS, the
18 energy storage, even to some extent the broader
19 ACES RFO, which targeted the entire SCE
20 territory. We've always had a preference for the
21 Goleta area in all of our solicitations since
22 2014.

23 We really haven't had a very tremendous
24 response even with that stated preference for
25 that targeted area. It would be a smaller part of

1 the overall Moorpark.

2 So, we really haven't seen the
3 responsiveness that we saw in the
4 Johanna/Santiago areas, you know, through the
5 targeted PRP in any of the solicitations that
6 we've had, targeting, you know, resources in the
7 broader Moorpark or even the more targeted Goleta
8 area.

9 So, I think, you know, with all of that
10 information in hand, we tried to make a
11 reasonable estimate of what we could expect in
12 the Goleta area or the Moorpark area.

13 MR. VESPA: Yeah, okay. Thank you. And
14 I'll move on to some other topics.

15 So, I think as you mentioned the Moorpark
16 RFO, the original one was issued in 2013,
17 correct?

18 MR. SEKHON: Yes.

19 MR. VESPA: Okay, and then there's been -
20 - you've conducted a number of other RFOs since
21 then, including the Preferred Resource Pilot 2,
22 which you just mentioned, an energy storage 2016
23 RFO that included preferences for Goleta,
24 correct?

25 MR. SEKHON: Uh-hum, that's right.

1 MR. VESPA: And you've also done this --

2 MR. SEKHON: And the RPS station.

3 MR. VESPA: Yeah, and the RPS. And also,
4 you started a Goleta-specific RFP, as well, that
5 wasn't limited to storage?

6 MR. SEKHON: Yes, correct.

7 MR. VESPA: Okay. Have you observed price
8 declines in bid prices, in recent RFOs, from the
9 time of the Moorpark RFO in 2013?

10 MR. SEKHON: I can say, yes, we have
11 observed price declines. I will say that they're
12 not as significant as some of the comments that
13 I've seen sent back to the CAISO study. Yeah, and
14 that's purely because, yeah, while the individual
15 capital costs of the resources may be declining
16 there are other factors that go into that total
17 bid that's submitted to the utility when it runs
18 an RFO. And those things are financing risk,
19 contingencies, and then obviously the profit that
20 any developer is trying to extract.

21 So, yes, there have been price declines.
22 I can't say that they've been as significant as
23 some of the things that have been reported in
24 some of the comments that I've seen.

25 MR. VESPA: Okay. Is it your experience

1 that resources with multiple expected value
2 streams are able to bid less cost for local
3 capacity?

4 MR. SEKHON: I would say it depends. So,
5 yeah, the more value streams that you can sort of
6 monetize for yourself, generally you should be
7 able to bid a lower cost resource into any
8 solicitation. And depending on if you are
9 monetizing those value streams for yourself or if
10 you are selling those value streams to the buyer.

11 So, you know, thing of a traditional
12 tolling contract, which is how we generally
13 execute a storage asset or even a gas asset. In
14 those constructs, all of the rights of the asset
15 and the control of the asset is sold with the
16 asset.

17 From that perspective you wouldn't really
18 lower your bid price because of those monetizable
19 values. You would say, I'm going to value those
20 monetizable values and actually increase my bid
21 price because I'm giving those value streams to
22 the buyer.

23 Whereas if you were just selling a
24 strictly capacity product, and you were going to
25 keep all of those attributes for yourself, the

1 argument would be, yes, you should be able to
2 lower your bid price based on your expectation of
3 what those value streams is.

4 But then, once you start taking that
5 expectation of what you think those value streams
6 are, you then have to risk adjust for those value
7 streams.

8 So, I wouldn't say, you know, 100 percent
9 of that potential value gets transferred in the
10 bid price. But I would agree with your statement
11 that if there are multiple value streams to be
12 attained that should translate into a lower bid
13 price.

14 In reality, when you run a commercial
15 solicitation, you don't always see that. And, you
16 know, we get a range of offers. Some developers
17 do provide a greater level of sort of competition
18 or lower bid price, some developers don't. It's
19 all about how that developer forecasts that value
20 stream and what type of risk they place on that
21 value stream. So, it's not very easy to do those
22 cost (inaudible). And we see that in the bids for
23 the solicitations that we run. We see very wide
24 ranges in developer bids that we get for
25 solicitations.

1 MR. VESPA: Okay, thank you. And what is
2 the status of, I guess, the energy storage
3 project at McGrath Peaker?

4 MR. SEKHON: That's something that we are
5 evaluating. There is no approved project for
6 storage at the McGrath Peaker. It's something
7 that we are currently internally evaluating right
8 now.

9 And I think, you know, somebody else
10 mentioned something about another storage project
11 before, the Wakefield Project at Santa Paula. You
12 know, that was something that we executed through
13 2014 energy storage RFO. And then, we actually
14 tried to accelerate the development of that
15 project through our ACES RFO. That project has
16 terminated. It's no longer part of the SCE
17 portfolio. They weren't able to meet their
18 contractual obligations and so that contract is
19 not happening, as far as we're aware. Not under a
20 contract through SCE.

21 MS. FOLK: Can I ask a couple of
22 questions about that, the last two points you
23 made on McGrath and Wakefield Battery Station?

24 Mr. Sekhon, are you aware that the
25 Wakefield Battery Station project is actually

1 still -- the developer is still going forward
2 with that project and seeking approval from the
3 City of Santa Paula for the project?

4 MR. SEKHON: Yes, that's what I said, I'm
5 not aware of that. The contracts that they had
6 executed with SCE are not going forward. So, it
7 may be pursuing an alternative path or
8 alternative contracts with another party. But the
9 contracts that it had executed with SCE that had,
10 you know, online dates and commercial operation
11 dates, those have been terminated.

12 MS. FOLK: Okay. And you were not aware
13 that it is, in fact, still being processed as a
14 project?

15 MR. SEKHON: No, I would not have that
16 information.

17 MS. FOLK: And then on McGrath, are you
18 aware that Edison has actually met with the City
19 of Oxnard to discuss its application to do the
20 upgrade with the enhanced gas turbine technology
21 at McGrath?

22 MR. SEKHON: Yeah, so I'm aware we've had
23 conversations. But internally we have not reached
24 a final decision on that, so that's all I can
25 say.

1 MS. FOLK: Okay.

2 MR. VESPA: And then sort of the addition
3 of energy storage to McGrath, I mean this is
4 something you have successfully done to other
5 peakers in your service territory already,
6 correct?

7 MR. SEKHON: Yeah, so yeah that is
8 correct, Matt. We have executed enhanced gas
9 turbines at Center and Greatland sites in the
10 L.A. Basin as part of the ACES solicitation. And
11 so, they do provide reliability value to the
12 system, in the form of ancillary services is
13 where they provide that reliability value.

14 And the ACES solicitation was really
15 targeted at mitigating the Aliso Canyon gas
16 issues, and so it was basically lowering the gas
17 demand on the system. And from that perspective
18 the EGTs do meet that objective and they do
19 provide that resiliency and reliability.

20 But, you know, what we're talking about
21 here in the Moorpark area is an LCR requirement,
22 which is an all resource adequacy-based
23 requirement. And the EGTs don't provide
24 significant amount of resource adequacy. They do
25 provide a small amount, but they don't provide a

1 significant amount.

2 So, an EGT on a peaker provides, I think,
3 a megawatt or less of actual resource adequacy
4 capacity, but it provides significant resiliency
5 and reliability value through the provision of
6 ancillary services and it helps mitigate those
7 gas demand issues.

8 MR. VESPA: Right. I think --

9 MR. SEKHON: Which is what the ACES RFO
10 was targeting.

11 MR. VESPA: Thank you. I think one of the
12 issues here was the extent to which a small
13 amount of energy storage could enable a large
14 amount of slow response demand -- excuse me, slow
15 demand response.

16 MR. SEKHON: Yes.

17 MR. VESPA: So, you know, that would be
18 sort of an example where a little storage could
19 actually take you further in contributing to LCR
20 need, correct?

21 MR. SEKHON: Yeah, that's correct. I
22 think those are the value propositions that, you
23 know, we, at SCE, on behalf of our customers are
24 always looking for. Those small investments that
25 can unlock a large potential value. And I think

1 the EGTs are an example of that. And, you know,
2 unlocking the slow response, demand response that
3 exists on the system is another example of that.

4 MR. VESPA: Okay, thank you. And then I
5 just have a couple more questions.

6 HEARING OFFICER KRAMER: Let me break in,
7 though, before this thought ends. Could somebody
8 define what you mean by enhanced gas turbine,
9 EGT? Explain what's going on there?

10 MR. SEKHON: Sure, so I can try and make
11 an attempt at that, and so it's easy to
12 understand. So, what the enhanced gas turbine is,
13 is typically a traditional combustion turbine, in
14 order to meet the system requirements takes about
15 10 minutes to turn on and start up. Which means
16 that it's sitting there providing non-stream
17 services, non-stream ancillary services to the
18 market. And it can't instantaneously respond to
19 market signals.

20 By adding a very small battery device and
21 integrating that into the peaker's dispatch
22 algorithm or its control system, you can now have
23 that system, that combustion turbine sitting
24 there synchronized to the grid all of the time
25 and able to respond to signals immediately.

1 And so, it can now provide a sort of a
2 higher quality service, which is called spinning
3 reserves, which allow you extract higher market
4 value, but also to provide higher services to the
5 market.

6 And from the ACES perspective, the value
7 that it really provides is, you no longer have to
8 have a large combined cycle sitting there at P-
9 min., providing that spinning reserve capability
10 and then burning gas.

11 You can now have the peaker that's
12 instantaneously able to provide that spinning
13 reserve while it's burning no gas. It's sitting
14 there at zero, burning no gas. And because the
15 battery's there to turn on that first ten minutes
16 to help a peaker start up, and then the peaker
17 takes over after the first ten minutes. So, it's
18 a very small battery device that really only has
19 to provide power for that first ten minutes
20 before the gas turbine kicks on and provides the
21 rest of the capacity and energy that may be
22 needed.

23 And so, you know, how the EGT provides
24 value to the system and to market responsiveness.

25 HEARING OFFICER KRAMER: So, it looks

1 like a spinning reserve, but it only starts
2 spinning when you call upon it. And the battery -
3 -

4 MR. SEKHON: Yes, so it's always
5 synchronized to the grid --

6 HEARING OFFICER KRAMER: And the battery
7 makes up for the delay in it getting up to full
8 power.

9 MR. SEKHON: Exactly. And so, that same
10 proposition is what Matt was talking about with
11 slow response DR. So, you could deploy a slow --
12 a small battery unit that takes on that initial
13 response that you would expect from the DR, for
14 the first 10 to 15 minutes while -- because the
15 DR's going to come online in 30. So, that 10
16 minute gap just sort of close out. So, you can
17 have that battery provide that instantaneous
18 reduction in load while the other DR, the slow DR
19 is called upon. And once that's all up and
20 running you've got your total megawatts.

21 So, that's how that same sort of value
22 proposition works in the context of slow DR and
23 in the context of EGT.

24 HEARING OFFICER KRAMER: Okay, thank you.
25 And the reason I asked was in this case I needed

1 a refresher. But I'm trying to keep the
2 conversation at a level that people who are, you
3 now, not having the acronym soup that we use for
4 lunch everyday have a chance of keeping up, as
5 well.

6 So, go ahead, Mr. Vespa.

7 MR. VESPA: Okay, thank you. And we had
8 mentioned that you had conducted a recent energy
9 storage solicitation that had a preference for
10 Goleta, as well as the Goleta RFO.

11 MR. SEKHON: Uh-hum.

12 MR. VESPA: Could you -- depending on the
13 outcome of this case you have some bids, now,
14 that have bid into both of those solicitations.
15 Could you potentially move on those bids should
16 you need additional LCR resources, without having
17 to do a brand-new solicitation?

18 MR. SEKHON: I wouldn't say we could move
19 on those bids. So, those are just indicative bids
20 that we've received. We haven't done negotiations
21 on them. We haven't done full valuations on them,
22 especially the ones in the Goleta RFO.

23 Or even, we have the ESDD RFO, as well.
24 So, it was a DD portion that we targeted Goleta
25 and we had some offers there.

1 MR. VESPA: Okay.

2 MR. SEKHON: Ultimately, we suspended
3 that portion of the RFO.

4 We have, you know, some offers that are
5 part of the general 2016 ES RFO that we are --
6 you know, we're submitting an application on
7 soon, or it should be going out soon. And so, I
8 can't comment before that application gets
9 submitted on what those offers are, and who
10 they're with, or where they might be. But you
11 should see that soon.

12 MR. VESPA: All right, thank you. And
13 then, can you -- one of the issues in this case
14 is the provision of voltage support through,
15 potentially, a synchronous condenser that would
16 be either new or potentially siting on an
17 existing, you know, refurbished turbine.

18 What would be the solicitation process
19 for a synchronous condenser, for the approval
20 process to get one built?

21 MR. SEKHON: That might be another
22 question for Garry.

23 MR. VESPA: Okay.

24 MR. CHINN: Just based on history, there
25 hasn't been a solicitation program, per se.

1 Synchronous condensers are considered
2 transmission assets and they're basically
3 approved via the ISO process for transmission
4 planning -- when there is a voltage issue is
5 identified, and if a synchronous condenser is
6 selected as the mitigation, is approved through
7 the TPP, and the utility which the condenser is
8 sited typically builds them within one of their
9 substations.

10 MR. VESPA: Okay, so it's a CAISO-driven
11 procurement process or solicitation process,
12 correct?

13 MR. CHINN: Right.

14 MR. VESPA: Okay. Does it require any
15 kind of RFO or how do you determine -- or you
16 just decide what you're going to build?

17 MR. CHINN: I'm only describing my
18 understanding of the ISO's processes.

19 MR. VESPA: Okay, that's fine.

20 MR. CHINN: Based on my experience of the
21 condensers that we've been building in the last
22 couple of years.

23 MR. VESPA: Okay. And then one last
24 question. Earlier today we had talked about being
25 able to drop load, you know, fairly quickly after

1 an N-1-1 scenario to deal with thermal overload,
2 so there would be some kind of, you know,
3 preplanned readiness to drop the load.

4 Do you have an ability to identify areas
5 of the service area that you would want to drop
6 load on or how would that process work if you
7 were in a situation where you would need to drop
8 quickly if the second contingency occurred?

9 MR. CHINN: Relatively, the issue at hand
10 is the focus is really the voltage collapse,
11 preventing that from happening. Moving into the
12 secondary issue of the thermal overloads and the
13 load sheds associated with that.

14 That would require a separate study to
15 determine where the most efficient location would
16 be and then arming those areas in terms of adding
17 relays to trip those areas. But that would be a
18 completely separate study to identify those
19 specifics.

20 MR. VESPA: Okay. Thank you.

21 MR. CARROLL: May I ask a couple of
22 follow-up questions?

23 HEARING OFFICER KRAMER: Go ahead.

24 MR. CARROLL: This is Mike Carroll, on
25 behalf of NRG. And I just wanted to follow up on

1 a couple of responses that were provided to
2 questions from Mr. Vespa. And I believe it was
3 Mr. Sekhon who was speaking.

4 You made a general statement that not all
5 of the preferred resources that get contracted
6 for necessarily come to fruition. And then you
7 also referred to a specific example of a storage
8 project where the contract was terminated.

9 Can you explain what types of events
10 might cause a resource to not come to fruition
11 after it's been contracted for?

12 MR. SEKHON: Sure. Yeah, so some of the
13 things, the challenges that many developers face
14 and this is across the board for all developers
15 is sometimes, you know, permitting issues around
16 getting the appropriate permits to build the site
17 don't come in time, or just aren't given.

18 Interconnection issues can come up. As
19 new projects need to get connected to the grid,
20 if they're not using existing interconnections
21 and they're going through new interconnections.
22 As they go through the study process, there may
23 be significant upgrades that are needed to
24 interconnect them and those costs may be more
25 than what the developer had assumed in its

1 original bid and, therefore, they may choose to
2 not go forward with its transaction.

3 There are performance assurances that a
4 utility will take on behalf of customers to make
5 sure that projects have some skin in the game, so
6 to speak.

7 And as different milestones are met. Some
8 delivery date securities have to be posted.
9 Sometimes the developers aren't able to post the
10 appropriate amounts and, you know, they get
11 notified and they get a certain leeway in dates
12 on posting those amounts. But if they are not
13 able to post the appropriate amounts to meet
14 those performance assurance or delivery date
15 requirements, then they can also be terminated
16 for that.

17 So, there are many reasons why a
18 developer may not reach the end goal. You know,
19 the examples I've given are just some.

20 There can also be issues in the pipeline.
21 So, could they get hold of -- if they were solar,
22 could they get the solar panels at the cost that
23 they expected to get them at? Is there a
24 shortage in the market? Are the batteries
25 available at the cost that they thought, is

1 there's a shortage in the market?

2 So, there's many reasons why a developer
3 may not be able to get to the end state from when
4 it actually does get a contract with a utility.
5 And we have to take that into consideration.

6 We do that for multiple ways. So, you
7 know, requiring a higher level phase 2
8 interconnection study sometimes helps mitigate
9 some of those concerns. Requiring earlier
10 deposits helps mitigate some of the concerns
11 about the developer not having the financial
12 backing to move forward. Getting, you know,
13 earlier milestone indications. Having indications
14 of site ownership beforehand, before they submit
15 the bid.

16 These are all mechanisms that we use. And
17 then, ultimately, the viability screens that we
18 do on all developers. How much experience do they
19 have? Have they done this before? Have they
20 actually followed through? Have they fallen out
21 in the past? Those are all screens that we use
22 when we're doing -- when we're creating
23 portfolios to include how much margin do we need
24 to include in this portfolio? Do we have a lot
25 of risky bidders in the portfolio and, therefore,

1 do we need to buy a little bit more because we
2 have a riskier portfolio? So, those are all
3 considerations that we have to put into our
4 analysis as we develop these portfolios.

5 MR. CARROLL: Thank you. No further
6 questions.

7 HEARING OFFICER KRAMER: Okay, Ms.
8 Belenky?

9 MS. BELENKY: I don't think we have
10 questions that haven't been asked. But I would
11 like to let Kevin Bundy have a chance, as well.

12 MR. BUNDY: I think the questions have
13 been asked and answered, thank you.

14 MS. BELENKY: Thank you.

15 HEARING OFFICER KRAMER: Thank you.

16 Should I presume he's kind of your lead
17 for today?

18 MS. BELENKY: No, just under --

19 HEARING OFFICER KRAMER: Okay.

20 MS. FOLK: So, I did have one last
21 question.

22 HEARING OFFICER KRAMER: Okay.

23 MS. FOLK: Just one. So, could you tell
24 me what the cost of the conversion of the
25 Huntington Beach units to a synchronous condenser

1 was?

2 MR. CHINN: I don't know the answer to
3 that question. I don't have that information with
4 me.

5 MS. FOLK: Was it approximately \$10
6 million?

7 MR. CHINN: Yeah, I don't know.

8 MS. FOLK: Okay, thank you.

9 HEARING OFFICER KRAMER: Okay, Dr. Chang?
10 Okay, she said she had no questions.
11 So, Ms. Lazerow?

12 MS. LAZEROW: Thank you. Shana Lazerow on
13 behalf of CEJA. Good afternoon. Thank you for
14 taking a little bit of time with us today.

15 Mr. Vespa was asking some questions,
16 maybe before Edison got on the phone, about how
17 the number 1,723 was arrived at. And that number,
18 I guess was provided by SCE to CAISO. Did I
19 understand that correctly?

20 MR. CHINN: Yes, we had put that number
21 into the case, that's correct.

22 MS. LAZEROW: And so, did you arrive at
23 that? We saw the chart of the Southern
24 California or the SCE total area, subtracting
25 certain resources out. And I think the question

1 that was being posed was whether it would be
2 possible to take the percentage of the whole
3 area, the who service territory -- so, this is
4 applying to a one-in-ten load, whether we could
5 take that percentage and apply it to a one-in-two
6 load, or whether there was something specific to
7 the one-in-ten load that that calculation was
8 based on?

9 MR. CHINN: Yes, the process itself
10 involves allocating the Energy Commission's load
11 forecast and just aggregating it to the
12 substation level. That aggregation process
13 involves a specific allocation factor that is
14 based on which load forecast you're using. So, it
15 isn't a straight percentage translation from one
16 load forecast to another.

17 MS. LAZEROW: Okay, thank you.

18 MS. FOLK: Excuse me, I just want to
19 clarify. It is or it isn't a straight percentage?

20 MR. CHINN: It is not.

21 MS. FOLK: It's not.

22 HEARING OFFICER KRAMER: So, what are the
23 variables that you take into account?

24 MR. CHINN: The core variable is the
25 allocator, itself. The allocator is based on a

1 bottom up forecast of individual substations, and
2 those have different flavors of forecast, like
3 the one-in-two, or the one-in-five, or the one-
4 in-ten.

5 So, depending on which flavor we're
6 talking about, we're using a different allocator.

7 MR. VESPA: So, just to clarify let me
8 just provide some context. You know, I basically
9 looked at the SCE Big Creek Ventura load in the
10 forecast and then there was discussion about how
11 you got to Moorpark and it was a complicated
12 process. But, ultimately, it was around 46
13 percent of the Big Creek load.

14 So, what you're saying is I could not
15 roughly apply that same percentage to the one-in-
16 two or the one-in-five forecast to understand
17 what Moorpark load is under those scenarios or
18 the close-ish. I just was trying to understand,
19 you know, how Moorpark load changes under various
20 peak scenarios.

21 MR. CHINN: Yeah, I guess each of the
22 load forecasts, depending on whether you're
23 picking the one-in-two, the one-in-five, or the
24 one-in-ten, the specific substation behavior
25 under those particular risk levels would be

1 different.

2 So, to apply a uniform percentage across
3 the board for all of them would not be correct.
4 Since a more coastal area would behave
5 differently than the more inland area, or
6 substations with a lot of industrial load would
7 behave differently based on whether you're one-
8 in-ten or one-in-two. So, those variables are
9 being accounted for.

10 A straight percentage application across
11 the board would not consider those factors.

12 MR. VESPA: I mean, would your range be
13 like plus or minus 5 percent, or it could just
14 vary very wildly? You know, I'm just looking for
15 an estimate. It doesn't have to be precise.

16 MR. CHINN: I've seen it vary widely.
17 I've seen it within 5 percent.

18 MR. VESPA: Okay.

19 MR. CHINN: So, it's really hard to say
20 which one this is going to be.

21 MR. VESPA: We'll move on. Thank you.

22 (Laughter)

23 MR. VESPA: To something simple.

24 HEARING OFFICER KRAMER: Okay, this is
25 not balancing your checkbook, apparently.

1 MS. LAZEROW: Clearly. So, I wanted to
2 ask just a little bit more about the question of
3 how synchronous condensers arrive among us. And
4 we talked a little bit about the fact that I
5 guess the CAISO witnesses here, and I apologize,
6 I was on the phone for this line of questions, do
7 not have much experience with the Huntington
8 Beach question?

9 I'm sorry, I'm actually looking at Mr.
10 Millar. So, was the Huntington Beach conversion
11 to synchronous condensers conducted more as a
12 CAISO effort or was Edison more of the driver?
13 Does Edison have a role in conversation to
14 synchronous condensers?

15 I realize that was a series of about four
16 questions. But I'm not sure who to direct them to
17 and I wanted to make sure to get them out there
18 while we have Edison.

19 MR. PINJUV: I believe the line of
20 questions regarding the Huntington Beach
21 synchronous condensers were objected to by me and
22 the objection was sustained, I believe.

23 HEARING OFFICER KRAMER: It was getting
24 into the cost. Let's let her go a couple of
25 questions, too, because this sounds like it may

1 be useful background for everyone to understand
2 who -- I gather you're getting at who decides
3 that we need these things and how does it happen.

4 MS. LAZEROW: Exactly. So, one thing we
5 have established is that it's not via RFO
6 process, you know, that would go through the PUC,
7 through Edison.

8 MR. MILLAR: So, it's Neil Millar here,
9 with the ISO. So, just to clarify, the discussion
10 around "how synchronous condensers come to be,"
11 it's evolved over a few years.

12 But when we're talking about a new
13 synchronous condenser or static VAR device,
14 whether it's an SVC or a synchronous condenser,
15 generally -- and I'm sure there will be
16 exceptions I'll have to come back to. But
17 generally, the need for that kind of device would
18 be identified through our transmission planning
19 process. The transmission plan gets approved by
20 our Board of Governors.

21 Then, there's also a decision that's
22 attached to the plan which is, is it reasonably
23 viable for that device to be procured through a
24 competitive solicitation process, where the
25 facility does not have to be located inside an

1 existing substation or does it have to be located
2 inside an existing substation?

3 And this is all governed under our FERC-
4 approved transmission tariff for transmission
5 planning.

6 If it has to go inside an existing
7 substation or there's no real viable alternative
8 outside of the sub, in the area, then we assign
9 the project directly to the incumbent
10 transmission owner and they build. They move
11 forward as a regulated asset.

12 If there are reasonably viable options
13 for the facility to be developed outside of an
14 existing substation and connected similar to a
15 generator connected through a Gen-tie, then we
16 execute our competitive solicitation process to
17 pick an approved project sponsor to move forward
18 with that device.

19 And we have one of those type moving
20 forward right now through a CPUC permitting
21 process, the Suncrest SBC in the San Diego area.

22 The other devices to date have largely
23 been assigned to incumbent PTOs, either because
24 there wasn't an available option or it predated
25 the competitive solicitation process.

1 So, that's how a new reactive support
2 device that's identified as a transmission asset
3 would come into effect.

4 If we're looking -- if there's an option
5 for the reactive support to be provided by
6 something other than one of these transmission
7 type assets, such as oversizing the inverter of
8 some other, whether it's a battery or a solar
9 project. To use the inverter capability of the
10 device to provide reactive support, we would
11 expect that to go through part of a resource
12 procurement process and only use the transmission
13 backup if that wasn't viable or wasn't economic.

14 So, we do try to support preferred
15 resources to the extent we can. The ISO doesn't
16 approve other -- doesn't approve resources. We
17 only move forward with approvals of the
18 transmission backup.

19 Now, the Huntington Beach conversion to
20 synchronous condensers, that took place under the
21 development of a reliability must-run contract
22 with the ISO. So, the costs were established for
23 what it would take for AES to convert the unit,
24 the units I should say, from being generators to
25 operating as synchronous condensers.

1 As a reliability must-run unit there was
2 a multi-year contract established. And I have to
3 confess, I don't have the numbers off the top of
4 my head, so I don't remember the costs of
5 conversion or the annual RMR costs off the top of
6 my head.

7 But we put an RMR contract in place that
8 received a year-by-year extension as we validated
9 each year that we needed it for the next year.

10 And if we discovered we didn't need the
11 unit any longer, before the contract had run its
12 course, there were the termination provisions so
13 that the capital cost of doing the conversion
14 wasn't stranded.

15 Now, the capital costs that we're talking
16 about were of actually converting the unit into
17 synchronous condenser operation, which ultimately
18 involved the installation of a pony motor to spin
19 the generator up. Because basically what you're
20 doing is running the generator as a large motor
21 that doesn't have any load attached.

22 But you first have to get it up to
23 synchronous speed and then you have to have the
24 protection and control system sync that unit as a
25 motor to the system, and provide the necessary

1 protection and control.

2 So, the incremental cost was of a pony
3 motor and the protection and control changes, as
4 well as, obviously, decoupling the generator from
5 the turbine shaft. So, there's some work attached
6 to it.

7 I mentioned earlier that that was a stop
8 gap measure. When these units are converted from
9 synchronous condenser -- or, from generator to
10 synchronous condenser mode, they were designed as
11 generators, not as synchronous condensers. They
12 tend to be less efficient. They require more
13 energy to keep spinning than a stand-alone, new
14 synchronous condenser.

15 Also, in the case of Huntington Beach,
16 which I assume would be the case, but haven't
17 checked here, these generators were built with
18 various stages of cooling. You still need some
19 level of cooling to keep the generator from
20 overheating.

21 So, in the Huntington Beach case the
22 generators, operating as synchronous condensers
23 were still using approximately a quarter of the
24 cooling water they would have required as
25 generators, just because there were only four

1 stages of cooling built when the plant was first
2 designed, and you either had a stage on or off.

3 So, there are other factors that these
4 are -- they can work. The details require, you
5 know, engineering detail of the specifics.

6 They have some disadvantages compared to
7 a green field site. And I have to admit we're
8 very pleased to see that the Huntington Beach
9 units did us a great service. And as we move into
10 2018, we don't see needing them any longer.

11 So, that's a bit of background. But like
12 I said, I don't have the costs available off the
13 top of my head.

14 MS. LAZEROW: Thank you. That's very
15 helpful, to me at least, in understanding what's
16 going on with at least some of the proposed
17 scenarios. I appreciate that.

18 And I just want to make sure that my
19 notes, that I understood correctly what you were
20 saying. That in the case in which we would be
21 looking at a new synchronous condenser that that
22 would go through the TPP process.

23 And if we were looking at, say, using
24 inverter capability, expanded inverter
25 capabilities that would go through -- and I think

1 I didn't understand exactly what you meant. Were
2 you saying that would go through an Edison
3 procurement, like an RFO or something like that?

4 MR. MILLAR: Our first choice would be to
5 see these resources procured and the incremental
6 capability procured through an RFO process.

7 We cannot rule out also identifying, at
8 some point in the future, a battery as a
9 transmission asset. There's nothing that actually
10 precludes that. But that would be a duplication
11 of the local capacity procurement process.

12 So, we've actually, where we were talking
13 about something that's providing local capacity,
14 we've tried to avoid creating a confusing
15 parallel process to the existing utility local
16 capacity procurement process.

17 We might end up down that road in the
18 future, but we haven't been down that road, yet.

19 MS. LAZEROW: Thank you. I don't have any
20 other questions for Edison or about the
21 synchronous condensers for Mr. Millar.

22 HEARING OFFICER KRAMER: Okay. And I've
23 forgotten, did we already ask you, Dr. Chang, and
24 I think you said no, no questions?

25 DR. CHANG: No questions.

1 HEARING OFFICER KRAMER: Okay, she says
2 no questions.

3 Okay.

4 MR. VESPA: I forgot one thing, may I
5 ask?

6 HEARING OFFICER KRAMER: Okay, and then
7 we're going to break for lunch shortly, so let's
8 --

9 MR. VESPA: Okay, just Mr. Chinn, really
10 quickly, this has to do with the way you
11 extrapolated the base case from the PRP 2. The
12 Preferred Resource Pilot 2 had quite a bit of
13 thermal energy storage for those Ice Bear
14 projects, and I didn't see any of those types of
15 projects in the Moorpark base case. Why was that?

16 MR. CHINN: You mentioned thermal
17 storage?

18 MR. VESPA: Well, like the Ice Bear
19 projects, you know, kind of chill things at
20 night and then discharge cool during the day,
21 that type of resource?

22 MR. SEKHON: So, let me see if I can
23 address that for you, Matt. I don't think we were
24 being resource-specific in the base -- the 135
25 base that we developed for the Moorpark area. We

1 weren't looking at any particular type of
2 technology or type of resource and how it would
3 meet. It was just a general, you know, given our
4 experience with solicitations targeting a
5 particular area, and that was the PRP RFO, and
6 given our experience of our procurement
7 activities that we've actually executed in the
8 Moorpark area, and to some extent some things
9 that we'd launched in the Goleta area and other
10 RFOs that we've had a preference for Goleta, you
11 know, what type of responsiveness have we had?
12 What types of products do we think could work up
13 there?

14 And so, that was generally the nature of
15 us developing that base case. It wasn't, hey,
16 this resource could be very viable there.

17 The Ice Bear projects application, you
18 know, I think that could be subsumed in the 135.
19 It could be one of the DER products or EV
20 products that certainly comes out of that
21 process.

22 MR. VESPA: Okay.

23 MR. SEKHON: We don't know, we did not
24 receive, and we've never had any type of Ice Bear
25 projects product bid in, in that particular area.

1 The climate is very different there. So, you
2 know, it's not the same as the climate that we
3 have in the L.A. Basin.

4 So, I don't think -- we didn't do a
5 resource-specific type of analysis is the best I
6 can give you, I think.

7 MR. VESPA: All right, thank you.

8 HEARING OFFICER KRAMER: Okay, we're
9 going to break for lunch, 45 minutes rounded up
10 to -- so, let's be back here at 1:30, ready to
11 go. Thank you all.

12 MS. REYES CLOSE: Hearing Officer Kramer,
13 this is Tristan. Should our witnesses come back?

14 HEARING OFFICER KRAMER: Please. There
15 probably will --

16 MS. REYES CLOSE: After lunch, okay.

17 HEARING OFFICER KRAMER: Yeah, we'll fuel
18 ourselves and we'll probably come up with more
19 questions, and the Committee may have a couple as
20 well.

21 MS. REYES CLOSE: Okay, sounds good.
22 Okay, just wanted to know. Thanks so much.

23 MR. VESPA: Are we off the record?

24 HEARING OFFICER KRAMER: Yeah, we're off.

25 (Off the record at 12:43 p.m.)

1 (On the record at 1:30 p.m.)

2 COMMISSIONER SCOTT: Welcome back. We're going
3 to get going again.

4 I just want to ask our folks on the WebEx, if
5 you could please unmute the lines just for a moment, I
6 want to check to see whether or not we were joined by
7 Intervenor Bob Sarvey.

8 Bob Sarvey, if you are on the line, everyone is
9 unmuted, please go ahead and say hello and introduce
10 yourself.

11 Okay, just wanted to double check. Hearing
12 nothing, please go ahead and mute the folks who are not
13 planning to speak on the panel.

14 I also wanted to say hello again to our Public
15 Adviser, Eunice, who is over there in the corner. She is
16 waving at you. If you are a member of the public, we
17 don't have a ton here right now, and would like to make a
18 comment, please go to her. She'll give you a blue card.
19 You fill those out. She gets those up to us and that's
20 how we know that you would like to make a public comment.

21 All right. So now I will turn the conduct of
22 this hearing back over to our Hearing Officer Paul
23 Kramer.

24 HEARING OFFICER KRAMER: Okay. So we have
25 gotten our initial discussions with the ISO and Southern

1 California Edison completed, although there likely will
2 be a few more questions for them. So now we then go to
3 the -- hm?

4 MS. WILLIS: You might have to get closer too.

5 HEARING OFFICER KRAMER: Oh, no, I have the
6 sound in my ear. I am also becoming soft-spoken. I
7 apologize for that.

8 So we're going to go through the parties, the
9 idea being that we'll have a short initial presentation
10 if they desire from each of their witnesses. And then
11 after all that we will get into a general discussion.

12 Keep in mind that the ISO folks need to leave
13 about 4:00 and I think Edison wanted to leave at about
14 3:00 p.m. So 2:30 or so we'll check in about an hour and
15 make sure that we cover all the questions we have with
16 them. And I know that we may have a couple here from the
17 Committee as well.

18 So let's then begin with the Applicant. Mr.
19 Carroll.

20 Oh, let's see, we did have the request from Mr.
21 Vespa that his witnesses be taken care of so they could
22 leave today as well, so do we have any similar concerns
23 on behalf of any other party? Maybe we should use that
24 to filter.

25 MR. CARROLL: That's -- that's fine.

1 HEARING OFFICER KRAMER: Okay. Mr. Carroll, I
2 assume yours are here for the duration?

3 MR. CARROLL: Yes.

4 HEARING OFFICER KRAMER: Yeah, okay. Mr. Vespa,
5 how long do you think yours are going to take?

6 MR. VESPA: Maybe 10 minutes for both or 15 for
7 both. The way I thought of doing it, I have three
8 questions, I would ask them each to answer the first, the
9 second, and the third so to reduce overlap and move it
10 along a little more quickly.

11 HEARING OFFICER KRAMER: Okay.

12 MR. VESPA: Are we ready?

13 HEARING OFFICER KRAMER: Yeah, they have
14 already been sworn.

15 MR. VESPA: Okay. Mr. Schwartz, Mr. Owens,
16 thank you for being here today. I really appreciate it.
17 I'm just going to ask you a couple questions as a way to
18 summarize the testimony that you submitted in this case.

19 The first question is: Please discuss the
20 types of products your company provides and how they can
21 be used to meet local capacity needs.

22 MR. OWENS: Turn it on. Is it on?

23 MR. VESPA: Yes.

24 MR. OWENS: Okay. Thank you, Matt, and thank
25 you, the CEC, for giving us this opportunity to share our

1 perspective here at this hearing. So again my name is
2 Matt Owens. I'm -- I represent Stem. And we don't have
3 the same brand recognition as Tesla, so I'll give you a
4 little bit of background on Stem.

5 We are a company that provides energy storage
6 solutions to commercial and industrial customers, and we
7 also provide grid services benefits to utilities and grid
8 operators. We're the leader in the distributed-energy
9 storage market at least for commercial and industrial
10 scale. We have over 150 megawatt hours and 700 customer-
11 sited systems deployed or under contract, most of which
12 are in California. And about 300 of these already are in
13 operation and 200 are delivering multiple value streams.

14 So how does our business model work? What are
15 the benefits for the customers and the utility? So we
16 deploy these battery systems at commercial, industrial
17 locations. And the key value proposition to the
18 commercial customer is we help shape their load profile,
19 mainly clipping their peaks, to lower their bills. And so
20 there is a demand component on the Southern California
21 Edison bill and we can reduce that typically 10 to 20
22 percent and their total bill ends up being reduced 5 to
23 10, sometimes 15 percent.

24 We finance the systems for the customers and we
25 have secured \$300 million in project financing programs

1 from Starwood Energy Group, Generating Capital, and Clean
2 Feet Investors. This allows us to offer basically a no-
3 money down offer to the C and I customer. And they start
4 saving on their bill immediately. We do ask them to pay
5 us a subscription fee for the service, and so they have
6 skin in the game as well. So that's one side of our
7 business.

8 The other is we then aggregate these fleet of
9 energy-storage systems and they're not always being used
10 for the customer. And so when they're not used for the
11 customer we can aggregate them and make them available to
12 the utility as a firm dispatchable resource. And we use a
13 lot of software, machine learning, intelligent algorithms
14 to forecast what our customers' needs are and when we're
15 going to use the batteries for them and make sure we have
16 available capacity for the utility if we have a utility
17 contract. And so we like to call it an intelligent brain
18 that we call Athena to manage these networks and
19 basically optimize the use of that asset to go after many
20 value streams. The more value streams we can capture, the
21 economics get better.

22 We also offer solar-plus storage solutions and
23 we have partnerships with Sun Power and other solar
24 providers. And we also have a partnership on the DR side
25 so we can couple traditional demand response at

1 commercial, industrial public sector buildings with
2 energy storage as well to give the customer more
3 flexibility, more revenue streams, and also offer more
4 capability to the grid.

5 We've had systems in operation since 2012 and
6 our system sizes today that are in operation range from
7 18 kilowatts up to multiple megawatts. In the Moorpark
8 area we have already deployed about five systems, a
9 couple at Extended Stays, a manufacturing facility here
10 in Oxnard, and a printing facility near the Moorpark
11 area. And this was all done through the Self-Generation
12 Incentive Program.

13 I'll spend a little bit more time and highlight
14 two projects that Stem is involved in that I think are
15 very applicable to the Moorpark area. So we have a
16 contract with Southern California Edison as part of their
17 2013 West L.A. Basin LCR Program. We were the largest
18 awardee of behind-the-meter energy storage in that
19 procurement, and so we have 78 megawatts of capacity in
20 the West L.A. Basin and 7 megawatts of capacity in the
21 Johanna Santiago area. This -- we're in production with
22 that program now, ramping, starting small, going up to 85
23 megawatts by 2021. So, so far this year, this summer we
24 have dispatched our systems in response to Southern
25 California Edison calls ten times during hot summer days.

1 And the way the program is set up, that's a
2 four-hour dispatch. We're available and responsive within
3 20 minutes. And we are available year round, all
4 weekdays. We have over 30 customers already enrolled in
5 this program and that number is growing every week. So
6 far our fleet is performing as expected and we're meeting
7 the requirements of the program with Southern California
8 Edison.

9 In terms of customer types, I mention them in a
10 high level, but we have a wide mix of customers: Fortune
11 500 companies such as Home Depot, Intercontinental Hotel
12 Group, JCPenney's, Whole Foods, and many others. The nice
13 thing about that is once we have those customers, if we
14 need to go into a new area or we have an opportunity in a
15 new area, they are ready to go. They are excited about
16 storage, and so there are many of these -- those
17 companies that I just mentioned already here in the
18 Moorpark area, so we could get them online quickly.

19 Okay. We also have projects with the public
20 sector and a leader there. Universities, we have Cal
21 State Dominguez Hills, which is in the LCR service area.
22 We're doing a project with U.C. Merced and it's a solar-
23 plus storage project with Sun Power and it's 500
24 kilowatts. And Dominguez Hills was 4.2 megawatt hours,
25 fairly large. And Santa Rosa Junior College with Sun

1 Power, which is a 1.3-megawatt system.

2 We also do agricultural facilities, food
3 processing, light manufacturing, you name it. There's
4 lots of different customers and load profiles that we can
5 help with.

6 The other thing is that these customers really
7 want to do these types of projects. They're very engaged.
8 They want to help. Obviously they're saving money, but
9 they also want to be grid participants. When we enroll
10 them in a program, we save them in demand -- demand
11 charges, but we can also help them with DR programs and
12 there's new wholesale programs that we can also flow
13 additional revenue streams to them. Many of these
14 companies also have sustainability targets and
15 objectives. And so doing a storage project or solar plus
16 storage allows them to meet those. And if you read the
17 headlines, Amazon -- I mean there's Amazon, Facebook,
18 Apple, they are all setting very aggressive
19 sustainability targets getting to 50 percent or, you
20 know, higher renewables targets, and so this would help
21 them as well.

22 And, finally, customer satisfaction. We did a
23 survey of our customers in and around California, about
24 65 customers, and roughly 8 in 10 have said they have a
25 greater or a higher view of their utility now that they

1 know the utility was sponsoring an energy-storage
2 program, so it does help the utility as well.

3 Grid resiliency is another factor. And there by
4 having a distributed network, if any single systems goes
5 down it doesn't affect our ability to deliver very much
6 to the utility, so that's a nice flexible aspect.

7 Finally, I'll wrap up here, we also are
8 involved in a CPUC DRAM program, which is basically
9 participating in the Cal-ISO wholesale market as a proxy
10 demand response resource and delivering resource
11 adequacy. And there we have contracts with all three
12 investor-owned utilities. And that -- excuse me -- that
13 program is both a day ahead and has a real-time five-
14 minute component. And during this year with San Diego Gas
15 & Electric where we are offering flexible RA, we have
16 been bidding in successfully 150 times into their real-
17 time five-minute market and, again, dispatching across
18 the three utilities over 60 resources in aggregate.

19 I will leave you with a fun fact for the day.
20 Finally, in May 2017 Stem storage system is deployed at
21 Stub Hub and it powered half of the L.A. 2024 Olympic
22 Committee press conference on its Olympic bid. I'll stop
23 there.

24 MR. VESPA: Oh, Andy, please.

25 MR. SCHWARTZ: Great. Andy Schwartz of Tesla. I

1 also want to thank the CEC for convening this hearing as
2 well as the CAISO for their further efforts in the study
3 that is the topic of discussion today.

4 So I think Tesla is well known primarily,
5 though, as a vehicle manufacturer, but the company has
6 made a really significant investment and commitment to
7 energy storage and energy solutions more generally. The
8 company acquired Solar City last year, so we have a
9 fairly large footprint in the solar space and leveraging
10 our experience, developing the drive train for electric
11 vehicles. We have used that to develop, you know, our
12 storage solutions.

13 There are really two core products that we
14 offer on the storage side which I'm going to focus on for
15 today because I think it's the more relevant aspect of
16 our portfolio. There is the Power Wall II which is a
17 small five-kilowatt, 13.5-kilowatt-hour system that's
18 primarily designed for residential applications, while
19 designed for behind the meter, those systems, consistent
20 with what Matt described, can be aggregated and used to
21 provide grid services. And I'll talk a little bit about a
22 project that we have that's doing exactly that in a
23 moment.

24 The other core product we have is the Power
25 Pack. That's a larger unit, so 50-kilowatt, 210-kilowatt-

1 hour system. That's designed for commercial and
2 industrial applications, but due to its modular nature it
3 can be used not only for behind-the-meter purposes but
4 also for utility scale, so that product is designed to be
5 used for projects that can range from, you know, tens of
6 kilowatts to hundreds of megawatts.

7 I think Matt's done a great job of explaining
8 kind of the way that storage systems can be used for
9 behind-the-meter applications and for the provision of
10 grid services. I wanted to spend my time really talking
11 about some of the specific projects that we have done
12 that I think are relevant here insofar as they provide
13 real world examples of projects that are being used to
14 provide reliability services or capacity services. And
15 also they speak to, I think, the time to market or the
16 speed to market that these projects offer.

17 So I'm going to start with one that's fairly
18 close to home here, the Mira Loma Project. This is a 20-
19 megawatt, 80-megawatt-hour project that Tesla won as part
20 of the Aliso Canyon Emergency Procurement. That project
21 came online from -- basically from the day we broke
22 ground to actually being commissioned by the CAISO within
23 three months. We're not alone actually in that -- you
24 know, in that speed of development. There were two other
25 companies that also won bids and built projects pursuant

1 to that solicitation, AES and Greensmith. All of those
2 companies, you know us included, were able to build these
3 projects within six months of the solicitation being kind
4 of directed by the PUC.

5 I also want to talk about the demand-response
6 mechanism that -- or, sorry -- the demand-response
7 auction mechanism that Matt referenced. We have also been
8 picked up in the latest round of the -- of the DRAM, so,
9 you know, I think my understanding is that in this third
10 and last round over 200 megawatts of demand-response
11 projects were picked up. And the online dates for those
12 projects, the delivery dates for those contracts is 2018
13 and 2019. So, again, showing kind of the timeliness with
14 which these projects can come to fruition and begin
15 delivering those benefits to customers.

16 Another project that I think is, you know, much
17 lesser closer to home but also I think an important
18 example is the South Australia Project. This was in the
19 news. Our -- our CEO Elon Musk basically said that if the
20 system is not online within 100 days of contract signing
21 that the project would be free. So we are really putting
22 our money where our mouth is with these projects and, you
23 know, we firmly believe in our ability to bring these
24 projects online in an extremely timely way.

25 The last project I'll mention, which goes to

1 the ability to aggregate behind-the-meter resources to
2 provide not only grid services but also gets to the issue
3 of value stacking that was discussed earlier, is a pilot
4 we have with Green Mountain Power in Vermont. So under
5 that project 2,000 customers are -- that we're targeting
6 2,000 customers to deploy the Power Wall II that I
7 mentioned earlier. Those systems will provide back-up
8 power to those customers, which they would pay a fee for.
9 So \$15 a month or a \$1500 -- a one time \$1500 upfront
10 payment for access to that battery for back-up purposes.

11 Green Mountain Power is going to be using those
12 systems to dispatch low value energy to peak times to
13 reduce the overall systems impacts on the broader -- on
14 the broader system. Through that they anticipate being
15 able to save significant amounts of ratepayer costs
16 through avoided transmission and capacity costs. I
17 mention this again because I think it highlights not only
18 the ability to use behind-the-meter assets to provide
19 grid services but also this notion of value stacking. So,
20 again, there are some practical examples where this is
21 actually happening today.

22 Those are the key examples. I'm happy to take
23 any questions that folks have. Thank you.

24 MR. VESPA: Yeah. Well, let's get through the
25 two more questions --

1 MR. OWENS: Sure.

2 MR. VESPA: -- and then we'll open it up. The
3 second question is: An all source RFO was issued for the
4 Moorpark area four years ago in September 2013. Do you
5 think the results of that RFO would be indicative of the
6 results in a new RFO issued today?

7 MR. OWENS: Yes. I'll start. And I would
8 absolutely not -- Stem actually did a little research. I
9 was -- 2013 was before my time at Stem, but we did not
10 bid the Moorpark RFO at the time because there was -- the
11 Moorpark RFO and the L.A. Basin and Johanna Santiago
12 area, and that was a larger area. And so with our limited
13 resource and staff at the time, we chose to bid the L.A.
14 Basin Project.

15 So our approach today would be much more
16 informed based on our actual deployment experience and
17 operational experience that we've had in California and
18 gained over the last four years both in here California
19 largely and then the West L.A. for the LCR program. And
20 we have been working very closely with Edison along the
21 way as we deploy our systems and continue to improve our
22 processes and get faster at deploying systems. So I think
23 our perspective would be very different.

24 And from our Stem perspective, here are some
25 differences. In 2013 we had about 30 employees now we

1 have 150. In 2013 we had a handful of systems online and
2 now we have 300 deployed and over 700 contract, and we
3 have contracts with eight different utilities around the
4 country. In 2013 we had less than one megawatt hour of
5 capacity deployed, now we have 150 megawatt hours
6 deployed. 2013, our installation experience in scale
7 capability was far less and very limited. We did all of
8 our own installations at that time.

9 Now, in 2017, we have signed master services
10 agreements with a number of local electrical contractors
11 here in California who are trained and have experience
12 deploying many of our systems. And so we believe we can
13 ramp, we're obviously preparing to ramp quickly with our
14 current LCR contract but have that capability to ramp for
15 other programs as well.

16 We also have a large salesforce in the L.A.
17 area and we could use leverage, that salesforce are
18 enterprise accounts that we didn't have in 2013. And we
19 have obviously continued to advance our machine loaning
20 and our software as well as optimize the energy storage
21 systems for the utility.

22 And from an industry perspective, obviously
23 there are many other things that have happened since
24 2013. In terms of costs we have seen costs come down
25 faster than many expected and many of the reports have

1 sworn back in the 2013 timeframe, Stem competitors, and
2 we do compete in the L.A. Basin with other energy Storage
3 providers. They two have experienced dramatic growth in
4 the last few years, and so we would look at the Moorpark
5 opportunity as one where multiple vendors would be
6 successful and could help the deliver capacity required.

7 We have seen cost decreases in lithium ion
8 technology and inverter technology and performance
9 improvements in the inverter technologies with the now
10 smart inverter capability. And, lastly, AB 5 -- 546 just
11 passed, and that helps streamline the permitting process
12 for cities and county around energy storage, so it could
13 help reduce the permit costs by about half.

14 MR. SCHWARTZ: And I don't really have much to
15 -- much to add to that. I mean I would agree that you
16 know the industry has gained significant experience seen
17 that RFO was conducted. I was looking at our financials
18 this morning, and over the past either quarters we have
19 deployed 255 megawatt hours of storage. So obviously we
20 have gotten a lot more experience in the space, which I
21 think would, you know, certainly inform and I think drive
22 a more robust response to an RFO if held today.

23 MR. VESPA: Okay, final question. Please
24 describe your concerns with the cost estimate CAISO used
25 in it study.

1 MR. OWENS: Sure. I'll touch on three topics
2 here. First, just addressing the upfront capital cost of
3 the energy storage system that was assumed in the city,
4 yeah. There's lots of different studies out here, they're
5 going to quote different things, but clearly the CAISO
6 study as it was called out earlier referenced a 2014
7 number, which we think is outdated, and is not as
8 accurate as -- or as representative of other studies that
9 have been done more recently and are, you know,
10 leveraging more information that's available on the
11 market. So there are a few that I'll talk about here.

12 The first is the Energy Storage Association
13 produced a study November 2016 and called Including
14 Advanced Energy Storage and Integrated Resource Planning
15 Cost Inputs and Modeling Approaches. In this study they
16 quoted or estimated for a 100 megawatts of energy
17 storage, four-hour resource and deployment in 2016
18 timeframe, their range was \$415 to \$453 per kilowatt
19 hour, which is less than what was cited in the CAISO
20 study.

21 An EPRI report came out in November of 2016
22 titled Energy Storage Cost Summary for Utility Planning:
23 Executive Summary. That too specifies a cost range and
24 installed cost range for four-hour bulk energy storage in
25 the 50 to megawatt total range to be deployed in 2017.

1 And that range is quoted as \$400 to \$675 per kilowatt
2 hour.

3 Most recently, the University of Minnesota and
4 StrataGen and Vibrant Clean Energy produced a report.
5 It's a great report. I suggest the CEC read it, titled
6 Modernizing Minnesota's Electric Grid and Economic
7 Analysis of Energy Storage Opportunities. And actually
8 this report compared, did a full lifecycle cost analysis
9 of energy storage and solar-plus storage and compared it
10 to the cost of a gas peaker plant. And the conclusions
11 were actually solar plus storage in 2018 was more cost-
12 effective in Minnesota than a gas peaker plan. I
13 recognize that that's Minnesota. Moorpark could be very
14 different, has a different situation, but it's a thorough
15 analysis and it is worth checking.

16 So, anyway, in this report for their modeling
17 assumptions for four hours of bulk energy storage in
18 2018, they used a \$400-per-kilowatt-hour cost, in 2023
19 they used a \$300-per-kilowatt-hour cost.

20 Finally, Green Tech Media just published an
21 article I think last week, August 31st, titled "In
22 Storage Versus Peaker Study CAISO Outdated Cost Estimates
23 Produced Higher Price Tag for Storage." It states that
24 GTM is projecting installed costs in 2020 for a four-hour
25 energy-storage system to be in the \$277-per-kilowatt-hour

1 range. So a number of sources there that are citing cost
2 projections lower than was cited in the CAISO study.

3 Second, the costs are really not accurate for
4 looking at energy storage resources with different
5 duration. So a four-hour resource is going to be one
6 price per kilowatt hour. A much shorter duration resource
7 will actually be higher than that, and they didn't do
8 that. And then a longer duration resource, eight hours or
9 ten hours, will likely be significantly lower. So there
10 could be more work done to refine those estimates.

11 Finally, and I think most importantly, capital
12 costs, and it was talked about earlier today, is really
13 not a good indicator of the capacity costs that Southern
14 California Edison will pay. When you layer on additional
15 value streams, whether it's behind the meter or in front
16 of the meter with behind the meter, obviously we can go
17 after the demand charge management I talked about, we can
18 help customers with DR programs, there may even be
19 distribution deferral benefits for Southern California
20 Edison that have not been really explored yet that could
21 lower the overall cost of systems. We can provide voltage
22 support at the grid edge.

23 We are working with CAISO now about a load
24 consumption product, where batteries can consume energy
25 during the spring and fall when there is over generation

1 of solar and there is an opportunity to get paid for
2 that. And then also we're looking at back-up power
3 capability. So there's lots of other things to basically
4 lower the capacity costs that Edison would pay vendors
5 for solutions.

6 MR. SCHWARTZ: Yes. Similarly, I think we share
7 many of the same concerns that Stem has just articulated.
8 You know looking at doing, you know, a fairly quick
9 review of some of the literature, the level of cost
10 reduction that we have seen historically and then what's
11 being projected forward is something that we think needs
12 to be more explicitly factored into the estimate that the
13 CAISO has done to get a more accurate assessment.

14 Some of the sources that I would point to,
15 there is a McKensey study that looked at the cost of
16 climate battery packs between 2010 and 2016. They
17 estimated those cost reductions on the order of 80
18 percent. There is another report that's been done by
19 JPMorgan, their Energy Outlook 2017, that showed similar
20 cost reductions over the same timeframe in the order of -
21 - between 70 and 80 percent.

22 Looking forward, an article by -- in
23 *CleanTechnica* referenced a DNB GL study that suggested
24 that between now and 2030 there would be additional cost
25 reductions of 70 percent. So, you know, to the degree

1 that we're looking at battery systems that are going to
2 be deployed in the 2020-2021 timeframe. It's really
3 important that some of those, you know, assumption --
4 that there be some assumptions, reasonable assumptions
5 around cost reductions that can be, you know, reasonably
6 forecast.

7 Matt explained some of the issues and I have
8 also covered the notion of value stacking, so I won't
9 that reiterate that much here other than just to, you
10 know, throw in my support for that position. The capital
11 cost of the equipment doesn't necessarily need to be
12 recovered entirely by the payments for an individual
13 service. Those costs can be recovered through payments
14 for other services. A good study on this or a good report
15 on this is one by the Rocky Mountain Institute, their
16 Economics of Battery Storage Report, they identified 13
17 different services that battery systems can provide. Some
18 of those, you know, maybe aren't possible to provide
19 simultaneously, but if a need is isolated to a particular
20 time of the year or certain hours of the day, it does
21 leave a lot of capacity available to provide many of
22 those other services. Recognizing of the ability of
23 battery services to provide those other services really
24 should be factored into. Cost assumptions, you know, for
25 what vendors would have to -- what vendors would expect

1 for payment for just that service, recognizing they're
2 capturing some of these other value streams.

3 The other item that we haven't discussed thus
4 far is the existing obligations that the utilities have
5 to procure storage. So AB 2514, which was implemented by
6 the PUC several years ago, requires the utilities to
7 procure collectively 1.3 gigawatts of energy storage. The
8 utilities are, you know, in process on that, and based on
9 a decision that was issued earlier this year in Phase 2
10 of the Storage OIR before the PUC, they provided a table,
11 Table 2, which identifies the kind of outstanding amount
12 of that storage procurement obligation.

13 In the case of Edison, and this is data, you
14 know, accurate as of February this year, so a little
15 dated but a still reasonable approximation, has roughly
16 260 megawatts of additional procurement of storage they
17 have to do. So to the degree storage resources are
18 deployed to meet the need here and could count towards
19 that need, they are reducing a procurement obligation
20 they already have. You know that should have some bearing
21 on the assumed costs associated with that, given that
22 this is in effect expenditures that they would have to
23 make anyway to meet the storage obligation.

24 The other thing related to this is AB 2868 this
25 passed last year. This program directs the PUC to

1 authorize and approve applications from the utilities for
2 the procurement of up to an additional 500 megawatts of
3 energy storage, in this case split evenly among the
4 utilities. The utilities have been directed to submit as
5 part of their 2018 storage procurement investment plans,
6 their approach for making investments and/or establishing
7 programs to support that legislation.

8 And I think just sort of note, you know, for --
9 for this hearing is the fact that the Commission is to
10 prioritize investments and programs that focus on
11 disadvantaged communities as well as a deployment of
12 storage for public sector customers. So there seems to
13 be, you know, a nice nexus of issues there that we think
14 also should be considered as the CEC deliberates on this
15 issue. Thanks.

16 MR. VESPA: Thank you.

17 HEARING OFFICER KRAMER: Okay. Before we get
18 into the round table, let's hear from the next party's
19 witnesses.

20 Mr. Carroll, would it make sense for Mr.
21 Theaker to go last, and he can -- because he'll be
22 responding to much of what's being said, correct?

23 MR. CARROLL: Yes, to some extent. So that may
24 make sense.

25 HEARING OFFICER KRAMER: Okay. We've got Sierra

1 Club. CEJA didn't have anyone. The Center for Biological
2 Diversity.

3 MS. BELENKY: Yes. Thank you. I'll just
4 start with a couple of questions.

5 Mr. Karpa [sic], could you just state
6 your name so that the reporter can have it on the
7 record there?

8 DR. KARPA: I think I don't have -- ah,
9 there we go. Yeah. It's Doug Karpa, so it's D-o-
10 u-g, last name K-a-r-p-a.

11 MS. BELENKY: Thank you. And did you
12 prepare the testimony, the written testimony that
13 you submitted?

14 DR. KARPA: I did.

15 MS. BELENKY: Thank you. And did you
16 prepare the comment letter that was also -- had
17 been previously docketed but we identified as an
18 exhibit here?

19 DR. KARPA: Yes. Yes, I did.

20 MS. BELENKY: It was the comment that you
21 had written to the Cal-ISO about the study that
22 we have been talking about today?

23 DR. KARPA: Yes. Yes, I did.

24 MS. BELENKY: Okay. Thank you. Do you
25 have any specific corrections to your testimony

1 at this time?

2 DR. KARPA: No.

3 MS. BELENKY: Okay. Well, can you just
4 briefly summarize for us, you know, in the
5 context of today's hearing your testimony that
6 you provided and any other short pieces you would
7 like to state, given what's been discussed this
8 morning?

9 DR. KARPA: Yeah, certainly. I think I'd
10 actually start with what Mr. Millar said about
11 the role of consist estimates in the CAISO study,
12 which is to provide something of a boundary
13 condition, an estimate, if you will, of kind of
14 roughly what the costs associated would be. If I
15 may keep with our starting theme of Monty Python,
16 it's important to remember: It's only a model.
17 And so what I ended up doing is -- of course
18 you've seen a lot of individual comments about
19 issues such as component costs being outdated.
20 And that's true, certainly with batteries.

21 And then for solar, I'll point out that
22 CAISO used purely a built-environment solar
23 installation costs, which are different. If
24 you've got ground-mount solar, and that's also
25 something that we could talk about in the

1 contexts of that.

2 Questions of fuel costs, operations and
3 maintenance, what are the appropriate costs of
4 demand response to include, health costs of
5 having a natural gas plant. And then there were
6 some engineering considerations that I think
7 we'll get into in terms of the energy generation
8 by solar and what that profile looks like over
9 the course of a day; battery dispatch, what that
10 looks like and how batteries are actually used in
11 the field.

12 And so what I did was I took all of
13 those. And, as a modeler, the key -- you know
14 we're always generating an estimate, as modelers.
15 But the key question -- for all of those factors
16 is, yes, they make a difference -- the key
17 question is: How much of a difference and how
18 much of a difference do they make when you put
19 them all together?

20 And so what I did was I took the CAISO
21 study, very deliberately used their methods,
22 their approaches, and I want to thank CAISO for
23 stepping forward to do that on short order, I
24 know how much work that was to do, and to simply
25 change the inputs in their model to incorporate

1 some of these concerns to get a sense of how much
2 of a difference does it make if you include these
3 changes in the inputs of the CAISO model. So what
4 I did is I basically reran the CAISO model. I'm
5 happy to work -- walk you through that.

6 And, long story short, when you put all
7 of those different components in the CAISO model,
8 the -- and what you can think of is another --
9 another estimate to give you a sense of the range
10 of possible costs. For example, would be that to
11 replace -- to do a largely solar-plus-storage
12 solution would run, installed costs, around \$267
13 million, so less than the CAISO's estimate of the
14 Puente installed cost. Replacing both Puente and
15 Ellwood would then run about \$406 million. Now
16 those are both installed costs. Obviously to
17 really know what the costs are requires an RFO to
18 see what you actually get, but the idea here is
19 to use the same methodology to get a sense of
20 kind of what that other end of the range is
21 likely to be, what's the -- roughly the ballpark
22 that we might expect reasonably that RFO to come
23 back at, because we immediately spotted some
24 issues with that initial CAISO study and how
25 those cost estimates were done.

1 MS. BELENKY: Thank you.

2 I think that was my only question, just
3 to do the summary -- is that what we're doing
4 now? I thought that's what we were doing.

5 HEARING OFFICER KRAMER: Yes. Thank you.

6 MS. BELENKY: Thank you.

7 HEARING OFFICER KRAMER: City of Oxnard.

8 MS. FOLK: I'm sorry I didn't mention
9 this earlier. Mr. Caldwell does have a PowerPoint
10 that he wants to go through. It's just five
11 slides. It's nothing new. It's just to guide his
12 presentation. And it's 221155 and we docketed it
13 yesterday.

14 MR. CALDWELL: There's one out of -- oh,
15 I say there's only four of five slides, but I
16 don't know how to toggle them. Can -- is that --

17 HEARING OFFICER KRAMER: Yes.

18 MR. CALDWELL: -- something you will do
19 for me, sir?

20 HEARING OFFICER KRAMER: Yes.

21 MR. CALDWELL: Thank you.

22 I did this just so I don't stray too far,
23 so it's my crutch to keep things going. So the
24 first slide, please.

25 So the first slide is the summary of the

1 CAISO study and what I think the study is saying
2 and I think this is very consistent with what
3 Neil talked about this morning, both in his
4 opening statement. And the first and foremost
5 thing is that the preferred resource alternatives
6 are technically feasible. I think that's clear. I
7 don't think there's been any testimony that says
8 that that's not true.

9 The second conclusion is that these all-
10 battery solutions as a bookend are expensive,
11 that -- and the reason why they're expensive is
12 that there is no resources provided during the
13 event, that is, during the peakload hours, to
14 recharge the batteries or to avoid the discharge.
15 So if you have a nine-hour-duration event, you
16 have to store all of the energy you're going to
17 require over the next nine hours in the battery
18 before you start. And then at the end of that
19 nine hours you're exhausted. So -- so the hybrid
20 solutions or the portfolio solutions, which
21 include resources, solar, demand response, energy
22 efficiency, that provide energy during the event,
23 allow you to extend the life of those batteries
24 and allows you to significantly reduce the amount
25 of batteries required. And I have a slide later -

1 - one of the slides later on out of the study
2 that graphically demonstrates that.

3 The second thing about it is that the
4 current costs are much lower, as we've all talked
5 about. But, having said that, that isn't going to
6 change, that in and of itself isn't going to
7 change the conclusion that all battery solutions
8 are expensive; that if you have a nine- to ten-
9 hour battery to cover these things, it's going to
10 be expensive. So the current costs are lower. The
11 only way we're going to find that is to have --
12 actually have an RFO that's going to mean
13 something, but it isn't going to change the
14 conclusion in and of itself.

15 And then the third point which Stem and
16 Tesla have talked a lot about here is that we
17 must account not only for the capital cost but
18 for the other revenue streams that are available
19 when the area loads are low. If you looked at
20 those during curves from Moorpark from the 2013
21 study, they say that you will be in these LCR
22 needs roughly 30 days out of the year, roughly
23 five hours out of the day. So something like 150
24 hours out of the year where you have to be
25 available for the duty that we've been talking

1 about. For the rest of the year, you can use some
2 or all of those batteries or all of those
3 resources for other revenue streams, and you have
4 to account for that in this analysis.

5 The second major conclusion I think you
6 can draw from this is that standalone voltage
7 support is critical, that Scenario 2 with the
8 standalone voltage support, the capacity and
9 energy requirements, wherever they come from,
10 whether they come from Puente or whether they
11 come from batteries or whether they come from
12 solar, or whatever, are significantly reduced.
13 And, again, the slide that I'm going to show
14 later, we can graphically demonstrate that.

15 And the other thing that's important
16 about providing voltage support is, is avoiding
17 voltage collapse is critical. Because what that
18 does is it gives you time. As many testified,
19 we've heard much testimony today, that provides
20 you the time to take action after the event. So
21 spinning reserve all of a sudden becomes the same
22 as if you are already had it on. So it provides
23 that post-contingency dispatch specifically of
24 things like demand response, so you're not
25 calling these things up. Again, whether it's

1 Puente or demand response, just in case, just in
2 case there is a transmission outage you have the
3 capability with the stand- -- if you avoid the
4 voltage collapse, to wait until there actually is
5 an event that requires you to respond. So
6 providing that time, that 10, 15, 20 minutes of
7 time is precious, and that means a lot to the
8 cost-effectiveness of your solution. So Scenario
9 2 is significantly cost -- is less costly because
10 of that reason.

11 The final major conclusion we talk about
12 is that there is time to implement these
13 preferred resource solutions. It's going to take
14 time to make this happen. It's going to take time
15 to put Puente together. Puente has permitting
16 issues at this stage of the game. So we have to
17 buy time if we're going to hit this 2020
18 deadline.

19 In the short-term use of Mandalay, that
20 is all the resources at Mandalay, provide that
21 time to implement these solutions. Converting
22 Mandalay 1 or Mandalay 2 to synchronous condenser
23 operation, as has been testified to before, that
24 provides that standalone voltage support to avoid
25 the voltage collapse, which again allows you to

1 have things in reserve that then you can call up
2 if and when the transmission outage actually
3 takes place. And that can come from a short-term
4 RA contract with Mandalay 3. Mandalay 3 is not
5 under an OTC deadline. It can be there, it can
6 function. So you could have a contract that looks
7 somewhat like the contract that Neil Millar
8 described about with Huntington Beach, where you
9 have a year-to-year RA contract. At the beginning
10 of the year you assess where you are and then you
11 extend the contract on a year-to-year basis. So
12 if you do that sort of contract with Mandalay,
13 which you could start now if you wanted to, but
14 maybe you would have that -- that operation be
15 from, say, 2019 to 2020 to 2021-2022. And by
16 keeping the short-term contract, you can provide
17 the Scenario 2 level of reliability while you're
18 bringing all of these other resources on the
19 line. And as you bring all those other resources
20 on the line, you can back off from this and you
21 can get there from here. So all -- we have the
22 time to do this right. Next slide, please.

23 HEARING OFFICER KRAMER: Did I go too --

24 MR. CALDWELL: I'm sorry.

25 HEARING OFFICER KRAMER: Oh, no.

1 MR. CALDWELL: Yeah.

2 HEARING OFFICER KRAMER: Technical
3 difficulty.

4 (Pause.)

5 HEARING OFFICER KRAMER: Is that the one
6 you want?

7 MR. CALDWELL: Okay. Just very quickly,
8 we're talking about three kinds of resources,
9 again, which would be available, preferred
10 resources which would be available during the
11 event, during the day, to provide the energy to -
12 - that the battery -- all of which in some way or
13 the other are battery-enabled or battery-
14 lubricated to cover the contingency event.

15 So the first is energy efficiency, and
16 that's really where we ought to start. Now the
17 amount of additional achievable energy efficiency
18 that is assumed in the CAISO study is the low-mid
19 AAEE, as we've said. That is the result of
20 current codes, current standards, current
21 programs. So that means we do nothing new from
22 here on out to get that level of energy
23 efficiency. That's already baked into current
24 things. That is not where we're looking going
25 forward. The CEC potential study that was done to

1 inform policy says that there is roughly double
2 the amount of that assumed AAEE, or some 200
3 megawatts of AAEE in the area is technology and
4 economically available. And then SB 350 mandates
5 program revisions at the CEC with codes and
6 standards, and at the PUC with utility programs
7 and in third-party programs to acquire this
8 additional resource. And the Energy Commission
9 itself from the current IEPR has just recently
10 last week published the initial paper on how to
11 go -- what the targets ought to be and how to go
12 about that. So we are going to get more energy
13 efficiency in this area over the timeframe, and
14 we need to account for it in this study.

15 Demand response, which I'll call here
16 preplanned load shift, the demand response is
17 nothing other than a customer voluntarily
18 agreeing to not consume energy and to get paid
19 for that volunteer. So it's very similar to load
20 shed in the sense that, A, it's preplanned; you
21 know who it is. The -- as Neil explained, if it
22 comes to that, if we come to load shed at some
23 point in time, it's not going to be something
24 that's left to the operator in the control room
25 to decide on his own who to do whatever. It'll be

1 preplanned. We will know who it is, we'll know
2 what it is. There will be one phone call, usually
3 in this case to Southern California Edison: Shed
4 x amount of load, and it will happen. And the
5 same thing can be said for demand response.
6 That's really all it is.

7 And the Lawrence Berkeley National
8 Laboratory published this potential study for the
9 PUC to guide the policy. And that study indicated
10 that roughly 200 megawatts are available at one-
11 tenth the cost of Puente in this area.

12 And what's different about demand
13 response now than was then before, when we tried
14 to procure this in the past, is that this able to
15 lubricate with the short-term batteries that
16 allows the post-contingency dispatch means that
17 the demand response will only be called when it's
18 needed. It won't be recalled just -- called just
19 in case.

20 And it also means that the customer can
21 take the time that he needs in order to reduce
22 that load, so it's not something that he has to
23 do right away. If he needs another 20 minutes,
24 then you provide him with a half-hour's worth of
25 batteries in order to take that. If he needs 40

1 minutes, well, then you buy an hour's worth of
2 battery so that the combination of those two
3 resources is much more capable than either
4 resource is on its own. And that's what key about
5 demand response going forward. And we have not
6 tested that in a procurement sense in any of the
7 procurements that we've had to date. We've always
8 required the demand response on its own to supply
9 that -- that level of service.

10 Finally we have solar PV. And here I
11 think it's important to understand that this is a
12 local condition that we're talking about. So the
13 high loads that are caused by weather, i.e. ,
14 heat, are really tightly correlated with high
15 solar output. It's been pointed out that there
16 are instances where there's high system load
17 where there is lower solar output, but that's
18 because we've had monsoons in the desert. And
19 those monsoons in the desert, a lot of solar is
20 out in the desert, that's totally irrelevant to
21 the situation here.

22 If the loads are high in Moorpark, the
23 heat is high in Moorpark. The only way you get
24 the heat is to have the sun. You will have high
25 solar output during these events.

1 And, again, the lubrication with the
2 short-duration batteries to deal with this peak-
3 shift issue of, you know, the peak that somehow
4 lags the sun so that there still is this heat-
5 related peak at five, six o'clock at night. Now
6 you don't need nine-hour batteries to do that.
7 All you need is, is the batteries to fill in the
8 increment from four o'clock in the afternoon as
9 the sun begins to set to six o'clock. So, again,
10 it's that combination of solar PVs and batteries
11 that is much more effective than either one.

12 And the other thing that I would say
13 again is, is that the transmission constraints
14 that we're talking about here, i. e. , when
15 there's limited transmission capability into the
16 region, what that means is that the capacity
17 value of solar and all of that thing about the
18 duck curve and all this about how we have
19 saturated the system, all of that is irrelevant
20 because if the transmission is constrained, which
21 is what we're dealing with here, then it's only
22 the local solar that counts. So you can get value
23 out of a lot of more solar than you could if you
24 had -- when the transmission line is in place.
25 Next slide, please.

1 And I'll show -- I take this out of the
2 CAISO study to show these because I think it's --
3 you know we can talk about it all day, but
4 looking at a picture, looking at a graph is very
5 good, so I really appreciate what they did.

6 So what we're looking at here, and I'm
7 going to use this laser pointer, so I hope I
8 don't -- I'm going to make sure I try to keep it
9 high enough that people don't -- that I don't
10 blind the judge here.

11 HEARING OFFICER KRAMER: Okay. But you
12 need to try to describe where you're pointing
13 because --

14 MR. CALDWELL: Yes.

15 HEARING OFFICER KRAMER: -- we want the
16 transcript --

17 MR. CALDWELL: -- you can't see the
18 pointer, right. Yeah. Okay.

19 HEARING OFFICER KRAMER: Well, also for
20 the transcript.

21 MR. CALDWELL: For the transcript, all
22 right.

23 Well, what we're looking at here is this
24 five-day heat event where the peak occurs on the
25 third day of that event, so Monday, Tuesday,

1 Wednesday, Thursday, Friday, if you will, this
2 one-tier heat event. And the limiting event is
3 the third day in this assumed thing. And this is
4 the Moorpark area load here. And you can see
5 again this is in the middle of the night where
6 the loads are really low. That's when we're
7 recharging the batteries. That's when we're doing
8 it. So this is not -- you know, there is time to
9 do that.

10 But the lines across here are -- this is
11 the Scenario 3 voltage stability import limit.
12 That's the lowest line because, again, there are
13 less resources in base. Scenario 3, remember, has
14 neither Puente nor Ellwood online, so it has the
15 lowest -- the lowest load level at which you have
16 to do something.

17 The middle one is Scenario 1, okay, where
18 you have Ellwood online and then you have sort of
19 the equivalent of -- of Puente, and preferred
20 resources online. And then the top line here is
21 Scenario 2, where you have supplied the voltage
22 support, which then allows you to do that.

23 So as you go up in these limits, you can
24 see on day 1 you may have -- you may have some
25 issues with the bottom case, but you don't have

1 any case if you have Scenario 1 or 3 -- or,
2 excuse me -- yeah, 1 or 2.

3 On the third day what happens again is,
4 is you reduce the capacity required from this
5 line to the peak, right, by almost -- by over
6 half if you do Scenario 2, by about 30 percent if
7 you do Scenario 1. But the other thing you do,
8 and this is critical is, this is the duration, so
9 you have to start something here. And that's why
10 you end up with those nine-hour batteries because
11 you have -- as you go up the peak and the peak
12 becomes narrower and narrower, you have to supply
13 that energy. Fewer hours out of the day you can
14 get away with much shorter duration battery
15 storage and much less energy. So that combination
16 of things is what is -- and here's what you see
17 in the table.

18 So you can see the difference as you do
19 that. And this, again, points to how critical the
20 provision of the standalone voltage support is to
21 providing these -- to providing these services
22 and mitigating the contingency.

23 In the interests of time I'm not going to
24 go too much into this little blow-up here which
25 talks about this peak-shift issue, other than to

1 say that the load forecast that was used here
2 did, we believe, incorrectly apply the peak
3 shift. If you look at these load shapes all the
4 way through here and if you look at the table in
5 the report where these numbers are called out,
6 there really is no peak shift from the historic
7 load shapes to the 2022 shape.

8 So what the peak shift does is in this
9 blue area here it says by the conventional
10 forecasting method, we neglect to take this blue
11 area in account here, so you have to add the peak
12 shift. But if you add the peak shift you also
13 have to subtract out the energy that was produced
14 by those -- those distributed solar resources
15 that caused the peak shift in the first place,
16 and that's the red issue here. The numbers that
17 I've put here are meant to be illustrative only,
18 but it sort of shows you that again that the load
19 shape with the peak shift, yes, it may be about
20 the same in total shifted an hour later but it is
21 much peakier, i.e. , it is much narrower and that
22 again reduces the energy that's required and
23 makes this even better.

24 So I think looking at this chart gives
25 you a much better idea of what's actually going

1 on and you can put Scenario 4, or whatever, but
2 you can see what's happening easier than just
3 explaining it in paper.

4 Finally, the last slide. What should we
5 do about this. The first thing we say is we
6 agreed with what the ISO said in their opening
7 statement and that is the only way to find this
8 out, the only way to get to these costs, the only
9 way to design the system is actually hold the
10 RFO. At the same time we think, again we agree
11 with what the ISO said is, is that running more
12 scenarios now of different kinds of resources,
13 refining the load forecast is really not
14 required. We know enough for the bookends to
15 actually do it, but in the meanwhile, while we're
16 preparing this, we do need to take a real close
17 look at the Moorpark area load forecast so this
18 is concurrent with doing this RFO.

19 We need to account for the effect of SB
20 350 on the energy efficiency. We need to properly
21 account for the peak shift. And I think something
22 that I think we could all use is we've had some
23 experience this year, twice, once in June and
24 then once in September, with what could be termed
25 as these one-in-ten-year heat events. All of the

1 things that we've seen up today, all the things
2 that we've done have presumed some event from the
3 past, but now we have current experience. We know
4 what the load is, we know what the load shapes
5 are in the area, and we need to revisit our
6 experience this year in order to update, not
7 simply to decide what to do but we need to use
8 that to assess the RFO results and to guide the
9 procurement.

10 So we think that there is a job for the
11 CEC that's critical. We think there is a job for
12 the PUC that's critical in order to make these
13 preferred resource alternatives take place. And,
14 finally, then we have the time to make this
15 happen, beginning through the use of the existing
16 Mandalay facilities.

17 Thank you.

18 HEARING OFFICER KRAMER: Did I miss
19 anyone else besides the Applicant? I don't think
20 so. Mr. Hesters didn't have anything, did he?
21 No, okay.

22 Mr. Carroll.

23 MR. CARROLL: Thank you. The Applicant
24 has two witnesses, Mr. Theaker and Ms. Gleiter.
25 We're going to take Mr. Theaker first.

1 I had reserved 20 minutes for an opening
2 statement and then 30 minutes for direct
3 questioning. And preparing for the hearing, we
4 ended up, for efficiency sake, collapsing those,
5 and I think it will allow us to get through all
6 of the questioning of Mr. Theaker in much less
7 time than what we had reserved. But it does mean
8 that my questioning of him is going to be a
9 little more directed as opposed to one question
10 and sort of the more free-ranging opening
11 statement format.

12 HEARING OFFICER KRAMER: Pushing the play
13 button, in other words.

14 MR. CARROLL: Yes.

15 HEARING OFFICER KRAMER: Yeah.

16 MR. CARROLL: So NRG calls Brian Theaker.
17 Could you please state your name, your
18 current employer, and your current position?

19 MR. THEAKER: My name is -- is the mic
20 on? Okay. My name is Brian Theaker. I'm director
21 of regulatory affairs for NRG Energy, Inc.

22 MR. CARROLL: And what experience do you
23 have that's relevant to today's proceeding?

24 MR. THEAKER: I have 15 years' experience
25 with the CAISO's local capacity requirements

1 process as well as a similar amount of experience
2 with procurement of those resources and the way
3 the regulatory process approves them.

4 MR. CARROLL: And do you have in front of
5 you the document that's been marked for
6 identification as Applicant's Exhibit 1151,
7 entitled Expert Declaration of Brian Theaker in
8 Response to CAISO Moorpark Subarea Local Capacity
9 Alternative Study?

10 MR. THEAKER: I do.

11 MR. CARROLL: And was that written
12 testimony contained with the declaration that you
13 provided?

14 MR. THEAKER: Yes.

15 MR. CARROLL: Do you have any changes or
16 corrections to your prepared testimony?

17 MR. THEAKER: No, I don't.

18 MR. CARROLL: And what other materials,
19 if any, have you reviewed in preparation for
20 today's hearing?

21 MR. THEAKER: I reviewed the ISO's August
22 16th, 2017 Moorpark study as well as the
23 testimony and supporting materials provided by
24 Mr. Caldwell, Mr. Franz, Mr. Owens, and Dr.
25 Karpa.

1 MR. CARROLL: Thank you. A number of the
2 witnesses that have spoken today have been
3 critical of the CAISO's study reliance on energy
4 storage. Can you please share your views about
5 the extent to which the portfolios analyzed in
6 the study relied on battery storage?

7 MR. THEAKER: Sure. I was not involved in
8 the development of those portfolios, but I
9 understand that from an intuitive standpoint,
10 from -- for meeting local capacity requirements,
11 the ISO wants dispatchable resources. Energy
12 storage is technology that among preferred
13 resources is the most dispatchable.

14 MR. CARROLL: And there's also been some
15 debate regarding the CAISO's decision to include
16 energy storage resources with a nine-hour
17 continuous discharge duration. Do you have any
18 views as to the CAISO's decision to include those
19 resources in the portfolios?

20 MR. THEAKER: No. I think based on the
21 study design the ISO determined that those
22 durations were what were required to maintain the
23 reliability of the local area under the condition
24 studied.

25 MR. CARROLL: Do you have any concerns

1 with the assumed 135-megawatt -- what's been
2 referred to throughout today as the -- base case
3 of incremental distributed resources upon which
4 the portfolio is then built?

5 MR. THEAKER: I do. I have some concerns
6 about all three pieces of that, the 80 megawatts
7 of behind-the-meter storage, the 25 megawatts of
8 combined solar and storage, and the 30 megawatts
9 of slow DR that was converted to fast DR.

10 MR. CARROLL: And what concerns do you
11 have concerning the first component, the 80
12 megawatts of demand response?

13 MR. THEAKER: Well, 80 megawatts of
14 behind-the-meter demand response is a pretty good
15 chunk. It would take a pretty significant number
16 of customers to acquire that size of demand
17 response with behind-the-meter battery storage.

18 MR. CARROLL: And with respect to the
19 second piece, the PV solar plus energy storage,
20 what concerns do you have with that component?

21 MR. THEAKER: Well, NRG I think at this
22 point has been the only company that has actually
23 contracted for solar plus storage in California.
24 We have looked at a four-hour duration. We're not
25 aware of any company that has looked at -- you

1 know, that has looked at a seven-hour duration.

2 The other from a technology or from a
3 technical standpoint, you know, solar plus
4 storage relies on the solar producing exactly the
5 way you expect it to, and that doesn't always
6 happen.

7 MR. CARROLL: And what led you to believe
8 that the preferred resources are dependent in
9 whole or in part on solar that may not perform as
10 expected, as you just suggested?

11 MR. THEAKER: Well, -- well, yeah, again,
12 I mean solar works great when the sun shines and
13 it doesn't work so great when the sun doesn't
14 shine, so that that is one concern.

15 I provided in my testimony an example
16 where we had high demand system wide probably in
17 Southern California as well but we had relatively
18 lower solar. Mr. Caldwell has said that he can
19 guarantee that in Moorpark the sun will always
20 shine when there is high demand. And I'm not a
21 meteorologist, but I would not make such a
22 blanket statement.

23 MR. CARROLL: And do you have any
24 concerns related to managing the state of charge
25 with the system as proposed?

1 MR. THEAKER: I do. These spreadsheet
2 analyses, you know, effectively said we'll set up
3 a system where the storage device will always
4 charge when it's supposed to charge and will
5 always discharge when it's supposed to discharge,
6 and the real world just doesn't work that way.
7 You always have to anticipate what future
8 conditions will be. They may not be what you
9 expect. The grid may not be in the condition you
10 expect it to have access to all the charging
11 energy. So I think these scenarios kind of
12 reflect, you know, a very perfect scenario of
13 these long duration resources charging and
14 discharging exactly as you would expect them to,
15 and I don't think the world quite works that way.

16 MR. CARROLL: And then, finally, with
17 respect to the third component of the base case,
18 the 30 megawatts of slow response, demand
19 response, what's your view of that component?

20 MR. THEAKER: I think that the -- as Mr.
21 Caldwell describes the lubrication by a short
22 duration of energy storage makes perfect sense.
23 That enables the demand response to respond
24 within ten minutes so that it meets the ISO's
25 requirement, which is the resource has to be

1 deployed in 20 minutes.

2 Where I guess I take issue is that these
3 30 megawatts of conventional DR, that this is
4 load reduction and it's subject to some of the
5 vagaries that we've seen with demand response,
6 namely, a fatigue. If these resources were called
7 multiple days in a row over hot weather
8 conditions, I think it's perfectly rational to
9 expect that they would not perform on the third
10 or fourth day the way they did on the first. So
11 that's my concern about the 30-megawatt slow DR
12 converted to fast DR.

13 MR. CARROLL: And can you just explain
14 when you say these resources wouldn't perform on
15 the third day, perhaps make -- use a concrete
16 example of a particular type of demand response
17 program and what you mean by not performing?

18 MR. THEAKER: Sure. So, for example, if
19 the demand response, you know, relied on people
20 conserving energies or reducing their air
21 conditioning, right, everybody is happy to do
22 that the first day, the first hot day, the second
23 hot day maybe. The third hot day, I think you get
24 deteriorating performance. That's -- that's just,
25 I think, a long acknowledged concern about load

1 reduction programs.

2 MR. CARROLL: Moving away from the base
3 case assumptions and on to the three portfolios,
4 you stated in your written testimony that you
5 believed Scenario 1 was not viable. Can you
6 please explain this --

7 MR. THEAKER: Sure. Scenario 1 relies on
8 the fact that Ellwood will still be in operation.
9 So currently before the Public Utilities
10 Commission is an application from Southern
11 California Edison to approve a contract that
12 would refurbish Ellwood and extend its lifetime.
13 And the proposed decision would reject that
14 contract. I think it's entirely unreasonable to
15 expect that if that contract is rejected and
16 there is no other proposed decision at this
17 point, that Ellwood would not be refurbished and
18 therefore would not remain in operation much
19 longer.

20 MR. CARROLL: And do you know the age of
21 the Ellwood facility?

22 MR. THEAKER: I believe it came online in
23 1974, so it's approaching 50 years old.

24 MR. CARROLL: Similarly, a number of the
25 proposals have suggested that Mandalay 3 could be

1 used to meet LCR need for some period of time. Do
2 you think that's a reasonable approach?

3 MR. THEAKER: Not under current
4 conditions. First, like Ellwood, that resource is
5 approaching 50 years old and so it's in regard
6 the end of its engineering lifetime. It's
7 currently uncontracted as well, and I think it's
8 irrational to expect that any uncontracted
9 resource will remain in operation given the state
10 of California energy markets, regardless of what
11 its age is. So the fact that it's not contracted
12 and the fact it's approaching 50 years old and
13 the fact that the ISO too assumes that Mandalay 3
14 will not remain in operation, all suggest that it
15 will -- it's unwise to rely on that unit
16 remaining in operation.

17 MR. CARROLL: Moving onto Scenario or
18 Portfolio 2, you concluded in your written
19 testimony that it does not provide the same level
20 of reliability as Puente would. Could you please
21 explain --

22 MR. THEAKER: Sure.

23 MR. CARROLL: -- the basis of that
24 conclusion?

25 MR. THEAKER: Yeah. Sure. As the ISO

1 noted in the study, Scenario 2 does not bring any
2 real power to the table apart from the real power
3 provided by the 135 megawatts of base resources.
4 So, as the ISO noted, it leaves the Moorpark area
5 exposed to potential load shedding for
6 combinations of transmission line outages. So I
7 just want to note with regard to load shedding,
8 Mr. Caldwell talked about demand response as kind
9 of being preplanned load shedding. Load shedding
10 is not something we want to go within a million
11 miles of.

12 Load shedding is the intentional
13 disconnection of electric service to customers
14 without their consent and unannounced. This is
15 what every electric system planner tries to stay
16 away from. And I can tell you from experience
17 working at the ISO, I worked in the operation
18 engineering department there, in 2000, when due
19 to very high temperatures in the Bay Area, the
20 ISO rotated a 100-megawatt block of load shedding
21 in the Bay Area which is, you know, 6,000
22 megawatts of load. And the anecdotal reports of
23 the disruption it caused, traffic jams and people
24 stuck in elevators, and things like that, load
25 shedding is not something you want to -- you want

1 to go down that road.

2 I mean it -- it works great in theory
3 when you say we could allow a certain amount of
4 load shedding if it's somebody else's load. But
5 if it's your load, I don't think you want to be
6 exposed to load shedding. So Scenario 2, which
7 expresses the area to load shedding, does not
8 maintain even the level of reliability that the
9 Moorpark subarea enjoys now. And the ISO planning
10 criteria allow it for multiple contingencies, but
11 they also say this is not a long-term solution,
12 we should not rely on load shedding to solve
13 network deficiencies.

14 MR. CARROLL: Thank you. And then moving
15 onto Portfolio Number 3 analyzed by the CAISO, do
16 you have any concerns with respect to that
17 proposal?

18 MR. THEAKER: Again, Scenario 3 provides
19 the real power that would mitigate the need to do
20 any load shedding, but again I think it relies on
21 a very precise balance of charging and
22 discharging long duration energy storage in a
23 very precise way, a precision that I think would
24 be unlikely to happen in real world operations.

25 MR. CARROLL: Thank you. Moving to the

1 cost information, there has been a fair amount of
2 criticism of the cost figures included in the
3 CAISO study, most of that suggesting that the
4 numbers were trending high. Did you have any
5 concerns or recognize any problems with the cost
6 analysis that was provided by the CAISO in its
7 study?

8 MR. THEAKER: Yeah. I think as parties
9 have noted, the CAISO focused on capital cost.
10 Many parties noted that the ISO didn't include
11 additional operating costs like the cost of fuel.
12 Well, that's true, but the ISO also didn't
13 include the value of additional benefits that are
14 presumed by providing the energy or the provision
15 of ancillary services like spinning reserve, non-
16 spinning reserve. And so the ISO study also
17 failed to acknowledge that there are additional
18 costs associated with battery storage system.
19 There is an augmentation cost which is an ongoing
20 cost of simply adding small increments of
21 batteries to maintain the original performance of
22 those systems. That happens just as a matter of
23 course.

24 There is also the fact that battery
25 storage systems tend to last 10 to 15 years,

1 whereas the economic and engineering life of an
2 asset like Puente would be 30 to 40. So you would
3 have to factor a full cycle of battery
4 replacement costs into those. The ISO study
5 didn't do that.

6 MR. CARROLL: Thank you.

7 MR. THEAKER: I mean by design, not a
8 fault, but that they simply acknowledged they
9 were looking at the capital cost.

10 MR. CARROLL: Thank you. There has also
11 been testimony claiming that the energy storage
12 assumed in the CAISO study would be able to earn
13 significant additional revenue when not operated
14 for local reliability reasons and that these
15 would offset some of the costs associated with
16 the portfolios. Do you agree with that?

17 MR. THEAKER: I think to some extent, but
18 I tend to think that the claims of tapping into
19 multiple value streams and the additional
20 revenues might be overstated.

21 MR. CARROLL: And can you expand upon
22 that?

23 MR. THEAKER: Sure. I mean any resource
24 that provides a service within that area would be
25 able to earn additional revenues. When Puente

1 produced energy, for example, it would earn a
2 revenue from providing that energy. So the study
3 failed to account for all of these across the
4 board, both for Puente but also for the preferred
5 resource, so that's just the consideration of the
6 study design.

7 Now with regard to kind of really
8 optimistic assumptions about multiple value
9 streams for behind-the-meter resources, we
10 haven't gotten there yet. So, for example, the
11 ISO in its energy-storage and distributed-energy
12 resource proceeding, you know has not got to that
13 phase of the proceeding where it's really trying
14 to find a way to tap into those. That's coming,
15 but it hasn't happened yet. So at this point they
16 are somewhat theoretical.

17 The same way with the energy-storage
18 proceeding that the PUC is running, is that that
19 is an item for the PUC to take up but they
20 haven't taken it up yet. But the one thing that's
21 clear is that with regard to behind-the-meter
22 storage, the ISO and the utilities and the Public
23 Utility Commission are very serious about the
24 fact that an energy-storage device behind the
25 meter cannot get paid twice for providing the

1 same service.

2 So, for example, if a behind-the-meter
3 resource was providing demand charge reduction
4 and operated frequently to do that, the ISO would
5 factor that in, that behavior into its assessment
6 and it wouldn't allow the resource to earn
7 wholesale revenue for what is essential a retail
8 behavior. And so I think that the promise of
9 multiple revenue streams, I think every
10 developer, even NRG, is looking to try to tap
11 into that, but that's not yet a fact, it's not a
12 reality. We haven't gotten there.

13 MR. CARROLL: You indicated that you had
14 reviewed the prepared testimony of Mr. Caldwell
15 and you were here today when he provided his oral
16 testimony. Do you have any questions or concerns
17 related to Mr. Caldwell's testimony, either his
18 written testimony or what was presented today?

19 MR. THEAKER: I have many. Would you like
20 me to start?

21 MR. CARROLL: Please.

22 MR. THEAKER: First let's start with the
23 most recent thing. The peak shift, I'm pretty
24 convinced I don't understand Mr. Caldwell's
25 objection to this. But as I understand what the

1 peak shift does, the peak shift simply says we're
2 going to add a megawatt quantity, not a megawatt-
3 hour quantity, another to quantity, but a
4 megawatt quantity to the local capacity
5 requirement in this area to account for the fact
6 that solar rolls off and won't be there at the
7 time of peak load. So I've tried to -- I've tried
8 to parse through exactly why he's translating
9 that from a megawatt quantity into an energy
10 quantity, but I haven't gotten there. But even if
11 that were true, I think that the fact that it
12 wouldn't necessarily reduce the battery duration
13 that you need because the battery duration is
14 focused on discharge and not on charge.

15 So another issue is that Mr. Caldwell
16 asserted that the inverters can only -- you know,
17 could at times produce reactive power only to
18 meet the voltage need. I don't disagree that the
19 inverter could produce only reactive power, but I
20 think that that doesn't necessarily mean that
21 only producing reactive power would meet the
22 reliability requirements of that area.

23 When the transmission lines are importing
24 power, if they're importing power above a certain
25 level the transmission lines require additional

1 reactive support. If the lines are lightly
2 loaded, they don't require that. In fact, they
3 provide reactive support. So I'm not persuaded
4 that the mere fact that inverters can produce
5 only VARs, you know, necessarily says that you
6 can get with less of these resource- -- in fact,
7 I think you would need more reactive power if the
8 inverters were not producing real power at the
9 same time.

10 Mr. Caldwell asserted in his testimony
11 that operating Puente for LCR requirements would
12 likely result in incurring a higher forced outage
13 rate. He used an analogy of accelerating and
14 stopping on the brakes for Puente. I'm not sure I
15 get that because it's -- Puente is a synchronous
16 machine, it would operate at grid speed all the
17 time. If he's referring to the fact that the unit
18 would be required to increase power output and
19 decrease power output, that's what it's designed
20 to do. And so I think that an assertion at Puente
21 would -- that simply operating Puente would
22 result in a higher forced outage is unsupported
23 and I disagree with it.

24 Mr. Caldwell asserted that Puente would
25 put additional stress and strain on the natural

1 gas delivery system in Southern California, I
2 don't see how that's possible. We are talking
3 about replacing 2,076 megawatts of conventional
4 generation, less efficient generation, with 262
5 megawatts of more efficient generation, that will
6 likely operate at a fairly reduced capacity
7 factor. I have no idea how that could put
8 additional strain on the national -- the natural
9 gas infrastructure in Southern California.

10 Mr. Caldwell talked about solar meeting
11 the local capacity needs of the area. Again, the
12 whole reason why the Energy Commission and the
13 ISO have developed the peak shift is because
14 solar goes away at the end of the day while the
15 load stays high, and so this is a way of
16 accounting for that performance.

17 Mr. Caldwell assumes that Puente will
18 just -- you know, he focuses on operating 150
19 hours a year: 30 days for five hours. But that's
20 not the way the local capacity requirements work.
21 When the PUC has established local capacity
22 requirements, they are requirements that are in
23 place 12 months a year, not just 30 days a year.
24 Well, why is that? Because the capacity helps
25 the ISO maintain the reliability of the system

1 under conditions other than peak conditions. It
2 allows transmission lines to be maintained in the
3 winter, it allows generators to be maintained in
4 the winter. So the idea that whatever you drop
5 into the Moorpark subarea as a local capacity
6 resource would only be operated 30 days of the
7 year, that's not the way the RA program works and
8 that's not the way the resources would be
9 dispatched.

10 Mr. Caldwell asserted that the only value
11 Puente brought to the table was LCR mitigation, I
12 can guarantee you that Edison would count Puente
13 toward meeting its system RA requirement, it
14 would count Puente toward meeting its flexible
15 capacity requirement. He makes an assertion that
16 Puente brings no net benefit to the table. To the
17 extent that's true, it's simply by virtue of the
18 fact that you're dropping a resource into a
19 locally-constrained area. Any resource that you
20 drop into this locally-constrained area that
21 displaces something outside of the local-
22 constrained area would suffer from the same flaw
23 to the extent that that's a flaw. So the
24 assertion that there is no net value, I think, is
25 not -- it's not the fault of Puente, it's simply

1 a fact that you require resources within this
2 local area that may displace resources outside
3 the local area.

4 And then finally Mr. Caldwell asserts
5 that, you know, the only way we can -- we can
6 sort this through is to conduct another RFO and
7 see what shows up and that's the only way we can
8 address the uncertainty created by Puente. And
9 I'd offer that Puente is a known resource
10 developed on an existing site using existing
11 known technology. It is the most certain solution
12 that we have in front of us. Whereas, you know,
13 looking at preferred resource alternatives,
14 that's where the uncertainty lies.

15 So I think the question is we've seen
16 that from the ISO study that preferred resources
17 can technically meet the need, but we haven't yet
18 got established fact that they can be acquired,
19 they can be deployed, and they can be dispatched
20 in a manner that would provide reliability in the
21 same way that Puente would.

22 MR. CARROLL: Thank you. You also stated
23 that you had reviewed Dr. Karpa's testimony and
24 of course you were here when he testified today.
25 Do you have any response to either the written or

1 oral testimony of Dr. Karpa?

2 MR. THEAKER: I do. I'm still trying to
3 sort through his spreadsheet and try to
4 understand it. With regard to his cost analysis,
5 he assumes that Puente runs at its maximum output
6 262 megawatts, 2,190 hours of the year, which I
7 think is its maximum permitted capability. That's
8 how he derives the 800 plus million dollar cost
9 net present value for Puente. I don't think
10 anybody expects Puente to operate 2,000 hours a
11 year at its full load. And so I think that's a
12 greatly overstated cost.

13 In fact, I think that -- I looked at
14 that, what's the breakeven point for his Scenario
15 3, which is \$433 million, and if Puente ran fewer
16 than -- around 500 hours a year, which is what
17 Mr. Caldwell asserts it will run, then it would
18 be less expensive than his proposed solar-plus-
19 storage alternative.

20 MR. CARROLL: And, similarly, you
21 testified that you had reviewed the prepared
22 testimony of Mr. Owens, and you were here today
23 when he testified. Do you have any reaction to
24 his testimony, either written or oral?

25 MR. THEAKER: Yeah. Again, the folks that

1 are bringing preferred resources, you know, are
2 pointing to the multiple value streams, the
3 opportunity of reduced costs. I don't think that
4 we're there yet. Clearly the ISO focused on
5 capital costs. They didn't account for things
6 like operating cost, but they also didn't account
7 for the benefit. So that's just the ISO study
8 design. It is what it is. But, again, I think
9 that grandiose expectations about multiple value
10 streams, especially for behind-the-meter storage
11 or behind-the-meter devices at this point, you
12 know, have not been realized.

13 MR. CARROLL: And then, finally, the
14 topic of using the one-in-ten load forecast to
15 set the local capacity requirement for the
16 Moorpark sub area has been discussed a couple of
17 times this morning. Can you please explain what
18 that means and how it's used?

19 MR. THEAKER: Yeah. One-in-ten load
20 forecast means weather conditions that you would
21 expect to encounter, you know, roughly once every
22 ten years: Hot weather conditions. And so this
23 was -- has been the longstanding study design to
24 determine local capacity requirements, I think
25 since those requirements were put in place in

1 2006. And it's a compromise. It says we're not
2 going to look at the system on a normal summer,
3 on a one-in-two summer and design it just to meet
4 load -- you know, be reliable for a normal
5 summer. We're going -- we're going to hold it to
6 a higher standard. We're not going to hold it to
7 a one-in-a-hundred-year heat storm standard, but
8 we're going to hold it to a higher standard than
9 -- than one-in-ten.

10 I would note with regard to one-in-ten,
11 for 2017 the ISO's one-in-ten system load
12 forecast was 48,800 and change, but the ISO
13 actually observed a load on September 1st of
14 50,116 megawatts. So one-in-ten does not
15 represent the absolute, most conservative
16 condition that you, you know, should look at for
17 the system. It's a statistical number. It
18 represents a compromise for a reasonable
19 standard. But it -- you know, it's not the be-
20 all, end-all. And it can be exceeded in actual
21 operation and you need to be prepared when it is.

22 MR. CARROLL: Thank you.

23 That concludes our direct examination of
24 Mr. Theaker. Shall we move to Ms. Gleiter?

25 HEARING OFFICER KRAMER: Well, let me

1 check in with the Southern California Edison
2 witnesses. It looks like one of the two might
3 have dropped off or had to call in again.

4 Can we unmute the call-in users, Amanda?

5 Okay. So Mr. Chinn, are you there?

6 Okay, he might be the one that fell off.

7 Mr. Sekhon, are you still there?

8 MR. SEKHON: I'm still here.

9 HEARING OFFICER KRAMER: Okay. Do you
10 know about Mr. Chinn, did he have to leave?

11 MR. SEKHON: Yeah, Mr. -- no, he's still
12 here. He's just -- he's on mute, he's just
13 unmuting his phone. I think he might be -- he did
14 have to drop off and drop -- and call back in
15 again, so he might have a different number now.

16 HEARING OFFICER KRAMER: Okay. If we
17 could just have him speak up so they can keep him
18 unmuted.

19 MR. SEKHON: I'll ask him to now.

20 HEARING OFFICER KRAMER: Okay. Then let
21 me ask the people in the room: Do we have any
22 questions for SCE? Because I think they went --

23 MR. SEKHON: Unmuted.

24 MR. VESPA: If they just have five
25 minutes, I wanted to ask. . .

1 HEARING OFFICER KRAMER: Okay, so we do
2 have some.

3 Hold on, Mr. Vespa, let's make sure
4 they're there.

5 MR. VESPA: Yeah.

6 MR. SEKHON: Yeah, we can stay a little
7 longer if needed. I can stay till 3:30?

8 HEARING OFFICER KRAMER: Oh, okay. All
9 right, well, we won't consider that a challenge.

10 All right. Mr. Vespa had a question or
11 two. So go ahead, Mr. Vespa.

12 MR. VESPA: Yeah. Were you listening to
13 the testimony just now from Mr. Theaker?

14 MR. SEKHON: Yes, I was.

15 MR. VESPA: Okay. I believe there was a
16 reference to capacity needed all year round.
17 Isn't it true that capacity needs are highest in
18 the summertime peak months?

19 MR. SEKHON: The system capacity
20 requirements are higher in the summer months, but
21 local capacity requirements are set the same for
22 every single month of the year.

23 MR. VESPA: Okay. And when you procured
24 resources through, for example, the PRP2, you
25 have had certain offer obligations that are --

1 the minimum requirement would be to be available
2 in the summer months, for example, for four hours
3 with certain discharge and discharge timing,
4 correct?

5 MR. SEKHON: Yes. So the PRP criteria
6 were different. The -- the issue that we were
7 trying to mitigate in the Johanna Santiago area
8 was not an LCR need, it was a load-growth issue.
9 And based on the profiles that we had developed
10 having resources that were just available for the
11 summer would meet that need.

12 MR. VESPA: Okay. And if you were to do
13 an RFO for the Moorpark area, you would not be
14 limited to procuring only 135 megawatts, correct?

15 MR. SEKHON: I'm not sure I understand
16 the question, but, you know, if we were required
17 to do an RFO in the Moorpark area we would first
18 have to establish what the need is that we're
19 trying to meet, get agreement on that, and then
20 move forward from there with an RFO designed to
21 meet that need. And, as I discussed before,
22 generally we never just procure exactly the
23 megawatts that we're trying to meet in this -- in
24 that sort of topic, but there are other sort of
25 contingencies that we have to consider, developer

1 viability, likelihood that they will meet the
2 online dates, all of those considerations. And
3 what I can say is the LCR is a reliability issue.
4 I think we have a lot more leeway in areas like
5 the PRP where it's something that isn't being
6 done to meet a system or reliability or safety
7 issue, and the same with the Goleta vis-a-vis in
8 the ACES RFO -- I'm sorry. Not the Goleta but the
9 ACES RFO. It wasn't really a reliability issue,
10 it was just can we mitigate the use of gas
11 resources. So we have certain, you know,
12 flexibilities there that we don't really have the
13 luxury of in the context of a reliability issue
14 like this.

15 MR. VESPA: Yeah. So and you had -- I
16 think you had testified earlier a little bit
17 about some of the reasons why a developer may
18 drop out and not, you know, meet its contractual
19 obligations. So typically you would think to -- I
20 know this happens in the RPS context -- you would
21 think to, you know, over procure from an amount
22 you're targeting to plan in certain failures of
23 certain contracts, correct?

24 MR. SEKHON: Yes. We look at multiples of
25 need, but we also -- you know, Edison is also

1 looking at the affordability factor as well. And
2 so if going to multiples of need is going to be
3 an extremely cost-prohibitive proposition, then
4 we might go with a lower cost portfolio and, you
5 know, take that risk. But if we can get a
6 multiple of need that we're comfortable with for
7 a reasonable cost, then we will go for a multiple
8 of need.

9 MR. VESPA: Thank you.

10 HEARING OFFICER KRAMER: Anyone else?

11 MR. CARROLL: Just one follow-up
12 question. This is Mike Carroll for the Applicant,
13 and follow up to one of the responses to a
14 question from Mr. Vespa.

15 When you state that you had more leeway
16 in the context of the pilot project that you
17 would not have in the context of an LCR RFO in
18 Moorpark, could you expand upon that a little bit
19 more? And is it correct to assume that part of
20 that means that the contracts that you would be
21 willing to enter into with the providers might be
22 more onerous in terms of penalties for failure to
23 meet online dates and other types of milestones?

24 MR. SEKHON: I think that's correct. I
25 think, you know, our objectives here would be,

1 you know, to have probably higher penalties. The
2 -- the issue that we're trying to mitigate in the
3 Moorpark area, -- it's a reliability issue. I
4 mean this process -- I mean we're sort of five
5 years into this process right now. This is a
6 process that started back in 2012. And so, you
7 know, it's taken us five years to get to this
8 point.

9 You know back in 2012 when the Track 1
10 decision came out, that was -- that was an
11 opportunity for us to have this type of debate. I
12 think, you know, when we filed our application in
13 2015 that was another opportunity to have this
14 kind of debate. I think we all here now kind of
15 think this type of discussion about what we could
16 do, how we could change things, it's a good
17 discussion to have, but it does create risks to
18 the market, not just to gas developers but to all
19 developers in terms of how we meet the needs that
20 are set to us by the Commission -- and when I say
21 Commission I mean CPUC. Having the CPUC
22 established a process, we follow the process, we
23 met the requirements. I think reliability issues
24 like this need to be -- you know, need to bring
25 some integrity to the process.

1 -And I think that's what I'm talking
2 about when I say that, you know, there is more
3 leeway in procurement activity such as the PRP of
4 the ACES because there is not really sort of what
5 I would call a reliability impact. If that
6 resource doesn't materialize, if something
7 happens or if there is delay, I think in the
8 context of this procurement activity if it were
9 to happen, I mean we've got about three years
10 before the need comes through, the August 2021.
11 We're already five years into a process. Building
12 an RFO, getting the appropriate, you know,
13 approaches to value the resources, because there
14 has been a lot of discussion today about the
15 differences of how these resources can meet the
16 need or what other types of needs can be met by
17 resources, designing that valuation process,
18 making sure that we can contract around that
19 process to go within the performance, it's not an
20 easy task. So we have to recognize that any
21 determination, a new scope, need, or
22 authorization could lead to the continued
23 operation of resources like Mandalay and Ormond
24 beyond their OTC compliance dates. So I think
25 there is a lot of complexity in this process.

1 And I agree with the statements, I think
2 technically the CAISO has shown that it is
3 feasible. I think it's just a matter of the
4 viability of the preferred resource alternative
5 and the timing. Are we prepared for how much time
6 this could take to get it done right and what
7 that means for reliability.

8 MR. CARROLL: And based on past
9 experience with the need to impose more onerous
10 requirements to ensure that the resources showed
11 up as contracted, affect the participation rate
12 in the RFO?

13 MR. SEKHON: I think from an onerous
14 requirements perspective, I think we would have
15 higher standards. I think, you know, in order to
16 make sure that we get these resources online on
17 the dates that we need them, we would have to
18 have, you know, sort of a viable entity that
19 we're transacting, people that have demonstrated
20 that can deliver. We'd have to make sure that we
21 -- you know, one good thing for me is
22 interconnection. I think people talked about the
23 speed at which we were able to do the ACES RFO.
24 Yes, we were able to execute that very fast and,
25 yes, we were able to build and deploy those

1 resources extremely fast. But if you look at the
2 actual resources that were built and deployed,
3 the one benefit they have is we used existing
4 interconnections for even the third-party sites
5 on the -- on the utility on sites we used SCE's
6 own substation, so we avoided the interconnection
7 issue under a steady process. So that mitigates a
8 lot of the siting, the permitting, the land
9 issues.

10 And so, yes, the actual time, once you
11 have a site, once you want -- once it's
12 integrated, built and deployed, it can be very
13 fast, but you've got to factor in all of those
14 other contingencies. And so we would be looking
15 for a stronger -- you know, they would have to
16 have a phase two probably, and that's going to
17 take up to 18 months to two years to get if
18 they're not already in queue. So there are a lot
19 of things that would need to be done to make sure
20 that there is enough skin in the game to -- for
21 these resources are going to get built, to have
22 the site that we need.

23 I mean we're talking about here, yeah,
24 the risk to resolve viability and, you know,
25 creates higher cost pressures, especially when

1 you're looking at such a large procurement and
2 trying to compress that large procurement into a
3 very short window, leads to a higher level of
4 uncertainty and potential higher costs for
5 customers. That's the biggest concern that the
6 SCE sees from this type of activity. And then
7 again, you know, maintain the integrity of the
8 process. I mean this was -- these were issues
9 that, you know, from my perspective could have
10 been brought up a lot earlier, and there were
11 multiple opportunities.

12 But that aside, I think, like you said, I
13 think there would be a requirement for higher
14 performance from the bidders, there would be a
15 requirement for more viable bidders who have got
16 demonstrated an ability to deploy, and then you
17 would have to look at what does that translate to
18 in terms of performance showed and delivery
19 ability, and so forth.

20 And then we'd have to look at contingency
21 because, like I said, it's a reliability issue.
22 If these resources aren't going to be built in
23 time to meet the contingency, what's going to be
24 our back-up plan, is the back-up plan to extend
25 the OTC compliance deadline so that the 2,000

1 megawatts or OTC units that were scheduled to
2 retire in 2020, we would have to look at those
3 back-up contingency plans to see what makes the
4 most sense and the implications of that as well
5 from a system and reliability perspective,
6 because even those resources that we discussed
7 just now, Ellwood and Mandalay are reaching
8 almost 50 years and Ormond of the other Mandalay
9 sites, they're almost reaching 50 years. Even --
10 if an extension even something appeared
11 completely possible to do. And so how do we
12 manage this process such that we don't impact
13 customers and we do ensure --

14 MS. FOLK: I actually have a few more
15 questions --

16 MR. SEKHON: -- that we maintain
17 reliability of the system --

18 MS. FOLK: -- for Mr. Sekhon.

19 HEARING OFFICER KRAMER: Okay. You might
20 have been cut off there, Mr. Sekhon. Did you have
21 more to say?

22 MR. SEKHON: Well, no, I'm done.

23 HEARING OFFICER KRAMER: Okay. Let me
24 just ask you for the record. The RFO or the
25 procurement deal you referred to as an example of

1 something that went very quickly, could you just
2 -- I couldn't quite catch the acronym, and
3 explain what it involved.

4 MR. SEKHON: Sure. That was the ACES RFO.
5 That means Aliso Canyon Energy Storage RFO that
6 we executed last year at the request of the
7 commission, a resolution, a CPUC Commission
8 resolution, to get storage resources online by
9 the end of 2016, to mitigate some of the gas
10 issues resulting from the closure of the Aliso
11 Canyon gas facility.

12 And so there we were sort of tasked with
13 getting as much as storage online as we possibly
14 could by the end of the year. And that was a task
15 that was given both to SCE and San Diego Gas and
16 Electric. And SCE was able to achieve about 20
17 megawatt of storage capacity through 22
18 megawatts, I think it was, through third-party
19 procurements. And then we get an additional 40
20 megawatts: Twenty megawatts that the gentleman
21 for Tesla spoke about and then 20 megawatts at
22 the peaker sites through these in-house gas
23 turbines, so we deployed storage on those peaking
24 facilities.

25 And so, you know, like I said, the reason

1 we were able to deploy that much -- and, you
2 know, it sounds like a lot, but I mean that
3 really was -- you know, it was a very sort of
4 heavy effort for us to get there. But the reason
5 we were able to get there is because we had
6 developers who had existing sites, who had
7 existing interconnections, were able to utilize
8 those existing interconnections and sites to
9 deploy the storage.

10 In the case of Tesla, SCE was able to
11 provide the site, provide the interconnection,
12 and do a lot of that pre-planning work in
13 advance. And then the storage sites of the
14 peakers, that was a project that was sort of in
15 play at the -- at the utility. We were thinking
16 about these things and we were able to leverage
17 and accelerate activity to meet the deadlines and
18 the resolution requirements for Aliso Canyon. I
19 think if you ask -- if San Diego was here, they
20 would probably have a similar response and tell
21 you how they were able to get their storage
22 efforts online as quickly as we did, was because
23 of the fact that they were able to utilize
24 existing interconnections and so forth. So it's
25 just a matter of not every RFO is the same and

1 there are lots of -- lots of issues that can come
2 up in executing an RFO.

3 And another thing that was mentioned is
4 customer acquisition. I think for demand response
5 type products, customer acquisition is a big
6 deal. How are you going to market and acquire
7 those customers in the time that you have.

8 HEARING OFFICER KRAMER: Okay. Thank you.
9 I got it.

10 Ms. Folk.

11 MS. FOLK: Yeah. I have a couple of
12 questions. One on the process. You do understand
13 that there was a request at the PUC to evaluate
14 alternatives to the Puente Project, and that was
15 deferred to this process and -- but I'll move on
16 because that was really just a statement.

17 MR. SEKHON: Sure.

18 (Laughter.)

19 MS. FOLK: And the other question I
20 wanted to ask is the Huntington Beach Project
21 that was converted to synchronous condenser,
22 that's an Edison -- it's in Edison territory,
23 correct?

24 MR. SEKHON: Huntington Beach asset is in
25 Edison's territory, but it's a resources owned by

1 AES.

2 MS. FOLK: Yes. Okay. I may have more
3 questions in a minute, but for now that's it.

4 HEARING OFFICER KRAMER: Okay. Anyone
5 else?

6 Okay, I guess not. Mr. Sekhon, if you can
7 issue a last call before you leave, and give
8 yourself ten minutes, we'll move on -- or would
9 you like to -- would you like to go now?

10 MR. SEKHON: What do you mean by last
11 call?

12 HEARING OFFICER KRAMER: Well, we're
13 trying to fill you up as a witness, but we want
14 to make sure that you just don't sign off, you
15 know, and we're surprised --

16 MR. SEKHON: Yeah. I can -- I can
17 announce before I sign off. Like I said, I have
18 arranged that I can stay till 3:30 just in case
19 there are any additional questions that I may be
20 best suited to answer.

21 HEARING OFFICER KRAMER: Okay. Thank you.

22 MR. VESPA: May I ask my witnesses who do
23 need to leave shortly if they might have the
24 chance to respond anything they have heard and
25 then --

1 HEARING OFFICER KRAMER: Yes, go ahead,
2 Mr. Vespa.

3 MR. VESPA: Would you like to have an
4 opportunity to respond to anything you've heard
5 since you presented?

6 MR. OWENS: Sure. Yeah, I'll just respond
7 to comments by Mr. Theaker about his claim that
8 behind the meter resources, distributor resources
9 and value stacking were overstated or not really
10 proven yet. And, yes, while in my statements I
11 did talk about a few values that could be future
12 and they don't exist today, you're correct in
13 terms of the Cal-ISO load consumption product.
14 That is a future product and it's not clear when
15 that will become available, or it hasn't been
16 approved yet, but I'm just pointing out that
17 there are future opportunities for that.

18 Distribution deferral is another one that
19 I had mentioned. And I just want to point out
20 that that is happening in California and
21 elsewhere. In New York, Brooklyn, Queens demand,
22 BQDM Program is deferring, be built out of a new
23 substation, and so like a billion dollar
24 investment by deploying distributed energy
25 resources, including energy efficiency, demand

1 response, energy storage, and renewables. And so
2 that is just a topic or a value stream that
3 wasn't really even explored in the CAISO study,
4 so that does -- or there is potential for that
5 today.

6 And then I'll just point out we are
7 actually doing -- using or leveraging multiple
8 value streams today with our deployments in
9 California and with Southern California Edison in
10 our LCR contract that we have with Southern
11 California Edison. So with the SCE contract, we
12 are allowed to do demand charge management for
13 the customer, which is a retail benefit to them.
14 And we are providing -- we have basically -- it's
15 like a demand response contract, but modified
16 because we're an energy storage resource,
17 providing them four hours of dispatchable
18 capacity. They are taking that capability or that
19 four hours of capacity and counting it towards
20 their resource adequacy requirement. So that is a
21 clear example of where we're doing two value
22 streams. We're allowed to do it in the rules
23 today. And that does -- the demand charge
24 management revenue stream that we're getting does
25 affect and actually reduce our capacity price

1 that we offered to Southern California Edison.

2 And every bid that I work on, and I do,
3 you know, 10, 20, 30 of these a year for multiple
4 utilities, we are doing value stacking.

5 The other example is with the demand
6 response auction mechanism in California where we
7 have contracts with SCE, SDG&E, and PG&E. We are
8 doing demand charge management and retail benefit
9 for the customer. And when we're not doing that
10 we're taking our battery capacity and bidding it
11 into the CAISO program. So value staggering is
12 probably a better term used to describe. You
13 obviously can't use a battery for multiple values
14 at the exact same time, but that's what our
15 software does. We choose when to use the battery
16 for what value streams, and that's our algorithms
17 and our optimization to get the best economics
18 from that resource.

19 MR. VESPA: I just wanted -- do you have
20 any questions for Mr. Owens or Mr. Schwartz
21 before they leave?

22 MS. BELENKY: Okay. This is going to seem
23 like a totally silly question. Sorry. This may
24 seem silly, but at one point you said that your -
25 - the batteries and everything that you have done

1 is available all weekdays. And I think you meant
2 every day seven days a week, not just Monday
3 through Friday?

4 MR. OWENS: Well, that -- that statement
5 is specific to our contract with Southern
6 California Edison --

7 MS. BELENKY: Oh, okay.

8 MR. OWENS: -- for -- and they were
9 seeking a peak capacity resource. And they don't
10 -- the load profile on the weekends is much lower
11 than the profile during the weekdays, and so that
12 was specific to that contract. If Edison has a
13 need for a weekend resources, yes, our batteries
14 can do that too. It's just that's what was
15 required of that particular contract.

16 MS. BELENKY: Okay. That's -- that's
17 really helpful, because I was confused why it
18 would only be on weekdays. Thank you so much.

19 HEARING OFFICER KRAMER: Okay. Anyone
20 else? So we've done last call or Mr. Vespa's
21 witnesses for them or for us. We also have SCE
22 that -- we're about to take a break, so we will
23 be coming back just right around 3:30, so.

24 MS. LAZEROW: Just for Mr. Vespa's
25 witnesses I have one question for the two of

1 them.

2 HEARING OFFICER KRAMER: Go ahead.

3 MS. LAZEROW: Shana Lazerow for the
4 California Environmental Justice Alliance.

5 I wanted to ask both of you, Mr. Schwartz
6 raised the Disadvantaged Communities Mandate and
7 I wanted to, because we do have disadvantaged
8 communities within the Moorpark subarea that have
9 been identified, whether your companies have
10 experience doing locationally-targeted outreach
11 and whether you would be able to structure a bid
12 that would look specifically at providing
13 resources in -- in the disadvantaged communities
14 in the Moorpark subarea?

15 MR. SCHWARTZ: So we haven't -- we
16 haven't done a specific assessment of the
17 Moorpark area or necessarily specifically
18 explored sort of doing outreach to the community
19 here. I will say that in the context of a PUC
20 proceeding related to the SCHIP Program and the
21 equity budget that they're proposing to create
22 there, we did look at our commercial pipeline and
23 found that over 30 percent of the projects that
24 we have done to date have actually been in
25 disadvantaged communities. These are commercial,

1 industrial projects, many of which are on
2 schools, in those communities. So I think it's
3 certainly an area that we feel comfortably we
4 could address.

5 MR. OWENS: Yeah, similar comments. We
6 too haven't done an analysis for the Moorpark
7 area, but like Tesla, I don't know the exact
8 percentage but a good number in the 20- or 30-
9 percent range also of our deployments have been
10 in disadvantaged communities so far. I would say
11 I mean a good part of what Stem does is customer
12 acquisition, and so we have a team of analytic --
13 basically our sales analysis and marketing teams,
14 you know, used various data-mining methods and
15 different outreach methods to reach and target
16 different customer segments. And so I'd imagine
17 that we have that capability to build a targeted
18 program if needed.

19 MS. LAZEROW: Thank you. Those were --
20 that was my only question.

21 HEARING OFFICER KRAMER: Okay. To be
22 clear, Mr. Vespa's witnesses are about to leave
23 us. So does anybody else have any questions for
24 them before they do so?

25 MR. CARROLL: No. No questions for Mr.

1 Vespa's witness or further questions for the SCE
2 witnesses from Applicant.

3 HEARING OFFICER KRAMER: Okay. So as to
4 the rest of the parties, do you have any further
5 questions for the SCE witnesses?

6 Seeing none, okay.

7 Thank you, Mr. Sekhon and Mr. Chinn, if
8 you're still there. Thank you very much for your
9 participation; Ms. Reyes Close, for your
10 assistance in obtaining their participation.

11 We are going to take a break, and you get
12 a much longer break, as do Mr. Owens and Mr.
13 Schwartz. So we will be off the record on break
14 until 3:30.

15 (Recess taken from 3:18 to 3:30 p. m.)

16 COMMISSIONER SCOTT: Okay. As our parties
17 are making their way back to the table, I will
18 ask our folks on the WebEx if you could just one
19 more time just unmute. I want to see whether or
20 not Intervenor Bob Sarvey has had the opportunity
21 to join us. Everyone is unmuted.

22 Intervenor Bob Sarvey, if you are there
23 please say hello.

24 Okay, not hearing any, you can please go
25 ahead and mute everyone that is not part of the

1 proceeding.

2 I also want to remind you all that we
3 have our Public Adviser who is not right there
4 right this minute but she is over in the corner
5 to my right. And she has the blue cards. If you
6 would like to make a comment, the way that you do
7 that is fill out a blue card. She will get those
8 up to me. And that's how we know that you would
9 like to make a public comment when we get to the
10 Public Comment portion.

11 So with that, I will turn the conduct of
12 this hearing back over to Hearing Officer Paul
13 Kramer.

14 HEARING OFFICER KRAMER: Okay. So we made
15 it through everyone's witnesses. We have
16 dismissed, with our thanks, Southern California
17 Edison and the Sierra Club's witnesses.

18 MR. CARROLL: Mr. Kramer, we actually
19 have Ms. Gleiter, we have one more witness.

20 HEARING OFFICER KRAMER: Right. And we
21 were in the middle of the Applicant's witnesses,
22 so Ms. Gleiter is next.

23 * MS. FOLK: Well, I actually -- I would
24 actually like to make a motion to strike Mr.
25 Sekhon's testimony after the lunch break as being

1 outside the scope of the hearing and also highly
2 prejudicial to the parties in that we did not get
3 an opportunity to see his testimony beforehand.
4 And he discussed a number of issues that we
5 think, if they're going to be part of the record,
6 then we deserve an opportunity to be able to
7 prepare testimony on them and respond to them.
8 And he was speaking so fast, it was quite hard to
9 actually make a list of them, but he discussed
10 things like interconnection and things that have
11 never been part of the proceeding here, the
12 integrity of the process, when in fact the
13 process was designed to operate this way. And so
14 I really feel like his testimony, without an
15 opportunity to present evidence and response to
16 it, was -- should be stricken.

17 HEARING OFFICER KRAMER: Any argument?

18 MR. CARROLL: Mike Carroll on behalf of
19 Applicant.

20 We completely disagree. We think that
21 Southern California Edison as one of the
22 participants in the preparation of the CAISO
23 study was completely appropriate to have them
24 here and available to respond to questions
25 related to the CAISO study.

1 Much of what the witness talked about
2 following the lunch break, and it's not exactly
3 clear which specific portions of that Ms. Folk is
4 referring to, but much of it was in response to
5 the proposals that the Intervenors, including the
6 City's witness, have put forward. So much of that
7 discussion related to the process for conducting
8 an RFO and what steps that would involve and how
9 long that would take and the sorts of risks that
10 are involved. And all of that is in direct
11 response to the proposal of the City's witness,
12 Mr. Caldwell, and others that are appropriately
13 conducted. So it was directly responsive to the
14 issues in front of us and primarily to issues
15 that have been put into play by the City.

16 MS. FOLK: And if I may respond, I will -
17 -

18 HEARING OFFICER KRAMER: Thanks for
19 asking, but, yes, go ahead.

20 MS. FOLK: I think the critical
21 difference is that we all provided testimony
22 ahead of time that people could respond to, and
23 we have not had that opportunity here. If Edison
24 wanted to testify as to the CAISO report and its
25 inputs into the CAISO report, that was fine, and

1 those are the questions we asked. But beyond
2 that, we deserve the opportunity to have -- to be
3 able to prepare to respond.

4 MS. BELENKY: If I might add, this is
5 Lisa Belenky with the Center for Biological
6 Diversity, we also object. And at the beginning
7 of the SCE comments and discussion, their
8 attorney on the phone said it would be limited to
9 a specific scope of the ISO report, and it did go
10 well beyond that scope. So I just want to make
11 sure that that's clear.

12 Our understanding was it would be limited
13 to that scope, and it didn't. The interconnection
14 issue and many things that he opined on at
15 various times in his long discussion at the end
16 there were not within the scope.

17 MS. WILLIS: Mr. Kramer, may staff --

18 HEARING OFFICER KRAMER: Okay, let's hear
19 from everyone, then we're going to take a moment.

20 MS. WILLIS: This is Kerry Willis for
21 staff.

22 First of all, the Edison witnesses were
23 not a party so they don't have -- they don't have
24 the same requirements as a party does. And at the
25 prehearing conference we had plenty of discussion

1 about late filings that seem to have come in
2 regardless of the lateness of their filings.

3 Second of all, they were appearing by
4 request of the Committee, which is a different --
5 which is a whole different format than if they
6 were an intervenor.

7 Third, we found the responses and the
8 discussion very informative to the process, to
9 how -- and I do feel that they were responsive to
10 many of the comments that were made by the
11 Intervenor's witnesses.

12 HEARING OFFICER KRAMER: Thank you.

13 Anyone else before we take a moment to
14 deliberate?

15 MR. CARROLL: Just one final thing,
16 because the statements related to interconnection
17 were raised a couple of times. That was directly
18 responsive to testimony from the Intervenor's
19 witnesses about how easily and how quickly they
20 were able to deploy some of the resources that
21 they talked about, and Edison was explaining why
22 in those cases it was easy and relatively easy
23 and relatively quick to deploy those resources.
24 So, again, all of that was directly responsive to
25 the testimony of the Intervenor's experts.

1 HEARING OFFICER KRAMER: Okay. Give us a
2 moment.

3 (The hearing Officer and Commissioners
4 deliberate.)

5 HEARING OFFICER KRAMER: Okay. We're
6 going to overrule or deny the motion, whatever
7 context is appropriate. Among others, Mr. Theaker
8 hinted that concerns about whether -- whether
9 some kind of alternative scenario could come
10 online in time, and that was in his testimony. In
11 our view, it is -- questions about the
12 feasibility of implementing the resources are
13 clearly related to the purpose for which the
14 study was obtained and offered. And, finally,
15 that the Intervenors by attempting to show that
16 it is possible to substitute some other
17 arrangement of resources for the Puente Plant,
18 put the issue in play and on the table. So,
19 again, the request is denied.

20 Mr. Carroll.

21 MR. CARROLL: Thank you. Applicant calls
22 Dawn Gleiter to the stand.

23 Can you please confirm your name, current
24 employer, and your current position?

25 MS. GLEITER: Sure. My name is Dawn

1 Gleiter. I'm employed by NRG Energy, Inc. And my
2 current position is I'm the senior director of
3 development for NRG's western region, which means
4 I'm in charge of development for our entire
5 western region, as well as the development
6 director for the Puente Power Project.

7 MR. CARROLL: And what experience do you
8 have that's relevant to today's proceeding?

9 MS. GLEITER: So I have over seven years
10 of experience in designing independent power
11 projects to bid into competitive solicitations
12 for utilities, including local preferred
13 resources and local capacity requirements.

14 MR. CARROLL: And what materials, if any,
15 did you review in preparation for providing
16 testimony today?

17 MS. GLEITER: This entire binder in front
18 of me, which includes, just for the record, it
19 includes the -- I'm actually just going to read
20 these so I can make sure that I've gotten all of
21 them -- it includes the CAISO study, the
22 supplemental testimonies filed by all the other
23 witnesses in response to the CAISO testimony
24 including my colleague Mr. Theaker, Sasa*, James
25 Caldwell, Mark Hester, Damon Franz, Doug Karpa,

1 Matt Owens, and along with the supporting
2 documentation, although I'll admit I only glanced
3 at the supporting documentation.

4 MR. CARROLL: Thank you. Can you please
5 proceed with your statement.

6 MR. VESPA: Can I -- I'd just like to
7 raise an objection. I'm a little concerned here.
8 Again, you know, our understanding was that the
9 purpose of today's hearings was response to the
10 CAISO testimony, the study, some of the
11 assumptions in that study, the feasibility of
12 that study. And now we're going into what appears
13 to be some sort of project-development testimony
14 that is outside the scope of anything CAISO said
15 and by the way of what we're trying to accomplish
16 here. There was no written testimony submitted
17 ahead of time. It's an entirely new subject area
18 and, you know, I don't think it's appropriate to
19 start talking about this in this hearing when,
20 again, this was something that could have been
21 said, you know, a year ago.

22 HEARING OFFICER KRAMER: Well, I'm not
23 going to --

24 MR. VESPA: -- testimony, more
25 importantly.

1 HEARING OFFICER KRAMER: I don't think I
2 can imply or impute knowledge to myself of what
3 she's going to say until she actually says
4 something, but you may choose to renew your
5 objection.

6 MR. VESPA: Okay.

7 HEARING OFFICER KRAMER: And she's
8 probably been a little bit forewarned by it.

9 MS. GLEITER: Sure. So --

10 MR. CARROLL: And let me just state that
11 the testimony that you're about to hear, and if
12 you disagree I'm sure you'll object, pertains
13 directly to the CAISO study.

14 MR. VESPA: Okay.

15 MS. GLEITER: All right. So I do have
16 some comments and they are related to my
17 development experience and how that relates to
18 the assumptions of the CAISO study and some of
19 the concerns that I have with some of the
20 assumptions that were included.

21 So, first, though, I wanted to give a
22 little bit of an overview of NRG mostly because I
23 think in the context for the last two and a half
24 years we have been talking about NRG in one of
25 our limited -- our limited capacities, but NRG is

1 actually a full technology agnostic development
2 company and we're one of the leading companies.
3 And we do develop all types of resources and we
4 have one of the most diverse and competitive
5 electric-generating portfolios that's integrated
6 with a retail platform.

7 And we have been on the leading
8 development also of preferred resources here
9 specifically within California. So in SCE's 2014
10 LCR RFO, NRG submitted and was successfully
11 awarded 174 megawatts of preferred resources
12 contracts. And in 2015 we acquired an additional
13 24-megawatt contract. And, finally, in the PRP2
14 solicitation that's been discussed quite
15 significantly today, we won the only California-
16 based solar-plus storage contract for 10
17 megawatts. So that experience is what I'm going
18 to kind of base some of my -- my concerns of the
19 ISO study on, is NRG's direct development
20 experience here in California.

21 MS. FOLK: Okay. I actually want to
22 object again because the notice for this hearing
23 said that -- and the order on the CAISO report
24 and allowing for additional testimony required
25 testimony to be filed by August 30th, and now we

1 have new testimony that's never been filed.

2 HEARING OFFICER KRAMER: So far you have
3 a little bit more of her résumé and CV,
4 qualifications, experience, so let's wait and see
5 what else -- I would overrule that direction --
6 that objection as to what she said so far.

7 MS. FOLK: I'm not -- I'm talking about
8 her testimony to come which is her concerns about
9 the CAISO report, which should have been filed in
10 written testimony on August 30th, like everybody
11 else in this proceeding.

12 MR. CARROLL: There is -- there is no
13 requirement to file written, prepared testimony.
14 The requirement is that if you are intending to
15 file written, prepared testimony, it had to be
16 filed by August 30th, but the prehearing
17 conference statement -- or the -- I'm sorry --
18 the order requesting the prehearing conference
19 statements very clearly request that you identify
20 whether the witness is intending to provide
21 written testimony or oral testimony, so that's
22 clearly an option, and this witness is providing
23 oral testimony only.

24 MS. FOLK: I believe that's an end-run
25 around the order that initially required the

1 parties to file their testimony by August 30th.
2 And all of us sitting here filed our testimony on
3 August 30th and everybody's had an opportunity to
4 respond to it --

5 MR. CARROLL: Well, --

6 MS. FOLK: -- and prepare.

7 MR. CARROLL: And that's simply not the
8 case. We've had many witnesses here today who
9 have spoken to things that were not included in
10 their written testimony. Ms. Folk, your witness
11 filed additional documents that he used in his
12 oral testimony today yesterday, so it's not the
13 case that everything was filed on --

14 HEARING OFFICER KRAMER: We're falling
15 into old habits. Overruled.

16 MS. GLEITER: Okay.

17 MR. CARROLL: Ms. Gleiter, -- Ms.
18 Gleiter, could you please proceed with your
19 statement.

20 MS. GLEITER: All right. So mostly what I
21 want to speak today against -- or about is the --
22 is the base case assumption of the 135 megawatts
23 that was included in the CAISO study. So as a
24 developer, I have, you know, kind of three
25 primary concerns with us just assuming that in

1 every scenario you're going to receive 135
2 megawatts of preferred resources. And I'd like to
3 just kind of give you a preview of those, tell
4 you what they are.

5 And so, you know, the first is that the
6 CAISO's base incremental distribution resource
7 package involves, you know, 110 megawatts
8 essentially of demand response. We've talked a
9 lot about this, the 80 megawatts of pure energy
10 storage backed demand response and then the 30
11 megawatts of energy storage slow -- slow response
12 being converted to actual demand response. But,
13 you know, given my experience I'd be really
14 concerned that that amount is actually going to
15 materialize in the Moorpark subregion.

16 There is a reason why decreased amount of
17 preferred resources have been bid into the past
18 RFOs in the Moorpark area than what was bid into
19 the L.A. and Orange County area. We actually
20 participated personally within those RFOs and
21 conducted a screening and a level analysis of
22 both of those areas. And we found that there
23 wasn't actually sufficient opportunities in the
24 Moorpark subarea for us to bid in a preferred
25 resource option into the Moorpark RFO. So that

1 experience leads me to directly have concerns
2 with the assumption that you are going to have 80
3 megawatts there.

4 Also that's due to my -- you know, my
5 understanding and knowledge of the number of
6 customers, of industrial customers in the area
7 that would be suitable for these types of demand
8 responses. You know we have heard several times
9 that we are basing this based off of a previous
10 area, but I would just caution us to say that as
11 a developer when you're looking at one local
12 capacity resource area, they're not directly
13 analogous. And by way of example, it's been a
14 while since I looked at this, but the number of
15 commercial and industrial customers in the L.A.
16 Basin and Orange County areas is somewhere on the
17 magnitude of four to one versus what's available
18 in the Moorpark area. And so while you may do
19 some scaling, without specific site and a level
20 analysis, and you can't just automatically assume
21 that you're going to get an additional 80
22 megawatts of resources.

23 You know even if such a base exists, and
24 this is kind of moving into my second concern, is
25 that even if you assume that there is a

1 sufficient customer load, commercial and
2 industrial load, you then have to assume that
3 you're going to have sufficient customer
4 adoption, you're going to be able to sign up
5 enough of those customers in that area to have an
6 adequate demand response contract. And, you know,
7 NRG has significant experience in this. I didn't
8 mention this earlier, but NRG actually has a
9 demand response company with around 2,000
10 megawatts of active demand response currently
11 being managed today.

12 And when we're looking at RFOs like this,
13 we look at a customer response rate or adoption
14 rate of anywhere between 10 and 25 percent, with
15 25 percent really being the best case scenario.
16 So you first have to assume that there is
17 sufficient C&I customers in the area. And then
18 you would have to assume that you get almost the
19 best case percentage of those customers to
20 actually participate in your demand response
21 program.

22 You know, in our experience early stage
23 development of these demand response programs,
24 the adoption rates are actually even lower than
25 our ten-percent assumption. As I mentioned

1 earlier, we won recently some actual demand
2 response contracts and are currently in the
3 process of implementing those. And we are
4 actually finding that our response and adoption
5 rates for customers are lagging our expectations
6 and right now in the early stages are less than
7 five percent. So this really leads me to be
8 concerned with the total number of demand
9 response megawatts that are assumed in every
10 scenario as a base case.

11 In addition to that, you know, I do think
12 that the adoption rate in the Moorpark subarea
13 would be low even if the submission -- even if
14 there was sufficient customer base, given the
15 fact that, as we heard earlier, this would be a
16 solicitation for a reliability contract. And I
17 would assume that there would be onerous contract
18 provisions to protect against nonperformance,
19 things like higher development securities
20 potentially, you know, longer step-ups,
21 interconnection requirements, and things like
22 that.

23 And so I do believe that you would be on
24 the low end of that adoption rate regardless. And
25 the Puente contract, to remind you, is a 20-year

1 contract. And these types of demand response
2 contracts are typically difficult to get an
3 industrial customer, a C&I customer to sign up
4 for 20 years. So that's just another
5 consideration that could affect adoption rates,
6 and gives me pause and concern.

7 And then, I guess, finally, a concern
8 that I have or a third concern that I have with
9 that kind of base case 110-megawatt demand
10 response assumption is that even if you assume
11 number 1 and 2 happen, you have a sufficient
12 commercial and industrial base, and you assume
13 you're able to get a sufficient amount of those
14 customers to adopt and actually sign up and roll
15 the program, they would actually have to make
16 sure that those are participating in the program,
17 perform, and that you can retain them. And Mr.
18 Theaker mentioned a little bit earlier about
19 fatigue, but in this particular scenario such as
20 we're talking, I would be really concerned with
21 fatigue and the implications that it might have
22 under a contract as a developer. You know those
23 same contractual provisions that make it harder
24 for us to get customers to participate in the
25 first place would actually have an adverse effect

1 on us retaining them because the demand response
2 resources we'd be tasked with fulfilling an LCR
3 need, the ISO would have the authority to call on
4 them, on the demand response resources at
5 unexpected times and probably for prolonged
6 multiday periods.

7 And after receiving such a call, the
8 customers would have to dispatch its demand
9 response, and sometimes they don't. And the
10 incentives, I think, are particularly misaligned
11 here. Currently for those customers that for
12 multiday periods, potentially the loss of
13 business operations to them could be greater than
14 contracts that would be offered under the demand
15 response. And so I would see this as a very risky
16 proposition from a performance standpoint as a
17 developer for such a long-term and local-
18 reliability need.

19 Next I would like to talk a little bit
20 about with respect to timing. In order for any of
21 the scenarios analyzed by the CAISO to fulfill
22 the LCR, the base case preferred resources would
23 need to be online well before the December 31st,
24 2020 timeframe. And given the amount of time that
25 it takes to conduct an expedited RFO, even an

1 expedited RFO, enter into the contracts and have
2 them approved by the PUC and deploy resources, I
3 just quite frankly don't see how this is
4 possible.

5 You know if you have all of those issues
6 identified above are overcome and you actually
7 successfully award 135 megawatts of contracts,
8 not all those resources are necessarily going to
9 materialize as planned. And there's actual real
10 evidence happening right now to show that this is
11 happening. You know there's limited experience
12 and I think that's a key factor too in knowing is
13 that Puente is a certain technology and we know
14 how it performs and when it performs. But there
15 is limited experience with implementation of
16 preferred resources and the evidence that we do
17 have shows that they can lag in their planned
18 implementation and deployment. And, in fact, SCE
19 in their PRP program currently has just revised
20 their 2017 implementation number down by 33
21 percent due to delay in regulatory contracts. And
22 that would be something that I don't necessarily
23 see getting better in the future, if anything,
24 getting worse.

25 So, finally, one of the contracts that is

1 actually held up in that current PRP2 process was
2 NRG's 10-megawatt solar plus storage contract,
3 and I'd like to talk about that just for a moment
4 because when I'm talking about these problems
5 with deployment, I think it's important to keep
6 in mind that until there is contract certainty
7 it's virtually impossible for a developer or
8 purveyor to begin marketing preferred resources
9 contracts. It's very difficult to go to a
10 customer, sign them up, and tell them we want to
11 start this demand response program with you, but
12 we don't know when. So we actually have no data
13 on how well our solar-plus-storage implementation
14 will go and whether we'll be able to meet our
15 expected implementation curves there.

16 So I think that's all.

17 MR. CARROLL: Just a couple of follow-up
18 questions based on testimony from other
19 witnesses. One of the elements of the proposal
20 advanced by the City's expert and others is to --
21 and it's also discussed in the CAISO study,
22 Scenario 2 -- is to convert either MGS Unit 1 or
23 Unit 2 to a synchronous condenser. As the owner
24 of the facility at which that would occur, have
25 you given any consideration to undertaking such a

1 conversion on MGS Unit 1 or 2?

2 MS. GLEITER: Yeah, we actually have, and
3 I do have something to say about that for sure.
4 So we have conducted a high-level analysis of
5 whether or not it would be possible to convert
6 our Units 1 and 2 into synchronous condensers.
7 And what we found was that with the configuration
8 of those two units as they exist today and the
9 conversion of them, they would not actually --
10 they would not result, the conversion would not
11 result in enough megaVARs as stated in the CAISO
12 study. So the CAISO study required 140 -- 240 --
13 I'm sorry -- thank you, Fran -- 240 VARs. And we
14 assume that that's a symmetrical requirement, and
15 so the conversion of all, both Units 1 and 2
16 which consist of four generators at the Mandalay
17 site, is not 240 VARs.

18 So from there we didn't conduct our
19 analysis much deeper except to say that we did
20 kind of look at our site configuration slightly
21 to say, okay, what would it take. And I think
22 that it's very dangerous to just say that at one
23 generating station a time line for converting
24 something to a synchronous condenser can be
25 directly applied to another power-generating

1 station even if it's a similar technology.

2 Layouts are not always similar.

3 And, to give you a concrete example, the
4 Mandalay site has a very unique once-through
5 cooling, even in the once-through cooling world
6 cooling loop and system, and would require a very
7 significant redesign that we're actually -- feel
8 like would need to be investigated significantly.
9 And my engineering team has told me that they
10 would need at least six months to study whether
11 that would just be possible. And so they think
12 that it probably would be possible, but the
13 assertion that, you know, I think heard earlier
14 that it's eight months, that it was eight months
15 to convert the Huntington Beach facility to
16 synchronous condensers, and I feel comfortable
17 categorically saying that that absolutely an
18 unrealistic timing expectation for Mandalay. I
19 can't say with certainty whether or not it is
20 possible at Mandalay. I believe that, you know,
21 with enough engineering and time it may be, but
22 certainly not within the timeframe of eight
23 months. Because if it's six months just to
24 conduct the feasibility-of-engineering study, we
25 still have to do permitting. That permitting

1 would be conducted, I'm assuming, by our local
2 agency, who we know has a desire to have the
3 structures removed from the land. I assume that
4 that would be a contentious permitting project to
5 keep those around and above ground, so that would
6 be --

7 MS. FOLK: I object. This is speculation
8 and hearsay and completely inappropriate.

9 HEARING OFFICER KRAMER: Well, we
10 understand that she -- it's her --

11 MR. CARROLL: Opinion.

12 HEARING OFFICER KRAMER: -- opinion,
13 yeah. Overruled.

14 MS. GLEITER: So, you know, I assume that
15 I would need to have a significant amount of
16 permitting time built in to do that. And then I
17 would also have to do the physical
18 reconfiguration, which I understand from my
19 engineers includes not only just bringing in
20 motors, but in our particular configuration case
21 potentially relocating some of the generators due
22 to their location on our site, so.

23 MR. CARROLL: Thank you. And then,
24 finally, one of the other components that has
25 been advanced in a number of the alternative

1 proposals is what's been referred to as the EGT
2 technology to be deployed at the McGrath Peaker
3 Facility, which is adjacent to the Mandalay
4 Generating Station. Are you familiar with the EGT
5 technology?

6 MS. GLEITER: I am actually quite
7 familiar. I've had direct experience with several
8 projects where we both looked at and even
9 proposed EGT technology for certain projects as a
10 supplement.

11 And what I'd say about the EGT technology
12 is first I want to be clear that EGT on its own
13 is not an additional capacity, not typically. And
14 so it's not like when you add this battery you
15 get an additional equivalent amount of capacity
16 at the site. It's typically not designed for
17 that. It's really designed only to essentially
18 kind of enhance the performance of the gas
19 turbine, as it says, which is really just in
20 terms of how quickly it will start. And I think -
21 - I can't remember who, which witness said it,
22 but someone mentioned approximately one megawatt
23 of additional capacity, and that's consistent
24 with my experience, is that it's a very small
25 increase in capacity, if any at all. In fact, in

1 the projects that I was building I didn't include
2 an increase in capacity at all for the addition
3 of the EGT product.

4 Additionally, the EGT product isn't as
5 inexpensive as you might assume. For the project
6 that I priced recently, the EGT package equated
7 to about ten percent of the overall capital cost
8 of the unit.

9 MR. PINJUV: Your Honor, it's 4:01 --

10 HEARING OFFICER KRAMER: Thank you for
11 the promotion, but "Hearing Officer Kramer" is
12 good. That's what most people call me.

13 MR. PINJUV: It's 4:01 right now and the
14 ISO needs to hit the road here very shortly.

15 HEARING OFFICER KRAMER: Okay. Yes. Thank
16 you.

17 MR. CARROLL: And that concludes Ms.
18 Gleiter's testimony.

19 HEARING OFFICER KRAMER: Okay. I have a
20 couple of follow-up, clarifying questions. But do
21 we have any more questions for the ISO witnesses?

22 MR. VESPA: Yeah.

23 MS. FOLK: Well, yeah.

24 HEARING OFFICER KRAMER: Who is it?

25 MR. VESPA: Jim, do you want to ask a

1 question?

2 HEARING OFFICER KRAMER: Okay, Mr.
3 Caldwell has a question.

4 MR. PINJUV: So we're talking about
5 questioning Neil?

6 MS. FOLK: Yes.

7 MR. VESPA: So for now, yeah.

8 MR. PINJUV: Yes.

9 MR. CALDWELL: I've been so focused --
10 excuse me for a second. I've been so focused on
11 trying to think about how I was going to respond
12 to Mr. Theaker's issues with my testimony that
13 I've kind of lost my train of thought about what
14 I was eventually going to say maybe earlier from
15 Neil, but. . .

16 MR. VESPA: I can ask a couple questions.

17 MR. CALDWELL: Why don't -- yeah, go
18 ahead.

19 MR. VESPA: Okay. Mr. Theaker had made
20 some statements about load shed. And before you
21 go, I wanted to ask you a little bit about that.
22 So -- and part of this is recapping, I think,
23 things we discussed earlier today.

24 But, first of all, you know to load shed
25 in this scenario, that would occur after the N-1-

1 1, correct? And that would mean you would lose
2 the Moorpark Pardee line number 3 and then you
3 would lose both lines, numbers 1 and 2, correct?

4 MR. CALDWELL: Go ahead, go ahead.

5 HEARING OFFICER KRAMER: Oh, he said
6 "correct" to the last question.

7 MR. VESPA: Yeah.

8 HEARING OFFICER KRAMER: AV folks, can
9 you turn on Mr. Millar?

10 MR. VESPA: Try again.

11 MR. MILLAR: So as we set out -- actually
12 I'm just going to provide a reference here
13 because we did discuss the contingencies right in
14 the report, so I'm not going to repeat from the
15 memory and risk getting cross-threaded.

16 MR. VESPA: Yeah, that -- it was my --
17 that was my -- we could skip the question.

18 MR. MILLAR: Oh.

19 MR. VESPA: Both of the -- the two
20 contingencies would have to happen.

21 Are you aware of any time when there was
22 an unplanned outage of all three of the Moorpark
23 Pardee lines?

24 MR. MILLAR: I haven't looked over the
25 history, so I don't know.

1 MR. VESPA: Okay. And then I want to get
2 to -- can we -- well, let me -- I can pull up the
3 document, but let me ask you first. There were
4 some -- I heard some statements saying, you know,
5 load shedding is -- long-term load shedding is
6 prohibited following N-1-1, but I did look up
7 your CAISO planning standards, and we can pull
8 them up if you need it, but my understanding, the
9 -- I guess the limit on load shedding as a long-
10 term solution following an N-1-1 was for highly-
11 dense urban areas. Is that correct?

12 MR. MILLAR: Yes. As I indicated, while
13 load shedding is not popular or looked well upon,
14 it is permitted under the standard in this
15 situation.

16 MR. VESPA: Yeah. Because Moor- --

17 MR. MILLAR: It's permitted.

18 MR. VESPA: -- the Moorpark area is not
19 considered a highly-dense urban area. There's a -
20 -

21 MR. MILLAR: I'm not going to quote those
22 terms from memory, but it is permitted in this
23 area under our criteria.

24 MR. VESPA: Okay. And, you know, there
25 was some comment about additional procurement

1 under various, you know, storage statutes and so
2 on going forward. And, you know, as California
3 continues to decarbonize; as there are more
4 preferred resources put on the grid over time,
5 maybe exceeding, for example, the 135 megawatts
6 you're assuming in the base case, the -- I guess
7 the amount of time you would need to load shed
8 and the risk that you would need to load shed at
9 all would be reduced because you'd be adding more
10 preferred resources to the grid?

11 MR. CARROLL: Is that a question?

12 MR. VESPA: Yeah.

13 MR. MILLAR: I'm understanding the
14 question to be that if we moved forward one way
15 or the other, however we got there, if we moved
16 forward with a base amount of preferred resources
17 plus a reactive support device that still
18 resulted in some load shedding be required, --

19 MR. VESPA: Yes.

20 MR. MILLAR: -- as additional resources
21 came on in the area, if they did, that would
22 reduce the exposure to the amount of load shed
23 and also somewhat reduce the time that you would
24 be exposed.

25 MR. VESPA: Right. Because, as we

1 discussed, you only need to load shed if your
2 demand in the in-basin area exceeds what you can
3 import and what you're provided by in-basin
4 resources.

5 MR. MILLAR: And you have those
6 contingencies.

7 MR. VESPA: Yes, yes. Okay. Thank you.

8 Is -- if you were in an N-1-1 and you're
9 in a one-in-ten peak demand, and we built Puente,
10 would you need to load shed?

11 MR. MILLAR: For the situation we
12 studied, there would still be -- we would still
13 expect some amount of load shed to be required.
14 It is less given Puente versus the base
15 assumption --

16 MR. VESPA: Right. And --

17 MR. MILLAR: -- for preferred resources.

18 MR. VESPA: -- the base assumes 135,
19 Puente's 262, is it around one -- is it the
20 difference or somewhere around there?

21 MR. MILLAR: I would expect it to be
22 around there. Some of the preferred resources, we
23 would have to take a look at if they provide
24 exactly the same benefit as Puente. So the
25 smallest contribution that Puente would provide

1 would be the difference and it might be a little
2 larger if some of the 135 can't be counted on.

3 MR. VESPA: Right. Okay. I thought I
4 heard comments by Ms. Gleiter, and it all was
5 happening very quickly, around demand responses
6 and LCR resource, but certainly CAISO does count
7 demand response currently as LCR, correct?

8 MR. MILLAR: We do. And we are, as I
9 mentioned earlier, we are, to my knowledge, still
10 the only American ISO that does.

11 MR. VESPA: Okay. Thank you for that.

12 Do you have anything else?

13 Okay. Thank you. Appreciate it.

14 MS. BELENKY: I think Dr. Karpa might
15 have one question.

16 DR. KARPA: And thanks, Neil, for your
17 participation for sure.

18 I did have a question. We talked a fair
19 bit about demand response contracts and I'm
20 wondering if you could speak to roughly what,
21 like what is the failure-to-perform rate for
22 existing demand response contracts? Because
23 obviously CAISO included that as a component of
24 the reliability.

25 MR. MILLAR: I'm afraid I don't have any

1 current information -- I didn't bring any
2 information with me on that topic.

3 DR. KARPA: Okay. I think that will. . .

4 HEARING OFFICER KRAMER: Mr. Caldwell,
5 did you --

6 MS. FOLK: I can ask one more question to
7 follow up on the demand response?

8 HEARING OFFICER KRAMER: Go ahead.

9 MS. FOLK: And that would be if some
10 percentage of demand response does not show up,
11 you still have the remaining demand response
12 coming online; is that correct?

13 It's not an all-or-nothing proposition is
14 what I'm saying.

15 MR. MILLAR: Ah, . . .

16 MS. FOLK: Like -- let me -- let me just
17 clarify. If you had -- if you're assuming there's
18 30 megawatts of demand response out there and you
19 -- two megawatts doesn't show up, you still have
20 28 megawatts that comes online, correct?

21 MR. MILLAR: Well, I need to clarify. If
22 we're talking about using demand response to
23 protect against the voltage-collapse scenario, if
24 the demand response doesn't show up, then to --
25 prevent the risk of voltage collapse, because

1 that is stepping off a cliff, you can't step
2 back, --

3 MS. FOLK: Yeah.

4 MR. MILLAR: -- is this what we're
5 talking about? Sorry.

6 MS. FOLK: No, I'm actually talking about
7 more generally, but I was referring more into the
8 Scenario 2 where you've already got the voltage-
9 collapse situation dealt with.

10 MR. MILLAR: Well, to be clear, in
11 Scenario 2 we needed the base amount of preferred
12 resources and the synchronous condenser, and
13 there was virtually no margin left between what
14 we happened to pick for a size for the 240
15 megaVAR SVC -- or synchronous condenser and
16 acceptable system performance. So if after the
17 first contingency we aren't successful in getting
18 enough demand response performance, we would have
19 to shed firm load in anticipation of the next
20 outage because the SVC -- or the synchronous
21 condenser on its own may not provide us enough
22 cushion to survive a voltage collapse. And if you
23 fail to survive a voltage collapse, it's not like
24 a thermal load shed where you shed a small
25 amount. If the system collapses, you take out the

1 whole area.

2 MS. FOLK: Right.

3 MR. MILLAR: So failure to perform after
4 the first contingency, to prepare for the second,
5 would generally require dropping firm -- some
6 amount of firm load to maintain that margin.

7 MS. FOLK: Okay. And, just to be clear,
8 your Scenario 2 is really just the base case of
9 what you need to cover the contingency, but it
10 would be possible to acquire more preferred
11 resources, for example, to bring more real power
12 online? And there's nothing that would prevent
13 you from going of 135, in other words.

14 MR. MILLAR: Well, the 135 was the amount
15 Edison indicated was somewhat of a reasonable
16 best case for their view of the procurement. So I
17 think you're asking me if you get more than your
18 scenario do you get a different answer, but
19 that's -- that's circular.

20 MS. FOLK: Well, not quite circular. I
21 mean my point being it is -- that's what Edison
22 assumes, so there is nothing that would prevent
23 them from trying to procure more.

24 MR. MILLAR: No.

25 MS. FOLK: Okay. So do you -- do you know

1 what the forced outage rate for Puente is?

2 MR. MILLAR: I don't have that number
3 with me.

4 MS. FOLK: Okay.

5 HEARING OFFICER KRAMER: Mr. Caldwell,
6 did you remember your questions?

7 MR. CALDWELL: The question that I had --
8 when Mr. Vespa asked the question that I talked
9 to them about making sure got asked, so I think
10 that's what triggered them into asking me whether
11 I had some questions, so my question has been
12 asked.

13 HEARING OFFICER KRAMER: Okay. Thank you.
14 Anyone else?

15 Okay, one question from us -- I'm sorry.

16 DR. KARPA: Oh.

17 HEARING OFFICER KRAMER: Oh, go ahead.

18 DR. KARPA: I did want to get your
19 response, I think, to something that was said
20 about using Mandalay to provide megaVAR. In the
21 model in Scenario 2 you have 240 megaVAR and then
22 in the other ones you don't, of the two scenarios
23 you don't have that, with the result that there
24 is more load that needs to get met in order to
25 avoid voltage collapse; those limits change,

1 right, as a function of reactive power. If,
2 though, one were to obtain, say, 200 megaVAR or
3 some lesser amount that is still more than zero,
4 would that then have the impact of reducing the
5 amount of real power generation you would need to
6 procure to make up the difference?

7 Am I -- I'm just confusing you entirely.
8 What would be the -- what would be the impact of
9 getting less than 240 --

10 MR. MILLAR: So --

11 DR. KARPA: -- on what else additional
12 resources you might need?

13 MR. MILLAR: Given that we found that the
14 240 turned out to be very close to the threshold
15 amount, that coupled with the base amount of
16 preferred resource portfolio, if we had a smaller
17 reactive support device, then that would require
18 an increased amount of some other resource, such
19 as topping up with more grid-connected batteries.
20 As we indicated in this report, we tried to find
21 to some extent two reasonable bookend scenarios,
22 one scenario adding additional grid-connected
23 batteries to top up the base resources until we
24 had acceptable system performance; the other was
25 to assess the impact of a materially-sized

1 reactive support device, and we picked the 240
2 somewhat arbitrarily and it turned out to be very
3 close to the actual amount that was needed. So if
4 we have a smaller reactive control device we
5 would need some other resource, more batteries,
6 more something else, to still maintain system
7 performance. And that's that optimization that I
8 talked about that would fall somewhere in between
9 that we were not trying to take on in the study.

10 HEARING OFFICER KRAMER: Okay. Thank you.

11 MR. CALDWELL: I'm sorry. That -- that
12 triggered a question that I have.

13 HEARING OFFICER KRAMER: Go ahead then,
14 just ask the question.

15 MR. CALDWELL: Yeah, I'll just ask the
16 question.

17 So if you got less than 240 from, say,
18 the conversion of Mandalay, then let's say you
19 got 220, just for purposes, your study said that
20 you didn't really care for where the resources
21 came from. So you could acquire 20 megaVARs from
22 some other device in some other place and as long
23 as you totaled 240 you would be secure? I
24 understand what you're saying about being secure
25 from voltage collapse. You need 240 regardless of

1 where that comes from; is that fair?

2 MR. MILLAR: So when we say absolutely
3 regardless, there are some small second-order
4 effects inside the area, so I'm going to be
5 overly precise just because I don't want things
6 thrown back at me after, that it would be
7 approximately 20 megaVARs somewhere else at a
8 reasonably effective bus, providing it's not
9 buried way down in the distribution system.
10 Reactive power has to be accessible to the high-
11 voltage system to be effective. So assuming it's
12 at a reasonable location inside the area, it can
13 be split up between multiple locations. We would
14 tend to validate that were for more detailed
15 analysis when we know what we're looking at.

16 Voltage collapse is not a linear
17 situation. You tend to have to do the analysis to
18 be sure that the exact combination works. But,
19 generally -- after all those qualifiers,
20 generally, the resources could be split between
21 multiple locations. And the first starting point
22 would be to assume that they add up, and then
23 look if there are any second-order effects that
24 need fine-tuning on the amounts.

25 HEARING OFFICER KRAMER: Okay. Thank you.

1 Mr. Pinjuv and Mr. Millar and Mr. Yimer -
2 - I'm sorry -- Yimer, thank you very much for
3 coming.

4 MR. PINJUV: Thank you.

5 HEARING OFFICER KRAMER: Have a safe
6 flight back to Sacramento --

7 MR. YIMER: Thank you.

8 HEARING OFFICER KRAMER: -- and good
9 traffic on the way to the airport.

10 MR. YIMER: Thanks.

11 HEARING OFFICER KRAMER: Okay. So then a
12 couple questions occurred to me for Ms. Gleiter,
13 one a clarification for the record.

14 You said that you came up short on MVARs
15 when you looked at retrofitting the Mandalay
16 units. You didn't say how short, though.

17 MS. GLEITER: Yeah. So they told me that
18 they needed to do a more detailed analysis but
19 from their first-level screening that they're in
20 the magnitudes of the 200, low-200 range. I don't
21 know the exact number, so I could --

22 HEARING OFFICER KRAMER: Okay.

23 MS. GLEITER: Yeah, I don't recall the
24 exact number.

25 HEARING OFFICER KRAMER: Okay.

1 MR. CALDWELL: Could I follow up with
2 that a little bit?

3 Does that mean that the 217 megawatts of
4 the existing thing, that you can get 217 or low
5 200s from that; is that a fair -- is that what
6 you're saying?

7 MS. GLEITER: My understanding is that
8 the Units 1 and 2, only Units 1 and 2, the four
9 generators, that they result in a low 200s of
10 megaVAR support, both leading and lagging
11 symmetrical units.

12 HEARING OFFICER KRAMER: Okay. So then
13 you used the term longer step-ups, could you
14 explain what you meant by that? It was an
15 impediment to distributed response or demand
16 response I think.

17 MS. GLEITER: Longer step-ups -- oh,
18 longer -- oh, --

19 MR. CARROLL: Contractual.

20 MS. GLEITER: -- oh, contractual longer
21 steps. Those are -- yes. Thank you. Thank you.
22 Sorry to drop my own memory on what I said.

23 So -- yeah. So what I was talking about
24 is the fact that the Puente contract is a 20-year
25 contract and so I assume that a new RFO for

1 preferred resources would require the developer
2 to also have a demand response contract of equal
3 length if we're, you know, comparing apples to
4 apples. And so to have a demand response contract
5 of 20 years is difficult for us to elicit
6 customers to sign up for a contract that long in
7 length. Oftentimes these customers are leasing
8 buildings, they're not sure where they're going
9 to be, this is locational. This is what I was
10 referring to.

11 HEARING OFFICER KRAMER: Okay. The length
12 of their commitment, in effect.

13 MS. GLEITER: Yeah.

14 HEARING OFFICER KRAMER: And then,
15 finally, you clearly indicated a preference for
16 commercial and industrial customers to provide
17 demand response, but you never really explained
18 why they're preferable. Could you do that
19 briefly?

20 MS. GLEITER: Yeah. For many reasons,
21 from a development standpoint, one is the
22 contractual nature. We find that it's more
23 effective from a development perspective to sign
24 up industrial customers. You know the larger the
25 load they have the, you know, further we can get

1 to getting our overall commitment. But more so
2 than that they also have attractive financial
3 backing and standing that gives us certainty in
4 us performing under the contracts. So residents
5 tend to move, sell houses faster than maybe
6 longstanding businesses change their addresses.

7 HEARING OFFICER KRAMER: And the
8 businesses generally have -- they can provide
9 more megawatts per contract, right?

10 MS. GLEITER: Exactly.

11 HEARING OFFICER KRAMER: Okay. Thank you.

12 So let's then go around the horn with --
13 well, let's see, actually the Applicant was the
14 last, I believe. So now it's kind of open season,
15 if you will, with questions. We're especially
16 interested in hearing about the feasibility of
17 bringing these alternative arrangements that have
18 been posited to -- you know, into operation by
19 the once-through cooling deadline. That's
20 something of particular information to us. It
21 doesn't sound as if anybody is arguing with the
22 conclusion of the ISO that it's theoretically
23 technically feasible. So unless you -- if you
24 want to argue about that, that might be a first
25 in our time today, but it seems as if cost is

1 somewhat of an issue, but from our standpoint the
2 feasibility aspect is also very -- very
3 important.

4 So with that, let me just go around
5 through the parties one more time, and then we'll
6 see if the panelists who remain want to ask any
7 questions of each other. We'll begin with the
8 staff.

9 MS. WILLIS: We don't have any questions.
10 Thank you.

11 HEARING OFFICER KRAMER: Okay. City of
12 Oxnard.

13 MS. FOLK: Yeah. I do have a few
14 questions for Ms. Gleiter.

15 So --

16 HEARING OFFICER KRAMER: And this can be
17 of any witness, just to be clear.

18 MS. FOLK: Yeah, and I understand.

19 HEARING OFFICER KRAMER: Okay.

20 MS. FOLK: I'll have questions for Mr.
21 Theaker as well.

22 So, Ms. Gleiter, is there a reason why
23 you did not file a written testimony?

24 MR. CARROLL: Oh, I'm sorry, I didn't --
25 could you repeat the question? I was having a

1 sidebar conversation, I missed it. I apologize.

2 MS. FOLK: I asked why Ms. Gleiter did
3 not file a written testimony.

4 MS. GLEITER: Honestly, you want to know
5 -- I was in France on vacation and so there was
6 no -- there was -- yeah. So I couldn't tell you
7 the reason that my team decided that I didn't
8 need to have a written testimony and they didn't
9 need to bother me on my one vacation in the last
10 four years.

11 MR. CARROLL: And that was not Ms.
12 Gleiter's decision. That was my decision and we
13 saw no purpose in filing written testimony. As
14 I've said, both the applicable regulation and the
15 orders allow written or oral testimony and ask
16 that the parties specify in their prehearing
17 conference statement which type the witness
18 intends to provide, and so we've always
19 understood that to be an option and we never,
20 frankly, had any intention of filing any written
21 testimony on behalf of Ms. Gleiter.

22 MS. FOLK: In the high-level study that
23 you refer to, the synchronous condenser potential
24 for conversion of Mandalay 1 and 2, is that in
25 the record?

1 MS. GLEITER: To my knowledge, just what
2 I've testified today, which is my team's
3 assessment of whether or not that's possible.

4 MS. FOLK: Okay. So I believe that's
5 hearsay and I would object to that.

6 HEARING OFFICER KRAMER: Which part is
7 hearsay, her opinion or --

8 MS. FOLK: Her team's assessment that it
9 would be complicated to make this conversion.

10 HEARING OFFICER KRAMER: Overruled, but
11 we'll give it the weight that it's entitled to.

12 MS. FOLK: So -- yeah. So demand
13 response, we did have testimony today from
14 providers who specifically focus on preferred
15 resources and things such as demand response. And
16 they testified that they had quite a good
17 relationship with their customers in terms of
18 response. And so I'm wondering with respect to
19 the Moorpark area, there are a number of
20 institutions in that area that might also be --
21 qualify for demand response and I'm wondering
22 have you evaluated contracts with them?

23 MS. GLEITER: Yeah. So what I would say
24 is that we evaluated the entire Moorpark subarea
25 including all customers and found insufficient

1 opportunities for us to compile a preferred
2 resources bid.

3 I also heard both the gentlemen from
4 Tesla and Stem, which, by the way, NRG, since
5 we're technology agnostic, these are exactly the
6 type of some companies we look to work with when
7 we're designing projects to bid into RFOs, I also
8 heard both of them say that they hadn't conducted
9 a site-specific Moorpark analysis.

10 MS. FOLK: I won't characterize their
11 testimony. It will speak for itself.

12 Have you looked, have you evaluated
13 specifically the potential for U. C. Santa
14 Barbara to engage in demand response?

15 MS. GLEITER: I don't really have a
16 response that's different than my last response,
17 which is just that we looked at a high level at
18 the entire Moorpark subarea, the -- the entire
19 area, and didn't find sufficient opportunities,
20 so --

21 MS. FOLK: And did you conduct this
22 investigation yourself?

23 MS. GLEITER: You mean like was I the one
24 sitting at the computer looking at each one of
25 the numbers? No.

1 MS. FOLK: Sure. Did you oversee it?

2 MS. GLEITER: At the time it was my
3 predecessor, so no.

4 MS. FOLK: So do you know if anybody
5 looked at the potential for CSU's Channel Islands
6 to participate in demand response?

7 MS. GLEITER: No.

8 MS. FOLK: I believe that one of our
9 earlier companies, Stem, testified they have a
10 working relationship with a CSU that participates
11 in their storage and demand response, but you
12 don't know if you have looked at CSU as a
13 potential --

14 MR. CARROLL: Objection, asked and
15 answered.

16 HEARING OFFICER KRAMER: Sustained.
17 Sustained.

18 MS. FOLK: You also testified that it
19 would be difficult to have a contract for demand
20 response for 20 years. Is it correct that the LCR
21 need changes -- that whatever the need
22 requirement is changes more frequently than every
23 20 years?

24 MS. GLEITER: It's certainly my
25 understanding that there are updated studies done

1 which show different need analysis, but it's also
2 my understanding that when we bid into RFOs and
3 resources that the contracts are typically
4 offered in long term, as long-term contracts to
5 ensure adequate market participation.

6 MR. VESPA: I mean just following up on
7 that, there was testimony earlier, for example,
8 that SB 350's energy efficiency doubling has not
9 been accounted for in determining the demand
10 forecast or LCR need, correct?

11 MR. CARROLL: I object to asking the
12 witness to characterize testimony of other
13 witnesses.

14 HEARING OFFICER KRAMER: Overruled. I
15 don't think he was asking her to characterize --
16 you're asking her if --

17 MR. VESPA: I'm just saying --

18 HEARING OFFICER KRAMER: -- that's a
19 requirement, aren't you?

20 MR. VESPA: We have heard today and is it
21 your understanding that the current LCR need
22 determination does not account for the cumulative
23 doubling of efficiency under SB 350?

24 MS. GLEITER: I honestly don't have a
25 detailed enough understanding of how energy

1 efficiency is incorporated into LCR and didn't
2 understand enough of the conversation to offer an
3 opinion on that.

4 MR. VESPA: Okay. Is it possible
5 additional investments in efficiency, energy
6 storage, and other preferred resources California
7 will invest in to meet its aggressive greenhouse
8 goals will reduce local capacity need in the
9 Moorpark area --

10 MR. CARROLL: Objection, calls for
11 speculation. The lead into the question was "Is
12 it possible. "

13 HEARING OFFICER KRAMER: Overruled. If
14 she has -- we'll treat it as a hypothetical.

15 MS. GLEITER: Yeah. I'm afraid I'm --

16 HEARING OFFICER KRAMER: She doesn't have
17 an expert opinion about that.

18 MS. GLEITER: Yeah. I'm afraid I'm not
19 going to offer a very helpful explanation
20 because, as I said, I don't have -- I don't feel
21 comfortable because I don't have enough of a
22 detailed understanding of how energy efficiency
23 plays into the need and the LCR processes to
24 offer an opinion speculating in the future about
25 how an increase or decrease of energy efficiency

1 would change the need.

2 MR. VESPA: Well, you're -- you testified
3 -- you seem to be extolling the benefits of a 20-
4 year capacity contract for Puente, correct?

5 MS. GLEITER: Sorry. Could you restate
6 the question?

7 MR. VESPA: You've stated several times
8 that Puente has a 20-year capacity contract?

9 MS. GLEITER: Correct.

10 MR. VESPA: And I'm wondering if, you
11 know, in outer years or even in five or ten
12 years, you know, that capacity would even be
13 needed given increased deployment of preferred
14 resources in the area.

15 MS. GLEITER: So my expertise really is
16 limited to responding to -- developing projects
17 and responding to requests from what agencies and
18 the utilities put forward. And so my expertise is
19 limited to that. My understanding is that we have
20 a 20-year resource contract and that was done in
21 direct response to a local capacity resource need
22 in the Moorpark area.

23 MS. FOLK: And is it your understanding
24 under the contract that if the need has decreased
25 such that Puente is no longer needed, that the

1 utility will still be required to pay for the
2 contract for 20 years?

3 MR. CARROLL: And I would just caution
4 the witness against disclosing any confidential
5 information pertaining the terms of the contract.

6 MS. FOLK: It's a 20-year.

7 MS. GLEITER: I think I would just say
8 the contract is for 20 years. There is a term on
9 that particular contract, it's a 20-year
10 contract, and that the price of the contract is
11 offered in -- or the price of the project is bid
12 in and selected by the utility upfront, and that
13 is assumed with a certain term.

14 MS. FOLK: So regardless of the need in
15 five or ten years, that the contract payment
16 would still pay --

17 MR. CARROLL: Objection, assumes facts
18 not in evidence and argumentative. If that's an
19 argument that Intervenors want to make in their
20 briefs, they're free to do that, but this is not
21 the appropriate forum.

22 MS. FOLK: Well, I think it goes to the
23 issue of whether it's actually a benefit to have
24 a 20-year contract or not, which --

25 HEARING OFFICER KRAMER: Sustained.

1 MS. FOLK: -- was put at issue by the
2 witness, but I'll move on.

3 Have you evaluated the potential for
4 demand response from the Navy base, which is
5 located in the Moorpark subarea?

6 MS. GLEITER: Okay. Have I personally
7 conducted an assessment of demand response for
8 the Navy base?

9 MS. FOLK: Yeah.

10 MS. GLEITER: No.

11 MS. FOLK: Has NRG, that you know of?

12 MS. GLEITER: I would refer back to my
13 same answer. My understanding is we have
14 conducted a high-level analysis which included
15 all commercial, industrial, and residential
16 customers within the Moorpark subarea and
17 concluded there wasn't sufficient opportunity. So
18 whether or not the Navy base was included in
19 that, I would assume so because they're in the
20 Moorpark subarea.

21 MS. FOLK: But -- but you don't know
22 that? That's speculative --

23 MR. CARROLL: Asked and answered.

24 MS. FOLK: So I have questions for Mr.
25 Theaker. I guess I can go first and then you guys

1 can fill in as soon as I find them.

2 On page 9 and 10 of your testimony you
3 discuss the operation and maintenance costs of
4 battery-storage systems. Can you tell me what the
5 operational and maintenance costs are of the
6 Puente Project?

7 MR. THEAKER: No, I can't. I don't know
8 the operation and maintenance costs for the
9 Puente plant.

10 MS. FOLK: Then can we use an industry
11 standard average for determining operation and
12 maintenance costs?

13 MR. THEAKER: You could with the
14 understanding that it may or may not apply to
15 Puente.

16 MS. FOLK: Are those numbers anywhere in
17 the record?

18 MR. THEAKER: I did not put them in the
19 record. If they are in the record, I'm not aware
20 of that.

21 MS. FOLK: Ms. Gleiter, do you know the
22 operation and maintenance cost for Puente?

23 MS. GLEITER: Not specifically. I don't
24 know operating and maintenance costs on that
25 unit. I tend to, in my position, to look at

1 higher level sort of roll-ups. So I couldn't tell
2 you the specifics of the units' operation and
3 maintenance costs.

4 MS. FOLK: Okay. And what is the expected
5 forced outage rate for Puente? This is to either
6 of you.

7 MS. GLEITER: Yeah. So, again, I'm a
8 little bit confused by your question. I'm
9 assuming by the expected piece you're not asking
10 me for a forced outage rate, you're kind of
11 asking me what our assumptions are for the
12 availability factor of the unit? Is that -- is
13 that what you're asking me? I just want to make
14 sure I understand.

15 MS. FOLK: I think you used the term
16 forced outage. What do you estimate the forced
17 outage rate to be?

18 MS. GLEITER: Okay. So we would expect
19 that the unit is reliable anywhere from 98 to 99.
20 5 percent of the time. So I believe if you wanted
21 to translate that to what I think you're asking
22 is an expected unavailability factor, it would be
23 between . 5 to --

24 MS. FOLK: Two percent.

25 MS. GLEITER: -- 2 percent.

1 MS. FOLK: Do you have anything to verify
2 that?

3 MS. GLEITER: Yes. Significant operating
4 history and experience of our company with gas
5 turbines, information from General Electric on
6 the expected performance of the individual
7 turbines, and -- yeah.

8 MS. FOLK: And what would be the
9 consequence for Moorpark reliability if Puente
10 could not respond to the call during an LCR
11 contingency?

12 Mr. Theaker, that might be a better
13 question directed towards you.

14 MR. THEAKER: Ms. Folk, so your question
15 is if the -- we had the LCR conditions, we had a
16 one-in-ten load, and we had the N-1-1 condition
17 and Puente could not respond; is that your
18 question?

19 MS. FOLK: Yes.

20 MR. THEAKER: I would expect that the
21 region would then -- would go into voltage
22 collapse.

23 MS. FOLK: Okay.

24 MR. THEAKER: As it would -- as it would
25 if any of the other resources in the area were

1 not available at the time.

2 MS. FOLK: All 262 megawatts would be in
3 the Puente facility; is that correct?

4 MR. THEAKER: If you assumed a forced
5 outage of the entire unit. The forced-outage
6 rate, the unit might be derated for a number of
7 reasons, but if you assume that all 262 were not
8 available, yeah, then what I described is the
9 likely outcome.

10 MS. FOLK: Okay.

11 MS. GLEITER: Is it okay for me to add to
12 that too? Because I feel like it's -- I'd like
13 to make sure that I clarify that the percentage
14 range I give you necessarily is not assuming the
15 whole 262 are out. That also takes into account
16 whether or not we have a derate, a forced derate,
17 so some minor piece of equipment in the facility
18 is -- is broken and a part of the unit is not
19 available. It does not assume that necessarily
20 the entire unit is not available.

21 HEARING OFFICER KRAMER: Okay. Sure. Part
22 of the panel rules are after the target of the
23 question answers, the others are allowed to pipe
24 in and add their two cents or even more in some
25 cases.

1 MR. CALDWELL: Just -- I'd like to follow
2 up --

3 HEARING OFFICER KRAMER: For the little
4 transcribers, if you could say your name?

5 MR. CALDWELL: I'm sorry. This is Jim
6 Caldwell for the City of Oxnard.

7 I'd like to follow up a little bit on
8 this forced-outage question. And do either of you
9 know what the forced-outage rate for the gas
10 fleet in California is today? What -- and is not
11 -- you know, is availability, I mean my
12 understanding of availability is whether it is
13 available, not whether there has been a partial
14 derate. At least that's the way I'm aware of that
15 statistic being kept. And forced-outage rate, on
16 the other hand, does have some sort of partial
17 derate associated with it. Is that correct?

18 MR. THEAKER: Well, I can say that, for
19 example, for the ISO's systems that measure
20 resource adequacy availability, it's not a binary
21 measurement. A resource that suffers a partial
22 outage, you know, is not just -- is not deemed to
23 be fully unavailable because it doesn't meet its
24 qualifying capacity. Now with regard to the
25 industry definition of forced-outage rate, I have

1 to say I honestly don't know whether that's a
2 binary consideration or not.

3 MR. CALDWELL: Okay. And does Puente get
4 derated based on temperature?

5 MR. THEAKER: It would, --

6 MR. CALDWELL: So --

7 MR. THEAKER: -- all gas turbines do.

8 MR. CALDWELL: Okay, all gas turbines. So
9 -- so how much less output does Puente have
10 during the one-in-ten year heat rate, heat --

11 MR. THEAKER: I don't know.

12 MR. CALDWELL: Do you have any guess?

13 MR. THEAKER: No. I -- it would be
14 speculation. I don't want to engage in that.

15 MR. CALDWELL: What is the approximate,
16 you know, percentage-per-degree Fahrenheit, or
17 something along those lines; can you give some --
18 I mean that's a standard thing that all gas
19 turbines have, right? What is the standard
20 derate percentage with temperature for a gas
21 turbine?

22 MR. THEAKER: Dawn, do you know that
23 number?

24 MS. GLEITER: No, not with enough
25 certainty to say so now. I mean obviously that's

1 a number we look at, but I would -- that would be
2 something I would -- I don't memorize --

3 MR. CALDWELL: That's in your
4 spreadsheet, right? I mean, let me put it this
5 way, do you -- when you talk about the capacity
6 of Puente, do you take account the ambient
7 temperature?

8 MR. THEAKER: No. I would -- I would
9 answer this way, and I'm going to try to be
10 precise with the answer. The capacity of Puente
11 is a mechanical number. The available, the amount
12 of megawatts that you can produce from that unit
13 does vary with temperature, but the capacity of
14 the unit is a mechanical number that doesn't vary
15 with time.

16 MR. CALDWELL: Okay. So the effective
17 capacity, if you will, or the ability to supply
18 energy at that time is less when the temperature
19 is higher?

20 MR. THEAKER: It is.

21 MR. CALDWELL: So it's less than 262?

22 MR. THEAKER: And I have no idea -- well,
23 Dawn is going to. . .

24 MR. CALDWELL: All right.

25 MS. GLEITER: Yeah. I would actually say

1 that while what Brian said is true that the
2 actual available megawatts available is affected
3 by ambient temperature, the capacity, the 262
4 capacity would not necessarily, you know in
5 strict terms of the RA available, would not
6 necessarily be affected, and I hope if I've done
7 my job, wouldn't be because when we're designing
8 a project we don't -- we have penalties
9 associated with falling below the guaranteed-
10 capacity number under our contract at any point
11 in time. And so we have contractual performance
12 penalties if that occurs and so --

13 MR. CALDWELL: So --

14 MS. GLEITER: -- that's a key element of
15 designing a project, is taking into account
16 ambient temperature and how it affects a gas
17 turbine.

18 MR. CALDWELL: So your 262-megawatt
19 nameplate Puente, how much did you contract for
20 in terms of capacity?

21 MS. GLEITER: The nameplate of the actual
22 turbine is not 262 megawatts. The contracted
23 capacity is 262 megawatts.

24 MR. CALDWELL: Okay. Thank you.

25 MS. GLEITER: The nameplate of the unit

1 is actually -- would be higher, but the unit
2 would be limited by its environmental
3 restrictions and permits on when it could
4 actually operate.

5 MR. CALDWELL: Okay. As long as I'm --
6 can I sort of just keep going? I've got --

7 HEARING OFFICER KRAMER: You're -- well,
8 --

9 MS. FOLK: Sure.

10 MR. CALDWELL: -- or where do you want to
11 --

12 HEARING OFFICER KRAMER: -- if you really
13 keep going along this line, I'd like to know what
14 it's leading to.

15 MR. CARROLL: That's what I --

16 MR. CALDWELL: Well, all I'm -- all I'm
17 trying to get at is, is that, you know, as we've
18 talked about today, several cases, that you have
19 this confusion of precision with actually -- and
20 you're talking about things that -- performing
21 perfectly. And then we've had three hours of
22 things where, you know, demand response and all
23 these other things do not perform perfectly, but
24 we've never really talked about anywhere on the
25 record that gas plants don't do that either and

1 that there has to be margin in all cases. And so
2 we can't sit here and talk about all the -- all
3 the hypothetical things about these preferred
4 resources that could go wrong and then assume
5 that these gas plants are perfect. They are not.
6 They do have real world issues. They do sometimes
7 do. And the problem we have here is that we have
8 put all of our reliability eggs on one shaft, one
9 262-megawatt thing that is really not 262
10 megawatts, as we just said, during the conditions
11 and what they are. So if we're going to compare
12 and do relative, we have to make sure that we
13 include the issues that are associated with --
14 with the gas turbines on the same level that we
15 talk about with the preferred resources.

16 The advantage you have with the preferred
17 resources is that you don't have this digital
18 issue of either 262 or nothing. You have spread
19 out across technologies, across developers,
20 across areas, and that makes them more resilient.
21 If two megawatts of demand response doesn't show
22 up, you still have 78, or whatever. And that
23 takes care of the resilience and the reliability
24 of the region, and that is valuable. And that's -
25 - that's all I'm trying to get at is, is if we're

1 going to compare apples and apples, then we have
2 to talk about the warts that are on the gas
3 plants at the same level.

4 We have to talk about what happens if
5 Aliso Canyon has a problem and it can't have
6 fuel. We have to talk about if there is a polar
7 vortex, or something like that, or if there is a
8 hurricane come in and the gas pipeline in Texas
9 goes out and then all of the gas doesn't get
10 here.

11 There are issues with all resources. And
12 we cannot sit here and say that the gas is
13 perfect and this is the way it is and they're
14 certain and they're known, and then go through
15 all of the horrors about all the other things,
16 when it's really the other way around, that all
17 of the resiliency of the preferred resources is
18 the diversity in the technology, the diversity in
19 the customers, the diversity in the people. And
20 so you always get response. That's what you're
21 looking for.

22 I think what Neil and the Cal-ISO were
23 talking about is, again, it's really important,
24 and we have said that before now he have said it
25 again, it's really important to avoid voltage

1 collapse. That's what we want to avoid, because
2 we want to avoid the whole system going black and
3 potentially leading to problems with other -- you
4 know, even taking out other areas other than
5 Moorpark. So that is a huge thing.

6 And so avoiding voltage collapse does
7 require a different level of reliability and a
8 different margin, but once you do that, then the
9 reliability comes incrementally. But when you're
10 talking about Puente here, you don't get any of
11 that. It's all or nothing. And that's really
12 where I was trying to go with this line of
13 questioning.

14 HEARING OFFICER KRAMER: Okay. Well, let
15 me observe that I think you can make your points
16 more effectively if you, as a witness and as
17 you're allowed to do, state what you believe --

18 MR. CALDWELL: I understand.

19 HEARING OFFICER KRAMER: -- rather than
20 trying to elicit it through your questions of
21 witnesses --

22 MR. CALDWELL: I was responding to your
23 question about where this was going, and that's
24 where it was going, so I don't --

25 HEARING OFFICER KRAMER: Okay. Well, I

1 think we've gotten there --

2 MR. CALDWELL: -- need to do that twice.

3 HEARING OFFICER KRAMER: Right. Thank
4 you.

5 Dr. Karpa, do you have a response?

6 DR. KARPA: Yeah, I actually have two
7 responses or maybe some questions. One on the
8 question of the perfection that's -- you know,
9 that the distributed energy resources are modeled
10 to perfection and they don't always perform
11 perfectly. On that, I will point out actually
12 that in the calculation that I did there were two
13 margins that I included. One is there is a 15-
14 megawatt buffer that's included in my cost
15 calculations that I did, in part to meet some of
16 the power flow issues. But that is -- those are -
17 - batteries are oversized in my spreadsheet,
18 which Mr. Theaker said he hadn't quite followed,
19 so I understand it's very confusing.

20 The second thing actually is that all of
21 the -- both the PV solar sizing and the battery
22 sizing in that spreadsheet are all rounded up to
23 the nearest five megawatts, so that if the actual
24 need was, you know, 202, actually it's listed as
25 205 megawatts or megawatt hours. So there is -- I

1 think one of the points that Mr. Caldwell was
2 getting at was that when you're designing these
3 systems, one designs them with a margin of error
4 because, yeah, solar doesn't always perform
5 perfectly, gas doesn't always perform perfectly.

6 And I think the other aspect of that kind
7 of margin, ironically enough that is forced on
8 battery storage comes from this issue which I
9 have modeled, but it's not in the version that
10 you have before you, of battery degradation over
11 time. Now one of the -- batteries do degrade over
12 time. And so the key -- one of the key aspects of
13 the design for one battery systems, if you need,
14 say, 100 megawatt hours of storage 15 years out,
15 well, then what you do is you build 140 today and
16 then over 15 years it degrades by 30 percent and
17 you hit your 100 megawatts at the 15-year mark
18 which is actually covered by a Hitachi paper that
19 I believe we wanted to introduce into evidence.

20 What that means is for every 100 megawatt
21 hours of energy storage there is actually going
22 to be deployed 140 megawatt hours, which is a
23 very large margin. And I did model the costs that
24 come in response to Mr. Theaker's testimony
25 there. You know, about what are the implications

1 of needing to oversize in order to deal with
2 degradation, and that does bump the installed
3 cost number up. And his ten-percent number is not
4 that far off. It goes from 267 million installed
5 costs to 290 million to replace Puente, which is
6 still cheaper than the installed costs of Puente
7 as CAISO estimated it, which I realize that's an
8 estimate also.

9 So -- and then of course the strategy is
10 at 15 years you come down to your 100 megawatts
11 and you buy and install another 40 megawatts and
12 let that degrade. And of course 10, 15 years from
13 now, at the rates at which battery storage is
14 declining, that's going to cost 20, 30 percent of
15 what we're looking at today, assuming a constant
16 rate of decline, which is a very dangerous
17 assumption to make, I realize, but this is in a
18 modeling world so it's uncertain projection.

19 So I think a lot of the issues that we're
20 hearing about, distributed resources, that
21 they're like super precisely timed and we can't
22 engineer margins, and my testimony hasn't
23 incorporated those margins, is not really
24 accurate representation of what I modeled.

25 And then the second -- and I actually --

1 I realize actually having heard Mr. Theaker say
2 that he had trouble following my model. I am
3 totally happy to walk through all of the cost
4 issues. I know in my summary I really breezed
5 past those. Like for example why CAISO's modeling
6 a storage profile wasn't accurate. According to
7 CAISO, the sun comes up at noon and it sets at
8 4:00 and there is no energetic generation outside
9 of those hours. We know that's not right.

10 We also know that that profile cuts the
11 energy generation from solar by half. Well, if I
12 do a model that cuts Puente's energy generation
13 by half I'm going to come to the conclusion,
14 wrongly, that I need two of them, right? So we
15 corrected that.

16 I also incor- -- is this helpful to you
17 if I go through the various -- or maybe this is
18 the wrong time for that.

19 HEARING OFFICER KRAMER: Well, there is
20 not going to be another time.

21 DR. KARPA: There's not going to be
22 another time, all right.

23 HEARING OFFICER KRAMER: But I think cell
24 by cell of your spreadsheet would be --

25 DR. KARPA: Too much.

1 HEARING OFFICER KRAMER: -- to -- TMI,
2 yes.

3 DR. KARPA: There are many cells. I think
4 maybe issue by issue.

5 HEARING OFFICER KRAMER: Yes.

6 DR. KARPA: So -- and sort of to get the
7 -- so to get at the general notion of what I did,
8 if you could bring up the actual CAISO study,
9 which -- let's see -- that is Transaction Number
10 220813.

11 HEARING OFFICER KRAMER: Okay, I have
12 that ready. Which page?

13 DR. KARPA: In the appendices. We could -
14 - any of the appendix tables are fine, but we can
15 go with page 32. That's the Table A1, A. And I'm
16 sure you're all very aware of this at this point,
17 but essentially what CAISO did was set out a --
18 took a look at what the voltage limits were to
19 avoid voltage collapse; from that, established a
20 scaled hourly load, that is essentially that's
21 the load one has to hit in order to avoid voltage
22 collapse. That's the top row. That's what I used,
23 and that top row from all of CAISO's tables, that
24 -- that was the baseline that I used in my
25 spreadsheet, so it's exactly CAISO's model that I

1 used.

2 And then the --

3 HEARING OFFICER KRAMER: So you're
4 talking about the 2022 scaled max hourly load?

5 DR. KARPA: That's right.

6 HEARING OFFICER KRAMER: Okay. Row.

7 DR. KARPA: Yeah. And that -- that was
8 the starting point for my calculations.

9 And then I then added exactly the same
10 way CAISO did, and so I did that for Scenario 1
11 for the extrapolating from 2014 and from 2015 and
12 2016 numbers, which correspond to Tables A1, A2,
13 and A3, and then A2 -- let me make sure that's
14 right.

15 Anyway, let's just stay with -- I used
16 CAISO's numbers for all six of the examples they
17 presented here.

18 And then I added in the 135 megawatt of
19 resources the same way CAISO did. It was base
20 assumption. It's not base case, it's the base
21 assumptions. So that is baked in there because
22 what I really wanted to get at is this question
23 of if you do something other than the batteries,
24 what is the impact on costs, right. And so the
25 only thing that's different in my model, if you

1 look at this table, and I should -- my
2 calculations, because this is their model -- if
3 you look at the lines where it says, "IFOM ES
4 Block 1" and "IFOM ES Block 2," those are the in-
5 front-of-meter batteries. That is what they were
6 modeling to say this is how we're going to meet
7 this load. So I replaced those with a combination
8 of solar and storage, just those two lines, to
9 take a look at, first, if I'm going to assess the
10 cost of a solar-and-storage system, I need to
11 know how big it is, right.

12 And one tweak, one issue with how they
13 have modeled, you will notice that in every cell,
14 like the 50-megawatt battery, it discharges at 50
15 megawatts, it's either zero or 50, which is not
16 really how batteries operate. So in my model I
17 looked at if you have discharge as required, so
18 if you need 30 megawatts, you discharge 30
19 megawatts, not at full capacity because that
20 would have bad consequences if you did that,
21 which by itself reduces the amount of battery
22 storage you would need by about 10, 15 percent.
23 Just that more accurate modeling.

24 And then of course I had solar in there
25 as well to meet some of the loads so that we

1 don't need eight hours of battery. Often we need
2 four hours of battery because if you put in the
3 PV solar, subtract that from the load, and then
4 use batteries to essentially meet whatever load
5 is remaining, and that was the basis of the
6 calculations in my spreadsheet for -- to estimate
7 the solar and storage. And, as I said, of course
8 I added 15-megawatts capacity to the solar -- or,
9 sorry -- to the battery storage as a margin and
10 then rounded everything up also as a margin,
11 because we're really trying to be very
12 conservative.

13 And then the cost estimates, if you look
14 at -- if you go up to page -- where is this -- in
15 the same document -- on page 24, where it says,
16 "Capital Cost Estimates," . . .

17 Maybe three more minutes?

18 HEARING OFFICER KRAMER: Yeah. How much
19 time did you have?

20 DR. KARPA: I think maybe three minutes
21 to finish --

22 HEARING OFFICER KRAMER: Three minutes?
23 Okay.

24 DR. KARPA: -- what the -- what the key
25 points are.

1 HEARING OFFICER KRAMER: And then let me
2 get a sense from the other parties.

3 How much more do you think we have to
4 complete the hearing?

5 MR. CARROLL: At this point Applicant
6 does not have any further questions for any
7 witnesses.

8 HEARING OFFICER KRAMER: Ms. Lazerow?

9 MS. LAZEROW: CEJA has a short line of
10 questioning for NRG's witnesses.

11 HEARING OFFICER KRAMER: Okay, anyone
12 else?

13 MR. CALDWELL: I had.

14 HEARING OFFICER KRAMER: Okay. Mr.
15 Caldwell says -- give me a number.

16 MR. CALDWELL: Sorry. Ten to 15 for Mr.
17 Caldwell.

18 HEARING OFFICER KRAMER: Fifteen minutes
19 for Mr. Caldwell.

20 MS. FOLK: I have about 10, 15.

21 MS. BELENKY: And I have about seven or
22 five or seven for the Applicant's witnesses. And
23 I -- yeah.

24 MR. THEAKER: Maybe I should bump up to
25 ten.

1 HEARING OFFICER KRAMER: Well, what you
2 could shave from your estimate isn't going to
3 change the --

4 MR. THEAKER: Overall scheme, yes.

5 HEARING OFFICER KRAMER: Well, so we owe
6 it to the public to start at 5:30 for their
7 public comments, so we can't change that. But
8 what is the group's preference, is it to wait
9 until after public comment to finish or to come
10 back in the morning?

11 MR. VESPA: We have half an hour, we have
12 till 5:30?

13 MS. BELENKY: Yes.

14 MR. VESPA: Why don't with try to move
15 with the questions and see if we can get this
16 done.

17 MR. CALDWELL: See where we get to.

18 MR. VESPA: Yeah.

19 HEARING OFFICER KRAMER: Okay. Continue
20 on.

21 MR. THEAKER: Okay. So on page 24 there
22 are the cost estimates of the --

23 MS. BELENKY: Yeah. I think we should
24 move onto the questions, unless someone has a
25 specific question for Dr. Karpa about his model.

1 MR. THEAKER: Okay. That's -- because the
2 second comment I wanted to make is actually about
3 the demand response availability. And the
4 testimony of Ms. Gleiter in -- I would ask
5 whether -- because I also looked at an assessment
6 of the -- actually I didn't. I referred to an
7 assessment of the demand response available in
8 the Moorpark area based on the Lawrence Berkeley
9 National Lab's study, which I cited in my
10 testimony. And of course LBNL in their estimate,
11 which came out, I believe, after your assessment
12 of it, because this is a 2017 study done for the
13 CPUC, of course it's price sensitive. So the
14 higher the price you offer for demand response
15 the more you're going to get. And at the demand
16 response cost of \$485 per kilowatt year that the
17 CAISO study uses, there are some 800 megawatts of
18 capacity in the Big Creek, Ventura area of which
19 Moorpark is a part. That's a lot.

20 So -- and, you know as I say, that's
21 cited -- I used just the 100 number, which is 300
22 megawatts in total, but I think that we do have
23 in the record another assessment of just how much
24 demand response is. That's substantially higher
25 based on that LBNL study done for the CPUC.

1 Thank you.

2 HEARING OFFICER KRAMER: Okay. Then other
3 questions for the panel.

4 MS. LAZEROW: Shana Lazerow on behalf of
5 CEJA. Good afternoon. It's been a long day.

6 I wanted to follow up. I think both of
7 you testified regarding demand response and so I
8 think my questions are going to go both of you
9 and you can just respond, whichever one of you is
10 best suited to it.

11 Does -- do I correctly, Ms. Gleiter, you
12 said that NRG bids demand response services into
13 RFOs? Does NRG currently have any contracts to
14 provide demand response services?

15 MS. GLEITER: Yes, we do.

16 MS. LAZEROW: And you also testified that
17 the Puente contract has in it a penalty for
18 unavailability when called on; is that correct?

19 MS. GLEITER: That's correct. That's a
20 standard, an industry standard, but I can't talk
21 about specifics of the actual --

22 MS. LAZEROW: Of course.

23 MS. GLEITER: -- contract or penalty
24 because there are confidentiality provisions.

25 MS. LAZEROW: Do any of your demand

1 response contracts also have a failure-to-perform
2 penalty?

3 MS. GLEITER: I am not as familiar with
4 those contracts because they are managed directly
5 by my team members and not myself, so I don't
6 think that I can offer an opinion on that.

7 MS. LAZEROW: That's fine if you don't
8 know.

9 And then, Mr. Theaker, you testified that
10 demand response would -- we would assume that it
11 would not be performing as well on day 3 of a
12 load scenario; is that correct?

13 MR. THEAKER: Correct. Correct.

14 MS. LAZEROW: Have you witnessed a
15 failure of performance of demand response on a
16 subsequent calling of that demand response,
17 specifically with respect to NRG's portfolio?

18 MR. THEAKER: No, I'm not --

19 HEARING OFFICER KRAMER: Can we get --
20 can we have all the mics on the table here just
21 live? Because they're going back and forth. It
22 will help.

23 MR. THEAKER: Testing. Okay, here we go.

24 HEARING OFFICER KRAMER: So can you
25 repeat your answer --

1 MR. THEAKER: I think -- could you repeat
2 the question, please?

3 MS. LAZEROW: Of course. Have you -- I
4 think so my prior question was isn't it correct
5 that you testified that demand response
6 performance would be reduced on day 3 of the
7 scenario and you confirmed that that was your
8 testimony?

9 MR. THEAKER: That was my -- yes.

10 MS. LAZEROW: And my next question was
11 have you witnessed a reduction in performance in
12 demand response in NRG's portfolio?

13 MR. THEAKER: No. My answer to the
14 question about an expectation of diminished
15 performance was based on industry-wide
16 information and not based on NRG-specific
17 information.

18 MS. LAZEROW: I see. What have you
19 reviewed regarding demand response reduction of
20 performance?

21 MR. THEAKER: Oh, these are -- I couldn't
22 even point to it directly. These are documents
23 that have been at the PUC, but I can't give you a
24 specific reference. They are documents where the
25 PUC has indicated what the performance of DR, but

1 I don't have the specific cite.

2 MS. LAZEROW: Do you have any -- any
3 direct knowledge of demand response providers
4 failing to perform under their contracts?

5 MR. THEAKER: No. Only -- not individual
6 performers. What I am aware of is the information
7 at the PUC that I referenced.

8 MS. LAZEROW: General knowledge of PUC
9 documents --

10 MR. THEAKER: General knowledge, correct.
11 Not individual demand-response providers.

12 MS. LAZEROW: All right. Thank you. Those
13 are all my questions.

14 HEARING OFFICER KRAMER: Okay. Thank you.
15 Anyone else?

16 MR. CALDWELL: Yeah. I'd like to get in a
17 couple of things here.

18 Brian, you mentioned in your testimony
19 that, you know, Puente provides system value and
20 it's going to acquire -- it's going to get system
21 RA, it's going to get Flex RA payments. Is that
22 fair?

23 MR. THEAKER: I don't understand --

24 MR. CALDWELL: Did you say that? I mean
25 --

1 MR. THEAKER: I did -- I did say, I said

2 --

3 MR. CALDWELL: -- you -- did you say

4 that?

5 MR. THEAKER: Well, I think what I said

6 was I fully expect Edison to count Puente toward

7 meeting its system RA requirement and it's

8 flexible RA requirement.

9 MR. CALDWELL: Okay. So that -- does that

10 value, how does that accrue -- who -- if somebody

11 else is now getting those payments, what happens

12 if you get those payments instead?

13 MR. THEAKER: Well, they won't get them.

14 But, again as I spoke, that -- that phenomena

15 would occur with any resource that's contracted

16 within the Moorpark area. It would have -- it

17 could displace payments going to someone outside

18 the Moorpark subarea.

19 MR. CALDWELL: So if that payment that is

20 no longer available, who is on the margin for

21 those payments? Which units are on the -- who

22 doesn't get the money?

23 MR. THEAKER: I have no idea. It's

24 somebody --

25 MR. CALDWELL: Is it --

1 MR. THEAKER: -- outside Moorpark.

2 MR. CALDWELL: Somebody outside Moorpark.

3 Is it a gas plant outside Moorpark?

4 MR. THEAKER: I think --

5 MR. CARROLL: The witness has just
6 testified that he does not know who would get the
7 payments.

8 MR. CALDWELL: He knew -- he knows who
9 was going to get them. I mean I -- it seems to me
10 that again that what we're talking about here is
11 that somebody isn't going to get those payments,
12 that that somebody is another gas plant because
13 those are the units that are on the margin for
14 RA. They are the highest-priced or the highest-
15 cost units. Those units then become -- then have
16 less economic viability because you got the
17 payments, not them. So it -- where is the net
18 value to the customer?

19 MR. THEAKER: The net value is ensuring
20 the reliability of the Moorpark subarea, of, you
21 know, --

22 MR. CALDWELL: Right, but where is the
23 system net value then?

24 MR. THEAKER: The system net value is
25 still provided by Puente. It's now provided by

1 Puente instead of some other resource outside the
2 subarea.

3 MR. CALDWELL: Okay. And if that some
4 other resource is not there because you have
5 their money, then where is the net system value?

6 MR. CARROLL: I'm going to object to the
7 question.

8 MR. THEAKER: I don't understand the
9 premise of the question --

10 MR. CARROLL: I think the witness --

11 MS. FOLK: Jim, --

12 MR. CARROLL: -- has answered as best he
13 can.

14 MS. FOLK: Okay. Well, maybe, Jim, --

15 MR. CALDWELL: Let me --

16 MS. FOLK: -- you could clarify that for
17 us? Because I think it does go to the override
18 issue and the benefit of this project.

19 HEARING OFFICER KRAMER: Okay. Well, this
20 seems like another case where Mr. Caldwell is not
21 going to be able to make his -- prove his opinion
22 by questioning someone else, and maybe you should
23 just tell us what you think.

24 MR. CALDWELL: All right. Well, let me
25 try one other thing.

1 Brian, you talked about demand response
2 fatigue, all right, and calling multiple times
3 per year. The contingency that we're talking
4 about, how often will the demand response be
5 actually called, assuming that there are -- that
6 we've taken care of the voltage-collapse
7 contingency and that we have enough batteries
8 available so to allow post-contingency dispatch
9 of the demand response?

10 MR. THEAKER: It --

11 MR. CALDWELL: How often will they be
12 called?

13 MR. THEAKER: If -- I don't know. If
14 those transmission lines are out for an
15 indefinite period of time, they could be called
16 daily for an indefinite period of time.

17 MR. CALDWELL: So they will be called
18 only when there is a transmission outage during a
19 one-in-ten-year heat storm?

20 MR. THEAKER: No.

21 MS. GLEITER: This is Dawn Gleiter. We
22 heard from the ISO that they could be called at
23 other times as well when there are maintenance
24 outages on other units. So --

25 MR. THEAKER: Yeah. As LCR resources,

1 there is -- the ISO is not obligated to only call
2 them under particular conditions. There may be
3 restrictions, contractual or other restrictions,
4 but if these resources are meeting local concept
5 requirements, the ISO is not under an obligation
6 to simply call them when it's convenient for the
7 resource.

8 MR. CALDWELL: I understand that. On the
9 load-forecast issues, would you support a look --
10 if we go forward with some kind of preferred-
11 resource alternative, would you support relooking
12 at all the aspects of the load forecast
13 including, as you say -- and I agree with you, by
14 the way -- that we just had an event last week,
15 you know, where the system load was very high?
16 Do you know what the Moorpark area load was
17 during that event?

18 MR. THEAKER: I don't know. Edison has
19 that information, not me.

20 MR. CALDWELL: Wouldn't that be a nice
21 thing to know in terms of whether we have really
22 designed the right system or not?

23 MR. THEAKER: I think it -- yes, I think
24 as a general matter I think the ISO and the
25 Energy Commission should take a look at system

1 demand from, you know, north to south across the
2 entire state and see if what the effect of this
3 most recent peak was. It was unprecedented, it
4 was unexpected. And I think the Energy Commission
5 -- in 2006 when we had a similar unprecedented
6 peak, the Energy Commission convened a workshop
7 and took a comprehensive look at system demand
8 and forecast. And I have no reason to expect that
9 they won't do that this time.

10 MR. CALDWELL: And what was the load in -
11 - the whole story peak load in 2006?

12 MR. THEAKER: Fifty thousand two hundred
13 and 70 megawatts. We missed it --

14 MR. CALDWELL: So it was less than the
15 one that we -- or it was more than the one that
16 we had last --

17 MR. THEAKER: By 154 megawatts.

18 MR. CALDWELL: Okay.

19 MR. THEAKER: Again, the ISO's 1 and 2
20 forecast for this year was 46,600 megawatts. What
21 we saw on September the 1st was completely
22 unanticipated, blew through the one-in-ten
23 expectation. It's an astonishing number. And if
24 you look at the history, we haven't even
25 approached 50,000 since 2006. So this was a year

1 that I agree is worth studying.

2 MR. CALDWELL: I think we agree on
3 something, that this is something that's worth
4 looking at and is relevant to the issues that we
5 face here about the reliability in the Moorpark
6 area.

7 HEARING OFFICER KRAMER: Please explain
8 ever so briefly how it's relevant. I'm not -- I'm
9 not saying it isn't, I just want you to know --

10 MR. CALDWELL: I -- well, --

11 HEARING OFFICER KRAMER: -- I want you to
12 connect the dots so I understand what you're
13 saying --

14 MR. CALDWELL: All right. Okay, what I
15 think we're saying is, is that all of the
16 discussion today and all the discussion that
17 assumes this modeling of all of these issues, the
18 modeling of the load forecast, the modeling of
19 all this stuff, we have some real world data that
20 is relevant to this question. And I think we need
21 to look at that real world data as a way of
22 calibrating all of the uncertainty.

23 I think, you know, when Dr. Karpa was
24 talking about it and he talked about the margin
25 that you're putting in here, clearly that's what

1 we need to do if we're talking about reliability
2 in this area. And we need to think about that and
3 the only way we can do that is with all the data.
4 And to me what that says is, if I'm allowed to
5 say -- I'll say it, is we need to relook at the
6 load forecast. We need to have an RFO so that we
7 understand the cost and the performance and the
8 availability of the preferred resources in the
9 area. And then once we have done that, then we
10 can judge where we are, what we need to do. We
11 can just the value of Puente, and so forth. If we
12 do it now, we're way too dependent upon the
13 models, and I'm not comfortable with that. I
14 think we need to actually get the information and
15 sit down and say, okay, now this is what it
16 means. And that information means relooking at
17 the load forecast, getting -- getting down into
18 the weeds on this peak-shift issue, getting down
19 in the weeds on all of these things. We -- and
20 that's what we need to do. That's really what I'm
21 trying to --

22 MR. THEAKER: Mr. Caldwell, --

23 MR. CARROLL: Well, can I just --

24 MR. THEAKER: -- can I understand your
25 point --

1 MR. CARROLL: If you know that -- if I
2 may just ask a quick question, Mr. Caldwell. What
3 would be your estimate for the time necessary to
4 complete the process you just described?

5 MR. CALDWELL: Certainly within the
6 timeframe that we're talking about for an RFO.

7 MR. CARROLL: I don't understand what
8 that means. Can you --

9 MR. CALDWELL: Six months.

10 MR. CARROLL: So your view is that
11 everything that you just described could be
12 completed in a six-month period?

13 MR. CALDWELL: Sure.

14 MS. FOLK: And is --

15 MR. THEAKER: Mr. Kramer, may I -- may I
16 just say something?

17 MS. FOLK: Well, I want to ask one more
18 question about that. In your view is this will be
19 done concurrent with an RFO so that you could
20 evaluate the resources against real world data
21 about what the need is?

22 MR. CALDWELL: Yes.

23 MR. CARROLL: How would you know what to
24 attempt to procure in the RFO before you
25 completed the analysis of the load?

1 MR. CALDWELL: We would assume the Cal-
2 ISO study for what we would -- you know, that's -
3 - we have before us what -- what then would
4 happen after you do the RFO is, is the ISO is
5 going to have to take the results of that RFO,
6 add up all these resources, and all those
7 uncertainties that Neil talked about, he's going
8 to have to say whether that package meets his
9 thing. That means at the end of this RFO he's
10 going to have to do another study. So all of that
11 is just -- that's part of the way you do these
12 things. There's nothing -- you know, we do need
13 to look at -- at real packages with real numbers,
14 with real cost. We know it's technically
15 achievable. We're arguing about cost, we're
16 arguing about margins. We can't make a decision
17 unless we have all of that information. And the
18 relevant information is available all in that
19 same timeframe and it's available in a timeframe
20 where we are not jeopardizing the reliability
21 because we can short-term bridge whatever -- we
22 don't need to have everything online by December
23 2020. We can meet the OTC deadlines. We can do
24 all of that. We've got a plan B and we need to go
25 with that.

1 HEARING OFFICER KRAMER: Okay. Well,
2 you're definitely repeating points you've made
3 earlier, so let me -- Dr. Karpa.

4 DR. KARPA: Yeah. Thanks. I apologize for
5 -- I realize I had a couple of technical points
6 to raise very briefly. I actually have a four-
7 month-old to get home to, so I'm in a hurry
8 myself. And those were, one, on the
9 interconnection issue that was raised earlier, I
10 wanted to point out that there is an effort at
11 the CPUC right now under the Interconnection
12 Analysis to streamline that, to allow instead of
13 applying for an interconnection in the queue and
14 then waiting for a study, doing the analysis
15 ahead of time so that developers know when and
16 where and how to interconnect. That should speed
17 up interconnection a lot. And that is, I believe,
18 due to be online in the middle of next year,
19 which may be worth looking at. It goes to the
20 feasibility.

21 HEARING OFFICER KRAMER: Okay. Would
22 reduce it from how many months or years to what?

23 DR. KARPA: I think right now
24 interconnection studies run about a year. And,
25 you know, if everything goes in that proceeding

1 the way we want, it would be a matter of weeks
2 because then it's more like a building permit.

3 MS. GLEITER: Can I offer? Just a
4 development experience opportunity of a year is
5 completely not consistent with my experience. Our
6 interconnection processes when we enter into the
7 queue at minimum are 18 months and can be as long
8 as four years actually depending on the status of
9 assumed base-case network upgrades. That's from
10 my actual --

11 HEARING OFFICER KRAMER: Okay. And, Dr.
12 Karpa, --

13 DR. KARPA: Okay.

14 HEARING OFFICER KRAMER: -- you're
15 talking about frontloading. So somebody does the
16 study --

17 DR. KARPA: That's right.

18 HEARING OFFICER KRAMER: -- before they
19 apply. So -- so the period of time to review what
20 is a more complete application logically would be
21 less --

22 DR. KARPA: Yes.

23 HEARING OFFICER KRAMER: -- because --
24 but the total time from starting the study to the
25 end of the ISO process, is that any shorter or do

1 you just start the clock later --

2 DR. KARPA: Start the clock earlier. I
3 think that's right. I think that's the right way
4 to think about it.

5 HEARING OFFICER KRAMER: Or you start it
6 later, yeah.

7 DR. KARPA: Yeah, the clock would be
8 started sometime next year for all of these --

9 HEARING OFFICER KRAMER: But I mean --
10 but you're just -- you just count part of the
11 time now instead of the whole interval because
12 somebody has to have a project in line and they
13 have to do the study --

14 DR. KARPA: Well, --

15 HEARING OFFICER KRAMER: -- and that's
16 still going to take time.

17 DR. KARPA: -- my understanding of what
18 they're looking at is that they would model the
19 entire Moorpark area. And then when -- in 2018.
20 And then in 2019, the developer comes forward and
21 it's like I want to connect here, it's already
22 known what upgrades are needed. Or, even better,
23 the developer could say, uh, a lot of upgrades
24 needed there, not needed here, I'll interconnect
25 here. And that -- that really should speed things

1 up. How much is difficult to say, but I just want
2 --

3 HEARING OFFICER KRAMER: It might be
4 limited by the speed of the computer that runs
5 the model, is what you're saying, to some degree
6 --

7 DR. KARPA: Yeah, something like that.
8 Something like that.

9 HEARING OFFICER KRAMER: Okay. Okay,
10 enough of that.

11 DR. KARPA: And then the second page
12 actually, Mr. Theaker's point about the 500 hours
13 that this would be run as opposed to the 2100
14 that I had in my model, I actually had used the
15 capacity factor of . 25 because that's common to
16 use for peakers, to which would bring it worst
17 case into roughly the same ballpark as storage
18 and solar. In every other case storage and solar
19 is just cheaper, flat out.

20 And I also would point out that in that
21 cost assessment the per-megawatt hour operations
22 and maintenance costs, that includes both fixed
23 and variable. So as -- if you run it fewer hours,
24 some portion of that comes down, but not all of
25 it. So it's going to be somewhere between my 0

1 and M per-year estimate, which I think is like 18
2 million, and if you reduce it to 500, I think it
3 comes out to like 9 million. So it's -- you're
4 not going to get a completely linear pro rata
5 decrease in the O and M, I would suspect.

6 And just the last point on that
7 operations, maintenance component of the cost.
8 The \$28 per megawatt hour for fuel for natural
9 gas, that's the lowest annual price according to
10 the Energy Information Administration in the last
11 ten years. The highest was 64, so I just assumed
12 that with fracking and everything, prices are
13 historically low right now, and maybe that
14 continues, maybe that doesn't, but that could go
15 up some. It's not a huge factor in terms of -- I
16 mean I think it takes you from like 480 to like
17 560 million, but it's another factor that, again,
18 I was pretty conservative in my estimates of
19 those O and M costs.

20 So that's -- should be the last of my
21 small points.

22 HEARING OFFICER KRAMER: Okay. Thank you.

23 Who else has their hand up?

24 Ms. Folk.

25 MS. FOLK: I have a couple, okay. So, Mr.

1 Theaker, you testified about the Ellwood Project
2 and the proposed decision at the PUC. Are you
3 aware that the proposed decision has been held?

4 MR. THEAKER: It has been held a number
5 of times, yes.

6 MS. FOLK: Do you know why?

7 MR. THEAKER: I don't.

8 MS. FOLK: And if Ellwood is denied, do
9 you agree that Puente alone would not be
10 sufficient to meet the LCR need?

11 MR. THEAKER: No, I don't think that's
12 right.

13 MS. FOLK: Really?

14 MR. THEAKER: So the premise is Ellwood
15 is denied and Puente is insufficient. You know I
16 don't recall, but I thought I had understood that
17 Puente would have been sufficient to cover the
18 deficiency. It's close. As I remember, the ISO's
19 number is 264 megawatts from their study and
20 Puente is 262.

21 MS. FOLK: And the ISO study includes
22 Ellwood as part of its assumption; is that
23 correct?

24 MR. THEAKER: It may.

25 MS. FOLK: So if there was a deficit

1 there would need to be an RFO in any case; is
2 that correct?

3 MR. THEAKER: There would need to be some
4 kind of procurement. Whether it would happen to
5 RFO -- according to an RFO, I don't know.

6 MS. FOLK: And, Mr. Caldwell, I just
7 wanted to ask you a couple of questions about the
8 -- you know the bridge scenario, which is the
9 conversion of Mandalay 1 and 2 to synchronous
10 condensers.

11 Is it your understanding that the stacks
12 for the -- that are currently at the Mandalay
13 facility would need to be retained in that --

14 MR. CALDWELL: I'm sorry. That need to
15 be?

16 MS. FOLK: Retained if there was a
17 conversion to synchronous condenser.

18 MR. CALDWELL: Functionally, the answer
19 is no because there would be no exhaust. Whether
20 they structurally, whether you could still
21 operate under the stacks without it, I don't
22 know, but that would be something that her
23 engineers would say. But functionally you don't
24 need the stacks, but you may indeed -- in order
25 to have a synchronous condenser operate, you may

1 need to leave the stacks there or take them down
2 after you're done.

3 MS. FOLK: And if that conversation to
4 synchronous condenser were to occur, how often
5 would Mandalay 3 be called upon to operate?

6 MR. CALDWELL: Under the scenario that
7 we've been talking about, it would happen only if
8 there was a transmission outage of the N-1-1.

9 MR. THEAKER: I'm --

10 MS. FOLK: In the --

11 MR. THEAKER: I'm going to have to
12 disagree. There is no way to speculate as to how
13 much Mandalay 3 would run. Mandalay 3 could run
14 more if there were additional -- if there were
15 network outages in the area. To say that it would
16 only run under those conditions, I think is
17 speculation.

18 MR. CALDWELL: I said under the scenario
19 that we've been -- under the scenario that we've
20 modeled, the model will tell you that it only
21 needs to run. I totally agree with you that there
22 may be some other scenarios that we haven't
23 modeled where --

24 MR. THEAKER: Okay.

25 MR. CALDWELL: -- it happens, but that's

1 true for all of these.

2 MS. FOLK: But is it correct that the
3 need we're looking at here is the LCR need for --

4 MR. CALDWELL: Yes.

5 MS. FOLK: -- the hottest day and a one-
6 in-ten?

7 MR. CALDWELL: Yes.

8 MS. FOLK: Yes.

9 MR. CALDWELL: And that the other
10 scenarios will require less resources than that
11 one. This is specifically designed to be the
12 worst case and can you withstand the worst case.

13 MS. FOLK: Okay. Thank you.

14 HEARING OFFICER KRAMER: On the question
15 of whether -- or what the demand would be if
16 Ellwood were retired, I have the three scenarios
17 up here on the screen. And Scenario 3 seems to
18 suggest that the gap is 240 megawatts if Ellwood
19 is retired. Does that seem consistent with --
20 that seems to suggest that there would not -- or
21 that Puente would -- would adequately --

22 MR. THEAKER: Well, but except that
23 that's 240 megawatts.

24 HEARING OFFICER KRAMER: Of storage.

25 MR. CALDWELL: That's 240 plus 135 --

1 MR. THEAKER: Plus the 135.

2 HEARING OFFICER KRAMER: Oh, okay. Okay,
3 gotcha.

4 MR. CALDWELL: So that means that it's --
5 yeah, 375 and Puente's only 262.

6 DR. KARPA: Sorry to jump in here again -
7 -

8 MR. THEAKER: But, again, --

9 DR. KARPA: -- I actually just ran a
10 model of the distributed resources that would be
11 required to meet the residual need if Ellwood --
12 for the CPUC if Ellwood's retired. I believe the
13 residual is 29.2 megawatts if Ellwood is retired;
14 54 megawatts is more than is actually needed for
15 that LCR. And so we modeled both 54 and 29.2. And
16 I point out that the 240 megawatts is Puente plus
17 Ellwood and in Scenario 1 it's 125, so whatever
18 that difference is. You know, it's 115 megawatts
19 of energy storage, which is about what we came up
20 with, I think we came up with 110.

21 HEARING OFFICER KRAMER: Okay. Thank you.
22 Any more questions?

23 MS. BELENKY: I just had two questions.

24 HEARING OFFICER KRAMER: Go ahead.

25 MS. BELENKY: Okay. For Mr. Theaker. And

1 this goes to two documents that we put in the
2 record. One is about the cost of asthma to
3 society in healthcare costs and the other is also
4 about healthcare costs -- or healthcare impacts
5 from gas generation. Have you looked at those two
6 documents that we submitted?

7 MR. CARROLL: I object.

8 MS. BELENKY: I asked him if he had
9 looked at them.

10 MR. THEAKER: No, I haven't.

11 MR. CARROLL: I'll withdraw the
12 objection.

13 MR. THEAKER: I have not.

14 MS. BELENKY: You have not. In your
15 testimony you do mention that there are costs to
16 society outside of these O and M costs, et
17 cetera. For example, power loads shutting off to
18 hospitals, medical care, et cetera. Would you
19 consider the externalized impacts of air quality
20 to human health to be another cost?

21 MR. THEAKER: Yes, a difficult one to
22 quantify, as -- as would the effects of
23 involuntarily shutting firm load.

24 MS. BELENKY: Thank you. My question was
25 really about these two studies, which we did put

1 in the record but you have not reviewed. But if
2 in fact you reviewed them, because you just said
3 it's hard to quantify, but these are two studies
4 that attempt to quantify those things.

5 MR. CARROLL: These are two studies that
6 were admitted for the sole purpose of impeaching
7 the CAISO witnesses --

8 MS. BELENKY: No, impeaching --

9 MR. THEAKER: No.

10 MS. BELENKY: -- your witness actually.

11 MR. CARROLL: No. That --

12 MS. BELENKY: No, that was always my
13 intent.

14 MR. CARROLL: Well, that may have been
15 your intent, but that was not the ruling of the
16 Hearing Officer, --

17 MS. BELENKY: That's --

18 MR. CARROLL: -- so there was no basis
19 for Mr. Theaker to --

20 MS. BELENKY: That was to impeach anyone.
21 That --

22 HEARING OFFICER KRAMER: Yeah, I --

23 MS. BELENKY: -- he never said to only
24 impeach --

25 HEARING OFFICER KRAMER: Impeachment was

1 not limited to any particular witness, as I
2 recall. But --

3 MS. BELENKY: And I always intended to
4 use this for the Theaker testimony, so --

5 HEARING OFFICER KRAMER: Okay.

6 MR. THEAKER: Yeah.

7 MS. BELENKY: -- he didn't look at them,
8 he doesn't know. He says -- if I understand
9 correctly, you say it is hard to quantify these
10 effects but that they do exist. There are costs
11 to society from the air quality impacts that
12 include costs to -- of healthcare and human
13 illness.

14 MR. THEAKER: I won't deny that. I would
15 also --

16 MS. BELENKY: Thank you. That's -- that
17 was my question.

18 MR. THEAKER: And if --

19 HEARING OFFICER KRAMER: Well, if he
20 wants to elaborate on his answer, he's entitled
21 to.

22 MR. THEAKER: I would simply offer that
23 if you wanted to look at the costs associated
24 with emissions impacts, looking at one 262-
25 megawatt power plant in a state with, you know,

1 50 million cars might be a misplaced search.

2 MS. BELENKY: Well, we're talking about
3 an environmental justice community and emissions
4 within that community.

5 MR. THEAKER: If I may --

6 MS. GLEITER: May I add something to this
7 as well?

8 HEARING OFFICER KRAMER: Go ahead.

9 MS. GLEITER: So I think that external
10 costs are obviously important and NRG doesn't
11 deny that there are external costs to any power
12 generation, but you can't look at only one
13 external cost. And I think Brian, because he's a
14 technical person, says this in a technical way,
15 but there is a real external cost to load
16 shedding. And what we're talking about when we're
17 talking about load shedding is turning power off
18 on people who expect their power to be on. And so
19 you cannot dig in on one statement like that and
20 then say that there are aren't external costs to
21 power outages.

22 HEARING OFFICER KRAMER: Okay. Any other
23 questions? Dr. Change --

24 DR. KARPA: If I could do follow up since
25 --

1 HEARING OFFICER KRAMER: Go ahead, Dr.
2 Karpa.

3 DR. KARPA: -- I also am -- was kind of
4 the origin of this. The study in particular is
5 the one from *Lancet*, which is, as you probably
6 know, one of the premier public health
7 publications in the world scientifically. And my
8 background actually is a Ph.D. in population
9 biology, so it's a very closely-related field.
10 And the estimate there is that there are 2.8
11 additional deaths per terrawatt hour. And I think
12 we have to discuss whether there is -- you know,
13 whether it's 2100 hours or 500 hours, it's a very
14 big difference in emissions, but that puts it in
15 the range over 20 years just as about 8 to about
16 40 additional deaths that would result from --
17 and this is again average for natural gas plants.
18 I have no idea how Puente compares to the
19 average, but that would be the estimate. And if
20 you put it in at, say, \$7 million per death,
21 which is not uncommon for administrative law
22 practice, plus the asthma costs which we also
23 have reference to, that's an additional, say,
24 12,- -- you know, 3,- to 12,000, we're looking at
25 as much as an additional 340 million in costs

1 from the health impacts based on that *Lancet*
2 study, just to give you a number, because I am
3 here to give you numbers. Thank you.

4 HEARING OFFICER KRAMER: Yeah. It didn't
5 exactly sound like impeachment, though.

6 MS. BELENKY: No it was not.

7 HEARING OFFICER KRAMER: Okay, any other
8 questions?

9 Dr. Chang, you had your hand up for a
10 minute.

11 DR. CHANG: Is this on? And a mic was
12 enough -- can you hear me?

13 MS. BELENKY: Yes.

14 DR. CHANG: Okay, great. This is a
15 question for Mr. Theaker on the issue of costs.
16 So in your written testimony you say that CAISO
17 concludes -- this is -- this is also for the
18 benefit of the public who are now coming into --
19 to join us, who may have not benefitted from
20 hearing the testimony earlier.

21 So in your written testimony you say,
22 "The CAISO concludes that each of the three
23 scenarios consisting of the base resources plus
24 the additional battery, energy storage, in
25 scenarios 1 and 3, or the dynamic reactive in

1 Scenario 2 would be able to meet the local
2 capacity area requirements" -- and I'll just
3 skip. "The CAISO also concludes, however, that
4 the project costs of Scenario 1 and 3 are far in
5 excess of the project projected cost of Puente. "
6 That was your written testimony and I believe
7 your oral testimony as well. Correct?

8 MR. THEAKER: Correct.

9 DR. CHANG: Okay. Do you acknowledge that
10 the representative from CAISO in his oral
11 testimony today made a number of comments
12 speaking to the costs and said specifically that
13 they -- that their assessment was that it was not
14 cost-prohibitive at the point where they
15 determined that it was not cost-prohibitive to do
16 any of these scenarios that they sort of stopped
17 there, is I think how the way that they put it,
18 and that also in the oral testimony today Mr.
19 Millar from CAISO said that an RFO would need to
20 be done in order -- issued and done in order to
21 determine the actual costs.

22 MR. THEAKER: I'm aware that all things -
23 - all those things were said, yes.

24 DR. CHANG: Okay. Is your response -- do
25 you have a response to those?

1 MR. THEAKER: The statement in my
2 testimony that the CAISO study showed that
3 Scenarios 3 -- 1 and 3 were more expensive was
4 based on my analysis of the CAISO study, not any
5 independent cost analysis that I conducted or any
6 cost estimates that the ISO has conducted since.

7 DR. CHANG: Okay.

8 MR. THEAKER: So it's a statement that
9 stands on its face value.

10 DR. CHANG: Okay. Thank you. And my next
11 question is simply similar to Ms. Belenky's, is
12 there anything in your assessment that spoke to
13 or adjusts the costs to the public, to the
14 community of Oxnard, to the impact of a
15 vulnerable EJ question in question as to health
16 impacts?

17 MR. THEAKER: There is nothing in my
18 testimony that speaks to that issue.

19 DR. CHANG: Thank you.

20 HEARING OFFICER KRAMER: Okay. Are we
21 ready to excuse the panel?

22 MR. CARROLL: Yes.

23 HEARING OFFICER KRAMER: Okay. Thank you.

24 Thank you, all, for your testimony. We
25 are slightly past 5:30, so we will be beginning

1 public comment in just a moment.

2 Let me ask our -- we'll go off the record
3 for a minute -- court reporter, back on the
4 record.

5 Okay, well, we're going to take a four-
6 minute break. We'll start at 5:40, to be precise,
7 and I will put a timer up on the screen.

8 (Off the record at 5:33 p.m.)

9 (On the record at 5:42 p.m.)

10 COMMISSIONER SCOTT: Okay, everyone,
11 thank you so much. We're going to go ahead and
12 get started with our public comment period, so
13 please come on into the room. If you are a member
14 of the public and you'd like to make a comment,
15 and you haven't had a chance to do so, I'm going
16 to have Eunice Murimi, who is our Public Adviser,
17 she's over here on the right side.

18 Eunice, can you just wave at folks real
19 quick, so they know where to find you?

20 Well, she's busy talking to someone, but
21 she's right over there in the black and white
22 polka dots. If you'd like to make a public
23 comment, please fill out a blue card with her.
24 She'll bring those up to me. That's how we know
25 that you'd like to comment. And we're going to

1 call folks up, I think about two at a time here.

2 Our first public comment is going to be
3 from Mike Stubblefield, and he'll be followed by
4 Shirley Godwin.

5 MR. STUBBLEFIELD: Chairman Kramer,
6 Members of the Committee, thank you for coming to
7 Oxnard this week. It's been educational and
8 informative. I'm Mike Stubblefield. I'm the Air
9 Quality Chair of the Los Padres Chapter of the
10 Sierra Club.

11 I've been working on power plant issues
12 since the late '80s. And in the end, my side
13 usually wins. I hope that that turns out to be
14 the case this time.

15 We've heard the applicant's raison d'être
16 for why this project should be approved. I could
17 not disagree more. I think it's time to get off
18 fossil fuels. Natural gas is a fossil fuel. We
19 know that we need to cut our use and our emission
20 of fossil fuels if we're going to do anything
21 about climate change. This is one of those
22 opportunities where if we make the wrong choice,
23 we're stuck with that wrong choice for 10, 20 or
24 more years.

25 So I encourage you to make the right

1 choice. We have an alternative, which we've
2 discussed this week, which will be a lot
3 healthier for the planet, for the people who live
4 in South Oxnard, who, I should add, have been
5 subjected to not one, not two, not three, but
6 four power plants. No other power plant has ever
7 been built anywhere in the Moorpark Subarea,
8 except a two-mile stretch of beach in South
9 Oxnard. Nobody else has ever had one, even though
10 it goes from Moorpark to Santa Barbara. I wonder
11 why that is?

12 So I ask you to dig deep into your
13 conscience and think not just about the dollars
14 and cents. You have a clear-cut, economic
15 alternative that would be far cleaner than what's
16 being put before you by -- with all respect to
17 these guys, I hope you'll make the right choice.
18 And I encourage you to do so, because we need to
19 turn the corner. And I think we could set an
20 example here in Oxnard that could be replicated
21 all over the state as we phase out natural gas.

22 Thank you.

23 COMMISSIONER SCOTT: Thank you.

24 I have Shirley Godwin, please, followed
25 by Gary Ross.

1 MS. GODWIN: My name is Shirley Godwin, a
2 resident of Oxnard.

3 And there's really not much left to say.
4 There have been through many, many months of
5 meetings here, hours and hours of testimony. And
6 I've been with you for many of them, listening. I
7 was listening today. It should be really a very
8 easy decision for you, that there's no proven
9 need for the Puente project. With technology
10 improving so rapidly, with renewables and
11 storage, Puente will be obsolete by the time it
12 is built. It will be a dinosaur on our beach.

13 Thank you for coming here and hearing
14 this.

15 (Applause.)

16 COMMISSIONER SCOTT: Thank you.

17 I have Gary Ross, followed by Charlie
18 [sic] Cabral.

19 UNIDENTIFIED FEMALE: The timer is not
20 working now.

21 HEARING OFFICER KRAMER: My fault.

22 MR. ROSS: Well, how long do I have?
23 Three minutes, huh?

24 My name is Gary Ross from Oxnard. I also
25 have a company called Highwave here in town. I've

1 been around a lot -- many years as a surfer,
2 enjoy the natural world, as we all do here. The
3 reason I'm up here today, I have one concern that
4 maybe I haven't heard, and that's why I really
5 want to get it on the list here, being that we
6 love the harbor, also Channel Islands. We paddle
7 our paddleboards in there, and my son paddles in
8 there. And it's an amazingly clean harbor. And
9 the reason for that is it has good circulation,
10 and that's my opinion. But no other engineers
11 have talked about it. And it's astounding -- I've
12 experienced about every harbor up and down the
13 Southern California coast, and I think this is --
14 everyone would agree, it's the cleanest one.

15 So I'm hoping that there's some plan,
16 whatever -- wherever this goes, to keep it open,
17 to keep the circulation going.

18 Now my company is famous in certain areas
19 of the market, and we love, you know, Oxnard, but
20 we do have, by coincidence a plan of a wave
21 energy design. So we're onboard with most
22 everybody here, we all want that. So we're
23 working very hard, testing with Scripps. Part of
24 the components of our design actually pushes
25 water ashore that could help that.

1 So if there's anyone that's interested
2 that wants to contact me about that, I'd be happy
3 to talk about it. It's Gary Ross, and My company
4 is Highwave.

5 Thanks so much. Appreciate it.

6 COMMISSIONER SCOTT: Thank you.

7 I have Charlie Cabral, please, followed
8 by Lauraine Efress.

9 MS. CABRAL: Hello. I'll officially say,
10 good evening, but for the record, my name is
11 Cheri, not Charlie.

12 COMMISSIONER SCOTT: Oh, I'm sorry.

13 MS. CABRAL: That's okay. I'm with the
14 California State Building and Construction Trades
15 Council and the Labor Management Trust, which
16 represents both employers and employees. So we
17 represent the people that will be building Puente
18 and the people, not only the workforce, but the
19 companies themselves, as well. And I wanted to
20 make a couple of points.

21 I've been up in front of a number of the
22 hearings that have taken place up in Sacramento,
23 and here, as well. And the first thing that comes
24 to mind is the stress on making sure that this
25 area has reliable power. I mean, right now not

1 only is reliability an issue, but the reliability
2 is focused on technology that is old and does
3 need to be replaced and is set to be phased out
4 through the once-through cooling requirements,
5 which means that there needs to be something in
6 place for this area.

7 I would ask all of you to kind of look
8 back at the calendars, and in 2017 alone, and
9 look at what California has gone through. We have
10 had a season of absolutely raging wildfires. We
11 have had floods through the winter. We have had
12 heat waves. All of these things affect our power
13 grid in numerous ways. Solar panels can be burned
14 and melted. Things can be flooded. We have
15 transmission weaknesses in certain ways, that
16 Puente is necessary in order to keep this
17 particular area, which is a pocket, going.

18 And I heard a panel member earlier
19 referencing the issue of climate change, and do
20 we want to really rely on Texas? I would ask all
21 of you to look at Texas, look at Florida, look at
22 the Caribbean. What happens when the power grid
23 goes down? What happens to the people that are
24 living there that don't have power? It's not
25 just about whether you have heat. It's not just

1 about whether or not you have air conditioning.
2 It's about whether or not you have traffic lights
3 work, your street signals work. It is the ability
4 to keep your hospitals running, that
5 infrastructure for public safety continues to go.
6 We need to have a reliable system in order to do
7 that.

8 And I think this whole notion that I'm
9 hearing from some people of the cost be damned
10 issue really is one that I think is irresponsible
11 from a community standpoint. I mean, look behind
12 me. Do you see all these people? They're people
13 that live here in this community. And while some
14 people have opinions on environmental justice and
15 everything else, everybody here has an
16 electricity bill.

17 So while it's a really neat notion that,
18 you know, screw it, who cares what it costs to
19 build this really big idea over here and put it
20 out to RFP, and let's do two studies and defer
21 this and divert out and see what fabulous little
22 thing we can come up with, I didn't hear a single
23 one of them offering to pay these peoples
24 electricity bill when the cost of a cutsie idea
25 becomes their problem on their electricity bill.

1 And for all these people, they're going to not
2 only be building the facility, but when all the
3 speakers that are here leave, this is the
4 community that is left to pay those bills and
5 depend on the reliability. And it is our
6 responsibility to make sure that the decision
7 that is made for Puente is one that is
8 responsible and it is one that will -- provides
9 reliable power for this area.

10 And, yes, renewables are great, but we're
11 not there yet. So we still need to be responsible
12 in the bridge that we take in between, and Puente
13 literally is that bridge while the renewables are
14 developed.

15 (Applause.)

16 COMMISSIONER SCOTT: Thank you.

17 I have Lauraine Efress, followed by Nancy
18 Lindholm.

19 MS. EFRESS: Good evening. Thank you for
20 coming back to Oxnard one my time. I'm glad we
21 have a cooler room for you to operate in. I'm
22 Lauraine Efress, 26-year resident of Oxnard.

23 I've been at every single one of these
24 hearings, from the first time that we introduced
25 a moratorium at the Oxnard City Council. And I

1 say the same thing to NRG every single time, I
2 researched you. You are a very forward-looking
3 company. You have alternative energy all over the
4 United States. Why did you bring us a fossil
5 fuel, gas plant? And the answer always comes
6 back the same, greed, greed, greed instead of
7 green, green, green.

8 (Applause.)

9 You want to get into California
10 ratepayers' pockets before the curtain comes down
11 on fossil fuel.

12 To the speaker before me, Cheri, and all
13 the labor people here tonight, I have worked side
14 by side with labor for the 26 years that I have
15 lived here. We have been partners in one
16 political campaign after another. I have read so
17 many articles indicating there are way more jobs
18 in green energy than there are in a dying
19 industry like fossil fuel.

20 These are the whip and bugger community,
21 NRG. We want to be the automobile community of
22 the turn of the 20th Century. We are one-fifth of
23 the way, almost, through the 21st Century, and
24 you would take us back 100 years. It is greed,
25 greed, greed instead of green, green, green. We

1 want to be part of the future. We want
2 alternative energy. From what I understand about
3 Cal-ISO, and by the time this thing gets through
4 the RFP process, et cetera, the costs will be way
5 lower than what's estimated now. There is no
6 reason that we cannot meet the needs.

7 And furthermore, to the last speaker, I
8 would say this plant is only a peaker. It would
9 not be a sustained energy plant. It would not
10 replace the grid in a situation like Hurricane
11 Harvey. And a lot of the reason for the flooding
12 had to do with the stupidity of people and the
13 way they built. And NRG wants to duplicate that.
14 They want to bring us something stupid, instead
15 of something smart and modern; greed, greed,
16 greed. We want green, green, green.

17 Thank you.

18 (Applause.)

19 COMMISSIONER SCOTT: Thank you.

20 Nancy Lindholm, followed by Tony Sliner
21 [sic].

22 MR. LINDHOLM: Good afternoon or evening,
23 Commissioners. My name is Nancy Lindholm. I'm the
24 CEO of the Oxnard Chamber of Commerce. We
25 represent nearly 500 businesses. And I'm here

1 before you again to express our support of this
2 much needed project.

3 The most important factor of the study is
4 reliability. We need power that we can depend on.
5 And I don't see how we can trust any of these
6 unproven scenarios to fulfill our energy needs. I
7 appreciate that the study looked at the
8 feasibility of alternative energy. And I'm
9 hopeful that in the next 20 years, technology
10 will continue to advance to make alternative
11 energy more reliable. However, our coastal
12 community can't wait for technology to catch up.
13 We need clean, affordable and reliable energy by
14 2020, and Puente is the solution.

15 I ask you tonight to consider our energy
16 needs and approve the Puente Power Project.

17 Thank you.

18 (Applause.)

19 COMMISSIONER SCOTT: Thank you.

20 I have Tony Sliner, followed by Lucas
21 Zucker.

22 MR. SKINNER: For the record, my last
23 name is Skinner.

24 COMMISSIONER SCOTT: Oh, gosh, I'm sorry.

25 MR. SKINNER: Oh, that's okay.

1 Good evening. My name is Tony Skinner,
2 and I'm the Executive Secretary Treasurer of the
3 Tri County Building and Construction Trades
4 Council, as well as the President of the
5 International Brotherhood of Electrical Workers
6 in Ventura. And I'm here tonight to show our
7 support for the construction of this project.

8 Ventura County's construction industry
9 has never recovered from the crash of 2008. The
10 latest figures show we're still about 5,000 jobs
11 down from our peak before the crash. This plant
12 would provide a much needed boost to our
13 industry, as well as businesses in the community
14 as it will be built with local labor under a
15 Project Labor Agreement between the Building
16 Trades and NRG. It will also enable us, through
17 our apprenticeship programs and our Helmets to
18 Hardhats Program for veterans, to train a
19 construction workforce for the future.

20 This plant will supply a much needed
21 supply of reliable power to our county and add to
22 the grid as we move forward on the state's
23 renewable energy goals. We are not adding a power
24 plant. We are replacing a fossil with the newest
25 state-of-the-art technology.

1 I strongly encourage the passing of the
2 Puente Power Plant, and let the most highly
3 trained workforce build you a quality project.
4 We're ready to do our work. Thank you for your
5 time.

6 (Applause.)

7 COMMISSIONER SCOTT: I have Lucas Zucker,
8 followed by Mark Spellman.

9 MR. ZUCKER: Good evening, Commissioners
10 and Staff. My name is Lucas Zucker, a policy
11 director for CAUSE. I want to thank the
12 California Energy Commission for authoring the
13 study on -- authorizing the study on clean energy
14 alternatives.

15 Oxnard's past and present is full of
16 struggle against environmental justice, but this
17 study shows that a better future is possible. The
18 future isn't just for Oxnard, it's for all of us.
19 These days it seems like half the country is on
20 fire and the other half is underwater. We all
21 know that at some point we are going to have to
22 stop doing the same stupid things over and over
23 again, approving power plant after power plant,
24 creating devastating climate change.

25 As we speak, the California State

1 Legislature is preparing to require 100 percent
2 clean energy by 2045. Eventually, all of these
3 power plants will need to be shut down and their
4 smokestacks torn off our coastline to be replaced
5 with clean, renewable energy, or what we'll face
6 is ecologically disaster.

7 Even NRG acknowledges this. They call
8 their project Puente, a bridge to the future we
9 deserve, away from the past of pollution, climate
10 destruction and environmental racism. Just one
11 more bridge to cross, they say. Just one more
12 generation of kids growing up in Oxnard,
13 breathing their emissions. They say it, and then
14 they swear, we'll be done. Of course, somebody
15 selling you a \$300 million bridge is always going
16 to tell you that we need a bridge.

17 But your analysis shows that the better
18 future, with cleaner air and healthier families
19 in Oxnard, is already here, if you want it. The
20 analysis shows, we already have the technology
21 ready to provide this need. Not only does this
22 industry analysis say we can meet our needs with
23 clean energy instead for about the same price,
24 that industry analysis uses old cost estimates
25 from 2014. More accurate current prices show that

1 the clean energy alternative would actually save
2 ratepayers \$32 million as solar and battery
3 storage costs are plummeting rapidly with
4 technological advances.

5 And I want to thank our union brothers
6 and sisters for being here. We want you to build
7 this clean energy. Today is interesting for a lot
8 of construction folks to come out today. I'm glad
9 they can see that we're actually talking about a
10 real viable alternative that will create just as
11 many, if not more, jobs in clean energy than
12 building dirty energy. And either way, there's
13 going to be construction jobs. So thanks for
14 being here. And I hope we're able to get folks to
15 work, building the energy that we need, the
16 energy that's right for protecting all of Oxnard
17 and the people in it, as well.

18 (Applause.)

19 So you here, at the California Energy
20 Commission, you know that the way we've done
21 things in the past is wrong. You know it's wrong
22 to keep burning fossil fuels as we face climate
23 disaster. You know it's wrong to keep dumping all
24 the power plants in the most disadvantaged
25 communities. You know it's wrong to build energy

1 infrastructure on the coast as the sea levels are
2 rising. The only excuse to build the Puente
3 project is the myth, the lie that there is no
4 better option. Now you have that better option in
5 front of you. There is excuse to keep polluting
6 Oxnard. Clean energy now.

7 (Applause.)

8 COMMISSIONER SCOTT: Thank you.

9 We have Mark Spellman, followed by Ruben
10 Flores.

11 MR. SPELLMAN: Good evening,
12 Commissioners. Thank you again for taking the
13 time to take public comments this evening. I know
14 you have heard from me before in expressing my
15 support for NRG and for this project. My name is
16 Mark Spellman. I'm a longtime resident and
17 homeowner in Ventura County. I work in downtown
18 Oxnard with a minority-owned, Spanish-language
19 media company, Lazer Broadcasting. I also served
20 as a director of the Oxnard Chamber of Commerce,
21 the Oxnard Downtown Improvement District, and the
22 Rotary Club of Oxnard.

23 I'm here tonight to reiterate my support
24 for the Puente Power Plant Project and talk
25 briefly about the CAISO study. I am concerned

1 with the proposed alternatives that were
2 presented in the CAISO study. This study did not
3 look at cost as the main focus, but rather what
4 resources can Ventura County get energy from. The
5 proposed alternatives that were presented in this
6 CAISO study will cost anywhere from \$10 million
7 to \$817 million more than the Puente Project.
8 These costs do not take into consideration
9 ongoing operation and maintenance costs.

10 The study concluded that the three
11 proposed alternatives are too cost prohibitive,
12 and that the Puente Project is the most
13 affordable and reliable source of energy for our
14 region. I think it is important that the study
15 was done in order to look at these options that
16 may be feasible, but the result is the same; the
17 Puente Power Plant Project is the best option to
18 provide affordable, reliable and increasingly
19 cleaner power for our community. Oxnard needs
20 this bridge project. Oxnard needs Puente.

21 Muchas Gracias. Thank you.

22 (Applause.)

23 COMMISSIONER SCOTT: Thank you.

24 Ruben Flores, followed by Fatima
25 Contreras.

1 Is Ruben here?

2 MR. FLORES: Yes.

3 COMMISSIONER SCOTT: Yes. Okay.

4 As he's making his way up, if you are in
5 the audience and you'd like to make a comment and
6 haven't yet filled out a blue card, you can get
7 them from our Public Adviser, Eunice. She's over
8 there waving at you. She'll fill out the --
9 you'll fill out the blue card. She'll bring them
10 up to me. That's how I know that you'd like to
11 make a public comment.

12 Please go ahead, Ruben.

13 MR. FLORES: So good afternoon. My name
14 is Ruben. And we have been continuously fighting
15 against the incorporation of the fourth power
16 plant here in Oxnard. The CAISO study
17 demonstrates a genuine possibility of alternate
18 methods of energy that don't jeopardize our
19 community and the residents and animals that
20 reside here.

21 You have witnessed that climate change is
22 real with the catastrophic events that have taken
23 place, such as hurricanes, earthquakes and
24 wildfire. We are requesting that you approve the
25 environmentally-safe option and implement clean

1 energy that won't be detrimental to Oxnard.
2 Because of technology advances, we should abandon
3 power plants which will soon be obsolete.
4 Attempting to alleviate climate change starts
5 here, because an additional power plant has the
6 mass potential to harm the earth.

7 So I ask you to respect our community
8 because avoiding this power plant is avoiding
9 solidifying climate change, which has already
10 taken a huge toll on earth. Clean energy now.

11 Thank you.

12 (Applause.)

13 COMMISSIONER SCOTT: Thank you.

14 I have Fatima Contreras, followed by Jeff
15 Baolz. I think that's how you say it.

16 MS. CONTRERAS: Good evening. My name is
17 Fatima Contreras and I'm a senior at Hueneme High
18 School. My family and I have lived in Oxnard for
19 5,840 days. And for all you all that don't know,
20 that's 16 years. And I've grown up just seeing
21 how environmental racism has reflected on our
22 town, our community, playing in the sand, having
23 to see our beautiful beach shadowed by an asthma-
24 producing power plant.

25 I've always seen the power plant as if

1 you're trying to take a picture and someone
2 stands right in front of you, and they won't
3 move. We're lucky enough to live next to a beach,
4 to have a beautiful view. But yet, we have to
5 turn and see that.

6 Studies have shown that in order for
7 Oxnard to have a better future, we have to go
8 green, and it's possible. It's possible now. The
9 clean energy source would protect our health and
10 environment. This is a moment to take this
11 opportunity and to be the positive step for a
12 better tomorrow. Clean energy now.

13 Thank you.

14 (Applause.)

15 COMMISSIONER SCOTT: Thank you.

16 I have Jeff Baolz [sic], followed by
17 Charles McLaughlin.

18 MR. BOADY: Good evening, Commissioners.
19 My name is Jeff Boady. I'm the Business Manager
20 for Local 952, International Brotherhood of
21 Electrical Workers.

22 In Ventura County, we have over 400
23 members. And of those members, we have 85 men and
24 women going through an electrical apprenticeship
25 program. We do not only train in power generation

1 plants with fossil fuels, but we also believe in
2 green energy. Solar and wind is a big part of our
3 training aspect.

4 That being said, these men and women that
5 belong to our training facility, this is the only
6 training facility locally, located here in
7 Ventura County. There is not another electrical
8 apprenticeship program in our county. These
9 opportunities that would be provided by this
10 Puente Power Plant is invaluable. Not only does
11 this just provide jobs, but it provides careers
12 for men and women in the county.

13 We believe in green energy. We'll be the
14 first ones here speaking on behalf of the next
15 plant that goes up, whether it's wind or solar. I
16 encourage you to give the opportunity to these
17 men and women going through this program, give
18 them the opportunity to learn a career. We
19 support this power plant.

20 Thank you.

21 (Applause.)

22 COMMISSIONER SCOTT: Thank you.

23 I have Charles McLaughlin, followed by
24 Victor Cortes.

25 MR. MCLAUGHLIN: My name is Charles

1 McLaughlin. I'm a resident of Oxnard, a business
2 owner, and I'm on the Board of the Ventura County
3 Taxpayers Association. The Taxpayers Association
4 has submitted a letter to the Commission, so
5 you'll have that.

6 But in brief, the Taxpayers Association
7 has a serious question on renewable energy
8 timing, cost and availability, and yet at the
9 same time the economic impact that it will have
10 or not have in Oxnard in general. We don't know
11 if the proposed alternative could be online by
12 2020. And Puente is the only project that will
13 ensure regional reliability once Mandalay and
14 Ormond are offline.

15 According to your web page, CEC, the
16 Energy Commission, the renewable energy goal for
17 the year 2050 is 50 percent. At present, it
18 stands at 29 percent. Within the next goal, 2020,
19 it's supposed to be 33 percent. That's a very
20 small increase in the next two years. We have to
21 ask if that increase includes protecting our grid
22 with reliable energy? And that's the serious
23 question we have.

24 If renewable sources won't meet energy
25 requirements by 2020, and the NRG permit is

1 denied or not improved, Oxnard will lose on two
2 cases, both energy reliability, and it will also
3 lose on a major economic gain.

4 The Ventura County Taxpayers Association
5 is not a gambling association, but one that would
6 lean towards the sure thing. We believe approving
7 this permit is the safest way to go.

8 Thank you very much.

9 (Applause.)

10 COMMISSIONER SCOTT: Thank you.

11 I have Victor Cortes, followed by Jose
12 Lopez.

13 MR. CORTES: Good afternoon. My name is
14 Victor Cortes. I'm a senior at Hueneme High
15 School.

16 I just want to tell you, the CEC, to
17 invest in Oxnard. The CAISO report proved that
18 renewable sources could provide reliable energy
19 for Oxnard. Though a study in 2014 said that
20 these alternatives would be more expensive, clean
21 energy experts are now saying clean energy
22 alternatives would be cheaper.

23 This power plant would be outdated by the
24 time it is built, so don't make the wrong choice.
25 Oxnard has already been the recipient of so many

1 bad choices, and Oxnard deserve a brighter
2 future, and that can be reached with renewable
3 sources, renewable energy. Clean energy now.

4 (Applause.)

5 COMMISSIONER SCOTT: Thank you.

6 I have Jose Lopez, followed by Lily
7 Bello.

8 MR. LOPEZ: Thank you, CEC, for allowing
9 us to speak today. My name is Jose Lopez. I
10 represent IBEW, or Electrical Workers Union.

11 I just want to show that, you know, I've
12 been living here in Oxnard for 37, 38 years, and
13 I have my family here. I support this. We need to
14 have more work here, keeping our guys more busy
15 and keep them working, able to provide for their
16 families.

17 Thank you.

18

19 (Applause.)

20 COMMISSIONER SCOTT: Thank you.

21 I have Lily Bello, followed by Rosalinda
22 Flores.

23 You're good. You're good.

24 MS. BELLO: Sorry. I have little legs.

25 COMMISSIONER SCOTT: You're fine.

1 MS. BELLO: Okay. Hello. Good afternoon.
2 My name is Lily Bello and I'm a senior at Hueneme
3 High School. It's an honor to speak in front of
4 you today, and the CEC.

5 I wanted to start off by saying I love
6 bridges. Bridges symbolize a lot of things, like
7 the promise of adventure and the future. But I
8 don't appreciate bridges who are going to close
9 the gap between Oxnard being in the 90th
10 percentile of asthma concentration to the 100th
11 percentile of asthma concentration.

12 I'm not somebody who works in Oxnard but
13 lives in Ventura. I'm somebody who lives in
14 Oxnard and spends their entire day here, and I
15 have asthma. And I've missed out on so much of my
16 childhood because I could not breathe. And I just
17 recently found out that power plants cause
18 asthma. So, yeah, it's not something that is
19 just, you know, a cutsie idea. It's something
20 that's a reality. And the reason that we're
21 reciting it, we're not trying to be cute, we're
22 not trying to be hip, it affects us.

23 So the construction of the renewable
24 power plants with green energy, there will still
25 be jobs constructing them. I realize that there's

1 a cost, but the cost of my life, I think, should
2 be a little bit more important than the cost
3 coming from a billionaire's pocket.

4 Thank you.

5 (Applause.)

6 COMMISSIONER SCOTT: Thank you.

7 I have Rosalinda Flores, followed by Tom
8 Cady.

9 MS. FLORES: Hello. My name is Rosalinda
10 Flores, and I'm a junior at Hueneme High School.

11 Statistics have shown that having a green
12 environment is possible. So I ask you, CEC, if
13 you were live in Oxnard and your family and your
14 kids were to have asthma, and wouldn't you want a
15 green environment and good health for your
16 family? And it's possible to have a green
17 environment by having and using green energy and
18 having Oxnard a power plant-free zone. Green
19 energy now.

20 (Applause.)

21 COMMISSIONER SCOTT: Thank you.

22 I have Tom Cady, followed by Raina Coria.

23 MR. CADY: Good evening, Commissioners.

24 My name is Tom Cady, and I am a 45-year resident
25 of City of Oxnard, and a retired Assistant Police

1 chief. And I would like to make -- I've testified
2 before you before, and I want to just reiterate a
3 few points on this.

4 I've seen firsthand what happens when we
5 lose power in a community. There are significant
6 public safety concerns. And I can say right now
7 we can look across our country and see in Texas
8 and Florida and the Caribbean what happens when
9 large regions lose power. And it's not just an
10 inconvenience, it's a public safety matter. And
11 in some cases, it results in tragic results.

12 So I think this is a reasonable and
13 responsible response to the needs in this area,
14 in the case of the regional disaster. And we've
15 seen fires, we've seen floods, and we know
16 there's chances for earthquakes, that having our
17 ability to get our power up and running is going
18 to be critical. And I think in the case of the
19 hurricanes, they had the ability to pre-position
20 resources. In the cases I just mentioned, we
21 won't have those. And so we're going to be
22 calling on people in an instance to respond and,
23 realistically, a lot of that response is going to
24 be in the major metropolitan areas. And I believe
25 in the more rural areas you're going to have

1 significant and adverse impacts. And those are
2 going to impact people who are elderly. It's
3 going to important adversely people who have
4 lower socioeconomic means because other people --
5 they don't have the resources to take care of
6 themselves.

7 So you, as the Commission, have the
8 responsibility to fulfill the needs of our
9 community. Maybe at some point, reliable energy
10 of alternative fuels will be available and will
11 work. But right now you have to deal with what
12 you know and what you know is going to work, and
13 I think that's got to be the primary
14 consideration of this Commission.

15 And I feel for our first responders in
16 other areas of this country in terms of what
17 they're dealing with right now.

18 Thank you very much.

19 (Applause.)

20 COMMISSIONER SCOTT: Thank you.

21 I have Raina Coria, followed by Rafael
22 Escobello. I think I got that right.

23 MS. CORIA: Good evening. My name is
24 Raina. I'm here with CAUSE, and I'm also a
25 lifelong resident of Oxnard. And I'm here to

1 express my thoughts on the plant and the
2 alternatives brought about in the recent study.

3 As for the health and wellbeing of our
4 community, this alternate plan is an absolute
5 must. Our fight against the terrible, terrible
6 fossil fuel plants has gone on for a long time.
7 Now we have a potential solution, and it's in
8 your hands. Please make the right choice, which
9 is clean energy for Oxnard.

10 Thank you.

11 (Applause.)

12 COMMISSIONER SCOTT: Thank you.

13 I have Rafael Escobello, followed by
14 Michael Wynn Song.

15 MR. ESCOBELLO: Good evening, California
16 Coastal Commission [sic], and everybody attending
17 today's important meeting concerning the Puente
18 Power Plant and Mandalay Energy. I'm here to
19 support this project.

20 I'm a lifetime resident of Oxnard,
21 California, and a homeowner. I'm a member of
22 Plumbers and Steamfitters Local 44 Union in
23 Ventura. I have 20 years' experience in the
24 plumbing and pipefitting industrial. I urge you
25 to please move forward with the permitting

1 process and construction of the Puente Power
2 Plant. Please approve this project. Let's get rid
3 of the old and update the power plant that is
4 currently in use. Let's build a modern and more
5 efficient power plant. This new power plant is
6 going to give electricity to businesses and
7 residents of Oxnard.

8 It's not difficult to decide. We need a
9 modern and more efficient power plant, despite
10 our electrical needs. Also, this project is going
11 to create good paying jobs with benefits for our
12 union labor of Ventura County. Let's put our
13 professionals, our hardworking professionals to
14 work. This is going to benefit Oxnard because
15 work here stays here. In return, it's going
16 signal labor economy. Please make this a 100
17 percent union labor project. Let's give our
18 members an opportunity to work here at home,
19 because most of the time they have to drive all
20 over, and that is not fair. These people are
21 citizens of the United States and are high school
22 graduates, and some are college graduates. And
23 they completed an apprenticeship program in the
24 building trades.

25 Once again, I urge you, California

1 Coastal Commission and the City of Oxnard, please
2 build this power plant. We need a modern and more
3 efficient power plant to supply our electrical
4 needs.

5 Thank you. I'm Rafael Escobello.

6 COMMISSIONER SCOTT: Thank you.

7 Can I have Michael Wynn Song, followed by
8 Elma Del Aguila.

9 MR. WYNN SONG: Good evening,
10 Commissioners. My name is Michael Wynn Song. I'm
11 the Senior Executive VP for Global America
12 located on the Navy Base here in Port Hueneme. We
13 currently employ about nearly
14 300 employees here. I'm also one of the directors
15 for PORTUS, a business alliance of port-related
16 businesses here, who collectively employ
17 approximately 3,000 employees here.

18 I've spoken before this Commission before
19 to express my support for the need of Puente. It
20 is fine that the CAISO study was done to consider
21 the alternative options to provide power in our
22 region. That being said, I'm not surprised to
23 learn that Puente is still the best option to
24 provide affordable and reliable power to our
25 region. Puente has already been identified as the

1 project that best meets local reliability and
2 protects the interest of ratepayers in a thorough
3 review process by the CPUC.

4 I ask, once again, that you approve this
5 project, a truly needed bridge.

6 Thank you for your time.

7 (Applause.)

8 COMMISSIONER SCOTT: Thank you.

9 I have Elma Del Aguila, followed by
10 Richard, Dr. Richard Neve.

11 MS. DEL AGUILA: My name is Elma Del
12 Aguila. And I'm here with some of the youth from
13 CAUSE. And we have felt really strongly about
14 opposing this power plant for years now. And we
15 would like to express our concerns and our views
16 through a song.

17 (Whereupon a song is sung to the tune of
18 Fresh Prince of Bel Air, and the lyrics are
19 transcribed.)

20 "Now this is a story all about how my
21 community got turned upside down. And I'd like to
22 take a minute, just sit right there, I'll tell
23 you how our city lost our fresh air.

24 "In Oxnard, California, born and raised,
25 on the beaches is where I spent most of my days,

1 chillin' out, maxin, relaxin', all cool, chillin'
2 on beaches outside of school, when a couple of
3 guys who were up to no good started making
4 smokestacks in our neighborhood. We got one
5 moratorium and NRG got scared. They said, 'You're
6 beach is a dumping ground, sorry we don't care. '

7 "We begged and pleaded with you to have a
8 say, but you ignored our voices and sent us all
9 away. That didn't stop us, no way, no how, so we
10 went to the capitol and represented our town.

11 "But we came back, shut it down. Now
12 we're back. We won't back down. So do green
13 energy now."

14 (Applause.)

15 COMMISSIONER SCOTT: Thank you.

16 MS. DEL AGUILA: Thank you.

17 COMMISSIONER SCOTT: I have Dr. Richard
18 Neve, followed by Kitty Merrill.

19 And while he's making his way up, I'll
20 just give a reminder. If you're new in the
21 audience and you'd like to make a comment, just
22 fill out a blue card. You can get them over there
23 from Eunice on the right-hand side. She's waving
24 at you. And she'll bring them up to me. That's
25 how I know you'd like to make a public comment.

1 Dr. Neve, please go ahead.

2 DR. NEVE: Hello again. Once again, my
3 name is Dr. Richard Neve. I'm here as a member of
4 Democratic Socialists of America, Ventura County
5 Chapter.

6 You know, we're here again. And after the
7 release of the CAISO study it really appears that
8 alternatives exist. They're feasible. We can do
9 it. We're really at the end of the rational,
10 sensible, logical, practical arguments in this
11 discussion.

12 We still see that Puente is unnecessary.
13 And if all of those arguments aren't enough,
14 anyone who has watched the news in the last
15 couple of weeks knows that it's stupid to put
16 critical infrastructure on a coastline; right?
17 If a hurricane comes, or more likely a tsunami or
18 a storm surge comes, that plant is gone. And it's
19 not if, it's when. And so continuing to have this
20 discussion is ridiculous; right? Would you
21 rather have a power plant on a coastline or
22 batteries in the hills? That seems to make a
23 whole lot more sense.

24 If you're concerned about feasibility in
25 terms of timelines, if you think we've been a

1 pain in the neck here, just imagine how we would
2 be if the County Planning Commission was holding
3 up permits for battery storage and increased
4 solar; right? This fight doesn't end here. It
5 continues as long as it has to. So we can make
6 sure that any alternative project can get built
7 by 2020.

8 This isn't really a fight about policy
9 issues anymore, is it? This is a fight between
10 people who have a voice and have power and money.
11 It's a fight against a horrendous, ruinous
12 freight train of fossil capitalism that plows its
13 way through communities it thinks doesn't have a
14 voice. And we have been here time and time again
15 telling you that we do have a voice, we do have
16 power, and this project will not happen.

17 No community should be sacrificed for
18 corporate profits. Oxnard will not continue to be
19 sacrificed for corporate profits and for dirty
20 energy. This fight ends here. Whether NRG likes
21 it or not, this is the frontline, this the
22 battleground for stopping this ridiculous process
23 that we have of okaying dirty energy and then
24 dealing with the consequences later. No. A better
25 alternative is possible. And it's time to say

1 that we value people's lives more than we value
2 corporate profits. Clean up Oxnard.

3 (Applause.)

4 COMMISSIONER SCOTT: Thank you.

5 I have Kitty Merrill, followed by Martin
6 Rodriguez.

7 MS. MERRILL: Good evening,
8 Commissioners.

9 Puente has been positioned as the not-as-
10 bad power plant, but it's a bad power plant.
11 We've got renewables coming along. We've got
12 environmental degradation here already. We need
13 to fix it. We've got health damage. We need to
14 fix it. Putting up a power plant that's not as
15 bad as the existing power plant isn't a solution.
16 Renewables are a solution. Good jobs to build
17 those renewables is a solution. Taking care of
18 the health of our community is a solution.

19 Puente is being pitched as a bridge.
20 You've probably heard enough bridge analogies to
21 last for a while, but it is a 30-year bridge for
22 a 10-, a 5-year problem. It's the bridge to
23 nowhere. Please do not approve Puente.

24 (Applause.)

25 COMMISSIONER SCOTT: Thank you.

1 I have Martin Rodriguez, followed by
2 Diego [sic] Jaquez.

3 MR. RODRIGUEZ: Good evening. I'm Martin
4 Rodriguez. I'm a Business Agent for the
5 Ironworkers Local 433, and President of the Tri
6 County Building Trades.

7 That being said, I support this project.
8 And I can tell you what, I really take my hat off
9 to these young people here. I'm going to start
10 recruiting all my labor activists from the high
11 school, because it's very evident that they're
12 very impressionable and led very easily. I have
13 not seen any one of them fighting the good fight
14 for wages, pushing a good paying project through
15 the City Council or the Planning Commission or
16 any of the other places -- entities that we deal
17 with. But I take my hats off because they're on
18 the right road for political activism. And it
19 doesn't pay very good, but, hey, that's where I'm
20 going to start recruiting.

21 We build the solar plants. I'm building
22 one right now up north. I just came from there.
23 And I can tell you what, even the engineers that
24 I'm working with to build this project, which is
25 going to help subsidize this project right here,

1 it's going to have issues. All of them have
2 issues. You have a major earthquake, these things
3 have not survived one yet, okay? The technology
4 is improving on all of these things, but it's not
5 a proven thing. The battery, we're going to build
6 those also. That's what the building trades do,
7 we build infrastructure. But all of -- you're
8 going to have -- have to have a combination of
9 fossil fuel and clean energy.

10 And the person that spoke also about
11 clean energy is going to provide all these good
12 paying jobs is a fallacy. They know not what they
13 speak. I do. I'm in this industry.

14 So that being said, I am in favor of
15 this.

16 Thank you.

17 (Appause.)

18 COMMISSIONER SCOTT: Thank you.

19 I have Diego Jaquez, followed by Lupe
20 Angiano. Oh, I'm sorry, it's Dick Jaquez.

21 MR. JAQUEZ: Thank you.

22 COMMISSIONER SCOTT: It's a little dark
23 up here.

24 MR. JAQUEZ: Thank you. The last name is
25 Jaquez. Don't worry. It's happened forever.

1 COMMISSIONER SCOTT: Thank you.

2 MR. JAQUEZ: Good evening. It's good to
3 see all of you again in our city. And I
4 understand, I didn't count but my wife did, this
5 is the fourth time we've been here. And so you've
6 heard all the pros and cons, I believe.

7 I've been here for, I don't know how many
8 people can beat me with this one, I've been here
9 for over 70 years. And we were living in South
10 Oxnard for a long time, and my brother did get
11 asthma, and there were no power plants there. I
12 don't know what to say about that.

13 But during my time as a coach, I was a
14 teacher-coach for 31.22 years, that's what my
15 retirement says, and I was a high school board
16 member for 12 years, I actually advocated and
17 testified for CAUSE on a case many years ago. And
18 I thought they were right and I spoke for them.

19 Now I've looked at this project up and
20 down and I've come to the conclusion that it's a
21 project that you should support. I've looked
22 at -- the Applicant has met every concern of the
23 opposition. All concerns have been mitigated and
24 approved, as I make that.

25 Now the pollution issue will be down.

1 That's what everybody was first starting talking
2 about. We have beautiful air here. We have good
3 water here. It could be improved.

4 The old energy building that everybody
5 talks about there to get rid of is part of this
6 Applicant's presentation. If they don't move it,
7 it will be here forever.

8 The water quality in the canal will be
9 improved. They were talking about that. But the
10 project, this Puente Project helps the City of
11 Oxnard, it helps the County of Ventura, and it
12 helps part of Los Angeles.

13 And we're talking about the alternative
14 places to put things, we have a solar initiative.
15 And some of the oppositions were headliners in
16 the solar initiative. Where are you going to put
17 these things on empty spaces where you have a
18 solar initiative.

19 I believe that the people -- and one big
20 thing. See the people behind us with the hats and
21 everything? This project brings jobs that pays
22 the bills. You're looking at them. They're the
23 ones that pay the bills. Me too. I used to but I
24 don't anymore.

25 The project will also bring us \$7 million

1 to the city. We need that money. I just think
2 that after a while the opposition will end up
3 liking this too.

4 So thank you, and I hope you support this
5 project.

6 (Applause.)

7 COMMISSIONER SCOTT: Thank you

8 I have Lupe Angiano, followed by Vicki
9 Paul.

10 MS. ANGIANO: Yeah. My name is Lupe
11 Angiano, and I am -- I want to confess that I am
12 surprised we're -- I am very, very surprised that
13 we are having this meeting today. I'm surprised
14 because since 2005, I have been part of a large
15 group in Oxnard who have been seeking the right
16 to take possession of our own land, to make
17 decisions about where we live, to make decisions
18 about old, industrial, crippling infrastructure
19 in the plants that we have now. And so I am
20 surprised.

21 I am 88 years of age. I have lived in
22 California since I was third grade. And I have
23 been lucky, blessed, to see California be on the
24 moving line, a visionary of clean, healthy
25 projects. We have an agricultural industry which

1 Latinos, Mexicans, have enriched California, and
2 I have been one of those persons.

3 Now fossil fuels is contaminating our
4 water and killing our agricultural industry. If
5 you don't believe that, go to Bakersfield and see
6 what has happened.

7 Now I think the people that need to be
8 speaking here are people from Oxnard, because we
9 have been living here and we are the ones that
10 are suffering from asthma. At night, you know,
11 there's flares. The air, when it comes from the
12 west, hits my window. And even if I close it, we
13 don't have any air conditioning, and so breathing
14 is very hard for us.

15 I think that my niece purchased solar
16 from Solar City. Her bill went from \$300 a month
17 to \$79.00 a month. And I am just amazed that
18 California and the Energy Commission has held us
19 back. Why are you keeping California back? Why
20 are we selling our good jobs, our clean energy,
21 to German, to China, to other places?

22 We do not need this plant. We do not need
23 this plant. We do not need this plant. Everyone
24 knows that, and so why are we arguing? And why,
25 with all due respect, are you here when you know

1 this?

2 Thank you very much.

3 (Applause.)

4 COMMISSIONER SCOTT: Thank you.

5 I have Vicki Paul, followed by Rudy Zamora.

6 MS. PAUL: Many thanks to the Commission
7 for your patience and well-informed attention to
8 us this evening after a long day.

9 Many people have spoken to you today
10 encouraging approval of Puente, and represent the
11 interests among the oil industry and related
12 industries and people empowered by profit.
13 Historically, petroleum interests get very high
14 status, and they're not used to being at the
15 back, really.

16 Pro-planet people, to rebut a lady
17 earlier, are not motivated by cost be damned. The
18 Gulf of Mexico water is seven-and-a-half degrees
19 above average and holds moisture directly
20 overhead, so that when a hurricane came it rained
21 50 inches. Climate is a consideration, besides
22 costs, a very important consideration.

23 We have in the room here tonight a very
24 intelligent workforce who provide reliability and
25 sustainability for whatever we are building.

1 Let's build smart. It is not appropriate that
2 they be duped into thinking that Puente is
3 modern; it is antiquated. This is not a usual,
4 not-in-my-backyard comment.

5 I'm Vicki Paul from Montalvo in Ventura.

6 We do not have reasonable information
7 from NRG or Edison. Old studies, obsolete math on
8 generic properties pretend to be viable when, in
9 fact, they are pressuring the people of Oxnard to
10 shoulder all the risk, the environmental damage,
11 the assault on public health, and the community
12 blight so that people up the grid can run their
13 air conditioning and be comfortable running their
14 businesses in major emergencies. The residents of
15 Oxnard don't get home to go to air conditioning,
16 but make dinner in a city park where there's a
17 breeze that does not exist in their homes.

18 Some of us turn privileges into rights
19 and demand that the disenfranchised do all the
20 sacrificing. Please put the Puente where the air
21 conditioners are and the big appliances are, not
22 in Oxnard.

23 When you consider the NRG application,
24 please acknowledge the abuse of false
25 assumptions. The people who work in the fields

1 are not the people who should shoulder all the
2 risks. If some people want forced air, they need
3 not flaunt their distance from Oxnard -- excuse
4 me -- and have the buildings down here.

5 The footprint of Puente would last 20 to
6 30 years and probably exist when fees on carbon
7 emission get established. Is that in the budget?

8 Thank you again for your kind attention.
9 We really appreciate you coming. Thank you.

10 (Applause.)

11 COMMISSIONER SCOTT: Thank you.

12 I have Rudy Zamora, followed by Sean
13 Paroski. Is Rudy here? Okay. How about Sean
14 Paroski? No Sean either. All right. I will add
15 you -- oh, I'm sorry, I see you coming.

16 MR. PAROSKI: Good evenings,
17 Commissioners. Thank you for the opportunity to
18 speak on this issue. My name is Sean Paroski. I'm
19 the Policy Director for Ventura County Coalition
20 of Labor, Agricultural and Business.

21 As we have testified before, our primary
22 concern here is regional energy security. That's
23 critical for our homes here in Oxnard, and our
24 businesses, and all through the west county. A
25 reliable source of power should be a priority for

1 this region.

2 When considering the alternatives before
3 you, we believe any solution should include
4 protection for ratepayers, demolition of existing
5 power plants, and cost and environmental impacts
6 competing options. These considerations give us
7 great concern for the proposals being discussed
8 here today. Some of the alternatives being
9 considered far exceed the cost of the Puente
10 Project. All of them would require this process
11 to start over from the beginning, a process that
12 has already taken several years, with hard
13 deadlines coming in 2020 that need to be met.

14 In addition, we need to be mindful of the
15 consequences of abandoning the Puente Project and
16 what it means for the demolition of the existing
17 power plants. We do not want to repeat the
18 experience in Monterey and be faced with aging
19 and mothballed plants as a permanent fixture of
20 our coastline.

21 We hope you will keep all of this in mind
22 when deciding the proper path forward.

23 Thanks for your time.

24 (Applause.)

25 COMMISSIONER SCOTT: Thank you.

1 I have Kevin Ward, followed by David Nix.

2 MR. WARD: Good evening and thanks for
3 the opportunity to speak with you. This must be a
4 familiar one, eh?

5 Much has happened since the last time we
6 got together with this and we spoke publicly. I
7 kind of sound like doom and gloom, talking about
8 Antarctica and stuff like that. But, you know,
9 Antarctica's ice shelf did shear off since we
10 were last together. And the passage in the Arctic
11 now is traversable with a ship for the first
12 time. And there were fires all over the West
13 Coast. And there were a couple of other things.
14 Oh, yeah, Houston and Florida.

15 And I was amazed to hear tonight that the
16 solution for the Puente Power Plant and fossil
17 fuels in general sounds like it could be the
18 resolution to global warming. To hear some people
19 sound -- make it sound like all we need to do is
20 keep pumping that gas and it's going to get a lot
21 better for us all.

22 Well, Oxnard is a unique place, as I've
23 mentioned many times before. It has the Channel
24 Islands here. It has a great alluvial plain where
25 you can grow virtually anything here in the

1 plain. It has a diverse and interesting cultural
2 mix of people. And we are lowlanders. We're
3 sitting here subject to possible the same
4 problems that Florida or Houston would have if, I
5 don't know, something goes wrong with the
6 weather.

7 And I guess the other issue that all
8 these guys with the hard hats, and shiny ones at
9 that, are interested in jobs. But the prospectus
10 I read was that there was at most 80 jobs being
11 offered, which to me doesn't look to me as a
12 comparable savings when solar could offer many,
13 many more, as well as the restoration of Oxnard
14 as a sanctuary. And this is what I'd like to use
15 the last few seconds to talk about.

16 Let's abandon this old-world thinking.
17 Let's forget about this. I mean, this is 1972 we
18 had the ability to use solar panels. Come on. Do
19 you remember Reagan, some of you do, ripped them
20 off the White House? It was bad news. And Exxon,
21 as we know, made sure that we were kept more or
22 less in the dark, although some of us were aware
23 of it.

24 So let's talk about Oxnard as being a
25 reclamation site. Let's get rid of that power

1 plant, get rid of it, take it down, like it was
2 never there. And if Puente or the NRG people
3 really want to serve this community, they can
4 give us a leg up with the solar power, as they've
5 done in other areas, and forget about this being
6 an easy community to wash over.

7 I thank you very much. And I hope that
8 you use the most current information weather-wise
9 possible to make your decision. Thank you.

10 (Applause.)

11 COMMISSIONER SCOTT: Thank you.

12 I have David Nix, followed by Cameron
13 Sean Gray.

14 MR. NIX: Good evening. My name is David
15 Nix. I'm the Business Rep for the Heat and Frost
16 Insulators and Allied Workers, Local 5, Los
17 Angeles. We cover all of Southern California. But
18 I'm not here to talk about jobs tonight.

19 I'm here to talk about the power needs
20 and things that are coming up in the near future,
21 like in 2024, they're going to shut down Unit 1
22 of Diablo Canyon. In 2025, they're going to shut
23 down Unit 2. That means that we're going to lose
24 2,400 megawatts of electricity by the year 2025.

25 Now I don't know how many people can

1 remember back in, I believe it was 1983, we had a
2 five-state blackout because there was a power
3 transformer that failed up in the -- just north
4 of the Oregon border, and so five states were
5 without electricity for quite a while.

6 And now I'm going back to like 1994 when
7 we had the Northridge Earthquake. I just happened
8 to be at LAX when that happened. And when the
9 earth stopped moving I walked outside and Los
10 Angeles was black. There was not a light anywhere
11 that you could see in any direction. Come to find
12 out, by the time they got the power up the whole
13 Los Angeles Basin lost power. And the only way
14 they were able to get it back up was with the
15 valley steam plant which had black start
16 capabilities. It takes electricity to make
17 electricity. If you don't have black start
18 capability, which this plant will have, if your
19 grid does collapse you won't be able to get it
20 back up.

21 So these things in mind, you know, with
22 the power loss that we have coming in the near
23 future and black start capabilities, and
24 batteries will only last so long. I've heard a
25 lot of about battery storage and all that kind of

1 stuff. You got to remember what happened in Japan
2 when Fukushima had a meltdown, the tidal wave
3 that knocked out the diesel generators that were
4 feeding cooling water pumps that pump about
5 60,000 gallons of water a minute into the
6 reactor. So by the time that -- by the time that
7 the tsunami hit it knocked out the diesel
8 generators, and so the battery picked up running
9 the reactor cooling pumps. Well, the batteries
10 only last so long. So when the batteries went
11 dead the reactor cooling pumps stop running
12 again, and there you've got a nuclear meltdown.

13 So I'm not saying Diablo Canyon is in
14 danger of a nuclear meltdown because they're
15 lowest elevation is 85 feet, which I believe is
16 pretty safe from tsunami. But at that rate,
17 that's pretty much all I got to say.

18 Thank you.

19 (Applause.)

20 COMMISSIONER SCOTT: Thank you.

21 I have Cameron Sean Gray, and followed by
22 Deborah Baber.

23 MR. GRAY: Good evening, Commissioners.
24 My name is Cameron Gray, speaking on behalf of
25 Community Environmental Council. Our nonprofit

1 incubates and accelerates solutions to climate
2 change that build more prosperous economies,
3 improve the public health of communities, and
4 ultimately make the world a more vibrant place.
5 The Puente Power Project will achieve none of
6 these goals, as I stated in the last hearing.

7 So our position is that your Commission
8 should deny NRG's application and begin a new
9 process, prioritizing clean energy solutions that
10 can supplant the need for both the Puente and
11 Ellwood Peaker Plants. The CAISO study has shown
12 that this is feasible. And subsequent analysis by
13 the Clean Coalition has shown that it's
14 affordable, that is it actually more cost
15 effective than the Puente Project.

16 Paired solar and storage is not a gamble.
17 These are proven technologies. We have projects
18 in Irvine, California, at Aliso Canyon, that have
19 shown that these technologies can be deployed
20 today, and they create jobs.

21 So that's really the opportunity here and
22 it's something that I want to highlight. Jobs and
23 improved environmental quality for this region
24 are not mutually exclusive. We can create both
25 together now. So we're standing at a crossroads.

1 One of those paths is going to lead us down the
2 path that's business as usual. It won't address
3 the legacy of environmental justice that's been
4 effecting this community, and it will construct a
5 power plant that's likely to be obsolete before
6 it's even finished being built. It will also lead
7 to jobs that are temporary.

8 But we have another option. We can take
9 the path that leads to a clean energy future, and
10 it's an opportunity to do something
11 groundbreaking. We can put Oxnard on the map and
12 put it at the forefront of a clean energy
13 revolution. I'm talking about workforce
14 development programs and education programs that
15 can set people up for jobs in the clean energy
16 economy. At the same time we can end the legacy
17 of environmental justice that this community has
18 borne for far too long.

19 So what I'm really talking about is
20 practicing a sort of alchemy where we can take
21 the lead of the past and turn it into a gold for
22 the future. I hope that you choose the path that
23 leads to the clean energy outcomes that we need
24 for this region.

25 Thank you.

1 (Applause.)

2 COMMISSIONER SCOTT: Thank you.

3 I have Deborah Baber, followed by Tim
4 Redondo.

5 MS. BABER: Thank you very much. Deborah
6 Baber. I appreciate the opportunity this evening
7 to speak to you.

8 I moved here full time three years ago. I
9 live in Port Hueneme which is bounded on three
10 sides by Oxnard. The fourth side, of course, is
11 the ocean. I support the Puente Project.

12 I lived in Manhattan, New York for nearly
13 30 years. While there I experienced a number of
14 significant energy challenges during that period.
15 My final three years in New York City, I worked
16 for the Environmental Defense Fund, EDF. One
17 project I was involved in exposed me to a number
18 of commercial, energy conservation and management
19 companies and their ideas and the problems they
20 were trying to solve regarding energy.

21 I moved here. I've been really surprised
22 at the opposition this project has had. It's --
23 everything I've read about it and all the study
24 that I've done on it clearly indicates that this
25 company has more than met the extensive

1 requirements for their application. They have met
2 every need to mediate concerns about the
3 environment. They've considered geographic and
4 population concerns. And most importantly, their
5 project sure looks like it's going to solve the
6 problem of our area's energy needs in the 21st
7 Century.

8 I urge you, I urge you to support this
9 project. They were selected to help meet our
10 future needs as mandated by the state. Reliable,
11 abundant energy equals job growth and good times
12 for all of us.

13 Thank you.

14 (Applause.)

15 COMMISSIONER SCOTT: Thank you.

16 I have Tim Redondo, followed by -- it
17 just says "Garza student."

18 MR. REDONDO: Thank you. Hello. My name
19 is Tim Redondo, and I thank you for letting me
20 speak this evening. I'm a 41-year resident of
21 Ventura County, and currently live in Camarillo
22 with my family of four. I represent, as business
23 agent and organizer, over 370 UA Local 484
24 plumbers, pipefitters, welders and apprentices in
25 Ventura County who support this project moving

1 forward as it will incorporate the latest
2 technologies to help integrate renewable energy
3 supplies.

4 Again, Local 484 and the building trades
5 are all about renewables. It needs to continue
6 like it's going, and even move at a faster track.

7 Puente, it will use state-of-the-art
8 technology that is above the standard for
9 emission controls, ensure the Ventura region has
10 a reliable supply of local energy generation. The
11 Puente Power Project will act as a peaking unit,
12 key word, peaking, needed online during peak
13 demand. That's the big one, peak. That can
14 provide power during critical needed times across
15 Southern California.

16 The project and its related construction
17 will also mean increased benefits to the Oxnard
18 community through increased tax gains of \$2-plus
19 million a year for over 30 years. Vendors,
20 suppliers, contractors and subcontractors will
21 also benefit from additional revenue. This
22 project will support good paying, local-hire
23 buildings trades construction jobs, and help
24 bring home local construction workers who have
25 had to take employment out of town or out of

1 state or, in worst case, unemployed.

2 So it really hurts me when somebody says
3 it's only 80 or 100 jobs, it's more than that.
4 But explain to these individuals how they pay --
5 make their mortgage, how they put food on the
6 table, whether it's 80 jobs or 100 or 120 or it's
7 1. So I would really like to know how that works
8 out.

9 Growth in Ventura County continues at an
10 alarming rate. The freeways are congested.
11 Residential projects keep getting built. They're
12 planning on building the Port of Hueneme out and
13 expanding the Port of Hueneme. Where's the power
14 coming from?

15 They're talking about building a 15-
16 storey high rise in Oxnard with the other two
17 high rises. Where's that power coming from?

18 I believe, also, that Port Hueneme and
19 Mugu, the bases, rely on this energy if there's a
20 national crisis. What are we going to do? We
21 can't rely on solar at night. We can't rely on
22 wind when it's not blowing. We don't get solar
23 when it's cloudy and raining. We need to be
24 diversified in power. Puente is that bridge. If
25 it's not needed, most likely it won't run but it

1 will be there if we need it an urgent matter.

2 Thank you.

3 (Applause.)

4 COMMISSIONER SCOTT: Thank you.

5 I have the Garza student, followed by
6 Bruce Markovich.

7 MR. GARZA: Thank you very much. My name
8 is Jonathan Garza, and I just wanted to point out
9 a couple of things. I've been listening.

10 I've been noticing a theme of we have to
11 decide between jobs and green energy, when really
12 Oxnard really has a huge opportunity to really
13 advance the future of Oxnard. I mean, this
14 technology is dead. I mean, China is outcompeting
15 us. The rest of the country is outcompeting us.
16 We've mentioned Texas and Florida, and yet Texas
17 and Florida are outcompeting California in green
18 technology. It just seems odious to me that we're
19 spending this time and money on outdated
20 technology, period.

21 And these are legitimate concerns about
22 the community here between jobs and the need to
23 keep the lights on. But we have a huge
24 opportunity here for Oxnard to really push the
25 future and to really come into the 21st Century,

1 instead of going back.

2 Thank you.

3 (Applause.)

4 COMMISSIONER SCOTT: I have Bruce
5 Markovich, followed by Chris Huston.

6 MR. MARKOVICH: Yes. My name is Bruce
7 Markovich. I've been a resident here on the
8 Oxnard Plain since 1993, and a homeowner here in
9 Oxnard since 1996. And I would just like to focus
10 attention on two issues, and this is kind of the
11 way I see it as an average citizen, Joe Average
12 homeowner.

13 I really urge the Commission,
14 Commissioners, to consider, why would you be
15 seriously considering siting any large industrial
16 complex in the coastal zone at this point in
17 history, our technological history, our cultural
18 history? And more specifically, why would you be
19 considering siting an air pollution generating
20 facility upwind of several million Southern
21 Californians who have to breathe the effluent
22 from these types of installations day in and day
23 out? So I would just suggest that for these two
24 reasons, the main reason really being what should
25 or shouldn't be in the coastal zone.

1 I've been here long enough to see the
2 chance for the possibility of Ormond Beach and
3 Mandalay Bay coming down and being removed out of
4 the coastal zone. I think that's great. I applaud
5 that. I believe it will happen someday. But
6 allowing another installation to be put in place
7 of Mandalay Bay, to me it just doesn't pass the
8 common sense test. And you really should not let
9 anything into anywhere that is upwind of millions
10 of residents. There are many other places that
11 power generating stations could be sited that
12 would not be upwind of Southern California
13 residents.

14 Thank you.

15 (Applause.)

16 COMMISSIONER SCOTT: Thank you.

17 I have Chris Huston, followed by Helen
18 Conly.

19 MR. HUSTON: Thank you for allowing me to
20 speak tonight. My name is Chris Huston. I'm a 30-
21 year resident of Ventura County, living in
22 Camarillo, where I was also born and raised.

23 I'm also a Business Representative for
24 IBEW Local 952. And in that capacity, as a
25 Business Representative, I go visit job sites all

1 over Ventura County, including in Oxnard. And I
2 can tell you right now, the majority of the
3 people that I speak to do not live in this
4 county. And because of that, there's actually a
5 lot of building trades members that are actually
6 having to go travel out of town, out of state,
7 and basically work away from their families to be
8 able to make a livable wage. A project like this
9 could actually bring these families back
10 together, because it's already going to have
11 local hire.

12 So because of that, I support this NRG
13 Power Plant Project.

14 Thank you.

15 (Applause.)

16 COMMISSIONER SCOTT: Thank you.

17 I have Helen Conly, followed by Dan
18 Smith.

19 MS. CONLY: Thank you very much,
20 Commissioners, for being here, and for sitting
21 through all of this testimony. It's important to
22 us and we do so appreciate it.

23 My name I Helen Conly. I do not live in
24 Oxnard, but I'm here representing a nonprofit
25 organization which is called Citizens for

1 Responsible Oil and Gas. We're a watchdog
2 organization. We review permits in the county.
3 And we work with our legislators and our county
4 officials.

5 We are here to support the citizens of
6 Oxnard. Recently we have spoken to over 1,900
7 homeowners in the area of Oxnard, close to a
8 project which is being proposed near Highway 1.
9 And those 1,900 homes that were visited, 98
10 percent of those people, and many of them are
11 just Spanish-speaking households, are in favor of
12 pulling back on the kind of pollution that NRG
13 would bring to the community and the oil and gas
14 industry proposed project there, so I offer that
15 to you.

16 I also offer to you that I understand,
17 that you need to consider the new law that CEQA
18 has implemented, Environmental Justice Law. And
19 I'd just like to read a sentence about that,
20 because that will go into your decision-making
21 process here, and I respect that highly.

22 The new provision provided several
23 examples of specific provisions of CEQA in its
24 guidelines that the Attorney General would
25 require local lead agencies, that would be, I

1 believe, to consider how the environmental and
2 public health burdens of a project might
3 specifically effect certain communities. And I
4 think that you've had much testimony here today,
5 plus you have documentation in hand.

6 Specifically the report says,
7 "A project may be considered and notes
8 that a project that is ordinarily insignificant
9 in one city may be significant in another."

10 The report also cites the requirement
11 that agencies assess the cumulative impacts of a
12 project by examining the project's effect in
13 connection to probable future projects and
14 alternative mitigation analysis. And it
15 recognizes that this could be a hard decision to
16 make, but this is the new law.

17 I also understand that there -- and I,
18 unfortunately, I neglected to look up the
19 California Law that will come into effect in
20 2020, making it very important for these projects
21 to come through this process before that time,
22 because they will not be able to after that. I
23 think you all understand that.

24 Thank you.

25 (Applause.)

1 COMMISSIONER SCOTT: Thank you.

2 I have Dan Smith, followed by Leslie
3 Purcell.

4 MR. SMITH: Good evening, and thank you
5 for hearing me. My name is Dan Smith. I'm the
6 Vice President of the Electrical Workers of
7 Ventura County.

8 I support the Puente Power Plant. I think
9 it will bring some good jobs. I also support
10 renewable energy. But what we need to focus on is
11 reliable energy now.

12 Green technology is still in its infancy.
13 It's still toxic. It creates a market for
14 conflict minerals. There are a lot of really
15 smart people working hard to create greener
16 solutions. But while they're working hard, we
17 still need to keep the lights on.

18 Today I read a Berkeley study. They
19 discovered that solar panels generate 300 times
20 more toxic waste per watt than nuclear power.
21 Manufacturing these panels requires caustic
22 chemicals, such as sodium hydroxide and
23 hydrochloric acid. This process also emits a lot
24 of greenhouse gases. And, you know, sure it's in
25 China, but as an advocate for global climate

1 change, I feel we have a long way to go. This is
2 why I don't think solar is quite viable yet on a
3 large scale.

4 When we don't have sun or wind, we need
5 batteries. Batteries are an inefficient and toxic
6 solution to storage. Lead acid is toxic, and
7 lithium-ion is toxic, as well as being a conflict
8 mineral. We have a long way to go before we can
9 call batteries green.

10 I would love nothing more than to see 100
11 percent renewable energy. We aren't there yet.
12 And when we are I will stand up and fight for it.

13 Lastly, I'd like to say I'm very proud of
14 the young people here. I think you guys have
15 passion and I'm really proud of you for being
16 here.

17 (Applause.)

18 COMMISSIONER SCOTT: Thank you.

19 I have Leslie Purcell, followed by
20 Gabriela Velasquez [sic].

21 MS. PURCELL: I brought my friend. You
22 are my sunshine.

23 I would like to -- I was hear most of the
24 day. I heard a lot of this testimony. It was a
25 little much for the layperson, but very

1 interesting. And, you know, my tendency is to
2 feel like there was enough evidence presented
3 that the alternative energy sources are viable
4 and are reasonable and should be seriously
5 considered, and that we really don't need another
6 natural gas power plant.

7 And I personally think, you know, you
8 look around, there are so many municipal
9 buildings, warehouses, parking lots. There are so
10 many opportunities for solar. And Patagonia has
11 had a solar -- has had solar panels over their
12 parking lot in Ventura for years. I just believe
13 that there could be so much done that would be
14 beneficial, as opposed to siting a new natural
15 gas power plant which is really going to be
16 passé.

17 In Germany, they've had solar for years.
18 They have way less sun and it's a viable
19 solution, so please consider this.

20 We had testimony from the Tesla
21 representative about how much more efficient and
22 possible it is to use the new batteries. There's
23 so much going on right now, I think Oxnard and
24 Ventura County should be on the forefront, the
25 cutting edge.

1 There will be green jobs, as well. And I
2 think that the City of Oxnard representative said
3 that this is actually not really a brownfield,
4 it's been designated as a wetland, the area where
5 the current power plant is, at least in part. And
6 a lot of us would like to see that restoration
7 occur in the future. And restore the beach,
8 restore the wetlands, and restore more healthy
9 air for this area. I know at some points it's
10 been a nonattainment area, I believe, according
11 to the Air Resources Board.

12 So other than that, I just want to say I
13 was here some years back when there was a huge
14 LNG facility proposed offshore here. It was a
15 similar hearing, but it was the State Lands
16 Commission. It went on all day and into the
17 evening. And the company presented the necessity
18 for having this LNG brought from Australia. It
19 was right before we developed a lot of natural
20 gas here in the U.S. That project was turned
21 down, and thank goodness, because it would have
22 been totally obsolete as soon as it was built,
23 and would have had huge environmental
24 consequences. So I'd like you to just consider
25 that also.

1 Thank you.

2 (Applause.)

3 COMMISSIONER SCOTT: Thank you.

4 I have Gabriela Velasquez, followed by
5 Dan Adam.

6 MS. VALENCIA: Do you mean Valencia?

7 COMMISSIONER SCOTT: No. It's V-E-L-A-S-
8 Q-U-E-Z.

9 MS. VALENCIA: I think it wrote it wrong.
10 Sorry about that.

11 COMMISSIONER SCOTT: Oh. So Gabriela
12 Valencia, please come on up then.

13 MS. VALENCIA: Thank you. Hello everyone.
14 So I find it personally insulting that NRG would
15 employ such a cheap tactic to garner support
16 for the construction of this unnecessary fourth
17 power plant. These are the same unethical tactic
18 that -- I'm sorry. These are the same tactic
19 employed by our current administration to slash
20 regulation and desecrate our national
21 parks -- I'm so sorry -- and deplete our natural
22 resources.

23 Here in Oxnard, we arm ourselves with
24 facts and information, because the truth and
25 facts do matter, regardless of what our president

1 says. We know and you know that power plants are
2 unsustainable.

3 If you all care so much about job
4 creation and investment, create jobs in an
5 industry that has a future, the industry of
6 renewable energy. Diversify job creation. After
7 all, not everyone in Oxnard, not all of our youth
8 want to work in a power plant.

9 To the people that believe that private
10 businesses cares about raising minimum wage,
11 you're lying to yourselves. If you believe that
12 there's a guarantee that NRG will employ the
13 people of Oxnard, you're also lying to
14 yourselves. It is not in their best interest, so
15 don't expect them to fight for you.

16 This is my city. And the people of my
17 city will not sit quietly while you poison our
18 land and air. Believe me when I say we're not
19 going down without a fight. Clean air for Oxnard.

20 (Applause.)

21 COMMISSIONER SCOTT: Thank you.

22 So I have Dan Adams, followed by Woodrow
23 Davidson. Do we have Dan Adams here? Okay. How
24 about Woodrow Davidson, and he would be followed
25 by Eric Estrada.

1 MR. DAVIDSON: Hi. My name is Woodrow.
2 I'm a student, over from UCSB. And you guys might
3 be wondering, why am I here? Well, in the words
4 of Martin Luther King, Jr., "Injustice anywhere
5 is a threat to justice everywhere."

6 And I think one of the key things that
7 we've really touched upon is this issue of jobs
8 versus the environment and versus our health. And
9 those are things that, as you all are members of
10 executing public policy, need to take into
11 account of all factors, and so that there's
12 balance. And, in fact, balance lends more towards
13 the environment, because jobs come and go every
14 day, every year, but degradation of our
15 environment and the degradation of people's
16 health, those things can't be reversed. People
17 who have asthma and have to deal with the
18 pollutants in the air, they can't undo that kinds
19 of -- those kinds of things.

20 And just -- and the fact that is this the
21 best thing that they could have crafted and put
22 forward? And the answer is, it isn't. And
23 there's obviously plenty of other alternatives.

24 A very well dressed gentleman just came
25 out like an hour ago and said that it would cost

1 anywhere between \$10 million to \$810 million, to
2 which I'd ask, well, how much is our future worth
3 to you all? You know, can you put a price on
4 that?

5 And for, you know, people that come up
6 and say that, well, you know, they're one of
7 these social activists, you know, they're not on
8 the right path of history and, you know, they're
9 going to not make as much money, because that's
10 the only thing I care about. And when you have
11 those kinds of people out there trying to demean
12 what we're doing, I mean, you see people out
13 there, these people are directly affected by
14 what's happening. And for us to just kind of sit
15 by and say, oh, you know, we'll just let this
16 happen, you know, it seems like the best thing to
17 do, that's not the right answer. There is a
18 better solution to all of this. It hasn't been
19 found yet, and that's what I definitely can say.

20 And as members who are involved in
21 executing public policy to better the lives of
22 people, not worsen them, I think you all have an
23 obligation to turn down this plan and advocate
24 for a better one.

25 Thanks.

1 (Applause.)

2 COMMISSIONER SCOTT: Thank you.

3 I have Eric Estrada, followed by Justin
4 Deckard. Do I have -- is Eric here? Okay. How
5 about Justin Deckard? And then Justin would be
6 followed by Steve Earhart.

7 I think that might be Justin.

8 MR. DECKARD: Sorry. Just give me a sec.

9 COMMISSIONER SCOTT: Uh-huh.

10 MR. DECKARD: So, hi, my name is Justin
11 Deckard. I'm glad you could all allow us the
12 opportunity to advocate for the desires of this
13 community. It's a community that has utilized its
14 voice to overwhelmingly reject new fossil fuel-
15 based plants within their homes, a community
16 whose municipal representatives have historically
17 rejected proposals like this consistently,
18 vocally and repeatedly, a community that at this
19 moment faces a damaging and harmful existential
20 threat to their physical wellbeing and safety.

21 We, as residents of the Central Coast and
22 as Californians, must recognize our position as
23 the most powerful bastion of progressive voices
24 in this nation. Because of this, it is our
25 responsibility to defend and uplift marginalized

1 communities and to set an example for the rest of
2 the country gripped by insidious rightwing
3 populism. California must lead the way.

4 Advocates for this project may attempt
5 cloud your judgment via appeals to economic cost
6 and how this gas-fired plant is our only viable
7 hope. They, like a previous speaker did, may
8 insult our fight and our social activism that
9 stands in solidarity with labor, with people of
10 color, with all folks everywhere who face
11 oppression. An injury to one is an injury to all.
12 And though we may face ridicule and vicious hate,
13 we stand together.

14 They're relying on cost estimates that do
15 not reflect the current state of renewable
16 energy, which becomes more efficient and viable
17 every single day. Renewable energy is making
18 leaps and bounds, despite a lack of robust
19 institutional support from our government, from
20 bodies such as this. Let's stop pretending that
21 alternative energy sources are far in the future
22 and won't stimulate the economy. They can, but
23 only with your help.

24 In order to reach economic prosperity and
25 environmental justice, you must invest in

1 forward-looking projects that seek to integrate
2 current technologies and build upon them. There
3 you will find jobs, opportunity, a way to a
4 better life for all, a better economy, and a more
5 sustainable environment. We all deserve a right
6 to live with dignity, free from the threat of
7 pollution and environmental devastation.

8 But what raises even more concern is a
9 look at who exactly is primarily effected by
10 these threats. They're overwhelmingly communities
11 of color. Oxnard, seemingly by coincidence,
12 happens to be a community of color, a community
13 represented by the voices of indigenous Latinos,
14 Hispanic, Middle Eastern and Asian folks,
15 particularly there are 10,913 Filipino folks who
16 reside here. As a Filipino American, a member of
17 a community very single day, this project is a
18 direct assault on the safety of my people and all
19 the people of color who call the Central Coast
20 their home. We are deserving a life of dignity.
21 We are proud of our communities. We are human
22 beings. But we are not your dumping ground.

23 Thank you.

24 (Applause.)

25 COMMISSIONER SCOTT: Thank you.

1 I have Steve Earhart, followed by Michael
2 Kile.

3 MR. EARHART: Good evening. My name is
4 Steve Earhart. I'm the Training Director for the
5 Ventura County Electrical Apprenticeship Program.
6 So we are IBEW workers, as well as 80 electrical
7 apprentices. All of our apprentices are residents
8 of Ventura County. And I'm here tonight just to
9 kind of make a few facts about this project.

10 Fact number one is that everybody in this
11 room uses electricity. And probably everybody in
12 this room has some form of electric device in
13 their pocket. And whether you support a power
14 plant or renewable energy or some other form of
15 generating power, it doesn't really matter, we
16 need the power. And nobody in this room is going
17 to be happy when the power gets shut off, when
18 NRG is shot down on this project and is not
19 allowed to build the power plant.

20 So, you know, the renewable energy
21 argument is not a bad one. There are good and bad
22 things about renewable energy. In order to build
23 a renewable energy plant the size of the Puente
24 Power Plant, 262 megawatts, it would take about
25 1,500 acres of land, and about \$260 million just

1 in the solar panels alone. Solar panels and
2 invertors do not last forever. Solar panels have
3 a life of about 20 years. Inverters have a life
4 of about ten years. So that's going to be
5 additional cost to whoever the energy company is.

6 So, you know, I just don't think in
7 Ventura County it's reasonable to expect to
8 produce enough energy using renewable solar or
9 wind generation, just on the fact that we don't
10 have the space alone.

11 You know, we do keep building more and
12 more houses in the area. And, you know, if we
13 want to attract businesses to come to the area,
14 we have to have a reliable power source.

15 And as many of you know, you know, in the
16 morning, if you start in Oxnard the traffic is
17 scattering outside of the county from the center
18 of it, which is Oxnard and Camarillo. And in the
19 afternoon traffic is coming back in, because the
20 residents in this county don't have anywhere to
21 work within the county. So if we want to attract
22 businesses to keep our people in the county and
23 working, we have to have renewable energy. And we
24 also have to have reliable energy. So it takes a
25 combination of both, and the Puente Power Plant

1 is a definite piece that needs to happen.

2 Thank you.

3 (Applause.)

4 COMMISSIONER SCOTT: Thank you.

5 I have Michael Kile, followed by Shane
6 Boston.

7 MR. KILE: Hello. Thank you for giving me
8 the opportunity to speak here. My name is Michael
9 Kile. I'm a student at UCSB in chemical
10 engineering, also an employee of AFSCME 3299. We
11 are a union that represents the service workers
12 of our university, the ground workers, the
13 housekeepers, the cooks, the ones who are
14 constantly under attack by university
15 administration in our current contract fight. A
16 lot of them live in Oxnard. A lot of them can't
17 afford to live in Santa Barbara. And when they do
18 the housing is, honestly, quite awful.

19 My father worked at UPS. He had two full-
20 time jobs and was a Teamster steward. He died
21 when I was in high school because he was too busy
22 working to be able to take care of his health. He
23 wasn't able to even bother with how much pain he
24 was in until the cancer was at stage four.

25 And I'm here as not just an activist for

1 environmentalism, but also as a labor activist. I
2 understand the plight of those behind me in the
3 hardhats who need that job. I spoke to one
4 earlier who understood the health risks, he
5 understood the environmental concerns, but what
6 he said is that a lot of us would rather have our
7 child grow up with asthma than not be able to
8 feed them.

9 And the fact that we have to be here
10 fighting against each other is sickening. The
11 fact that we have to be here fighting against
12 each other while some fat cats line their pockets
13 with rate plans. Because it's not the people
14 behind me, the laborers, who are going to get the
15 benefits of this plant. They're going to have a
16 temporary job for a little bit longer. But we can
17 be here to organize further against you, if we
18 have to, for solar panels, wind turbines,
19 anything we can get.

20 We're here not just as environmental
21 activists, again, but as labor activists. And we
22 will be fighting for the future. We will be
23 organizing together once the time comes. We live
24 in a country where union-ship has dropped to 30
25 percent of the public sector and eight percent in

1 the private sector. And we will rise up again and
2 go back to perhaps the little more radical days
3 that unions used to be.

4 But that you all can sit here and try to
5 think about a few tax dollars that might cost
6 some fat cats more on whether they have a plant
7 that's based off of fossil fuels or one that's
8 based off of green energy, of course, it's the
9 livelihoods of some of -- the woman you heard
10 here speak who lost large portions of her
11 childhood because of the quality of the air. And
12 if you all subject even more people to that, then
13 shame on all of you. If you are really that much
14 into a power plant, build it in Montecito.

15 Thank you.

16 (Applause.)

17 COMMISSIONER SCOTT: Thank you.

18 I have Shane Boston, followed by Brian
19 True.

20 MR. BOSTON: Good evening, Energy
21 Commission. Thank you for being here. My name is
22 Shane Boston. I am the Business Manager of
23 Plumbers and Pipefitters UA Local 484 in Ventura
24 County. I represent 350-plus highly skilled
25 craftsmen and women, along with 60-plus

1 apprentices in the piping industry. I'm here to
2 speak in support of this project.

3 I'm a 52-year resident of Ventura County.
4 I've lived in Oxnard, Camarillo, and in Ventura.
5 I'm currently in Ventura. I'm a third-generation
6 member of my Local Union and a fifth-generation
7 Ventura County resident. I have family and
8 friends all over Ventura County, many of which
9 live on the west side of Oxnard, close to the
10 beach. And I, myself, would never support any
11 project that I thought would be detrimental to
12 the health and safety of those in our community.

13 As most of us know, the State of
14 California has the most stringent laws in the
15 nation when it comes to air quality. Just over
16 the past year or so, work in our area has just
17 started picking up for us. We've been slowly
18 coming out of a recession that started back in
19 2008. At one point between 2008 and 2010 we had
20 close to 40 percent unemployment in our Local
21 Union. Currently we have 15 to 20 percent.

22 Having said that, many of my members are
23 still having to commute outside Ventura County to
24 Los Angeles or up to Santa Barbara, or even out
25 of state. I currently have a dozen or so members

1 working in Reno, Nevada. They've been up there
2 for the last six months. I've got member here
3 that just came back, and went to work today at
4 Ventura County Medical Center.

5 To me this project is a no-brainer if we
6 build a clean burning powerhouse, most of which
7 will dwarf what is already there, remove the old
8 dinosaur from both Mandalay and Ormond Beach, and
9 restore the wetlands. Like everybody said, we all
10 need electricity. We've got to keep the lights
11 on. Just about everyone I know has a TV,
12 computer, smart phone, as well as other
13 appliances at home, washer, dryer, oven, stove,
14 et cetera. Where do we get the power when these
15 two dinosaurs are decommissioned in the next few
16 years.

17 Again, this project is crucial to my
18 Local. This project will be built under a Project
19 Labor Agreement which will ensure local hire for
20 our highly skilled journeymen, women and
21 apprentices. These are high-paying jobs that
22 include health insurance for them and their
23 families, vacation pay, and a couple pensions on
24 top of that. Local hire keeps tax dollars in our
25 community. This also means that some of them

1 won't have to commute miles and miles to get to
2 work every day and work in their own backyard,
3 finally.

4 This project will bring close to 100,000
5 man hours just to my Local alone. That's a
6 temporary project, I guess. In the construction
7 industry an 18-month construction job is gold.
8 The brothers and sisters of Local 484 and United
9 Associates of Plumbers and Pipefitters welders
10 and apprentices stand in solidarity in full
11 support of this project.

12 Thank you.

13 (Applause.)

14 COMMISSIONER SCOTT: Thank you.

15 I have Brian True, followed by Roseline
16 Aka.

17 MR. TRUE: Good evening. My name is Brian
18 True. I'm a member with Local 952 here in
19 Ventura. It's the International Brotherhood of
20 Electrical Workers. I'm here this evening just to
21 lend my support behind the NRG generating station
22 project. I'll keep it brief.

23 Thank you.

24 (Applause.)

25 COMMISSIONER SCOTT: Thank you.

1 I have Roseline Aka, followed by
2 Alejandro Arellano.

3 MS. AKA: Hello. Good evening. My name is
4 Roselina Aka. I'm a student at UCSB. And mostly
5 here for CAUSE.

6 The California Independent System
7 Operator study concluded there were three viable
8 alternatives to the Puente Power Plant, which can
9 be brought online in as soon as eight months,
10 that will provide reliable energy and storage
11 through preferred resources. This study confirmed
12 what environmental justice communities have said
13 all along, the Puente Power Plant is unnecessary
14 and costly, and there are renewable energy
15 alternatives such as solar power and battery
16 storage to meet the immediate needs at a lower
17 cost. This could also provide more good clean
18 energy jobs, instead of the few temporary dirty
19 energy jobs that the Puente Power Plant offers.

20 There are other affordable power options
21 that don't rely on sacrificing the health of the
22 people of Oxnard or the planet.

23 Thank you so much for your time.

24 (Applause.)

25 COMMISSIONER SCOTT: Thank you.

1 I have Alejandro Arellano, followed by
2 Jason Elder.

3 MR. ARELLANO: Hi. Thank you for
4 pronouncing my name right for once.

5 I'm here advocating against the Puente
6 Project. And the reason why is not because I am
7 Latino and because I think that we are an
8 oppressed group, and perhaps there is some truth
9 to those inequalities, but because I don't think
10 that the long-term economics makes sense.

11 The price of oil, according to some
12 analysts, is predicted to go up by 2030 by up to
13 50 percent. With oil hovering around \$50.00 a
14 barrel and natural gas being an associated
15 product of oil, those costs can also be inferred
16 to go up by at least 50 percent as the
17 consumption of gas and oil products continues to
18 nosedive as the introduction of electric vehicles
19 and other electric products continues to be
20 further implemented and further adopted by our
21 economy.

22 I think looking at a Puente Project, I
23 think it's shortsighted. I think we're spending
24 tens of millions of dollars on a short-term
25 project when we can be looking at a project that

1 is more long term and that can provide those
2 energy needs longer term and not dependent on a
3 finite resource.

4 If we look into the production of those
5 finite resources the majority of those resources,
6 I believe it's about 40 percent of natural gas is
7 owned by our national security enemies. Russia
8 has about 20 percent of the production. OPEC has
9 about 20 percent of the production. Yeah, the U.
10 S. also produces 20 percent of that. But as we
11 look back at the 1970s, there was an energy
12 embargo. I think that relying on a finite
13 resource doesn't make sense for national
14 security.

15 I think focusing on something that is
16 more localized and perhaps not as centralized an
17 energy grid makes more sense in our long term,
18 and that's why I'm against the Puente Project and
19 for a renewable energy solution.

20 Thank you.

21 (Applause.)

22 COMMISSIONER SCOTT: Thank you.

23 I have Jason Elder, followed by Tim -- I
24 don't know how to say your last name, Tim, I'm
25 sorry, Nafziger, I think. Do we have Jason Elder?

1 Okay. How about Tim, N-A-F-Z-I-G-E-R. Okay.

2 MR. NAFZIGER: Hi. My name is Tim
3 Nafziger. And I'm here both with Showing Up For
4 Racial Justice, Ventura County, and I'm also the
5 Executive Director of the Ojai Valley Green
6 Coalition. And as I've been listening this
7 evening, I think that there's been a strong case,
8 a lot of questions raised about why are we
9 putting fossil fuel on a vulnerable coast. And
10 people have spoken to the risk that that brings
11 to it.

12 I'd like to just focus on something I
13 haven't heard, as many people who are in favor of
14 this plant speak to, and that is the pattern of
15 sacrifice zones and exclusion zones in this
16 county. I live in the Ojai Valley, a place that
17 doesn't have any fossil fuel power plants, and
18 that's because of a longtime opposition, and
19 frankly because of the power and privilege of
20 many who live in the valley.

21 And so as we look at this project and ask
22 why is this being built again in Oxnard, I think
23 we have to talk about environmental racism.

24 After Charlottesville, unfortunately
25 racism and white supremacy are back as part of

1 the national conversation again, but we often
2 don't talk about the ways those patterns play out
3 by choices that corporations are making, and I've
4 heard that made again and again this evening. I
5 think it's a crucial one for both people of color
6 and White people to speak up and say this
7 matters.

8 So no power plant, fossil fuel power
9 plant in Oxnard, and yes to green energy.

10 Thank you.

11 (Applause.)

12 COMMISSIONER SCOTT: Thank you.

13 I have Christine Brown, followed by Ethan
14 Bjork.

15 UNIDENTIFIED FEMALE: (Off mike.) I'm
16 not feeling real great. Is it possible for me to
17 do the testimony seated?

18 COMMISSIONER SCOTT: Sure, but can you --
19 you need to be near a microphone so that we can
20 hear you.

21 So are these -- can we get one of the
22 microphones here at the table turned on, so that
23 she can speak and we can hear her please? I
24 can't see if my mike guys can see me.

25 But can you come up to the table right

1 there please? And then give us just a second to
2 make sure that mike is on. Can you pull it close
3 to you and speak into it? Okay. Hold on.

4 Can you all please turn on the mike here
5 at the table? Can you see where Ms. Brown is
6 sitting? She's right here in the middle. Okay.

7 Try again.

8 MS. BROWN: Hello.

9 COMMISSIONER SCOTT: Great.

10 MS. BROWN: Thanks for allowing me to sit
11 for my testimony.

12 COMMISSIONER SCOTT: Of course.

13 MS. BROWN: And thanks for sitting
14 through all the testimony. Thanks for allowing us
15 to speak.

16 My name is Christine Brown. I'm a
17 resident of Camarillo. And I'm a member of
18 Showing Up for Racial Justice, Ventura County.
19 I'm not saying anything new. I'm just one of the
20 many folks here that's opposed to environmental
21 racism.

22 Many Oxnard residents, as you well know,
23 have told you 1,000 times over, they don't want a
24 dirty energy eyesore on their beach. They're done
25 being the bearer of environmental burdens for the

1 county. They're done with being sick. They're
2 done with seeing the planet made sick. Many
3 people from all over the county and state who are
4 concerned about climate change and environmental
5 justice have pleaded with you not to build a
6 fossil fuel plant in Oxnard. Those people are
7 done with being told we must go backwards in
8 order to avoid blackouts.

9 I heard something that someone said that
10 made me take pause, and it was scaring people
11 with the idea of abandoning power plants if
12 Puente doesn't get built. It seemed cruel. If
13 that's the threat that NRG allows to permeate the
14 rumor that they have not sought to quash, well,
15 that says something. If you don't do NRG's
16 bidding, we'll treat your coast like a trashcan.

17 I hear many residents telling you, they
18 are interested in green alternatives. The
19 technology exists, it's in use, and the costs are
20 dropping all the time. That really needs to be
21 the way forward, especially if SB 100 passes.

22 Please do not approve the Puente Power
23 Project. Please consider approving a green energy
24 alternative so these folks here in the hardhats
25 can work in the county.

1 Thank you.

2 (Applause.)

3 COMMISSIONER SCOTT: Thank you. I hope
4 you feel better.

5 I have Ethan Bjork next, and he would be
6 followed by Margarita Moran. Do I have Ethan?
7 Okay. Margarita Moran. Oh, okay. Great. And
8 Margarita will be followed by Celine Washington.

9 And as she's making her way up, again
10 I'll just note, if you'd like to make a comment,
11 you fill out a blue card. They're over there. Our
12 Public Adviser is waving at you as she brings me
13 more cards. That's how we know that you'd like to
14 make a public comment.

15 Please go ahead.

16 MS. MORAN: All right. Hello. My name is
17 Margarita. And I come from UCSB today, but I have
18 lived in Oxnard since I was four years old. And
19 it's shocking to me that I never realized that
20 Oxnard is a victim to environmental racism until
21 very recently. And I think that this information
22 is withheld from my community because they are
23 uneducated and unaware. And some of us, I believe
24 it's around 30 percent of us, live in linguistic
25 isolation, so we don't understand what is going

1 on. And so I think it's up to you, who have a
2 duty here, to serve justice for the City of
3 Oxnard, because we are a victim.

4 Apart from that, we are already suffering
5 from three power plants, a superfund site, and
6 pesticides in our fields.

7 Another point is that California has a
8 goal to reach renewable energy by 2030, 50
9 percent. If we built this power plant, we're
10 going to be setting back in a lot of forms. We
11 need to start implementing renewable energy so
12 that we have time to save ourselves. I believe
13 that we should be prepared rather than reactive
14 to when disasters do happen, because climate
15 change is real. And so Oxnard should be taken as
16 a leader to renewable energy. We show the people
17 that renewable energy is our future, and we need
18 to make an investment in our future.

19 Apart from that, I do understand that
20 we're looking for jobs. But in the long run,
21 renewable energy is going to create a lot of jobs
22 for us. We just need to trust and not be afraid
23 that it won't be dependable, because the
24 technologies are rising and the prices are going
25 down. And I understand the upfront cost seems

1 large. But in comparison to the long-term costs
2 of oil and keeping power plants running will be
3 much cheaper than -- the renewable energy will be
4 much cheaper than the oil.

5 So if you're really thinking about if we
6 want to all come together and help our planet
7 become a better place, renewable energy is the
8 way to go. And Oxnard does deserve justice.
9 That's all I have to say.

10 Thank you.

11 (Applause.)

12 COMMISSIONER SCOTT: Thank you.

13 So I have Celine Washington. And after
14 Celine, I still have about 40 or so cards in my
15 pile. We're going to need to give our court
16 reporter and our translators a quick break. So
17 we'll hear from Celine, and then we'll do a quick
18 break and I'll let you know who's coming up right
19 after break.

20 Please go ahead.

21 MS. WASHINGTON: Awesome. Hi, I'm Celine.
22 I'm another one of the Yanks from Santa Barbara.
23 I go to school there at the UC, as do my friends.
24 We drove all the way down here in the middle of
25 finals season because we have a major complaint.

1 Why does Oxnard get all the good stuff?
2 You all have three power plants and a superfund
3 site? Why didn't Santa Barbara get that?

4 And another thing. We do some stuff well,
5 but not like Oxnard. These guys have the highest
6 rates of asthma. They've got some of the poorest
7 people in the state. And on top of that, around a
8 third of you all speak perfect Spanish, so good,
9 they don't even bother speaking English.

10 I mean, what do we have in Santa Barbara?
11 Rich, White people. It's ridiculous.

12 I can't speak for Oxnard. But I can say
13 that us Santa Barbarans can smell NRG's bullshit
14 all the way up the Central Coast. That is why so
15 many of us are here. This community has been
16 targeted. This is one of the most vulnerable
17 communities in the state. And it is disgusting
18 that we in Santa Barbara consume and thrive off
19 energy we don't make, while Oxnard struggles to
20 breathe. This is blaring, it's abuse.

21 I simply cannot fathom the logic of
22 building a new power plant here. We're on a coast
23 that is known for flooding. Ormond Beach is the
24 most important wetlands restoration opportunity
25 in all of Southern California. A new power plant

1 in 2017? California is making incredible strides
2 towards sustainable energy in the near future.

3 All I see here is the familiarity and
4 ease of an abusive relationship. Today must be an
5 intervention. Clean energy now.

6 Thank you.

7 (Applause.)

8 COMMISSIONER SCOTT: Thank you.

9 Okay, so it is about 7:40. We're going to
10 take a ten minute break, until 7:50. Please be
11 back right on time. We will start with Ron
12 Whitehurst, and he will be followed by James
13 Bruni.

14 (Off the record at 7:39 p. m.)

15 (On the record at the 7:50 p. m.)

16 COMMISSIONER SCOTT: Okay, Mr.
17 Whitehurst, please go ahead. Oh, hold on.

18 MR. WHITEHURST: Hello. My name is Ron
19 Whitehurst. I'm a small business person. I live
20 in the north side of Ventura. And we employee
21 about a dozen people. And our facility is about
22 95 percent on solar energy for heat, and we're
23 about 50 percent on solar for electric, and
24 moving towards 100 percent. We want to have a
25 zero carbon footprint for our business. And I'm a

1 member of the Ventura County Climate Hub. And
2 we're working on reducing fossil fuels, promoting
3 renewables, and building resilience for security
4 and such in the community.

5 So I appreciate that the CAISO report
6 came out and said that there are options as far
7 as the renewable energy to replace this fossil
8 fuel-using and polluting power plant. But their
9 expertise is in fossil fuels, not in renewables.
10 And so they overestimated the cost of the solar-
11 electric and they underestimated -- and they also
12 overestimated the cost of the batteries. Battery
13 technology is progressing very rapidly. And, in
14 fact, in Ojai, we have a battery company that
15 produces lithium ion phosphate batteries that
16 would be potentially an option for renewable --
17 for storing renewable energy.

18 So one of the things that needs to be put
19 into the equation is looking at the ability of
20 batteries to absorb reactive power, so when there
21 is excess solar energy, that it goes into the
22 batteries and isn't wasted. And that the -- in
23 doing that, this offsets the use of fossil fuels,
24 and so it has a positive benefit as far as the
25 community is concerned. And then there's -- oh.

1 Okay.

2 So the battery storage would eliminate
3 the costs externalized in the fossil fuel plant
4 for air quality and climate change. And so those
5 are some of the factors to put into the equation.

6 And then the original ISO projections of
7 the need were -- seemed to be cooked, that it's
8 an old-boys network and they wanted to help their
9 friends, you know, build more power plants. And
10 so there's a serious question as far as the need
11 for this power. And if there is a need for a
12 short-term peaker production, this is not the
13 place to put the power plant, on the beach where
14 it's exposed. And we've seen, you know, as you've
15 heard over and over again, that our beaches are
16 subject to erosion from these dramatic storms
17 that we are having more and more frequently.

18 Thank you for your time.

19 (Applause.)

20 COMMISSIONER SCOTT: Thank you.

21 I have James Bruni, followed by Kurt
22 Oliver. Do I have either James or Kurt here?

23 Yes?

24 Oh, please, come on up.

25 MR. OLIVER: Not James. My name is Kurt

1 Oliver.

2 COMMISSIONER SCOTT: All righty.

3 MR. OLIVER: Good evening, Commission and
4 Staff. As I said, my name is Kurt Oliver. I'm a
5 Local 12 Operating Engineer member, and I also
6 serve on the Executive Board of the Tri County
7 Building and Construction Trades as the Sergeant
8 of Arms.

9 Before I get started with my prepared
10 remarks, I'd like to take a moment to thank NRG
11 for reliably supplying my house with power, oh,
12 about 13 days ago. We had that huge heat wave
13 over the Labor Day weekend. The downstairs
14 temperature in my house, which is a two-story,
15 reached 88 degrees all three days. I don't have
16 air conditioning. Not many people do who live
17 along the coast because our air conditioner is
18 that ocean out there. I was thankful for the
19 power, and I was grateful for the fans that I
20 had. And I was also grateful that I was able to
21 charge my air mattress so I could sleep
22 downstairs and not upstairs where it was about 12
23 to 15 degrees hotter.

24 I'm speaking tonight in favor of NRG's
25 proposed Puente Power Project. One of the main

1 reasons why the Tri County Building Trades
2 Council affiliated trades are in favor of this
3 project is its ability to provide valuable
4 construction jobs. Locally hired, skilled
5 workforces have a tremendous effect on the local
6 community. Workers who don't have to travel long
7 distances and fill up their gas tanks every other
8 day have more disposal income on hand. That extra
9 income is then spent at local stores, local
10 restaurants and local movie theaters, enabling
11 more local employees down the line to stay
12 employed, or even seek better opportunities.

13 Speaking of better opportunities brings
14 to mind some of the affiliated trades
15 apprenticeship programs. Not all youngsters are
16 destined to go to higher institutions of
17 learning, whether it be a junior college or a
18 four-year college. For some, the financial
19 burdens of a higher education are just too
20 costly, while for others a choice is made to
21 enter the workforce. Projects like P3 are so
22 valuable to apprentices, not just for a good
23 paying job with benefits but also because these
24 jobs enable apprentices to earn as they learn
25 through on-the-job training. Skill sets are

1 enhanced, safety and productivity are
2 prioritized, and, yes, a definite sense of pride
3 and accomplishment accompanies each task
4 completed.

5 Trade apprenticeships are the stepping
6 stones to a rewarding career in the construction
7 industry, apprentices who work their way through
8 and become the next wave of skilled workers as
9 journeymen and women. This project can be the
10 bridge for some young men and women who won't
11 attend college but desire to achieve success in
12 the construction trades and be able to raise
13 families locally.

14 I stand together with our trade
15 affiliates in support of NRG's power -- Puente
16 Power Project at Mandalay.

17 Thanks for the opportunity to speak.

18 (Applause.)

19 COMMISSIONER SCOTT: Thank you.

20 I have Armando Delgado, followed by Dan
21 Sutherland.

22 MR. DELGADO: First of all, I'd like to
23 start by thanking NRG for allowing us to be here
24 tonight with the power on.

25 My name is Armando Delgado. I represent

1 1,100 members of the United Brotherhood of
2 Carpenters Local 150 here in Ventura County. But
3 today I stand here as a resident of Oxnard, born
4 and raised. My parents, like many others here,
5 worked in the packing plants, the industrial
6 buildings that all ran on power that kept our,
7 you know, parents employed and kept these
8 business with light and power for all the
9 machines.

10 People talk about poisoning our lands.
11 The last time I checked we still have the best
12 strawberries in the world. I don't see how the
13 NRG facility killed our strawberries.

14 Studies and surveys taken in Oxnard,
15 19,000 people were asked questions. There's over
16 200,000 people in Oxnard. What about the rest of
17 their voices? There's over 850,000 people in
18 Ventura County that all need energy.

19 The plant is old, yes. And while many do
20 not want a new one, we need to understand that
21 it's like an old truck on the road, it's still
22 nice but, hey, let's get on with the new one. It
23 will be more productive, more effective. We need
24 a new one to power our grid. We need a new one to
25 power our phones, your laptops, your green cars.

1 We need a modern and sleek one so we can relieve
2 that eyesore that people talk about but never
3 actually walk the beaches that they claim they
4 live in.

5 I live here. We live here, workers,
6 farmers, veterans, engineers, architects, first
7 responders, et cetera. We build and take good
8 care of ourselves and our community. We don't go
9 to your towns and tell you how to use your lands
10 or what you should do with your lands.

11 We talk about new energy. Who will build
12 it? Who will remove the old? Who will run them?
13 Who will offer the children of our schools an
14 opportunity to learn on how to create new energy?

15 I, we, United Brotherhood of Carpenters
16 and the tradesmen behind me of Oxnard, we urge
17 you to proceed in letting us build a new power
18 plant. We stand together. Let's power up Oxnard.

19 (Applause.)

20 COMMISSIONER SCOTT: Thank you.

21 I have Dane Sutherland, followed by
22 Denise Mondragon.

23 MR. SUTHERLAND: Hi, NRG. I thank you for
24 coming today. And the CEC members, thank you for
25 having me speak. I'd like to say, as a veteran

1 and a proud veteran and a member of the
2 apprenticeship through the IBEW Electrical
3 Workers here in Ventura County, I support the
4 generating plant that is going to be here in
5 Puente. I grew up in Los Angeles County, and I
6 moved here about three-and-a-half years ago when
7 I got married. And the big thing that came to me
8 was consistency, especially with the power. In
9 Los Angeles County, the power went out a lot,
10 especially -- I grew up in Granada Hills. And so
11 we need consistency. We need that guaranteed
12 power. And that can only come with this plant.

13 As amazing as renewable energy is, we
14 can't do that without the base, without the
15 foundation, and that is what we are trying to do
16 here, so again, I support that. Thank you very
17 much.

18 (Applause.)

19 COMMISSIONER SCOTT: Thank you.

20 I have Denise Mondragon, followed by
21 Karina Kage -- it might be Karina Kaye. Oh,
22 Denise went home? Okay. Thank you. I can put
23 that there. So then I have Karina Kaye, followed
24 by Dan Pruett.

25 UNIDENTIFIED FEMALE: (Off mike.) Karina

1 had to go home.

2 COMMISSIONER SCOTT: Karina went home, as
3 well? Okay.

4 And just a reminder for folks, we do get
5 comments by writing, as well. So feel free to
6 send in comments in writing, and we do see those
7 and read those. So that's another way that you
8 can get your voice heard by us.

9 Do I have Dan Pruett?

10 MR. PRUETT: Good evening.

11 COMMISSIONER SCOTT: Good evening.

12 MR. PRUETT: Thank you, CEC Members, for
13 allowing me to speak tonight. My name is Dan
14 Pruett. And I've been a resident of Port Hueneme
15 for the past six years. And I'm also a member of
16 the IBEW. And I just wanted to say that I support
17 his power plant project.

18 Thank you.

19 (Applause.)

20 COMMISSIONER SCOTT: Thank you.

21 I have Jonathan Horton, followed by
22 Joaquin Echabarria.

23 MR. HORTON: Is Jonathan still here? Oh,
24 yeah, I see you.

25 MR. HORTON: Good evening. Welcome back

1 to Oxnard. Some observations.

2 There are tensions around short-term and
3 long-term, and there are tensions around -- I
4 mean, specifically in our community, between
5 those of us who are hoping for something that is
6 more forward looking and those who need jobs now.
7 And we don't have to be at odds with this. And I
8 hope, however this all goes, that after this
9 issue we're able to come together as a community
10 to address our economic vitality. But nobody has
11 been anti jobs. We just want jobs building things
12 that makes sense.

13 And as has been said before, building a
14 plant on the coast at this point in time, knowing
15 what we do, is crazy. It just doesn't make sense.
16 It serves NRG because they get a guaranteed rate
17 of return on it, but that's all it serves. It
18 doesn't serve any of us. We might profit in the
19 short term, some of us, a little bit, but they
20 are the ones who really profit.

21 And I want to call out, there was
22 somebody up here who spoke poorly of our Oxnard
23 youth, implying that they were gullible or
24 impressionable. And that was disgusting and does
25 not do his position any justice. So I want to

1 affirm the awesome, powerful, intelligent Oxnard
2 youth. And I just wish more of them were still
3 here to hear that. A lot of them had to go home
4 to do their homework, after having showed what
5 strength and resolve they have.

6 So clean air for Oxnard, and keep kicking
7 assessment, youth.

8 (Applause.)

9 COMMISSIONER SCOTT: Thank you.

10 So I have Joaquin Echabarria, followed by
11 Sarah Maiani.

12 MR. ECHABARRIA: Hi. Good evening. Hi.
13 Good evening. My name is Joaquin Echabarria. I am
14 an IBEW member, that's International Brotherhood
15 of Electrical Workers. I am an apprentice. This
16 is my second year here. I have heard many of the
17 arguments. This is mine.

18 I'm in support of this project. I'm the
19 sole income of my family, wife and child. I'd
20 appreciate the work, and tearing down two old
21 plants for just one. Thank you.

22 (Applause.)

23 COMMISSIONER SCOTT: Thank you.

24 So I heard then that Sarah had to leave.
25 So she'd be -- okay, so she's not here.

1 I have Liza. Liza, I'm so sorry, I don't
2 know how to say your last name. It's
3 D-I-U-I-A-K-O-S. Are you still here? Okay.

4 I have Troy Corley, followed by Shannon
5 Lopez. Is Troy here, or Shannon?

6 Oh, Shannon, okay. Come on up please.

7 Shannon will be followed by David
8 Matthews.

9 MS. LOPEZ: Good evening, Members of the
10 Commission. Thank you for your time tonight. My
11 name is Shannon Lopez and I am strongly against
12 the Puente Project. I am an Oxnard resident and a
13 member of the Democratic Socialists of America.

14 While I understand this is clearly not a
15 democratic process, I hope that you are seriously
16 considering our comments and our continued
17 presence in opposition to this plant.

18 I want to thank you for authorizing the
19 study of clean energy alternatives, and I would
20 like to bring up a few points about the
21 alternatives research.

22 First, cost. While it's true the report
23 estimated a higher cost for the alternative
24 energy projects, California ISO used old 2014
25 cost estimates for batteries. Why are you not

1 requiring cost estimates to be based on current
2 battery costs, especially when the price tag
3 seems to be a driving reason for approving
4 Puente?

5 The cost for solar storage batteries has
6 consistently fallen by around 11 percent each
7 year since 2014, which will put the batteries at
8 about 50 percent of the study's estimated cost by
9 the time of building.

10 My second point is reliability, which has
11 been brought up continually tonight as a scare
12 tactic to justify Oxnard being a sacrifice zone.
13 California has already overbuilt plants
14 throughout the state which has led to an excess
15 of energy. As reported in the VCC Star, the L.A.
16 Times investigations have shown that the state
17 has overbuilt the electricity system, primarily
18 with natural gas plants, and has so much clean
19 energy that it has to shut down some plants while
20 paying other states to take the power California
21 can't use.

22 The overbuilding has added billions, let
23 me say that again, billions of dollars to
24 ratepayers bills in recent years. For previous
25 speakers who have dramatized our electricity

1 bills growing, the reality is they currently are
2 bloated by fossil fuel plants that are closing
3 early or are not producing to capacity. The
4 reality is that we taxpayers still have to pay
5 for the cost of the plants, even when it's not
6 producing, because they are guaranteed a return.

7 We have heard a lot about jobs tonight.
8 As stated before, jobs and green energy are not
9 mutually exclusive. Green energy is one of the
10 fastest growing industries. I understand why our
11 local Ironworker Union and all the other unions
12 here tonight are asking for jobs from this plant.
13 But the jobs in building the Puente Plant are
14 temporary and we will be paying the environmental
15 costs decades after the jobs are gone.

16 I also want to bring up the environmental
17 racism inherent in this project. In the study the
18 concern was that the alternatives, based on old
19 projections, were not sufficient for the Moorpark
20 community. I grew up in the Moorpark community.
21 And I can guarantee that NRG and the Commission
22 wouldn't dare to put a power plant there. It
23 would get shut down. Why is it that Oxnard is
24 reliable forced to shoulder an unfair amount of
25 the environmental costs?

1 After Hurricane Harvey and Irma, I hope
2 that you, the Commission, are taking climate
3 disaster seriously. Please align yourselves to
4 California's goals. Please listen to our local
5 and state representatives who have been against
6 this project from the beginning. Please listen to
7 the community. I urge you to choose people over
8 profit.

9 Thank you.

10 (Applause.)

11 COMMISSIONER SCOTT: Thank you.

12 I have David Matthews, followed by
13 Reinhold Nestved. Do I have David Matthews here?
14 Okay. Reinhold Nestved. I hope -- I'm sorry about
15 your last name.

16 MR. NESTVED: Reinhold Nestved. You did
17 good.

18 My hats off to all of you for being here
19 and listening to all this. Both sides have very
20 good perspectives.

21 I've lived here for 33-plus years, almost
22 50 years, actually, if I think about it. And I
23 live in Port Hueneme. I can hear the beach. I can
24 smell the ocean. I love the environment. I love
25 it dearly. I've worked solar. I've worked

1 nuclear. And it seems to me like solar is really
2 not as efficient as people are making it out to
3 be either. I don't think anybody's really wanting
4 to build solar panels here in this area. They are
5 built out of country. They're built somewhere
6 else where -- it's a nasty process. Plastering
7 our deserts with solar panels is probably not the
8 best way to go. Nothing lives in these solar
9 fields. I think solar is still a good source of
10 energy, but this power plant, I support greatly
11 because it's going to work. It's going to be what
12 we need for now.

13 The bridge has not been gapped with solar
14 or wind or building dams for hydropower yet,
15 which is another place we might want to look too.

16 Thank you very much.

17 (Appause.)

18 COMMISSIONER SCOTT: Thank you.

19 I have Daniel Ford, followed by Naomi
20 Tungui. Is Daniel here? Okay. How about Naomi
21 Tungui?

22 UNIDENTIFIED FEMALE: Naomi had to leave.

23 COMMISSIONER SCOTT: Naomi had to leave.

24 Okay.

25 How about Daniel -- I'm sorry, Danielle

1 Walsmith, and she would be followed by Alyssa
2 Saldana.

3 MS. SALDANA: I'm Alyssa.

4 COMMISSIONER SCOTT: Okay, Alyssa. Am I
5 assuming Danielle is no longer here? Okay.

6 And as Alyssa is making her way up, I'll
7 again make the reminder that we do take comments
8 in writing. So please remind your friends and
9 family and others, if they missed the opportunity
10 this evening to give comments orally and would
11 like to send something in, in writing, we get
12 them and read them, as well.

13 Please go ahead.

14 MS. SALDANA: Okay. Hi. My name is Alyssa
15 and I am from UCSB. Good evening to the CEC and
16 all the people who are still here and who showed
17 up earlier.

18 I hear many people arguing about the jobs
19 that they need, and also about the reliable
20 energy that they need in Oxnard. However, the
21 L.A. Times recently showed that since the 1990s
22 there's been an oversupply of dirty energy.
23 Californians are using less energy and many power
24 plants are being shut down. And studies show that
25 California will produce over 21 percent of the

1 energy needed by 2020, not including the rapid
2 growth of the solar industry. In fact, California
3 is using 2.6 less electricity annually. However,
4 they're paying \$6.8 billion than before. The
5 effects on consumers include an increase of the
6 average cost in electricity rising. And whereas
7 the rest of the U.S. pays \$10. 41 kilowatts per
8 hour, California residents are paying \$15 42.

9 In regards to jobs, people are not
10 considering the nuances. Yes, they're immediate
11 jobs and we need them, but they are temporary and
12 not sustainable. However, NRG does state that
13 there will be about 100 temporary -- that there
14 will be a growth of jobs, but they're 100
15 temporary jobs, and about 48 construction jobs,
16 and most of the high-paying jobs are going to be
17 going to NRG corporate members.

18 Again, we all know that there are
19 alternatives. And according to CAISO's study, it
20 says that alternatives are going to be more
21 expensive, but that study is outdated, and it's
22 from 2014. So we need to consider that the new
23 study shows that the P3 is going to be more
24 expensive than the alternatives that we have.

25 And I also feel that NRG lacks a concern

1 for the community of Oxnard. For example, in
2 their recent map of the sensitive receptors, they
3 failed to include many schools and daycares
4 around the area, and only provided some that were
5 on the outliers of the map. And I just think this
6 shows a lack of concern and more of a want for
7 money. And in case you all didn't know, this is
8 all an act of environmental racism.

9 "Environmental racism, according to the
10 EPA, is the placement of low-income or minority
11 communities in the proximity of environmentally
12 hazardous or waste or" -- sorry.

13 "Environmental racism is the placement of
14 low-income or minority communities in the
15 proximity of environmentally hazardous or
16 degraded environments, such as toxic waste,
17 pollution and urban decay."

18 This fits Oxnard's profile, considering
19 that we already have three NRG power plants, a
20 superfund -- the Halaco Superfund Site that has
21 yet to be cleaned up because there's a lack of
22 funding, or maybe that they don't want to provide
23 the funding, and we also are a victim of
24 agricultural pesticides.

25 I stand in solidarity with Oxnard and

1 encourage the CEC to reject the P3 and to provide
2 clean air for Oxnard.

3 Thank you

4 (Applause.)

5 COMMISSIONER SCOTT: Thank you.

6 I have Jessica McCurdy, followed Idalia
7 Robles de Leon.

8 MS. MCCURDY: Hi. My name is Jessica
9 McCurdy, and I'm a mother, teacher and resident
10 of Ventura County, and a member of the Ventura
11 County Chapter of the Democratic Socialists of
12 America. And I also grew up in Oxnard. I want to
13 first thank you for coming back to this community
14 and for giving the public a chance to share our
15 thoughts and concerns on this project.

16 Additionally, I want to thank you for doing -- or
17 ISO for doing an additional study on alternatives
18 to this project. And I want to share again, as I
19 did the last time I was here, why I oppose this
20 project.

21 In 13 years our state is supposed to have
22 met a goal to meet 50 percent of its energy to
23 come from renewables. And I'm sure we know that
24 it's not going to stop there. The public, as well
25 as industry leaders, politicians will all push to

1 further progress our progress in renewables until
2 we get as close to 100 percent as possible. So
3 why are we considering any alternative to a clean
4 power plant when the future is clearly green
5 energy?

6 Additionally, people have been talking
7 about the L.A. Time report about California
8 having too much energy. The rate hikes that have
9 come from that, and the fact that we're having to
10 sell our energy to out of state, so I really
11 don't see why need another natural gas plant, if
12 that's the case in this state.

13 Also, since the California Coastal
14 Commission recommended that an alternative site
15 be proposed outside of the 100-year flood zones,
16 then why, again, is this location still being
17 talked about as an option? It seems really
18 reckless to continue having power plants directly
19 on the beach where this is a risk of damage from
20 storms and floods, erosion or rising sea levels
21 due to climate change. When we look to the future
22 and think about what is best for this community,
23 less pollution and green energy are best for our
24 health, our ecosystems, our utility bills and our
25 economy.

1 Thank you.

2 (Applause.)

3 COMMISSIONER SCOTT: Thank you.

4 I have Idalia Robles de Leon, followed by
5 Alejandra Melgoza.

6 MS. ROBLES DE LEON: Good afternoon,
7 everyone. Buenos Noches. My name is Idalia Robles
8 de Leon and I'm a graduate student at UC Santa
9 Barbara. I'm also a member of FFIERCE. And I'm
10 here really just as a concerned neighbor visiting
11 from Santa Barbara, a mostly White, most affluent
12 community where this would never be proposed.

13 As somebody worried about the wellbeing
14 of our Oxnard neighbors, I don't live here but I
15 have loved ones who do. And it's for them and for
16 all of us that I'm here to oppose the
17 construction of the Puente Power Plant. I'm here
18 to support the green energy alternatives. And I'm
19 here to support training and sustainable jobs for
20 the workers who were here today and most of them
21 who have left.

22 This summer I drove across the country
23 from California to Minnesota. That's where my mom
24 lives right now. And it was a four-day trip. I
25 got to see incredible views. I was also stuck in

1 a storm in Nebraska for a while. But what struck
2 me the most was realizing that California has
3 something to learn, of all states, from Iowa. I
4 was really blown away by Iowa's use of green
5 technology. And it's just a reminder that all it
6 takes is goodwill to make sure that we provide
7 energy sources that are sustainable, that are
8 mindful, that will provide jobs, and that, you
9 know, ultimately will help all of us in the long
10 run.

11 We're facing unprecedented reminders from
12 the land that is telling us that we are pushing
13 her beyond her limits. We have catastrophic
14 hurricanes threatening the lives of our neighbors
15 to the east and the south. And yet, shockingly,
16 we still have climate change deniers. Let's not
17 be like those people.

18 I'm here to support the residents of
19 Oxnard, to end the genocidal practices that seek
20 to sacrifice the lives of mostly working class,
21 working-poor communities of color in the name of
22 profit.

23 At the last hearing there were some
24 powerful testimonies from Oxnard residents who
25 talked about their health issues, youth whose

1 lives are cut short daily by these high levels of
2 pollution, youth with asthma who can't even skate
3 down the street because their health won't permit
4 it.

5 I'm also here to support the workers and
6 to advocate for paid training for them, so they
7 can have jobs that will last way past the time
8 that these power plants become obsolete.

9 I've worked cleaning houses and taking
10 care of children for rich White people since I
11 was 15. I'm 34 now. Even though I'm a grad
12 student, I still do that work. My mom does this
13 work, too. I'm clear that everyone deserves to
14 make a living, including the workers whose jobs
15 would not be permanent if this plant were to be
16 built.

17 Make the right decision, the only moral
18 decision that you can make, and deny this power
19 plant proposal. Clean air for Oxnard.

20 (Applause.)

21 COMMISSIONER SCOTT: Thank you.

22 I have Alejandra Melgoza, followed by
23 Devine Hickey.

24 MS. MELGOZA: Hi. My name is Alejandra
25 Melgoza, and I'm here with CAUSE and the

1 surrounding community. I first want to thank the
2 people present here in opposition because you are
3 not only fighting for yourself and your
4 community, but you are fighting for our future
5 generations.

6 The Puente Project will not only affect
7 the health of many, but it's a continued pattern
8 of systemic racism towards those most
9 marginalized. If my words do not move you, that's
10 fine. It's not my first time talking to those who
11 have the power to change things for the better in
12 their hands.

13 But please look at the present state of
14 our country and our present administration. If
15 you are frustrated or angry or upset in some way
16 or from every time you look at the television
17 screen, every time you receive a new notification
18 on your phone about a new disaster or something
19 that effects your community, please take a look
20 at yourselves and the power you have in your
21 hands before you. You can be the example and the
22 leadership people are looking for in the present
23 moment, the ones to lead the way in creation of
24 more jobs through renewable energy. And above
25 all, listen to the youth that are speaking up for

1 their community.

2 (Applause.)

3 COMMISSIONER SCOTT: Thank you.

4 I have Devin Hickey, followed by Jan
5 Dietrich. Do I have Devin here still? Okay. How
6 about Jan Dietrich? And you'll be followed by
7 Dulce Setterfield.

8 MS. DIETRICH: Good evening,
9 Commissioners.

10 COMMISSIONER SCOTT: Good evening.

11 MS. DIETRICH: Today I'm speaking for
12 myself. I have a business and land in the Ventura
13 Oil Field in the unincorporated area. But the
14 minute I heard about this situation, my heart was
15 with Oxnard. And I've been here from the get go
16 and advocating for their interests, and so proud
17 of Mayor Pro Tem Carmen Ramirez and the City
18 Council for being clear from the beginning and
19 holding firm that power plant proposal doesn't
20 belong on that beach.

21 This might sound crazy, but I think about
22 where the gasoline comes -- where the natural gas
23 comes from, from fracking fields across the
24 Midwest. I don't know exactly where, but what I
25 understand is that there's suffering and

1 pollution in the sourcing of it. It hurts my
2 heart so much that I had a solar oven installed
3 in the wall of my kitchen. And I try to never
4 turn on my gas burner. And we don't -- we cut our
5 gas bill for our company from \$1,100 to \$50.00 a
6 month by every means.

7 If there's a carpenter here, a union
8 carpenter that knows how to install solar ovens
9 in walls, please give me your card, because I
10 will promote it all over this county. I love my
11 solar oven.

12 The other thing I have to just say about
13 the jobs is just I don't know how many of the
14 IBEW workers are familiar with the IBEW 10
15 Training Facility for the apprentices in L.A.
16 It's elegant, and there should be one in every
17 county. They're training people to do net zero-
18 plus. Net zero-plus is what I wanted ten years
19 ago and I'm still struggling to get. There need
20 to be workers trained to do this for homes and
21 for businesses. Sixty percent or more, how much
22 of the energy is used by businesses? They need
23 that kind of skilled work.

24 And the other vision that I have is from
25 a talk that I saw of an aerial view of the entire

1 grid from Moorpark to Goleta that shows these
2 huge areas of industrial corridor with solid
3 rooftops and parking lots. And you could just
4 like circle six areas and say, wow, there's got
5 to be enough surface area there. And where, you
6 know, where are the designs for that kind of plan
7 for this northern end of the grid?

8 Thank you.

9 (Applause.)

10 COMMISSIONER SCOTT: Thank you.

11 I have Dulce Setterfield, followed by
12 Marisa Becerra.

13 MS. SETTERFIELD: Good evening everyone.
14 I'm Dulce Setterfield. I moved here, into Oxnard,
15 almost nine years ago. I was offered a job at the
16 naval base. They didn't have one up in the
17 Seattle area at the time. You remember what
18 things were like in late 2008? And I'm now a
19 homeowner in Port Hueneme. I am a beach user. I
20 have a surf shirt on.

21 But I want to point out that in the
22 newspaper it says that California Coastal Cleanup
23 Day 2017 is this Saturday. Join over 60,000
24 Californians as we come together to clean up our
25 state beaches and waterways. People care, and

1 it's not just about getting the plastic bags,
2 cigarette butts, et cetera, off. It's about the
3 air, because we have this magnificent view of the
4 Channel Islands from Oxnard and Port Hueneme. And
5 maybe some rich communities north and south of us
6 don't have that Channel Islands view, so let's
7 not mess it up in terms of air quality.

8 But I want to go backwards. Almost, I
9 hate to admit it, but almost 38 years, I worked
10 in the Pacific Northwest in the electric utility
11 industry. And we had the Puget Sound Electric
12 Reliability Study done because it appeared that a
13 third transmission line was needed across the
14 mountains to bring power from the dams into those
15 growing coastal cities and meet their power
16 needs. The study showed that the needs could be
17 met with energy efficiency in the commercial
18 building sector, not over a matter of decades but
19 virtually in a matter of months, moving things
20 forward, cost effective solution. And
21 stakeholders had to come together to make that
22 work. And I think stakeholders can come together
23 again to make a clean energy future work here
24 without this Puente Plant.

25 If you talk with any of those

1 stakeholders today are they going to say, oh, we
2 really should have built that third transmission
3 plant? I don't think so. Or a whole bunch of
4 peaker plants? I don't think so, but you can
5 check.

6 I live here now. Do I work in energy
7 efficiency and clean energy? I did for many
8 years. I even was awarded, in 2016, along with
9 many coworkers, the Presidential Performance
10 Contracting Challenge of over \$4 billion going
11 into clean energy for our federal facilities
12 nationwide, even worldwide, because I worked for
13 the Navy, It's also Navy and Marine Corps
14 worldwide is committed to clean energy. And I'd
15 like to see this part of California get aboard,
16 as well.

17 My remarks are off the cuff. I left my
18 job at about 6:15 p. m. , didn't know I was going
19 to speak here. I have an exchange student from
20 Portugal waiting for me at home. He didn't know I
21 was going to speak here. But I want to say the
22 watchdog groups can be really valuable.

23 I worked for Bonneville Power
24 Administration. You probably know something about
25 it. And we had the Natural Resources Defense

1 Council. We had the Northwest Energy Coalition.
2 We had these kind of groups pushing us different
3 ways. It was helpful.

4 And I'd like you to go forward listening
5 to the messages you've heard today from people
6 who really care. And I lot of them, I think, have
7 really done their homework.

8 Thank you.

9 (Applause.)

10 COMMISSIONER SCOTT: Thank you.

11 I have Marisa Bercerra, followed by Ocil
12 Herrejon. Is Marisa here? Okay. I hear that she
13 left. Do I have Ocil Herrejon, followed by Pat
14 Brown?

15 MS. HERREJON: Good afternoon. My name is
16 Ocil Herrejon, and I'm here to follow the
17 comments of one of our previous speakers, Fatima
18 Contreras, who unfortunately ran out of time and
19 was unable to continue her points. And she wanted
20 to add, and this, quote,

21 "I see you all tired and bored and with
22 desperation for all of this to be over so you all
23 can go home. Well, guess what? That's been us
24 for the past three years, us waiting for you all
25 here to make the right decision, for you all to

1 understand that this city is not just a place
2 where energy can be created in the worst place
3 possible, our coastline. This is a home, a home
4 to families, business, a low-income community, a
5 community of color.

6 "I am young. I've grown up being told that we
7 are the future. Then if this is true, this is the
8 future telling you that going green is possible.
9 And for those saying that we, the youth, have no
10 idea about the real world and its struggles,
11 well, I beg to differ. We, the youth, see this
12 project in a different perspective than big
13 company managers and owners. We see the reality
14 of how much this power plant is effecting us. We,
15 the youth, don't see the money signs on our
16 checks. We see you ruining out community. Clean
17 energy for Oxnard."

18 Thank you.

19 (Applause.)

20 COMMISSIONER SCOTT: Thank you.

21 I have Pat Brown, followed by Jessica
22 Tuomala.

23 MS. BROWN: I remember a few years ago
24 when we heard from Edison, this was before the
25 current people involved with the power plant, oh,

1 we're only going to put in a peaker, and it's
2 only going to be needed in emergencies. And we
3 won't bother anybody. And we won't need any more
4 peakers, just this one, that's it.

5 And then we had the last one. Oh,
6 that's -- it's just this one. This is it. We're
7 not going to be building any more peakers here.
8 This is it.

9

10 And now here we are again a few years
11 later. Not very long ago it was that we weren't
12 going to have any more peakers.

13 So why is this? Why are we being dumped
14 on constantly? There's no need for this,
15 absolutely no need for this. It's not right.
16 Okay?

17 I spent 30 years of my adult life in the
18 San Fernando Valley before moving out here to
19 Oxnard in the fall of 1993, just before the 1940
20 -- 1994 earthquake, so glad to get out of there.
21 We had a little shaking here, but it was nothing
22 in comparison to what they had.

23 Now we have a group here of young people
24 from CAUSE. You've been hearing from them all
25 evening. You heard from them a couple of months

1 ago, as well. They are wonderful speakers and
2 they know what they're talking about. And what
3 we're going to build is for them. Can you imagine
4 them having to put up with this when they get to
5 be my age? Just think of that. Just think of
6 that.

7 I'm 76 years old and I'm in very good
8 health. I don't even have any cavities or
9 fillings in my mouth, no high blood pressure, no
10 high cholesterol, none of the stuff that
11 everybody else has that's my age, nothing. I
12 don't take any pills. I don't take vitamins. I
13 eat good food. And I'm liable to live to be 95 of
14 100, and I don't want to see any of this here
15 anymore. I'm sick of it. And there's no reason
16 for it, absolutely none, except for NRG's
17 pocketbook. That's it. That's it. That's all it
18 is. There's no other excuse for this.

19 We need to be looking forward. We need to
20 be looking for the future of our young people
21 here who aren't stupid and dumb, like a lot of
22 people in Los Angeles may think. These kids know
23 what they talk about and they know what they want
24 in their future, and it's not those power plants,
25 and it's not those smokestacks.

1 And by the way, even the airports don't
2 want those smokestacks. And they certainly don't
3 want them to be any taller. And if, as they say,
4 NRG says, well, we'll just build up another ten
5 feet or so and then we'll build on that, and that
6 will be okay. We'll take care of any water that
7 comes in. Ten feet up further will take care of
8 any water. We don't want it. We don't want it at
9 all, none. We want it to all go away. We want
10 them to take it down as soon as possible. I'd
11 like to have it down by 2020. They better get
12 busy, or they won't have it out of here by 2020.
13 And I don't want to have to wait until I'm 95 to
14 see all of this go. I want it to go now. And I
15 know a lot of my friends my age also feel the
16 same way. There's no excuse for this.

17 These people who want jobs, there will be
18 jobs, but they won't be the same jobs that
19 they've got right. They'll be jobs going forward
20 to improve our environment, to make us have a
21 beautiful coastline. They can take their work and
22 start tearing all this stuff down right now.
23 They'll find another way.

24 We aren't everybody's punching bag. We
25 aren't everybody's whatever you don't want you

1 just send it out to Oxnard, they'll put up with
2 it. I don't care whether the people in Los
3 Angeles have their power off or not. We don't
4 need those power plants. What -- what -- who
5 needs them? Los Angeles needs them. Build them
6 in Los Angeles. Give them to them. We don't want
7 them and we don't need them, and we want them out
8 of here as soon as possible, I mean it.

9 Now I think it's time that we stop.

10 COMMISSIONER SCOTT: I'm going to need to
11 ask you --

12 MS. BROWN: I'm probably one of the --

13 COMMISSIONER SCOTT: -- to wrap up.

14 MS. BROWN: -- last speakers.

15 COMMISSIONER SCOTT: You're a little bit
16 over time.

17 MS. BROWN: We're going to stop and we're
18 not going to do this anymore. Thank you.

19 (Applause.)

20 COMMISSIONER SCOTT: Thank you.

21 I have Jessica Tuomala, followed by Julie
22 Penia.

23 MS. TUOMALA: Good evening. My name is
24 Jessica Tuomala, and I was born and raised in
25 Ventura, California. I've been lucky enough to

1 work not only in Ventura, but also in Oxnard, as
2 well as in Santa Barbara and Goleta currently.

3 I was a spectator at the last hearing.
4 And after the hearing, I decided to be a speaker
5 this evening because I have a very unique
6 perspective on this subject.

7 I'm the daughter of a union worker. My
8 dad is in the Local 12 Union and an operating
9 engineer. Everything I have is because he had
10 union jobs. But another thing I had because of
11 his union job was my mom. She was the recipient
12 of not just a double lung transplant, but then a
13 single lung transplant. And the irony of that is
14 she was told not to go to Oxnard. When she was
15 sick the doctor said, "You can go to Camarillo,
16 you can shop in Santa Barbara, but try to stay
17 out of Oxnard."

18 So I understand the need for union work.
19 I wouldn't have anything that I have now if it
20 weren't for my father working for a union. But I
21 also know that the health effects of the power
22 plants in Oxnard are real. My mom had to wear a
23 mask if we went shopping in Oxnard. She wasn't
24 supposed to go too far downtown. So the fact that
25 people don't think it's a health issue, it really

1 is.

2 Unfortunately, she passed away. But I
3 never forgot the fact that we had to stay out of
4 Oxnard because of its poor air quality.

5 There have been so many people, yes,
6 young people fighting against these power plants,
7 but those are the young people that should be
8 fighting against them because they are the
9 future.

10 There's a very silly part of the Lion
11 King where Mufasa shows Simba the pride land, but
12 he looks over towards the elephant burial ground
13 and he goes, "Oh, we don't go there. We don't
14 care about that." That's a meme. People talk
15 about Oxnard like it's Ventura's elephant burial
16 ground.

17 I work in Goleta. I've talked to people
18 in Goleta about why there's not power plants in
19 Goleta. Why aren't they building, again, in Santa
20 Barbara? Because those people won't stand for
21 it. So why are you making these people stand for
22 this.

23 Give the people what they want, and it's
24 not this power plant.

25 Thank you.

1 (Applause.)

2 COMMISSIONER SCOTT: Thank you.

3 I have Julie Penia, followed by Stephen
4 Oden.

5 UNIDENTIFIED FEMALE: (Off mike.) Julie
6 already left.

7 COMMISSIONER SCOTT: Julie left? Okay.
8 Do I have Stephen Oden?

9 MR. ODEN: Yes.

10 COMMISSIONER SCOTT: Great. Please come
11 up.

12 And Stephen will be followed by Monica el
13 -- de la Hoya.

14 MS. DE LA HOYA: (Off mike.) He's not
15 here? I'll go.

16 COMMISSIONER SCOTT: Oh, no. He's on his
17 way up.

18 MR. ODEN: Good evening, everyone. My
19 name is Stephen Oden, and I've been a resident of
20 Oxnard for over 20 years. I own a home here in
21 Oxnard, in South Oxnard. I love it here. The
22 people are beautiful.

23 And I also retired from the military. I
24 have a disability. I know what it's like to have
25 asthma. I had asthma as a child. I used to live

1 in L.A. in Lamont Park, right off of Western and
2 Vernon. And as a little boy, they didn't have
3 nebulizers and these inhalers and all of that, so
4 I remember running down and the street and then
5 start wheezing. And, you know, L.A. has got all
6 this smog. It was real bad. But now I have COPD,
7 so I use the Advair inhaler, just breathe in the
8 inhaler, and that helps. But sometimes I match
9 catch the flu, or pneumonia. So I may be more
10 prone to more serious illnesses.

11 But I'm so proud of the young people that
12 are so well educated and they're so -- I'm just
13 proud of them. I just want to --

14 (Applause.)

15 -- give them pats. They're our future. We
16 have to listen to them, okay?

17 The sad thing is we really have to
18 examine our conscience, okay, and do the right
19 thing, okay? It says, somewhere it says, and I
20 believe it says, "be fully convinced in your own
21 mind," okay, when you're dealing with something,
22 all right, "be fully convinced that what you're
23 doing is the right thing." All right. And, you
24 know, the L.A. research, all of that data,
25 statistical information, needs to be taking into

1 consideration. And the Puente Project should not
2 be built. Do the right thing.

3 (Applause.)

4 COMMISSIONER SCOTT: Thank you.

5 I have Monica ell -- I'm sorry, de la
6 Hoya, followed by Delores Mondragon.

7 MS. DE LA HOYA: Good evening.

8 COMMISSIONER SCOTT: Good evening.

9 MS. DE LA HOYA: My name is Monica de la
10 Hoya, and I'm here with my son and husband. And
11 we both work in Oxnard. We live in Oxnard. And
12 I'm here as a resident of this city and as a
13 parent of a child that is being raised in Oxnard.

14 This little buy here was born
15 prematurely. He weighed less than three pounds,
16 which put him at risk for lots of disabilities.
17 But thankfully, he's perfectly healthy and really
18 bright.

19 And one of the main reasons we have
20 decided to make Oxnard our home is because
21 raising him in a Latino community is very
22 important to me. But that shouldn't mean he
23 should be -- that if I want to raise him in a
24 Latino community that should mean he has to be
25 raised in a dumping ground.

1 It's very simple. The power plant makes
2 Oxnard a worse place to live and raise children,
3 and not having the power plant makes Oxnard a
4 better place to live and raise children. It's
5 really that simple.

6 Enough with sacrificing us and our
7 future. We are ready for innovation. Please,
8 please, please reject this project.

9 And I just wanted to add, that tall,
10 handsome guy over there, my husband, the second
11 reason we live in Oxnard is because life is not
12 worth living if he can't surf, and he loves to
13 surf. And I know that one day he dreams of
14 surfing with him and not seeing that horrible
15 eyesore off of the beach.

16 Thank you. Goodnight.

17 (Applause.)

18 COMMISSIONER SCOTT: Thank you.

19 I have Delores Mondragon, followed by
20 Wendy Lofland.

21 MS. MONDRAGON: Hi. Good evening. Thank
22 you for being here again. I used to come up here
23 and read you the definition of genocide, so I'm
24 not going to do that this time.

25 You know, it's surreal because you can

1 come up here as an intellectual -- I'm a Ph. D.
2 student in religious studies up at USCB, served
3 my country. I'm Native American from Ada,
4 Oklahoma. My dad is Mexicano, so I'm Chicana, as
5 well. I fight for social justice, you know, get
6 out there and try to do good work. Next week I'm
7 going to Taos, New Mexico because I hold a
8 national gathering of veteran women, so that we
9 can heal in an indigenous way, and that's going
10 to be my life's work.

11 And so I have a lot of things that I've
12 got to think about, including students that I'll
13 see this year, the projects that I have to do
14 myself, living with my husband far from home. You
15 know, he's served in the military for a really
16 long time, retired, but he still has to be gone.
17 You know, he wears the hardhat. He wears the
18 vests. We know what it's like to be in industrial
19 spaces and work in those spaces and understand
20 the need for making ends meet. You know, when you
21 left when you're 18 and you go and you serve and
22 you go around the world, as him and I did, and
23 you appreciate when you have a steady job, when
24 you have healthcare, when you have a sense of
25 security for your family.

1 I'm there for my daughter. You know, now
2 I'm a grandma. But today, I had to take my
3 daughter to go get, what's that, a nebulizer,
4 like that breathing thing. And it kind of puts
5 away all that other stuff, you know?

6 I think, you know, we work so hard, we do
7 so much to try to better our communities, better
8 our world. The things that we put forward as
9 educators, as activists, as parents, as
10 grandparents, as veterans, as native people who
11 historically have said if we don't treat Mother
12 Earth right, things are going to happen, and
13 things are happening. But nobody's still
14 listening to us; right? We see this current
15 administration not even acknowledging climate
16 change, so it can be exhausting. But we're out
17 there and we're doing the work.

18 But I sit there and I wonder how many
19 people don't have to struggle with this? You
20 know, as somebody that continues to struggle, I
21 become cynical because there's so many
22 institutions that work against you, so many
23 institutions that deny the history that we've had
24 with slavery, with genocide of native people, you
25 know, just institutional betrayal as it is. And

1 it is part of our fabric, our American fabric.

2 And, you know, I am patriotic. I served my
3 country.

4 But all I can do is ask you to please
5 think about your conscience. How would you like
6 your kids to live? Know that this is noted
7 somewhere, in a history book somewhere. There's a
8 lot of scholars that come here that are
9 participating here today. They'll write about
10 this. And I've said it before, they'll ask, who
11 were the people that were sitting up there that
12 made these decision? And I really hope that
13 you're proud of your decision, because it will be
14 your -- it will be the ancestors and your
15 descendants will look back and see what you
16 accomplished, and I hope that it's in a good way.
17 I hope that you walk in a good way and that you
18 do it for everybody around you. It is possible.

19 You know, I bought an electric car for
20 \$15,000 the other day. And it turns out I only
21 spend \$8.00 a month now to drive up to Santa
22 Barbara; \$8.00 a month is what I spend. I spend
23 \$260 a month on my car payment. That's less than
24 I was spending in gas to go up there.

25 And so we're led to believe that there's

1 only one way, but we know that there isn't. It's
2 just we need to get educated and know and be open
3 to the possibilities of the betterment of our
4 communities. Otherwise, you know, these oceans
5 are going to come over us, just like they did in
6 Texas, just like they did in Florida, and just
7 like all the burnings we're seeing.

8 Thank you.

9 (Applause.)

10 COMMISSIONER SCOTT: Thank you.

11 I have Wendy Lofland, and then I'm
12 actually back to repeats of names that I called
13 earlier. No one said they had gone home, so I'll
14 run through those again.

15 And just a reminder then, if you are in
16 the room, want to make a comment and haven't
17 filled out a blue card, please do so. Eunice is
18 over there waving at you. And she'll get those up
19 to me. That's how I know you'd like to make a
20 comment.

21 Ms. Lofland, please go ahead.

22 MS. LOFLAND: Hi. I grew up here in
23 Oxnard, South Oxnard, so we grew up with
24 everything being dumped in Oxnard, as it has been
25 throughout the years. I went to another hearing

1 Thursday, last Thursday, regarding another
2 project here. The Planning Commission for Oxnard,
3 also. And in that case the person from the
4 Chamber of Commerce got up and talked
5 indeterminably. Then they had a whole bunch of
6 shills for the industry getting up and talking,
7 and people who were related to people who were
8 working for them or already working for these
9 companies.

10 You know, one woman was saying she
11 loved -- you know, she just thrived on breathing
12 in malathion.

13 And they said that their excuses for
14 having this project was because -- the woman from
15 the Chamber of Commerce was explaining that
16 because the area there of Oxnard that they were
17 talking about was considered to be 75 percent
18 blighted, according to the enviro map or
19 whatever, then that was a shelter for saying,
20 well, the other things that they were going to
21 bring in through the energy company was going to
22 be insignificant. That would make it
23 insignificant, because she said it was already 75
24 percent blighted. So whatever else they were
25 going to bring in else wouldn't count. You know,

1 she didn't count any synergistic. She said, no,
2 the legal reading is this way.

3 So if that's -- you know, I don't think
4 we can base it on so-called technicalities and
5 legal readings. The fact is that we have been
6 stuck with this for a very long time.

7 When I was working in carpentry, I worked
8 on the scaffoldings and the structures, so that
9 they could tear down the power plant and they'd
10 still have part of it going at that time. And I
11 would look on my car and my car would have these
12 horrible yellow stains that were getting in it.
13 So I went through different rounds where they
14 called me back in to work on those teardowns and
15 so forth. And after a couple of rounds of doing
16 that, the person, the supervisor called me, the
17 high man wouldn't call me. But anyway, it was
18 enjoyable work in a way. But then I realized,
19 gee, what's going on with my lungs, besides all
20 the other things that I'd already been through
21 from living here and from living in L.A. previous
22 when I was real young?

23 So from the early '60s on there was a lot
24 less pollution back then, when I first came here.
25 And it just has gone on and developed into just a

1 dumping ground for everything. And I really don't
2 think that the young people here, where you can
3 see are really intelligent, really have all the
4 potential, and they have the potential to have
5 beautiful families here and have what they should
6 have had all along, which is to have use of our
7 beaches.

8 And we have ways to provide energy now,
9 that we don't have to go backwards. We don't have
10 to build infrastructure that will tie us in, you
11 know, through mid-century of through the end of
12 the century, of whatever. We need to get out of
13 it as quickly as we possibly can because you can
14 already see from what's going on in the world, if
15 you don't -- you know, if one does not have their
16 head buried in the sand, it's easy to see that we
17 need another way to go.

18 We do not want to invest in this type of
19 an infrastructure that will add to the problems
20 that we have as far as climate change, as far as
21 people being able to breathe. The air goes
22 everywhere. It goes on. It will go up through
23 into Ojai. It will go -- it all combines, and
24 then we have other problems with our water, that
25 we have to work on those. We don't want to -- we

1 don't want to be working in a backwards
2 industrial thing, as if we're back in the 18th
3 Century or something, you know? Oh, yay, we're
4 going to go and put all these smokestacks up, or
5 I mean --

6 COMMISSIONER SCOTT: So I'm going to need
7 you to wrap please.

8 MS. LOFLAND: -- in the 19th Century.
9 Sorry.

10 COMMISSIONER SCOTT: You're over time.

11 MS. MONDRAGON: Yeah. Okay. Just a
12 moment. So we do not want to be going backwards
13 with what we're doing to our people here. We are
14 deserving of human life, of clean air, of hoping
15 for our future for our children and for everyone
16 else, the people that are sick, elderly, people
17 who are in utero. My daughter is going to have a
18 baby next month. I don't want the next generation
19 to grow up like that.

20 And I'll tell you one thing, that you
21 need to listen to the people over here from
22 Channel Islands High School, from Hueneme High
23 School, from Oxnard High School, from Ventura
24 College, wherever. They know much more than the
25 people here who have been trying to pound us with

1 this garbage, pound us with this killing
2 substances and a backwards vision. You can't live
3 that way, in a backward vision. We need to not be
4 in retrograde.

5 (Applause.)

6 COMMISSIONER SCOTT: Thank you.

7 So next I have, as I mentioned, the cards
8 that have names that I called earlier. I did not
9 hear that they weren't here, so I'm going to go
10 through, just in case they are still here.

11 Do we have Rudy Zamora? Rudy, if you are
12 here, please come on up.

13 UNIDENTIFIED MALE: (Off mike.) He left.

14 COMMISSIONER SCOTT: Okay. How about Dan
15 Adams or Eric Estrada?

16 UNIDENTIFIED MALE: (Off mike.) They're
17 gone.

18 COMMISSIONER SCOTT: They're gone, as
19 well? Okay.

20 Jason Elder? All right.

21 Ethan Bjork? Okay.

22 Casey Quinn or James Berni?

23 Oh, Casey, come on up.

24 MR. QUINN: Good evening. Thank you. My
25 name is Casey Quinn. I'm a proud member of Local

1 484, Plumbers and Pipefitters. And please excuse
2 me on my past absences. I was out of town
3 working, either in Oregon or Pennsylvania.

4 I'm a single father. My daughter is five.
5 We actually live within a mile of the proposed
6 power plant, and we are for the power plant. I'm
7 really counting on this plant to be built,
8 because I do enjoy raising my daughter. When
9 there's no work here, I have to travel. And that
10 leaves my daughter with other people raising my
11 daughter, and I don't really like that. I'd like
12 to be here or her. And whether it's a year job or
13 two year or tearing down the power plants, I'd
14 like to be here for it, so- I'm really for it.

15 We actually do a lot of canoeing on the
16 ocean. And we pick up trash as we go in the
17 water, me and my daughter. And I try to instill
18 in her as keeping our environment protected. And
19 I really do thank these young people for coming
20 up. And I hope one day my daughter will. And so I
21 try to instill in here a clean environment.

22 But at the same time, if we don't have
23 another source of energy, let's build it. And
24 later in years, when we get more smarter about
25 green technology, we can build more things that

1 are more suitable in our community. I feel that a
2 power plant in our community is better in case
3 there is a natural disaster, so we can supply the
4 firefighters, the police, the hospitals, to
5 people that are in need in those desperate times.
6 And we all know from the blackouts that it can
7 get pretty crazy, and we need that power within
8 minutes.

9 So I'm just in favor of the power plant,
10 and I thank you for allowing me to speak.

11 (Applause.)

12 COMMISSIONER SCOTT: Thank you.

13 That is all the blue cards that I have in
14 the room.

15 I'm going to turn to Kristy Chew to see
16 whether or not we have anyone on the Spanish
17 WebEx. She is saying, no, we do not?

18 So let us turn now to the English WebEx,
19 and we will see if there are folks there who
20 would like to make a comment. Give us must a
21 minute to un-mute you. Hold on just a second.
22 You're still muted. Okay. We have un-muted
23 everyone who is on the WebEx. If you would like
24 to make a public comment, now is your
25 opportunity. Please go ahead and speak up.

1 MS. HANNAH: Hello?

2 COMMISSIONER SCOTT: Hello. Yes. Please
3 introduce yourself and go ahead and make your
4 comment.

5 MS. HANNAH: Hi. My name is Karen Hannah.
6 I'm a Ph. D. candidate at UC Santa Barbara, and
7 I'm a member of the FFIERCE Coalition. While I'm
8 not a citizen of Oxnard, I'm calling tonight on
9 behalf of the Hodge's Family who are longtime
10 residents of Oxnard, but they couldn't be there
11 or call in tonight because they are working, like
12 so many Oxnard residents.

13 Thurman Hodges is the husband of Belen
14 and the father of Christine and Theresa. Thurman
15 commuted to L.A. for ten years and has always
16 relied on public transportation. He took the
17 Metrolink from Oxnard to Downtown L.A. and back
18 every day for work before he retired, because he
19 believed in clean energy.

20 Thurman and his family work so hard for
21 the environment and for each other, they deserve
22 clean air to breathe. All of the families in
23 Oxnard deserve clean air to breathe; right?
24 Everyone deserves to live unexposed to pesticides
25 and pollution, but the residents of Oxnard have

1 not had what should be a human right. But in the
2 richest country in the world, it's shamefully a
3 luxury.

4 Now with all due respect, all of the
5 Oxnard residents standing up for jobs via the
6 Puente Power Project, you've been tricked by NRG.
7 Not only has NRG not promised that the majority
8 of jobs be given to Oxnard residents, but they're
9 making you think that you should settle for jobs
10 that are both, one, unsustainable, and, two, will
11 further compromise the health of your children
12 and your children's children.

13 Now I have a six-month-old niece. And
14 this, to me, is a no-brainer when there are
15 viable clean energy alternatives. I don't see
16 where there is a question here.

17 And I am an advocate for workers. And I
18 believe that, yes, jobs are important, but they
19 need to be sustainable. And so many people have
20 talked about that tonight; right? We need to put
21 people in jobs for the future.

22 And so the experts who conducted the
23 CAISO study in June have shown that there are
24 true alternatives to the plant. And we need to be
25 the leaders in a country which desperately needs

1 people to fight against climate change, which is
2 real and is destroying our communities with more
3 force and more range each year. It is
4 frightening. And what we do at the local level
5 has drastic effects on the rest of the earth, and
6 this is undisputable.

7 So I really urge you to do the right
8 thing and reject the Puente Power Plant Project.
9 Clean air for Oxnard.

10 (Applause.)

11 COMMISSIONER SCOTT: Thank you.

12 Do I have any others on the phone who
13 would like to make a public comment? If so,
14 please go ahead, introduce yourself, and speak
15 up. Okay. Just in case anyone is fumbling with
16 their mute button, let's -- going once, going
17 twice, okay, third time.

18 So we will now then close the public
19 comment.

20 And I would just like to say, before we
21 adjourn the hearing, a very hearty thanks to our
22 wonderful translators who have been translating
23 for the last 12 hours or so, thank you so much.

24 (Applause.)

25 To our court reporter and to all of the

1 Oxnard Police and security that have helped us
2 out, thank you so much you having been here.

3 And to the community, as always, thank
4 you so much for your engagement and your
5 thoughtful comments.

6 And unless my fellow Commissioner has any
7 words, she says, no, we are -- I'm sorry, go
8 ahead Paul.

9 HEARING OFFICER KRAMER: Yeah. Just a
10 little bit of housekeeping.

11 Just to note, we didn't finish with the
12 parties talking about the admission of exhibits
13 today. So they recommended and we're going to
14 discuss that at our Committee conference that's
15 scheduled on Monday, next Monday, September 18.

16 For those of you in the public, the
17 conference is primarily for the purpose of the
18 Committee deliberating in closed session, so you
19 are free to attend. There will be a public
20 comment portion. That's about all that's going to
21 be public, that and the discussion of exhibits.
22 So I would encourage you to use our WebEx,
23 telephone or computer access and not come up to
24 Sacramento. It's not worth the trip, if anyone
25 was thinking of that, unless you have a private

1 jet and, you know, you've got to use your miles
2 or whatever, but otherwise, I wouldn't encourage
3 that.

4 And the other thing we did the other day
5 was we changed the briefing deadlines, so now --
6 there were some briefs that were due next week
7 that are now due, along with briefs about today's
8 hearing, on September 29. And I realize I'm
9 saying that more for the record than anything
10 else, but sometimes it's important to do that.

11 So with that, we are now ready to
12 adjourn.

13 (Colloquy between Hearing Officer Kramer and
14 Commissioner Scott)

15 HEARING OFFICER KRAMER: Well, I think
16 testimony is closed. We will be closing the
17 record after we introduce the evidence, so we
18 still have to talk about that. But we're not
19 expecting any additional testimony at the
20 Committee conference on Monday.

21 COMMISSIONER SCOTT: Yeah.

22 HEARING OFFICER KRAMER: So with that,
23 we're adjourned. Thank you.

24 (The hearing adjourned at 9:06 p. m.)

25

CERTIFICATE OF REPORTER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 21st day of September, 2017.




MARTHA L. NELSON, CERT**367

TRANSCRIBER'S CERTIFICATE

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 21st day of September, 2017.



Barbara Little
Certified Transcriber
AAERT No. CET**D-520