

BEFORE THE  
CALIFORNIA ENERGY COMMISSION

In the Matter of: )  
 ) Docket No. 09-IEP-10  
Preparation of the 2009 )  
Integrated Energy Policy )  
Report (2009 IEPR) )

COMMITTEE WORKSHOP ON INTER-AGENCY ANALYSIS OF  
GENERATION AND TRANSMISSION OPTIONS FOR ELIMINATING  
RELIANCE UPON ONCE-THROUGH COOLING POWER PLANTS

 ORIGINAL

CALIFORNIA ENERGY COMMISSION

HEARING ROOM A

1516 NINTH STREET

SACRAMENTO, CALIFORNIA

<b>DOCKET</b>	
<b>09-IEP-10</b>	
DATE	<u>7/28/2009</u>
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TUESDAY, JULY 28, 2009

9:30 A.M.

Reported by:  
Peter Petty

## COMMISSIONERS PRESENT

Jeffrey D. Byron, Presiding Member,  
IEPR Committee  
Laurie ten Hope, His Advisor

James D. Boyd, Vice Chair and Associate Member,  
IEPR Committee  
Kelly Birkinshaw, His Advisor

## STAFF PRESENT

Suzanne Korosec, IEPR Lead

Michael Jaske

David Vidaver

Eileen Allen

Mark Hesters

## ALSO PRESENT

At Dais

John Bohn, Commissioner, California Public Utilities  
Commission (CPUC)  
Steve St. Marie, His Advisor

Yakout Mansour, California Independent System Operator  
(CAISO)

CPUC Staff

Robert Strauss

Simon Baker

CAISO Staff

Dennis Peters

Presenters

Pedro Pizarro, Southern California Edison (SCE)

**Also Present (Cont.) ( via WebEx )**Panelists

Alan Comnes, NRG Energy

Matthew Barmack, Calpine

Don Vawter, AES

Vafa Mohtashami, RRI Energy

Doug Davie, Wellhead

Will Mitchell, CPV

Dale Fredericks, DG Power

Rob Anderson, San Diego Gas & Electric (SDG&E)

Kevin Cini, SCE

Marino Monardi, Pacific Gas & Electric (PG&E)

Matthew Tisdale, CPUC/DRA (Department of Ratepayer  
Advocates)

Mike Florio, TURN

V. John White, CEERT

Hamid Nejad, Los Angeles Department of Water & Power  
(LADWP)

Mohsen Nazemi, South Coast Air Quality Management District

Suzanne Phinney: League of Women Voters of California

David Pettit: Natural Resources Defense Council (NRDC)

Jeff Harris: Ellison Schneider & Harris, LLP

Laura Manz, CAISO

Pat Arons, SCE

**Also Present (Cont.)**

Mark Esguerra, PG&E

Mohammed Beshir, LADWP

Public

David Nelson, Coastal Alliance on Plant Extension (CAPE)

Joe Geever, Surfrider Foundation

Steven Kelly, Independent Energy Producers (IEP)

Rob Simpson, Californians for Renewable Energy (CARE)

Mark Krausse, Pacific Gas & Electric (PG&E)

Angela Haren, California Coastkeeper Alliance

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1 P R O C E E D I N G S

2 JULY 28, 2009

9:32 A.M.

3 **Agenda Item 1: Introductions and Announcements -**

4 **Agenda Review**

5 MS. KOROSSEC: Good morning. I am Suzanne Korosec.

6 I lead the unit that produces the Energy Commission's  
7 Integrated Energy Policy Report, or IEPR. Welcome to  
8 today's IEPR Committee Workshop on Generation and  
9 Transmission Options for Eliminating Reliance on Once-  
10 Through Cooling Power Plants.

11 Just a few housekeeping items before we get  
12 started. The restrooms are out in the atrium through the  
13 double-doors and to your left, there is a snack room on the  
14 second floor of the atrium at the top of the stairs, under  
15 the white awning, and if there is an emergency and we need  
16 to evacuate the building, please follow the staff across  
17 the street to the park, where we will wait for the all  
18 clear signal.

19 Today's workshop is being broadcast through our  
20 WebEx Conferencing System, so parties need to be aware that  
21 we are recording the workshop. The recording will be  
22 available on our website immediately after the workshop,  
23 and then we will post the written transcript when that  
24 becomes available, which just takes about two weeks.

25 For presenters and commenters, please make sure to



1 speak directly into the microphone so that the WebEx folks  
2 can hear you speak and so that we can accurately capture it  
3 on the transcript.

4           During the Q&A and public comment periods today, we  
5 will hear first from the folks in the room, and then we  
6 will hear from the WebEx participants. For those of you  
7 who are listening in on WebEx, if you want to ask a  
8 question, please send the question to our coordinator,  
9 using the chat function, and we will make sure that gets  
10 passed on to the presenters and panelists. During the  
11 public comment period at the end of the day, we will open  
12 the lines for anybody who wishes to speak out there on the  
13 line.

14           When you do come up to speak, those of you in the  
15 room, it is very helpful if you can give the Court Reporter  
16 your business card, so that we can make sure that your name  
17 and affiliation are reflected accurately. We are also  
18 asking parties to submit written comments and those are due  
19 by 5:00 p.m. on August 11<sup>th</sup>.

20           So the purpose of today's workshop is to discuss  
21 and get public comment on a proposal by the Energy  
22 Commission, the Public Utilities Commission, and the  
23 California Independent System Operator to address the  
24 reliability impacts of the State Water Resources Control  
25 Board's efforts to develop a policy to mitigate the

1 biological impacts of using ocean water in power plant  
2 cooling. Just as an aside, I want to reiterate the  
3 statement that was in the notice of today's workshop, that  
4 the energy agencies fully support the Water Board's Long-  
5 Term goal of eliminating once-through cooling, and this  
6 workshop is not the forum to debate that goal. Today's  
7 focus is electricity reliability.

8           Since the IEPR was first published in 2003, the  
9 Energy Commission has continued to raise concerns about  
10 reliability impacts of the state's fleet of aging power  
11 plants. In the 2004 IEPR Update, the Energy Commission  
12 identified a group of older power plants for a detailed  
13 study of the role that they played in maintaining reserve  
14 margins and providing reliability services. The 2005 IEPR  
15 continued this discussion, and followed it up with a  
16 specific policy recommendation that utility procurement  
17 plans should provide for the orderly retirement, or re-  
18 powering by 2012, of the aging power plants that were  
19 identified in the 2004 IEPR Study. This recommendation was  
20 also repeated in the 2007 IEPR.

21           The Energy Commission has also spent a lot of time  
22 studying the biological impacts of once-through cooling and  
23 its implications on power plants, and many of our studies  
24 were referenced in the Water Board's Draft Substitute  
25 Environmental Document that was released earlier this

1 month. The need for new power plants to either partly, or  
2 completely replace once-through cooling power plants is of  
3 particular concern in Southern California because of that  
4 region's vulnerability to supply shortages. However, there  
5 is a limited supply of offsets or emissions credits in the  
6 South Coast Air Quality Management District, which will  
7 make it difficult to license new power plants in Southern  
8 California. The Energy Commission issued a paper on this  
9 topic in February 2009 that discussed these conflicts  
10 between providing reliable power and protecting the  
11 environment.

12 In the fall of 2008, the Energy Commission, PUC,  
13 and CAISO began working together to develop a Joint  
14 Proposal to the State Water Resources Control Board on how  
15 to assure electric grid reliability while reducing once-  
16 through cooling in existing power plants. In May of this  
17 year, the IEPR Committee held a workshop to get input from  
18 stakeholders on the reliability issues associated with  
19 once-through cooling mitigation. After the workshop, the  
20 energy agencies finalized their proposal, gave it to the  
21 Water Board, who has incorporated it into that Draft  
22 Substitute Environmental document that was released July  
23 15<sup>th</sup>.

24 So today's workshop is focusing on how to implement  
25 the Joint Agencies' proposal. While this workshop is part

1 of the 2009 IEPR Proceeding, it is also being jointly  
2 sponsored by the CPUC as part of their 2008 Long-Term  
3 Procurement Plan Rulemaking, given the prominent role the  
4 PUC has in providing procurement guidance to the investor-  
5 owned utilities.

6 Our agenda today is as follows. We will begin with  
7 opening comments from the energy agency representatives;  
8 next, Dr. Mike Jaske, the Energy Commission staff, will  
9 give a presentation on the energy agencies' proposal,  
10 followed by a brief Q&A. We will then have our first  
11 panel, which will discuss changes needed in investor-owned  
12 utility and procurement practices from the point of view of  
13 generators, developers, and bidders. After the panel, we  
14 will take a lunch break, and then resume with the second  
15 panel on procurement changes needed from the load serving  
16 entity, investor-owned utility, and consumer points of  
17 view. Next, we will have a panel to discuss changes that  
18 may be needed in the power plant licensing process,  
19 followed by a short break, and then we will resume with our  
20 final panel on changes that will be needed to CAISO and  
21 other balancing authority transmission processes. We will  
22 then hear public comments on the proposal and on the  
23 various panel discussions, and we will conclude with a  
24 wrap-up of the day's discussion and review of action items  
25 and next steps.

1           So with that, Commissioners, I will turn it over  
2 to you for opening remarks.

3 **Agenda Item 2: Opening Comments From Agency**

4 **Representatives**

5           COMMISSIONER BYRON: Thanks, Ms. Korosec. Good  
6 morning, everyone. My name is Jeff Byron and I am the  
7 Presiding Member of the Integrated Energy Policy Report  
8 Committee. My Associate Member to my right is Commissioner  
9 -- I should say Vice Chairman Boyd of this Commission. And  
10 I am just going to go ahead and finish with an introduction  
11 and say a few remarks, and then hand them off to my fellow  
12 Commissioners for remarks, as well.

13           To my left is the present CEO of the Independent  
14 System Operator for the State of California, Yakout  
15 Mansour, to his left is Commissioner John Bohn from the  
16 Public Utilities Commission, his Advisor, Dr. Steve St.  
17 Marie, and all the way to my right is Commissioner Boyd's  
18 Advisor, Kelly Birkinstock, and my Advisor -- Birkinshaw,  
19 forgive me -- I am sorry.

20           MR. BIRKINSHAW: Thank you, Commissioner.

21           COMMISSIONER BYRON: And my Advisor, who I hope to  
22 get right, Ms. Laurie ten Hope. So I can tell by the  
23 attendance at this workshop that there is a great deal of  
24 interest in this subject, and I am glad there is. This is  
25 an extremely important subject that this Commission and the

1 other energy agencies in the state have been tracking,  
2 much longer than the fall of last year. As Ms. Korosec  
3 indicated, the State Water Resources Control Board will be  
4 promulgating a rule on this issue, they have a Draft  
5 Mitigation Policy out, and it is my understanding that they  
6 intend to complete their rulemaking process by the end of  
7 this year. We will hear more about that later.

8           The three energy agencies are very engaged on this  
9 and working together, and you can tell by the attendance at  
10 today's meeting that it is a subject that we are  
11 cooperating and working closely together on, in trying to  
12 create a reliability-based approach to addressing this very  
13 complex issue. I say it is very complex because it really  
14 ties together with other issues that we are facing within  
15 the state, and we will get into that in more detail as we  
16 go on.

17           The goal here, I do not want anybody to forget, and  
18 that is we want to mitigate the environmental impact that  
19 once-through cooling creates; that is what we are obligated  
20 to do. How we go about doing it is extremely important so  
21 that we are able to maintain the level of reliability of  
22 the system that we expect to have throughout California,  
23 while also maybe addressing some of these other issues that  
24 we will get into, such as the prior reserve and the aging  
25 power plants that need to be retired. You all know it

1 affects a substantial portion of the generation portfolio  
2 in this state and it is going to require the cooperation of  
3 all the affected parties and, by that, I mean the investor-  
4 owned utilities, the publicly-owned utilities, the  
5 independent power producers who own a number of these  
6 plants, regulators, and also environmental organizations  
7 will have a key role in seeing this process through.

8           Options that will be discussed are re-powering, new  
9 generation, new transmission, and I am sure there are  
10 others, but how we go about doing this and maintaining a  
11 level of reliability is the key, and it is not going to be  
12 easy. We are going to need a stable process that will go  
13 on for a long period of time. Dare I say that we will  
14 probably outlast the Commissioners and the present CEO that  
15 are sitting before you in their current positions? We will  
16 need something that will work and be stable and last for a  
17 long period of time. And, of course, it has got to be  
18 effective.

19           So I hope that gives you a characterization of what  
20 we are all about here. We are trying to get comments and  
21 feedback to the approach that we are embarking upon, look  
22 forward to also hearing, well, from all parties today. I  
23 think I will stop there and ask if my Associate Member of  
24 this Policy Report Committee would like to say anything.

25           VICE CHAIR BOYD: Thank you, Commissioner. I will

1 be very brief. It just so happens last Thursday I sat on  
2 a panel in front of a lot of folks with representatives  
3 from the Water Board, the PUC, and the CAISO on this very  
4 same subject, and therefore I have done a lot of homework  
5 to catch myself up to speed on the subject, and it was a  
6 very lively and difficult discussion with industry, the  
7 environmental community, and what have you. So it is  
8 obvious from the size of the audience here that it is a  
9 meaningful discussion, and a subject to a whole lot of  
10 people. Several who have preceded me have made reference  
11 to other issues that are problems for us in California that  
12 relate to adequate supplies of electricity, such as the  
13 prior reserve in the South Coast, and of course, we are all  
14 wrestling with how to meet our responsibilities under AB 32  
15 and address greenhouse gasses, but I just want to mention,  
16 I am looking personally, very strongly as a Commission, at  
17 a more systems integrated solution to all these problems,  
18 not just carving them up and trying to do a surgical strike  
19 on each one. We have got the prior reserve, we have got  
20 greenhouse gasses, we have got our policies on retiring old  
21 inefficient plants, we have got our strong policy support  
22 for distributed generation, be that CCHP, i.e., the use of  
23 waste heat, call it what you want, and we have talked at  
24 length, if not ad nauseam, about the role of transmission  
25 and distribution system upgrades, all of which in some



1 cases could ease the pressure to just put iron on the  
2 ground, i.e., build power plants, and I hope we can seize  
3 this opportunity to look at all those 21<sup>st</sup> Century  
4 approaches to our problem. So this integrates with all  
5 that, it is really tough on us to try to do multiple things  
6 at once, but I think that is where we find ourselves. So I  
7 am looking forward to what we hear in this session today to  
8 contribute to that. I will apologize because, at around  
9 10:00, I am going to slip away from these proceedings for a  
10 brief time because the Chairwoman and I have to sit down --  
11 you may all think the budget crisis is solved and it is  
12 over, but we have to carve our soul up, still, to meet our  
13 commitments, so we are going to sit down to try to meet a  
14 deadline, to do some digging. So I will slip away and then  
15 come back as soon as that painful task is done. Thanks.

16 COMMISSIONER BYRON: Thank you, Commissioner Boyd.  
17 Well, to our two other agencies that are not having their  
18 budgets carved up today, Commissioner Bohn, thank you for  
19 coming from San Francisco, I appreciate your being here.

20 COMMISSIONER BOHN: Thank you, Commissioner. I am  
21 very pleased to be here. This is, as you have stated, and  
22 as Commissioner Boyd has said, this is an incredibly  
23 complex issue. The good news is that it has actually  
24 gotten a number of the agencies to actually sit down and  
25 work together, no mean feat in and of itself. But I think,

1 from our perspective, we are kind of the mechanics in part  
2 of this, and that is to say, our particular interest is how  
3 we might adapt both our planning for our procurement  
4 process and our procurement process, that we work with the  
5 investor-owned utilities, and we might need to change that  
6 when additional elements may need to be involved in that,  
7 and how we integrate and make the decisions where we know  
8 alternatives of repowering or green field within load  
9 pockets, or transmission. These are each very thorny  
10 issues. There is a lot of theoretical discussion, there is  
11 a lot of philosophical difference, and indeed, there are  
12 competing philosophies and, in some cases, competing plans.  
13 But the important thing is that this all has to be done  
14 together and we are, in fact, working, I think, closely  
15 with one another. But we, as the mechanics, having to lay  
16 a number of these things out and get the process to work,  
17 are particularly interested in the views of those of you  
18 out here who are going to present today, and others, as to  
19 how we might, to the extent possible, simplify the process  
20 of procurement such that it accommodates these new demands.  
21 It is by no means a foregone conclusion that this can be  
22 done without a lot of acrimony. My sense is that they are  
23 very strong views and from a number of different sources on  
24 how this can best be done. But we passed the stage when we  
25 have decided to do it, and so now I hope that we will all

1 join together and figure out how to deal with the  
2 mechanics such that we give adequate consideration to the  
3 very -- what I consider the first concern, which is  
4 reliability, and then begin to talk through in a spirit of  
5 cooperation toward the direction and the goal of  
6 integrating the various bits and pieces of this puzzle in  
7 and around a new system. So thank you for including us.

8 COMMISSIONER BYRON: Thank you. Mr. Mansour.

9 MR. MANSOUR: Thank you, Commissioner. It is  
10 really good to be here. And I echo Commissioner Bohn's  
11 statement that we should take pride of the fact that all  
12 the agencies and ISO sat together, each knowing what their  
13 responsibility is and what their role is, in part. None of  
14 us have the entire portfolio of roles, but in combination  
15 we do have it all in our hands, and we must make sure that  
16 it is done right and public policies are implemented in the  
17 proper way. The ISO is not expert in marine life and we do  
18 not determine as an entity whether rates are just and  
19 reasonable, but other Commissions, both at the state and  
20 the federal level, determine that the cost and rates are  
21 just and reasonable. We inform the policies, but our  
22 responsibility primarily is the reliability of the grid.  
23 And may I remind everyone that there are some symptoms that  
24 we all recall from the crisis time, was that one of the  
25 first symptoms was, when lights go off and on, nothing else

1 mattered and people hammered those who were responsible  
2 for the shortage. So we want to make sure that public  
3 policies are implemented and we are committed to it, but we  
4 will always be strong and take the view that lights go on,  
5 go off, and we have enough supply to support the state  
6 economy. In that respect, first of all, I would like to  
7 really up front thank the State Water Resources Control  
8 Board members and the staff, first, from a year ago, when  
9 they started for the first draft. They listened and they  
10 moved. And we listened and we moved. Actually, a long  
11 way, those of you who recall what the first proposals are  
12 on the table, and you see what is in front of us today,  
13 they really should be acknowledged for listening that much  
14 and getting to where it is, both the long way, a lot  
15 better, and I am sure that many of the audience will  
16 acknowledge that, even though, if it did not go all the way  
17 that everybody would like to think. Also, I would like to  
18 thank them for acknowledging the significant of sub-  
19 liability [18:09]. They always said, "We want to implement  
20 a policy, but we are not going to be the entity responsible  
21 for having the lights go off." And particularly the  
22 proposals in front of us, we take high comfort from the  
23 fact it is a bi-annual review process to review the  
24 progress towards achieving the Board's objective, but as  
25 important, the state of the grid and its readiness to

1 actually accept whatever happens at that time. We all  
2 know that there are sometimes lines that are set in the  
3 proposals and it is a more than best effort, it is  
4 diligence, it is a study, and a commitment to do so. But  
5 we also know that there are many moving parts there, and  
6 many dynamics that will play a role, including permits,  
7 costs, among other things. So the fact that every two  
8 years we will sit together with all integrity to review the  
9 progress towards achieving both goals for the eyes that  
10 provide a reasonable level of comfort. So I look forward  
11 to the rest of the day and I thank you, Commissioner, for  
12 taking the lead and organizing this.

13 COMMISSIONER BYRON: Gentlemen, thank you for your  
14 perspectives, very helpful. And so we will move on now and  
15 Dr. Jaske will give us the first presentation. Mike, I  
16 point out to you that we are ahead of schedule, so it is  
17 your responsibility from now on to make sure we stay on  
18 schedule. We have got a lot of content here and I  
19 certainly want to make sure we have ample opportunity to  
20 get some input. So thank you for putting together such a  
21 packed day for us. So I think you are going to take us  
22 here on an 11-step program. Is that right?

23 **Agenda Item 3: Energy Agencies' Proposal on Impact**  
24 **of OTC Plants on State Procurement Processes**

25 DR. JASKE: Yes, sir. For the record, Mike Jaske,

1 staff member of California Energy Commission. First of  
2 all, I want to point out that what I am going to provide as  
3 an overview here in the next half hour or so is a summary  
4 of what is in the actual document that was authored by  
5 members, each, of the Energy Commission, PUC, and CAISO, a  
6 document entitled "Implementation of Once-Through Cooling  
7 Mitigation Through Energy Infrastructure Planning and  
8 Procurement." A mouthful. But that really is the nut of  
9 what we have proposed to the Water Board and what the Water  
10 Board staff has agreed to accept and include in their  
11 Substitute Environmental Document. And speaking of the  
12 Water Board, I want to acknowledge the presence of Mr. John  
13 Bishop in the audience today, Chief Deputy Director of the  
14 State Water Resources Control Board, and the lead person in  
15 their endeavor to bring this proposal together and seeing  
16 it through to an adopted policy by the end of this year.

17 I think we already talked about purpose. Let me  
18 just say that -- and you at the dais have basically stolen  
19 what I was going to say, but I am glad to hear you say it  
20 because, really, what we have in front of us is the three  
21 energy agencies -- for purposes of today, calling the ISO  
22 an agency -- agreeing not only to work together, but to  
23 work with the Water Board over the course of probably a  
24 decade or more, to make this change-out happen, and that is  
25 how precisely we are going to accomplish that, what little

1 stumbles happen along the way, what delays may be  
2 encountered in this or that dimension of it are unknown,  
3 but as you have all acknowledged, we are embarking on a new  
4 adventure here.

5           The essence of the proposal is that, in most  
6 instances, installation of wet cooling towers in these old  
7 plants is not either feasible, or it is too expensive given  
8 their remaining life, their efficiency. Therefore, we  
9 expect these plants will retire, some sooner, some later,  
10 some will re-power, they are in a good site, the ability to  
11 continue to use that site in the transmission  
12 infrastructure is the proper thing to do, let's take  
13 advantage of that. And, as Commissioner Boyd said, in many  
14 other instances, some other element of preferred resource  
15 additions is what we will be striving to bring into play as  
16 the replacement for the capacity to retires. Again, as  
17 everyone has acknowledged, reliability is our objective. I  
18 do not need to add, it is our constraint, as Mr. Mansour  
19 did not use that term, but I think that, in effect, is the  
20 reality of it, we have to assure reliability is in place at  
21 all times, and the many separate manifestations of what  
22 that means. The total resources are there that meet the  
23 system requirements, that where there are load pockets and  
24 local reliability areas that we satisfy the capacity  
25 requirements of those particular geographic areas, and also

1 that we assure that we have the right mix of resources  
2 that allows the ISO to operate the system in a way that  
3 meets the needs, not only the needs as the system is today,  
4 but as it will continue to evolve through time, as we have  
5 different resources and there will be complimentary  
6 obligations, or requirements, to have the statutable  
7 resources.

8           So we are going to be relying upon the analytic  
9 planning and permitting activities among the energy  
10 agencies, improve the coordination of those, build upon  
11 them, tighten those linkages, and try to move as quickly as  
12 is possible to bring to bear replacement infrastructure,  
13 whether that is generating capacity, demand-side measures,  
14 new transmission system projects, a whole panoply of  
15 options, as Mr. Boyd pointed out.

16           What is included in Appendix B of the Staff Report  
17 and also included within the document that the Water Board  
18 published as its Substitute environment document is our  
19 best thinking as to the schedule for the bringing on line  
20 of replacement infrastructure for each of the OTC plans.  
21 Some of those plants have a much clearer path toward the  
22 fruition of this replacement infrastructure, and some is  
23 very cloudy, particularly in Southern California, it is  
24 very clear how that complicated area that has numerous  
25 difficulties of bringing new infrastructure into play can



1 accomplish that in as rapid a manner as many of those who  
2 have been advocating for OTC mitigation would like. But  
3 the essence of the proposal is to recognize that we need to  
4 do that, and to put these processes together as best we can  
5 and as quickly as we can to cause that repowering away from  
6 OTC or replacement infrastructure to come into being. And  
7 then, as Mr. Mansour says, we are going to revisit this  
8 periodically. As circumstances change, either for  
9 individual components of the OTC fleet, particularly  
10 replacement projects that suffer delays or slowdowns, or  
11 problems, those kind of tweaks, if you want to call it, to  
12 the plan, or if there is something major and systematic  
13 that affects a large number of the plants that may delay a  
14 whole number of them, clearly, those are critical elements  
15 that need to be recognized, need to be overcome to the  
16 extent that those difficulties can be, and the Water Board  
17 needs to be informed so as to assure that the existing  
18 plants can be permitted to run a little bit longer if that  
19 is the only solution.

20           So in the Joint Staff paper, there are 11 steps,  
21 which I will just very quickly run through them here, and  
22 then dwell on a limited number of them later in my  
23 presentation, just to give a clearer sense of how they will  
24 work. These words in this kind of a PowerPoint  
25 presentation are a poor substitute for the document,

1 itself. So I refer those of you who have questions to the  
2 main report; rely on its wording. We labored long and hard  
3 to get those words right, that we could agree to, at least.  
4 And these are my words.

5           So we are going to make use of existing studies  
6 that inform us as best we can. We are going to conduct new  
7 analyses, probably a number of them over time,  
8 periodically, quite exactly what frequency is still a  
9 little unclear. Once we have the results of those  
10 analyses, as well as the things we already understand  
11 fairly well, we can put together a plan. We are going to  
12 provide that plan as an update to what is presently in the  
13 Water Board's document; we expect that they and their  
14 regional boards will make use of that. There are  
15 particular problems with achieving that in Southern  
16 California, the issues of South Coast and its priority  
17 reserve are well understood, but the solution is not. And  
18 also, the dimension that Southern California portion of the  
19 ISO's balancing authority and the LAMP balancing authority  
20 are in the same air shed, yet they do not plan together,  
21 and somehow or other we need to reconcile the need for new  
22 power plants, repowered power plants, and scarce aircrafts.

23           As Commissioner Byron said, we need to modify  
24 procurement processes to make sure that we get the kind of  
25 replacements that are necessary. The ISO will be modifying

1 its Annual Transmission Planning Process to bring elements  
2 of this into that process, and at some point perhaps  
3 identify and approve particular transmission projects.  
4 Once we have that first round of actual projects launched  
5 into the pipeline for approval or construction, we can  
6 update the plan and take that into account, inform the  
7 Water Board, and finalize the permits for the affected  
8 plants. We will continue to monitor and update the plan  
9 and update the Water Board periodically.

10           So now let me use just a few of the steps to  
11 explain more fully how this is going to work. For Step 1,  
12 we are going to make use of existing information where we  
13 can inform the Water Board as to the necessity for any  
14 individual one of these facilities to be relied upon for  
15 reliability, so I am using South Bay down in San Diego as  
16 an example. When Otai Mesa becomes operational a little  
17 later this year, then a portion of South Bay will no longer  
18 be needed. South Bay has four units, which is roughly 700  
19 Megawatts. Somewhere in the vicinity of 200 to 300  
20 Megawatts of that South Bay plant will no longer be  
21 necessary. We are not clear which ones of those four units  
22 would not be necessary; that remains to be examined, we  
23 have time to do that. Then, a few years further down the  
24 line, when the Sunrise power link is energized, we are now  
25 expecting the third quarter of 2012, then the remainder of

1 South Bay is no longer necessary. At that point, then, it  
2 is not critical to the local reliability of the system for  
3 that plant to remain operational. So, from the energy  
4 perspective, the Water Board can modify its permit. So  
5 that is an example of how projects already in the pipeline  
6 prior to OTC mitigation can be examined and put together as  
7 part of a OTC mitigation package.

8 Step 2, there are clearly new analyses that are  
9 necessary. The first part of that is developing scenarios  
10 of alternative resource build-outs. A lot of preferred  
11 resource policies, we do not know for sure how they will  
12 actually evolve through time. The only way to deal with  
13 that is to create scenarios that imagine different degrees  
14 of success, evaluate those scenarios relative to low  
15 forecasts, and then for some selection of them, decide  
16 which ones need further in-depth study. The ISO will  
17 conduct some extensions of what it has historically done  
18 for LCR, push those out further in time, evaluate these  
19 multiple generation and load scenarios, perhaps with  
20 alternative transmission configurations, figure out what  
21 that is going to mean in terms of local capacity  
22 requirements in these critical areas. We will review the  
23 results of that, juxtapose that against nominal retirement  
24 schedule that we have, and try to put something together  
25 that matches the ability to bring resources on line with

1 OTC plant retirement.

2           We also, as I said earlier, need to assure that we  
3 have the right kind of operating capacity the ISO needs to  
4 run the system. A variety of ramping capabilities, inking  
5 and decking a rig, perhaps even turn off and then turn on  
6 from cold condition, these old plants are considerably more  
7 flexible than new combined cycles and, so, how to configure  
8 resource additions that replace their characteristics is an  
9 important dimension of this study process. So we bring  
10 together the things that we have learned from a local  
11 perspective and things we have learned from the operating  
12 characteristics perspective, overall system requirements,  
13 to have our integrated view of all those particular pieces.  
14 And then a few -- for supplemental things, as I indicated  
15 earlier, the special issues having to do with LAWP, and  
16 then periodic updates, essentially bringing together a new  
17 view of the replacement schedule for all the OTC plants.

18           Once we have that analytic information and, to the  
19 extent that there are options within it, then we have the  
20 ingredients to present to the three agencies, and the  
21 agencies will need to make some choices. It is not  
22 necessarily the top down decisions, but where there are  
23 preferences for a certain course of action, that can be  
24 identified, the configuration of the IOU bids can proceed,  
25 or the examination of transmission in more detail by the

1 PTO's, to actually get down to proposed projects and their  
2 costs, the sort of thing that gives guidance to the  
3 entities who are going to actually put the rubber on the  
4 road. Once that plan has been put together, it will be the  
5 basis for updating what is in the Appendix B of the staff  
6 paper. That, in turn, then forms the foundation for the  
7 permits that State Board and its regional boards will issue  
8 to each of the plants.

9           As I said earlier, there is a particular issue with  
10 South Coast, but maybe extending to other Air Quality  
11 Management Districts where there are simply fewer and fewer  
12 air credits available for new power plants, particular  
13 conflict, if you want to call it that, between the Los  
14 Angeles portion of ISO and LAMP balancing authority, with  
15 very limited air credits in there, and we need to find some  
16 way of reconciling Southern California ISO and LAMP air  
17 credit needs. This may involve some changes to the Energy  
18 Commission's licensing process and Panel 3, this afternoon,  
19 will begin looking into these questions in more detail.

20           How does the procurement process need to change?  
21 Do we need to have narrowly targeted RFO's that select out  
22 the particular kinds of replacement capacity, either in  
23 location, or in the characteristics of the capacity,  
24 itself? How will market power issues that might arise from  
25 this be dealt with? Panels 1 and 2 are going to look into

1 these kinds of issues, first, from the generator  
2 perspective, and then from the IOU perspective and the  
3 ratepayer perspective.

4           Transmission Planning. How are we going to refocus  
5 it to examine these OTC replacement issues? Can some of  
6 the assumptions of the planning and the analytic process be  
7 built into the unified planning assumptions that are used  
8 there? Are there special studies that are necessary, that  
9 are outside the current scope of the Annual Transmission  
10 Plan? Are there things that are appropriate for studying  
11 jointly between the ISO and LAWP? Panel 4 this afternoon,  
12 toward the end of the day, will look into some of these  
13 things in more detail. And then, the remaining Steps 8  
14 through 11, I do not have anything really more to say about  
15 those now.

16           At the back end of Appendix A of the staff paper is  
17 a section that talks about unresolved issues and I will  
18 just list the five issues here, they are discussed in more  
19 detail there. Clearly, a huge one is this whole issue of  
20 air credits in South Coast. There is the question of how  
21 the RFO process, the IOU's, operate to procure resources  
22 juxtaposed with permitting at the Energy Commission of  
23 thermal resources that are the replacements, should that  
24 RFO come first and then permitting? Or should permitting  
25 come first and then RFOs? We will get into that in a

1 little bit in one of the panels today. How are we going  
2 to assure that the operating characteristics that we end up  
3 deciding we need actually are present in the generating  
4 technologies that are licensed and procured? How do we  
5 assure that the inherent engineering characteristics of the  
6 power plants actually result in them being operated in a  
7 way that is necessary? Does ISO need to do anything  
8 different about its market design to make sure that those  
9 kinds of operating characteristics are compensated properly  
10 for being made available?

11 Of course, there is a host of issues associated  
12 with the nuclear generating facilities, San Onofre and  
13 Diablo Canyon. The Water Board's proposal calls for  
14 further analysis of the cost of shifting to wet cooling. I  
15 am sure we will hear over the course of time plenty from  
16 the SCE and PG&E about that subject. And finally, what is  
17 the nature of this Capital P Plan? You know, is it  
18 something that is so substantive that it allows for some  
19 sort of preferential treatment for the projects that are  
20 included in it? Or is it more a small p plan which  
21 provides just direction and guidance that the three  
22 agencies are pursuing in their own individual processes?  
23 That remains to be resolved.

24 So what comes next? We are looking for comment on  
25 the joint staff paper and all of the workshop discussion



1 that happens today by August 11<sup>th</sup>, as Ms. Korosec  
2 indicated earlier. The agency team will be reviewing those  
3 comments and making recommendations to Management. If we  
4 hear something that is very substantive, we may need to be  
5 updating our proposal to the Water Board, but, in any  
6 event, we are, I think, confident enough that the general  
7 direction that we have identified is correct, that we are  
8 going to begin doing some of the initial steps of  
9 implementation, which for the staff team involved,  
10 beginning to pull together some of the precursors to the  
11 analytic steps that we will be doing in more detail next  
12 year. And with that, I am finished with my presentation.  
13 And we now have a half hour and 45 minutes or so for  
14 clarifying questions, but what I would suggest is that  
15 representatives or authors of the joint paper come up to  
16 the panelist's table and then, if the Committee could  
17 recognize and call upon people who have clarifying  
18 questions, we will do what we can within the time  
19 available. I have been contacted by Edison and they have a  
20 number of questions, so if you would recognize Mr. Pizarro,  
21 we can get started.

22 COMMISSIONER BYRON: All right, Dr. Jaske, so if I  
23 understand it, the panels will come forward and Mr. Pizarro  
24 is going to make some comments at this time. Is that  
25 correct?

1 DR. JASKE: Questions, comments, however. He is  
2 the first and hopefully we have quite a few in our 45  
3 minutes.

4 COMMISSIONER BYRON: Okay. I would like to start  
5 with the Dais, if we may, then. Commissioner Bohn  
6 indicated he has a question. Go right ahead, Commissioner.

7 COMMISSIONER BOHN: Yes, thank you. Mr. Jaske, in  
8 this extraordinarily complex process, I have heard only  
9 limited references to cost. Has there been -- is there  
10 ongoing or will there be any discussion as to the net  
11 incremental cost of this mitigation process? And I am  
12 interested now in sort of the financial cost because some  
13 of this stuff relates to taxpayers, some of it relates to  
14 the ratepayers, some of these plants are scheduled to go  
15 out of operation at some point, and it would be inherent  
16 cost involved in upgrading and the rest, but there is a  
17 nugget in there as to the cost enforced on the economy of  
18 the State of California for this mitigation. Have you all  
19 done any work on that? And, if so, what is it?

20 DR. JASKE: There has been very limited work done  
21 on that subject. The most clear-cut public example of that  
22 is a preliminary transmission study that ISO did last  
23 spring -- or, excuse me, last fall, it is listed on their  
24 website. It is very difficult to disentangle the sort of  
25 business-as-usual costs going forward as low grows, as

1 natural expansion of the system would be required, versus  
2 the incremental costs associated just with OTC. But there  
3 is a very preliminary piece of work done. Dennis, did you  
4 want to add to that?

5 MR. PETERS: Well, that study that Mike references  
6 is really sort of a worse case scenario of situations  
7 whereby most plants would retire, and what would be the  
8 resulting transmission solution. What we concluded, and  
9 the biggest impact was to Southern California, was that  
10 approximately \$4-5 billion of transmission would be needed  
11 to replace the reliability needs for L.A. Basin Area. Now,  
12 that did not take into account the replacement generation  
13 on the other end of those lines, nor did it take into  
14 account potential voltage support issues within the L.A.  
15 Basin. So that was really sort of a bookend of the worse  
16 scenario. The bigger issue than cost really had to do with  
17 feasibility, feasibility of building multiple 500 kV  
18 transmission lines into the L.A. Basin is obviously very  
19 controversial and it would be very difficult to do.

20 COMMISSIONER BOHN: As we plan, as we go forward in  
21 the planning process, is there any mechanism in place to  
22 try to tease out the incremental costs? Because, as we go  
23 through talking with the utilities and socking the  
24 ratepayers with the cost, since this is a statewide  
25 enterprise and goal, the allocation of the impact between

1 the taxpayers and the ratepayers and the various and  
2 sundry people on whose backs this has to ride, it seems to  
3 me that is an important consideration; it does not mean we  
4 should not do it, but as we at the PUC need to deal with  
5 the role that the ratepayers play, it would be very helpful  
6 if there was some sort of incremental impact analysis  
7 relative to cost.

8           COMMISSIONER BYRON: Commissioner, if I just may  
9 take a moment, a little bit out of order, we should  
10 introduce the gentlemen that are with Dr. Jaske here, and I  
11 apologize. Dennis Peters from the Independent System  
12 Operator, and Robert Strauss from the Public Utilities  
13 Commission. And I would like to thank all of you because I  
14 know how much you have been working on this over the last  
15 number of months, and it is my failure that I have not  
16 introduced you to start with. Nevertheless, we have more  
17 questions, I am sure. Commissioner Bohn, do you have more?

18           Just a couple of quick questions on my part. As  
19 you were talking there, we have a working group that has  
20 been underway for a while; it would seem to me that, in the  
21 analysis you have done at this point, it is based upon the  
22 limited amount of information we have available to us. How  
23 key is the information that you received from others that  
24 need to participate going forward, such as, as Commissioner  
25 Bohn indicated, the investor-owned utilities, the publicly-

1 owned utilities, the independent power producers, when do  
2 we start integrating them? Gentlemen, what are your  
3 thoughts on this?

4 MR. PETERS: I will take a stab at that. I think  
5 the way the plan is written, so far, from the Water Board,  
6 it requires generators to utilize once-through cooling to  
7 put forth implementation plans within the first six months  
8 after the policy is effective. And certainly, that will be  
9 information that will be useful to us in terms of putting  
10 together a plan. The plan, itself, as the energy agencies  
11 have put together and proposed, would inform two different  
12 processes, one would be the CPUC's Long-Term Procurement  
13 Plan. It would also inform the ISO's transmission planning  
14 process, not necessarily the unified planning assumptions,  
15 but rather the scenario analyses that would look at various  
16 options of transmission and generation as solutions. We  
17 would widely start those scenario analyses in the 2011  
18 planning process for the 2011 Transmission Plan.

19 COMMISSIONER BYRON: Mr. Strauss.

20 MR. STRAUSS: It is also 2010 Long-Term Procurement  
21 Plans, which that process will start at the end of this  
22 year, will include the analysis of once-through cooling.  
23 And there is going to be multiple scenario analysis of how  
24 the -- both for the statewide need, and this will  
25 definitely impact the local need requirements to meet the

1 need for resources statewide, plus the bundle to the  
2 utilities, which will need to be integrated in that  
3 process. And we are just beginning that process. And the  
4 staff put out a staff proposal on how to modify the Long-  
5 Term Procurement Plan going forward, to do a more  
6 integrated analysis than had been done in the past.

7 COMMISSIONER BYRON: Dr. Jaske, did you want to add  
8 anything?

9 DR. JASKE: We are aware that some of the IOUs,  
10 either in their procurement side, or transmission side, are  
11 sort of eager to have a level of discussion that we have  
12 not yet engaged in with them, so that is probably something  
13 that can happen now, that we have a document presented to  
14 the Water Board, and it looks like the Water Board is going  
15 down this path. We have enough comfort that we are ready  
16 to have those kinds of discussions.

17 COMMISSIONER BYRON: Gentlemen, I would like to go  
18 ahead and open it up. I had mentioned Mr. Pizarro is here  
19 from Southern California Edison and we actually had a  
20 meeting last week. And we appreciate you being here. If  
21 you would like to ask any questions or make any comments at  
22 this time, you can start off the public aspect of this. I  
23 would like to thank you very much for being here. I note,  
24 you know, Sacramento is awfully close -- how can I say this  
25 -- the Energy Commission is awfully close to what goes on

1 here in the Capitol and Mr. Mansour is a few miles away,  
2 and Mr. Bohn has gotten a little further away in San  
3 Francisco, but Los Angeles is, you know, out of mind. And  
4 so maybe there is an advantage to being at this distance,  
5 but it also affects communications at times. I appreciate  
6 very much your taking the time to be here, I know this is  
7 important to you and your company and I am very interested  
8 to hear what you have to say.

9 MR. PIZARRO: Commissioner Byron, thank you. And  
10 thanks to the rest of the panel and the staff that  
11 assembled this really important meeting. For the record, I  
12 am Pedro Pizarro, Executive Vice President of Power  
13 Operations at Southern California Edison. And I would like  
14 to start by thanking the State Water Board and the energy  
15 agencies for the clear, open collaboration to the Draft OTC  
16 policies, and particularly the energy agencies for the  
17 focus and ensuring the reliability of California's  
18 electricity supply. At SCE, we support the Water Board's  
19 overall goal of protecting marine life, and so the question  
20 we must answer now is, how do we best accomplish that goal  
21 in an environmentally responsible, reliable, and consumer  
22 cost-conscious way. So my comments are aimed at this  
23 objective.

24 Now, if we are speaking to the infrastructure and  
25 system planning specifics of the policy and the inter-

1 agency recommendations, I would like to address our over-  
2 arching recommendations on the Draft Policy. And first, I  
3 would like to pick up on Commissioner Bohn's question on  
4 cost because the first one I would like to make is that SCE  
5 urges the State Water Board to conduct a cost benefit  
6 analysis of the statewide draft policy to determine the  
7 appropriate standard of performance. Currently, the draft  
8 policy requires closed cycle cooling or its equivalent as  
9 the best technology available. We ask that this should be  
10 re-visited and conduct a cost benefit analysis, which may  
11 show that the costs of closed cycle cooling are  
12 significantly greater than the benefits produced. In such  
13 a case, the Water Board should specify the practical and  
14 cost beneficial steps to protect marine organisms. Such an  
15 approach is appropriate and, we think, encouraged by the  
16 recent *Riverkeeper* Supreme Court decision. Secondly, SCE  
17 recommends that the energy agencies that are charged with  
18 ensuring the electric reliability view, the PUC, the CEC,  
19 the CAISO, advise the Water Board on the feasibility of  
20 implementation and compliance timelines with respect to  
21 reliability in the electric system as we move forward,  
22 instead of having the broader proposed statewide advisory  
23 committee on cooling and water intake structures. To the  
24 extent that the input of the other agencies is needed, and  
25 I am sure it will be, the CPUC, CEC, and CAISO can consult



1 with those other agencies to obtain their expertise. But  
2 given that the key questions will be around electrical  
3 reliability, we believe that the three -- your three  
4 agencies -- are the right home for that discussion. Third,  
5 SCE urges policy makers to ensure that the cost of OTC  
6 policy compliance are borne by all benefitting customers.  
7 The current draft references for procurement by utilities,  
8 most exclusively, without reference to other types of load  
9 serving entities in our retail market. Energy agencies  
10 should address replacement capacity approaches that ensure  
11 costs are spread fairly across the entire California  
12 system, not just carried by bundled utility customers,  
13 alone. Eventually, for capacity market, but prior to that  
14 through procurement with fair allocation of cost  
15 responsibility. And, fourth, the Water Board and energy  
16 agencies must ensure that the environmental impacts caused  
17 by the elimination of OTC are not greater than the  
18 environmental impacts of the once-through cooling, itself.  
19 And policy makers should be mindful that closed cycle  
20 cooling has significant adverse environmental impacts and  
21 very significant costs. For example, a move to lower  
22 efficiency closed cycle cooling will cause an increase in  
23 greenhouse gas emissions and smog forming and particulate  
24 [inaudible][55:45] two and a half emissions. Further,  
25 nuclear plants play a critical role in meeting California's

1 GHG emission reduction goals. Even if closed cycle  
2 cooling could be accommodated at the nuclear plants, which  
3 for SONGS certainly is highly unlikely, requiring the  
4 transition to closed cycle cooling would mean the emission  
5 of large amounts of pollutants from replacement power  
6 during the time required to retrofit the nuclear plants and  
7 due to the lower efficiency of the nuclear plants after  
8 transitioning to closed cycle cooling. This is  
9 particularly troubling in the case of San Onofre because  
10 the plant has already fully mitigated its adverse ocean  
11 water impacts, and I will say more about that in a minute.

12 I would like to speak specifically about the draft  
13 policy as it relates to California's nuclear plants, then  
14 quickly touch on fossil plants. I noticed we had an  
15 emphasis on SONGS here. It is important to keep in mind  
16 first, though, that nuclear plants provide more than just  
17 low cost base load energy. SONGS supports grid reliability  
18 by supplying significant amounts of reactive power, or  
19 Megawatts, to prevent voltage collapse. The transmission  
20 necessary to replace the same level of grid reliability  
21 provided by SONGS would take up to eight to 10 years to  
22 license and build, and would cost electricity consumers  
23 between \$300 million and \$800 million, assuming it could be  
24 licensed successfully, which, as we all know, has some real  
25 challenges, really, throughout the country. First, SCS,

1 the Water Board, and energy agencies, to determine that  
2 SONGS has already complied with the Draft Policies Special  
3 Studies Requirement, and confirmed that SONGS has already  
4 mitigated any detrimental impact to marine life, resulting  
5 from its use of once-through cooling. The special studies  
6 required by the draft policy are to investigate  
7 alternatives for nuclear plants to meet the requirements,  
8 but SONGS was already subjected to such studies by the  
9 California Coastal Commission. Those studies would stretch  
10 over a decade and included many public hearings, resulting  
11 in a decision by the Coastal Commission that the cost and  
12 the environmental impact of cooling towers at SONGS were  
13 not reasonable or warranted compared to restoration and  
14 mitigation options that were designed by the Coastal  
15 Commission. SONGS has already performed mitigation  
16 measures that restore any adverse impact on marine life  
17 caused by the plant's operation and, in fact, it has  
18 contributed back and added margin. Rate- payers have  
19 already for an extensive study of SONGS in addition to the  
20 mitigation measures, and they should not be required to  
21 fund the same studies and mitigations all over again. Our  
22 ratepayers have spent more than \$200 million for in-plant  
23 technology to reduce entrainment and impingement, and  
24 return fish safely to the ocean. They have spent \$50  
25 million in advance study research, \$5 million on a fish

1 hatchery, \$46 million on the 175-acre Wheeler North Reef  
2 off San Clemente, which is the largest environmental  
3 project of its kind in the country, and \$90 million of 150-  
4 acres of the San Dieguito Wetlands Restoration Project in  
5 Del Mar. Secondly, we also ask that the Water Board  
6 reconsider aspects of the policy that may create  
7 operational safety issues at SONGS; for example, the  
8 requirement for a large organism exclusion device may cause  
9 clogging of the plant's cooling water intake, potentially  
10 creating an operational safety issue due to the reduction  
11 and intake of cooling water. In addition, to the extent  
12 cooling towers are required, most would have to be built on  
13 the inland side of the site, very near Interstate 5. For  
14 those of you who have seen San Onofre, you know that there  
15 is not much land there. And among the problems that we saw  
16 from placing cooling towers next to the Interstate Freeway,  
17 where we saw plumes from the evaporative cooling towers,  
18 which pose a significant traffic hazard and habitual  
19 impact.

20 Turning very briefly now to the fossil fuel plants,  
21 the ISO's recent Integration of Renewable Resources Study  
22 indicates that all the OTC plants are needed to integrate  
23 20 percent renewals. CAISO stated [quote], "The good news  
24 is that this study shows that the civility of maintaining  
25 reliable electric service with the expected level of

1 intermittent renewable resources associated with the  
2 current 20 percent RPS, provided that existing generation  
3 remains available to provide back-up generation and  
4 essential reliability services." [End of quote]

5           At SCE, we are working to support new capacity, but  
6 litigation surrounding the priority reserve, which has been  
7 brought up already, has blocked that effort. We currently  
8 have 1,750 Megawatts of contracts for new generation that  
9 cannot obtain air emissions clearance. SCE is in a  
10 position where the draft policy may force the owners of  
11 plants to retire these critical resources, yet we will be  
12 unable to help replace them in time directly through our  
13 IPP partners. Moreover, none of these considerations  
14 address the need for existing generation if the state  
15 decides to go beyond 20 percent RPS and raise to build at  
16 33 percent. So we recommend the following: First,  
17 flexible timelines are needed to conduct studies and  
18 feasibly implement eventual retirement of OTC fossil plants  
19 without undesirable reliability and rate impacts.  
20 Replacing more than 30 percent of California's generating  
21 capacity is likely to take decades, and not just seven to  
22 nine years as contemplated in the draft policy, due to  
23 licensing, grid reliability, and other issues. The South  
24 Coast Air Quality Management District Air Pollution Credits  
25 issue has to be permanently resolved before we can develop

1 a comprehensive OTC replacement plan -- for Southern  
2 California, at least. Multiple other elements will affect  
3 timing -- generator siting, generator financing,  
4 transmission interconnections, and the interplay between  
5 the procurement actions and independent generation market  
6 dynamics. And I think the panel on procurement where Kevin  
7 Cini, our V.P. for Energy Supply and Management, will speak  
8 and address those issues further. So all these challenges  
9 require a flexible implementation timeline. And, secondly,  
10 we need to retain and expand the site-specific cost benefit  
11 analysis in the draft policy. We appreciate that that is  
12 there, we also appreciate the two-year review, but  
13 currently the draft policy limits to site-specific cost  
14 benefit analysis to nuclear plants and to fossil plants  
15 with an 8,500 Btu per kilowatt hour heat rate or less. We  
16 urge the Water Board and we urge the energy agencies to  
17 encourage the Water Board to provide an option for all OTC  
18 plants to demonstrate whether or not the cost of  
19 implementing the policy or holding is proportionate to the  
20 environmental benefits to be gained. If the site specific  
21 cost benefit analysis shows a disproportionate cost to  
22 benefit, the State Water Board should then specify  
23 practical and cost beneficial steps to protect marine  
24 organisms that are cost beneficial at each site and, again,  
25 coming back full circle to Commissioner Bohn's comment on

1 cost.

2           So, in conclusion, we urge the Water Board and the  
3 energy agencies not to view the OTC policy in isolation;  
4 instead, policy makers have to examine this policy in the  
5 context of the state's other energy and environmental  
6 goals. During this time of economic downturn, policy  
7 makers also have to be mindful of cost on the state's  
8 energy consumers, whether as taxpayers or ratepayers. SCE  
9 stands ready to help the Water Board and the energy  
10 agencies to achieve the ultimate goal, the real goal, of  
11 preserving marine life in a way that preserves reliability  
12 and is environmentally responsible and also is mindful of  
13 cost. So thanks again for giving me the opportunity to  
14 make comments, and I would be happy to address any  
15 questions.

16           COMMISSIONER BYRON: Thank you, Mr. Pizarro. Very  
17 well prepared, obviously, your comments. Any questions for  
18 Mr. Pizarro? I appreciate the input you provided. I would  
19 hearken to address one issue.

20           MR. PIZARRO: Sure.

21           COMMISSIONER BYRON: You had indicated, I thought I  
22 heard you correctly, priority reserve will have to be  
23 resolved in a permanent way before we can address once-  
24 through cooling. And I am going to go back to Commissioner  
25 Boyd's comments about bisecting these issues -- or

1 dissecting these issues, I should say -- we are going to  
2 need an integrative approach that probably addresses those  
3 two issues simultaneously, we are not going to be able to  
4 separate them.

5 MR. PIZARRO: And I think we are probably saying  
6 the same thing with slightly different twists. The point  
7 is, we certainly cannot see a clearer picture of how you  
8 solve one without the other, and with the uncertainty of  
9 priority reserve hanging over the collective heads in  
10 Southern California, we have no ability to provide a  
11 credible timeline for when those plants come on line, let  
12 alone other parts of plants that might be needed in the  
13 future to further support replacements of existing  
14 capacity. So, you know, I think these have to be looked at  
15 in tandem, but the point, you know, I really wanted to make  
16 was, it certainly cannot solve the OTC timeline issue until  
17 we have some visibility to the priority reserve timeline  
18 issue.

19 COMMISSIONER BYRON: Good. Mr. Pizarro, thank you  
20 for coming.

21 MR. PIZARRO: Well, thanks for having me.

22 COMMISSIONER BYRON: I appreciate your comments.  
23 Are there others who would like to make comments or ask  
24 questions at this time, based upon Dr. Jaske's  
25 presentation? We have got the right folks at the table.



1 Any other questions or comments? Please identify  
2 yourself.

3 MR. NELSON: Hi, my name is David Nelson and I am  
4 with the Coastal Alliance on Plant Extension. We were  
5 Interveners in the Morro Bay Power Plant. We are 10-years-  
6 old and we have been watching this issue for quite a while.  
7 One question I would have is, in the documents, not the  
8 CAISO, but the Water Board document, there is a counting  
9 that has to be done. Morro Bay is shown as 1,002 Megawatts  
10 and, when we talk about 20 or 30 percent of our energy  
11 coming through once-through cooling, I would like to see  
12 better numbers available. You have Morro Bay listed right  
13 now and using numbers from 2001 to 2005, having 18 percent  
14 capacity right now. And the truth of the matter is that,  
15 to go back five or six years, or back to the energy crisis,  
16 really skews how important these plants are to the system,  
17 and I am afraid that it is getting lost in figures, in  
18 accounting figures. Morro Bay really -- and I will speak  
19 more to Morro Bay and, say, Moss Landing, I am not going to  
20 go near nuclear power plants, I understand they have a huge  
21 function in our state and they need to be deal with  
22 different, but just those two power plants, looking at  
23 Morro Bay, it ran zero last year and our lights did not go  
24 out. I really object to the whole idea of our lights going  
25 out, the whole fear aspect to this. I, too, would really

1 love to see a resolution to this problem. And this is one  
2 of the problems, is that when you show a power plant as  
3 contributing 1,000 Megawatts to the overall California  
4 energy production, and it really does not come anywhere  
5 close to that, you are exaggerating how much we need this  
6 once-through cooling. Now, we have a lot of independent  
7 owners in here, and people who abuse this water, and I  
8 heard the Commissioner talking about the benefit and the  
9 expense of this to ratepayers; nobody has ever talked about  
10 the benefit of the once-through cooling water to all these  
11 power plants, and they all have a benefit, they all make  
12 higher efficiency because of the cold water. But nobody  
13 ever took that into account until they asked to put dry  
14 cooling in place, but then there was a big energy penalty,  
15 which I might add, in the Water Board document now, that  
16 energy penalty had shrunk from -- I think, at Moss Landing,  
17 they were claiming like over six percent energy penalty  
18 down to a percent and a half, now that the threat of a fee  
19 for water because of the energy benefit is there. So these  
20 are kind of the things we have got to look at. And the  
21 other thing, the major thing, is we heard the gentleman  
22 from Southern Edison talking about -- I am sorry, I am not  
23 quite as prepared as he is, but I do not make as much  
24 money, either -- the expense of this, and he wants a cost  
25 analysis, and again, back to the document from the Water

1 Board, they are using the cost benefit analysis done at  
2 Moss Landing, and we were a very young organization at that  
3 time and it was our first "cutting our teeth," so to speak  
4 up there, and the way the Water Board did that cost  
5 analysis is just incredibly wrong for the state. And we,  
6 as a young group, saw what dry cooling systems being built  
7 in the deserts and we went up to Moss Landing, which is as  
8 you all know, nice and cool in the summer when you are  
9 really making energy, and we said, "Well, why don't you put  
10 dry cooling on your combined cycle generators?" "Oh, it'll  
11 cost too much," and then you go into the environmental --  
12 and now, this is the big point -- you want a cost benefit,  
13 but nobody is telling -- nobody can show -- and I have sat  
14 at the technical working committees and asked the  
15 scientists -- but everybody comes to an agreement to what  
16 level we value the environment, and the problem here is  
17 that we are not putting in the full value on the  
18 environment, and that is the big problem. I mean, when you  
19 discount everything except commercial fish and viable crab  
20 larvae and things, you discount everything else in the  
21 environment. So that is the big problem with this cost  
22 analysis benefit. And Second Circuit Court, the  
23 *Riverkeeper* was very clear about that, that you should not  
24 be making up ways to adjust for the environmental damage,  
25 you cannot really account for it, and so it is all

1 subjective. And most of the input on this is coming from  
2 IOUs and big energy producers, so, you know, it is quick to  
3 discount the environment. So, from that point, from what  
4 was said this morning, those are the tripping points that  
5 I, as somebody who is watching what is going on, and Morro  
6 Bay, to me, it is just wrong to continue even out past what  
7 its contract is now. Their contracted until 2011, and for  
8 the amount of energy that they make, it is just not  
9 justified to continue the damage that is going on there.  
10 So that is it. I will wait for a while and come back.  
11 Thank you.

12 COMMISSIONER BYRON: Mr. Nelson, thanks for being  
13 here. Thanks for your comments. I think that your  
14 comments demonstrate, obviously, concerns about the  
15 environment, and you covered a spectrum of issues. It is a  
16 very complicated issue, which is why all these agencies are  
17 involved. I encourage you to continue to learn more and  
18 more about how complex this is. I have worked in this  
19 industry for a long time, from many different perspectives,  
20 and I can tell you, just when I begin to think I understand  
21 it, I realize I do not. So that is why we are working  
22 together to try and promulgate a rule that meets the law,  
23 that addresses the environmental concerns, but at the same  
24 time addresses the reliability needs of the state and its  
25 economy. So I encourage you to stay involved, we welcome

1 your participation, even though you do not make as much as  
2 Mr. Pizarro. Dr. Jaske, did you want to add anything or  
3 say anything that might be helpful here?

4 DR. JASKE: Mr. Nelson was referring to capacity  
5 factors that we have reported in the Water Board Substitute  
6 Environmental Document. If you are interested in more  
7 information about those, the Energy Commission's comments  
8 to the Water Board, dated May 20<sup>th</sup>, 2008, that are on the  
9 Water Board's website, has an appendix as annual capacity  
10 factors, I believe, from 2000 to 2007, and then monthly  
11 capacity factors for each plant for 2006 and 2007, so you  
12 can see how it is that various OTC plants are actually  
13 being operated.

14 COMMISSIONER BYRON: Thank you. Sir, please  
15 identify yourself.

16 MR. GEEVER: If I can, very quickly, my name is Joe  
17 Geever, I am the California Policy Coordinator with  
18 Surfrider Foundation, and we were under the impression, and  
19 I have heard it repeated several times, that today's  
20 session was not going to be a debate on the State Water  
21 Resources Control Board's Policy, yet the first two public  
22 comments were exactly that.

23 COMMISSIONER BYRON: Well, then you will not be the  
24 third.

25 MR. GEEVER: We came up here to appear, you know,

1 the information on what this meeting was supposed to be  
2 about, and so we look forward to getting back on that. If  
3 Southern California Edison wants to debate the Water  
4 Board's policy, there will be forums for that. I was under  
5 the impression that this was not it. Thank you.

6 COMMISSIONER BYRON: Thank you. Mr. Kelly.

7 MR. KELLY: Thank you, Commissioner. Steven Kelly,  
8 Policy Director for Independent Energy Producers  
9 Association. And I want to follow-up on some of the  
10 comments Mr. Pizarro made, related to the need for  
11 flexibility as we move forward, and also find that, from  
12 the business perspective, that there is a schedule that is  
13 proscribed and a lay-out that the staff has worked hard on  
14 detailing, which is very helpful to send signals to the  
15 marketplace. The concern that I have had in initially  
16 reading the report is the policy objective, which is to  
17 create a commitment for the generation to be there until  
18 there is an operational replacement entity that is  
19 operational. As we all know, it is very difficult to  
20 forecast when a new transmission line is actually going to  
21 be energized, when new generation is actually going to come  
22 on line, in spite of the best expectations in the planning  
23 processes that we have. So there definitely needs to be  
24 flexibility built into this mechanism as we move forward.  
25 And I would also urge, to add onto it, and Mr. Pizarro

1 talked about it, is a need for these kind of clear trigger  
2 points to the business side of things, the generation side,  
3 that if you are intending to remove an asset that is  
4 already in place when something else is operational, that  
5 you send that signal in advance, and not next month by way  
6 of shutting down. There are a lot of decisions that have  
7 to be made by any asset of this size, if they are going to  
8 modify their operations. And the sooner that you could  
9 send those signals probably the better. I understand the  
10 need that replacement assets be operational in order to  
11 serve the goal that the ISO has to maintain grid  
12 reliability, but we have to figure out a process that  
13 conjoins those -- the needs for reliability and the need to  
14 send proper signals to the business community as they move  
15 forward and make decisions about investments and so forth.  
16 And that probably speaks to some sort of flexible process  
17 that has, I think, trigger points for agency decisions --  
18 CPUC decisions, and something else following on that. I  
19 think that will be important.

20 COMMISSIONER BYRON: Point well taken, Mr. Kelly.  
21 And, of course, I think, besides the flexibility that you  
22 are looking for, that everybody is looking for in a rule  
23 that would be promulgated, we hope by the Resource Control  
24 Board, is a certain amount of forthcomingness on the part  
25 of all the industry participants. This is a competitive

1 environment and that makes it a little more challenging;  
2 the State does not control or operate these assets, but we  
3 have some jurisdiction over various aspects of them. So it  
4 is definitely a cooperation going forward if we are going  
5 to be sending the various price or market signals, as you  
6 indicate, as much in advance as possible for you to make  
7 business decisions, and a sense of what your plans -- your  
8 members' plans are -- for these power plants, as well.

9 MR. KELLY: Yes.

10 COMMISSIONER BYRON: Thank you.

11 MR. SIMPSON: Good morning. I am Rob Simpson. I  
12 am representing Californians for Renewable Energy, or CARE.  
13 Our interest is in stopping this once-through cooling, but  
14 also the next step. When we look at the next step and we  
15 see projects like the Humboldt Bay Repower Project, that  
16 was marketed by PG&E as being eight percent cleaner, but  
17 you see documents demonstrated that it is five times  
18 dirtier than the existing plant, we look at plants like  
19 Carlsbad, which claims to be eliminating the once-through  
20 cooling, but still plans to use ocean waters, but they are  
21 just renaming it something different, each plant that I see  
22 coming forward -- I see Avenal in the middle of the state  
23 that claims to be a plan to replace once-through cooling,  
24 but it plans to use fresh water from the California Delta,  
25 or Aqueduct. The next step, for us, we do not believe the



1 next step is to run wires out into the desert to some  
2 renewable facility that is not yet there. The next step is  
3 not to find a way around the Clean Air Act, to put more  
4 pollutants in the air in Southern California, the next step  
5 for us feels that it should be renewable, and while it is  
6 not right in front of our nose, it is right on our roof,  
7 renewable energy in the load centers, we feel that that can  
8 be much quicker than new fossil fuel fired generation and  
9 it will serve the people of California better. Thank you.

10 COMMISSIONER BYRON: Thank you. If there are no  
11 further comments or questions, I am going to propose that  
12 we continue moving because we take our best guess at the  
13 agenda in terms of putting panels together, we have a one-  
14 hour panel coming up with many participants, so let's go  
15 ahead and ask those panelists to come forward. Dr. Jaske,  
16 is the idea to have them sit around the table here, as  
17 well? Gentlemen, thank you very much and do not go  
18 anywhere because I am sure there are going to be more  
19 questions for you later.

20 **Agenda Item 4: Panel 1: Changes to IOU Procurement**  
21 **from a Generator/Developer/Bidder Point of View**

22 DR. JASKE: As the panel is coming forward, let me  
23 say that Simon Baker of the PUC Energy Division will be the  
24 moderator, and I will have him introduce the panel.

25 COMMISSIONER BYRON: Great, great. All right,

1 gentlemen, if you will come forward, and I would ask, if  
2 you would not mind, if you have a name plate in front of  
3 you, after the audience has had a chance to see it, if you  
4 would not mind turning it around, we would appreciate that.

5 MR. BAKER: It looks like I will be at the podium.

6 COMMISSIONER BYRON: And you get the podium.

7 Welcome, we are glad to have you.

8 MR. BAKER: Uh, good morning. For the record, I am  
9 Simon Baker, with the CPUC's Energy Division in the Long-  
10 Term Procurement Proceeding. I would like to begin today  
11 by laying the foundation for subsequent panels, Panels 1  
12 and 2, on how we deal with the OTC issues through the PUC  
13 procurement process. And to do so, I have brought a  
14 presentation which is much more detailed and longer than I  
15 plan to get into here today, but it is provided as a  
16 resource because I know it will be available on the CEC  
17 website for stakeholders to review and inform themselves  
18 about our general procurement rules.

19 The Procurement and Resource Adequacy Programs are  
20 principally guided by Public Utility Codes 380 and 454.5.  
21 The RA Program obligates load serving entities to procure  
22 sufficient resources to meet system and local area needs  
23 with sufficient planning reserve margin, as well. And the  
24 procurement program under 454.5 essentially brought the  
25 utilities back into the procurement business, and it

1 changed the structure of compliance, excuse me, the  
2 structure of cost recovery from one of after-the-fact  
3 reasonableness reviews to a preapproval and compliance  
4 framework. In the Commission's administration of these  
5 programs, our over-arching objective is to enable the  
6 electric corporations to fulfill their obligations to serve  
7 their customers at just and reasonable rates.

8           Now, at a very high level, the procurement program  
9 has essentially two parts. The first has to do with the  
10 Commission approving long-term plans, either 10-year plans  
11 that the utilities file, and the Commission adopts those  
12 plans with any necessary modifications. The second aspect  
13 of the procurement program has to do with the procurement  
14 rules, which are essentially upfront rules established by  
15 the Commission, which, when the utilities comply with those  
16 rules and their procurement, they essentially have  
17 preapproval of recovery of those costs, and then there is  
18 subsequent compliance review to ensure that the rules are  
19 being followed.

20           Today's workshop touches on both of these areas.  
21 The presentation that was brought by Mr. Jaske suggests  
22 that the 2010 Long-Term Procurement Plan will be an  
23 important nexus, as a first step, engaging the procurement  
24 process towards solving this problem. And there is a  
25 variety of analyses that are likely to need to take place

1 in the long-term planning process, and in the Commission's  
2 approval of the next utility plans. As Mr. Strauss  
3 mentioned, the Energy Division recently submitted a  
4 proposal to our Commission for refinements to the  
5 utilities' long-term planning process that would enable the  
6 source of analyses that are envisioned to be required to  
7 fulfill the joint energy agency proposal. However, that  
8 set of analyses and the required modifications to the  
9 planning process, those are not the subject of today's  
10 workshop. The subject of today's workshop is focusing more  
11 on the implementation of procurement, and procurement  
12 activities such as requests for offers or competitive  
13 solicitations for new generation. So the remainder of my  
14 presentation will be focused on that latter aspect.

15           The procurement rules essentially break down  
16 procurement projects into three lengths of contracts,  
17 short, medium, and long-term. A long-term contract is any  
18 contract longer than five-years in length, and for that  
19 product category, there is a requirement that the utility  
20 file an application with the Commission for approval of  
21 cost recovery for those assets. In general, the Commission  
22 has a competitive markets first policy as a means of  
23 controlling costs to meet procurement needs. In the bid  
24 evaluation process, the Commission has mechanisms to  
25 internalize the externalities such as greenhouse gasses.

1 There is a greenhouse gas adder that is used as kind of a  
2 weight on the scale to compare various bids. And in  
3 addition, there is environmental performance standards  
4 which essentially limits any long-term commitments of the  
5 utilities to fossil assets to emissions rates that are  
6 equivalent to a combined cycle power plant.

7 For new generation needed to meet system or local  
8 capacity needs, the Commission has adopted a cost  
9 allocation mechanism which essentially spreads the benefits  
10 and costs of new generation to all benefitting customers.  
11 The CAM is eligible for new and repowered assets, it is not  
12 eligible for utility-owned generation assets. And,  
13 mechanically, the IOU is -- the rule is structured so that  
14 the IOU elects whether to utilize the CAM at the time of  
15 the application.

16 The Commission has implemented a procurement review  
17 group, which is a body of non-market participants, which  
18 serve on advisory basis. The utilities bring summaries of  
19 the various procurement activities to the PRG for review  
20 and vetting, and the primary purpose of the PRG is to speed  
21 discovery and minimize disputes in the Commission's  
22 decision-making process. A additional subset of the PRG is  
23 the CAM Group, which is represented by electric service  
24 providers, and community choice aggregators, and other non-  
25 IOU LSE's that are subject to the cost allocation

1 mechanisms, so they have a seat at the table in decisions  
2 that are being made about new resources that are then the  
3 cost at which is then allocated to all benefitting  
4 customers.

5           In the RFO process, the Commission requires the use  
6 of an independent evaluator and, when it comes to the  
7 design of the RFO, the real crux of this issue when it  
8 comes to OTC is, what are the product specifications? And  
9 what I would like to focus on in this panel, and with the  
10 list of questions for this panel, what this is meant to  
11 address, is really what modifications are needed in this  
12 area, which is how do you translate what the needs are of  
13 the system for reliability into what the market actually  
14 provides to the competitive process.

15           In the RFO process, when bid documents are  
16 prepared, the IOUs are required to review those bid  
17 documents with the PRG, the independent evaluator, and with  
18 the PUC's Energy Division. And any differences or disputes  
19 that are raised in the PRG meetings, those differences must  
20 be resolved with Energy Division prior to release of the  
21 bid documents.

22           The most recent LTBP decision gave the IOUs  
23 specific direction. That decision was 0712052. It  
24 authorized new resources for all three of the IOUs, subject  
25 to various criteria, and those criteria address various

1 policy objectives, including reduction of OTC, preference  
2 for brown fields development, and to be consistent with AB  
3 1576, just as an aside, AB 1576 is legislation that  
4 essentially codifies a preference for brown fields  
5 development for new generation, and it encourages the  
6 Public Utility Commission to implement that preference  
7 through a cost of service model, essentially bilateral  
8 negotiations, open book bilateral negotiations, for cost  
9 plus to replace specific plants that could not be replaced  
10 through a competitive process. Various proposals to  
11 implement AB 1576 were presented in the previous Long-Term  
12 Procurement Plan proceeding, however, in the decision, the  
13 Commission did not adopt any specific recommendations  
14 related to AB 1576. In addition, the authority for new  
15 generation in the last decision was meant to fulfill policy  
16 objectives such as enhancing air quality and also reducing  
17 greenhouse gas emissions. The Commission required the  
18 utilities to make a showing in their application for new  
19 resources that the various policy objectives, which I  
20 listed, are being achieved from the specific resources that  
21 are brought before the Commission for approval. And the  
22 decision also acknowledged the need to strike a balance  
23 between achieving the objective of inducing retirements or  
24 encouraging repowering of aging plants, and containing  
25 costs. And this is really the tension which has been

1 previously mentioned today, but I think it is the elephant  
2 in the room, and it is the biggest problem we have as we  
3 address this, in order to be able to achieve our OTC  
4 objectives and also maintain just and reasonable rates.

5           So with that, I would like to segue to today's  
6 panel. As we have heard, modifications to the procurement  
7 process are one of the elements of the joint agency  
8 proposal. And conceptually, there are really three  
9 approaches to solving the OTC problem with elimination of  
10 OTC from specific plants. Looked at from a need  
11 perspective, those three approaches are first to build new  
12 transmission to address the issue, secondly, to build new  
13 generation, whether that comes from green fields, brown  
14 fields, or repowers on-site, and those are separate deal  
15 structures and need to be considered in the RFO process.  
16 And finally, the third approach is to just avoid the  
17 retirement of the specific plant altogether through a  
18 refitting of the cooling system. That third category is  
19 not something that our procurement process has really had  
20 to deal with in the past, and we are very interested in  
21 hearing from particularly this group of panelists about how  
22 RFO products could be structured to encourage that third  
23 category. There were some preliminary remarks on the part  
24 of Mr. Jaske that you have heard in previous workshops that  
25 that third category is unlikely to be cost-effective, but



1 we would like to hear confirmation, as well, from  
2 generation owners to what degree refitting of the cooling  
3 system is potentially cost-effective.

4           The PUC procurement process really deals with those  
5 two latter two approaches. There are two communities that  
6 are associated with that, we have the developer/generator  
7 community, and that is the purpose of this panel, and then  
8 the utilities themselves are the second community. So,  
9 with that, I would like to ask for the panelists to first  
10 introduce themselves, and then I will take the floor again  
11 with some final preliminary remarks. Maybe we will just  
12 start up here with you, Alan, please.

13           COMMISSIONER BYRON: If you would not mind, please  
14 introduce yourself, your company, and just a brief  
15 background on your company, not from a commercial  
16 perspective, but just so everyone, I think, in our audience  
17 will understand your role in this particular role and  
18 interest in this particular issue.

19           MR. COMNES: Sure. My name is Alan Comnes. I am a  
20 Director of Asset Management for NRG Energy, Incorporated.  
21 I oversee asset management issues for our West Region. In  
22 the West, we have 2,200 Megawatts of capacity, all in the  
23 eyes of the control grid, it is all in SB 15. Of that,  
24 about 1,600 Megawatts relies on once-through cooling,  
25 currently. One of our sites was recently repowered under a

1 Long-Term PPA with Southern California Edison and, as part  
2 of that, we eliminated once-through cooling at the site  
3 that is at Long Beach. So, since, we have adapted both  
4 aspects of the technology. Simon, do you want me to --

5 MR. BAKER: We will just go around the table so  
6 that we will know who is represented, and then we will go  
7 back to the remarks.

8 MR. BARMACK: Hi, I am Matt Barmack. I am the  
9 Director of Market and Regulatory Analysis at Calpine.  
10 Calpine is a large owner of relatively new combined cycles  
11 and combustion turbines in California. We do not have  
12 once-through cooling issues, but we are very active in  
13 wholesale markets here.

14 MR. BAKER: Thank you.

15 MR. VAWTER: I am Don Vawter. I am Director of  
16 Asset Management for AES Southland. In the L.A. Basin, we  
17 own 14 units all on once-through cooling for a total of  
18 approximately 4,300 Megawatts.

19 MR. BAKER: Thank you.

20 MR. MOHTASHAMI: I am Vafa Mohtashami with RRI  
21 Energy. We own roughly 2,000 Megawatts that use once-  
22 through cooling primarily in the Big Creek Ventura area. I  
23 am the Director of Commercial Operations for our West  
24 Region, which includes all of our plants in the ISO control  
25 grid.

1 MR. BAKER: Thank you.

2 MR. DAVIE: Doug Davie with Wellhead Electric, Vice  
3 President with Development of Regulatory and Business Asset  
4 Management, probably one of the very small class of truly  
5 independent owner operator -- developer/owner/operator of  
6 power plants. We do not have any once-through cooling. We  
7 are primarily focused on peaking facilities right now in  
8 the San Joaquin Valley, but are developing plants in San  
9 Diego and SoCal's territorial zone.

10 MR. BAKER: Thank you.

11 MR. MITCHELL: Good morning. Will Mitchell,  
12 Competitive Power Ventures. We are the developer of the  
13 CPD Sentinel Project which is one of the three projects  
14 that has a Southern California Edison power purchase  
15 agreement, but has been delayed due to the ongoing party  
16 reserve issues, which has given us a unique opportunity to  
17 get involved in the greater umbrella of activities that  
18 incorporates Southern California's electrical future.

19 MR. BAKER: Thank you.

20 MR. FREDERICKS: Uh, Dale Fredericks, Manager of DG  
21 Power, a private developer. We have developed a total of  
22 about 650 Megawatts of new generation in California in the  
23 last years, none of them utilize once-through cooling, they  
24 are all [inaudible] [17:16] style power plants. And, as a  
25 private developer, unlike the other panelists, I handle the

1 development permitting and financing of projects with  
2 resort to private capital markets.

3 MR. BAKER: Thank you. So, with that, because of  
4 the full agenda today, what I have done is I have asked the  
5 panelists to keep their remarks to about five to seven  
6 minutes. And in order to facilitate that process, I have  
7 asked them to focus on specific questions in advance, but I  
8 would like to take the panelists in order, roughly in  
9 order, that it makes the most sense. So we are going to  
10 jump around a little bit and not just go around the table.  
11 I encourage the panelists to engage each other, as well, to  
12 foster productive dialogue on these issues. To begin with,  
13 I will however, just to sort of set the stage, go ahead and  
14 read through the questions.

15 The first is, can OTC replacement be done via the  
16 IOUs RFO process; secondly, how should an RFO be  
17 structured? What changes are needed from the current  
18 process to facilitate competition between possible green  
19 field sites, building new units on existing sites and  
20 repower to replace cooling systems? How should RFO  
21 products be targeted to a particular location or product  
22 type? Fourth question, do the current markets provide  
23 adequate sense to design plants to provide ancillary  
24 services regulation to integrate renewables in its system?  
25 Fifth question, what length of contract would be optimal?

1 And the sixth question, how to repower via AB 1576 be  
2 conducted or approved and completed? I have asked all  
3 panelists to provide an answer to the fifth question, which  
4 is a rather quick question, and I will be beginning,  
5 however, with Dale Fredericks from DG Power, and I have  
6 asked him to focus on question 1, 2 and 5. Is that  
7 correct? I believe it is.

8 MR. FREDERICKS: Thank you.

9 MR. BAKER: Thank you.

10 MR. FREDERICKS: I believe question 1 is clearly,  
11 the answer is yes.

12 COMMISSIONER BYRON: You know, if you gentlemen are  
13 going to refer to question numbers, I do not think the rest  
14 of us have the benefit of knowing these questions. Do we  
15 have them on the screen, by chance? Or is there any way --  
16 otherwise, you are going to have to refer to them  
17 periodically, simply remind us, okay?

18 MR. BAKER: I am asking Dale to focus on Question  
19 2, which is how should an RFO be structured, and what  
20 changes are needed from the current process to facilitate  
21 competition within possible green field sites building new  
22 units on existing sites and repowers that replace cooling  
23 systems. I have also asked him to speak to the optimal  
24 length of contract. And I will be following with Don  
25 Vawter to speak to the same questions, 2 and 5, and also

1 question 6 on AB 1576.

2 MR. FREDERICKS: Again, the first question is  
3 whether OTC replacement can be accomplished through the  
4 IOUs RFO process, I think it can. But in my view, the RFO  
5 process needs to be made more specific with respect to  
6 OTC issues. And they do vary significantly, one to  
7 another. There are projects in Northern California that  
8 are very different from those in Southern California, I  
9 think they require a different approach. So it strikes me  
10 that a consideration at least should be given to  
11 approaching this in the procurement process in two phases,  
12 the first phase would be to address the projects in a  
13 grouping, or regional, or other logical basis where there  
14 are some that ought to be considered separate from others.  
15 I think the IOUs can and should issue special requests for  
16 offers for these tasks and should be narrowly targeted, as  
17 was suggested earlier because each one involves very  
18 specific issues and concerns. A general approach is  
19 probably not going to be successful. In conducting RFOs,  
20 it also seems to me that a strong preference ought to be  
21 given to projects that would replace the existing units  
22 because they are old and inefficient, as well as  
23 environmentally at issue. And full environmental  
24 remediation of those old sites ought to be made a part of  
25 the process, preference ought to be given to use of

1 reclaimed water, as opposed to ocean water or other fresh  
2 water sources. Air cool condensers may be appropriate in  
3 some locales, not others; it depends on the particular  
4 situation, but air cooling, if reasonably practical, can be  
5 a very useful alternative to wet cooling technologies.  
6 These preferences ought to be given also to highly  
7 efficient, new technologies. And by that, I am thinking of  
8 the focus on system that are combined cycle with low heat  
9 rate, low emissions, low water use, and units that possess  
10 flexibility to meet the realities of the renewable  
11 portfolio standards. And that is some sort of ramping  
12 capabilities, low emissions on start-up and shutdown.  
13 There are technologies that have emerged rapidly that  
14 already, we know, meet some of those criteria. Just a few  
15 years ago, GE introduced their new LMS100 that was a major  
16 improvement over the prior LM6000 peaking unit, about a  
17 thousand point heat rate advantage and much lower  
18 emissions. And in the last year, Siemens has introduced  
19 something called a Flex Plant 10, which is a combined  
20 cycle, highly flexible unit, that is even better, it has  
21 yet another thousand point heat rate improvement at a  
22 fraction of the emissions, and a fraction of the water use  
23 of the LMS100, it is a highly flexible unit that has the  
24 ramping capabilities to support the renewables. Those and  
25 other new technologies that some of us have already gotten

1 a glimpse of, from General Electric, Siemens, Mitsubishi,  
2 see now that this is a trend, and I think California should  
3 lead in encouraging replacement generation to be the most  
4 efficient available.

5 MR. BAKER: Mr. Fredericks, before we move on to  
6 our next panelist, if I could just ask a more probing  
7 question. It is my understanding DG Power does not own any  
8 of the existing OTC plants, so in the hypothetical, if a  
9 narrowly targeted -- if the utilities were to issue, say,  
10 Edison were to issue a narrowly target to RFO, to replace  
11 generation in the local area, or sub-area, in which  
12 Alamitos is located, would you see that RFO structure as  
13 being sufficiently competitive that your company could  
14 compete?

15 MR. FREDERICKS: Probably not because, obviously,  
16 the owners of those plants have that stacked in their  
17 favor, but that is not necessarily a bad thing in this  
18 context, but the RFO could be focused on the replacement of  
19 the existing OTC plant in a very organized fashion and  
20 allow those firms to come forward with a proposal,  
21 hopefully along the lines of the criteria just outlined,  
22 and then allow that to be evaluated -- is that a proposal  
23 that ought to be accepted under what I am going to suggest  
24 would meet the long-term CPA, say 20 years or more, to help  
25 reduce the cost to the ratepayers. Is that an attractive



1 proposal compared to all of the other options that could  
2 be evaluated? And in that process, I am thinking that it  
3 would be useful to further modify the RFO rules to allow,  
4 in addition to the procurement review group, and the  
5 independent evaluator for the site, to include  
6 representatives of the PUC, the Energy Commission, and the  
7 Water Board, to help provide input in evaluating those  
8 proposals, to decide is this one we should accept? Is it  
9 just and reasonable? Or is it one that simply should be  
10 rejected with the ultimate result in that plant closing  
11 down over time?

12 MR. BAKER: Thank you, Mr. Fredericks.

13 COMMISSIONER BOHN: May I ask just a -- noticeably  
14 missing was any consideration of cost.

15 MR. FREDERICKS: Cost is going to play into the  
16 bids that you would see from all of the owners of once-  
17 through plants. They would propose in this RFO to replace  
18 them with something else. And if the cost is too high, I  
19 would think that the answer would be it is too expensive,  
20 we are going to reject that proposal, this plant should be  
21 shut down. And then, my second suggestion is that there  
22 could be a follow-up RFO that would consider green field  
23 sites. And in addition to the plants that are going to be  
24 replaced with the new technology.

25 COMMISSIONER BOHN: So you do that in sequence, as

1 opposed to an RFO that simply asks for a solution?

2 MR. FREDERICKS: I would think so, because, again,  
3 private capital is not likely to step up and bid in a  
4 program where the deck is stacked in favor of the owners of  
5 existing plants.

6 COMMISSIONER BYRON: I would ask that you speak  
7 right into the microphone because I am not sure everybody  
8 heard the tail end of your last comment.

9 MR. FREDERICKS: The view, I think, of a number of  
10 private developers is that it is unlikely that we would bid  
11 and could attract private capital to bid into an RFO that  
12 was running up against the owners of existing OTC plants  
13 that were in that process, proposing to somehow replace  
14 them. They have too much information. They already own  
15 the site, they have the infrastructure in place, or most of  
16 it, such as transmission, that it would be very difficult  
17 for a private developer in a green field site to come up  
18 with a more favorable proposal.

19 MR. BAKER: Thank you, Mr. Fredericks. And with  
20 that, I would like to move on to our second panelist, Don  
21 Vawter from AES. And I imagine that you may have a  
22 counterpoint to some of the suggestions we just heard from  
23 Mr. Fredericks. I would ask you to please focus on  
24 question 2 and question 5 on contract length, and also  
25 question 6 regarding how AB 1576, repowering could be

1 conducted. Thank you.

2 MR. VAWTER: Thank you. Thank you for allowing me  
3 to be here and give you my fair and balanced view of these  
4 questions. I think that an effective number of our units  
5 could be repowered in an RFO that is not specific to OTC  
6 plants, given if there are two things done, in particular.  
7 One is to fairly evaluate our local reliability attributes  
8 as compared to other plants that are technically in the  
9 same local reliability area, but given equal weighting to  
10 our OTC plant. Not all LCR assets are created equal. The  
11 OTC plants are in the heart of the load, generally be  
12 definition. Additionally, we see a lot of exceptional  
13 dispatches that reaffirm the point that there are local  
14 reliability attributes associated with our assets that are  
15 not being fully contemplated in the RFOs. There is a  
16 division between procurement and transmission in the IOUs,  
17 and we think that it is a barrier to fully appreciating the  
18 attributes or assets. Additionally, any RFO should be  
19 adaptive in its need. If it is, for example, an RFO for  
20 2,000 Megawatts, and I am retiring a 1,000 Megawatt unit  
21 and repowering with a 1,000 Megawatt unit, I am not  
22 incrementally closed, or the need identified by the RFO,  
23 and that should be taken into account, clearly. In that  
24 way, assets such as ours could effectively compete in an  
25 open RFO with green fields. What certainly cannot happen

1 is that OTC units be discriminated against if they are  
2 bidding into a repower RFO where the fact that they are not  
3 closing the gap on the RFO need is held against them.

4 MR. BAKER: Mr. Vawter, are you aware that, in the  
5 Commission's procurement decisions, when new authorizations  
6 are made for the utilities to procure, that there is a  
7 certain amount of retirement assumptions that are embedded  
8 in that analysis? And that, in the most recent LTPP  
9 decision, it was a great deal of retirements were assumed,  
10 and so, to your second point, I believe that that issue is  
11 addressed, that repowers of existing facilities are  
12 eligible to bid.

13 MR. VAWTER: Yeah, they certainly are. And in the  
14 LTPP, Long-Term Procurement Plan, there are scheduled  
15 retirements, however, those are at best assumptions, right?  
16 Because they do not have commitments from any other  
17 generation owners to retire those assets, so they have a  
18 Megawatt value plugged in, as coming out of their mix due  
19 to a retirement, and that goes into calculating what the  
20 RFO needs. But that needs to be hanging with a big  
21 asterisk, again, and when an asset such as ours bids into  
22 the RFO, and it is coupled with retirement, then the  
23 overall need identified in that RFO needs to be adjusted  
24 accordingly.

25 MR. BAKER: Did you have any comment on a contract

1 length or on the AB 1576 question?

2 MR. VAWTER: Regarding PPA length, you know, the  
3 longer the PPA the better the financing, the better the  
4 financing, the lower the rates, you know, that is true in  
5 any financing, whether it be your house or a power plant.  
6 You know, the longer the better that is for everybody  
7 involved. Regarding 1576, we would be interested and open  
8 to an open-book negotiation at cost replacement of those  
9 assets over time, the devil is in the details. You know, I  
10 would like to just add a couple of things. Market heat  
11 rate in Q3 is greater than the oldest, most inefficient  
12 assets we have, you know, our oldest most inefficient  
13 assets have been running all month. We expect them to run,  
14 you know, most of August and most of September, as well.  
15 Despite that, you know, we do not participate in the real  
16 time markets, but the real time markets had intervals last  
17 week that cleared at greater than \$500. The week before,  
18 intervals greater than \$700. We cannot necessarily demand  
19 side manage and transmission upgrade our way out of this  
20 problem; these plants need to be replaced over a  
21 considerable time. And with that, I will end. Thank you.

22 MR. BAKER: Thank you, Mr. Vawter. With that, I  
23 will turn to Doug Davies of Wellhead. And if I could ask  
24 you, Mr. Davies, to please focus your remarks on question  
25 3, how should RFO products be targeted through a particular

1 location or product type, and question 5 on contract  
2 length.

3 MR. DAVIES: Thank you. Again, thank you to the  
4 various energy agencies for this forum to talk about this,  
5 very timely and of critical importance. In terms of  
6 looking at RFO's and trying to target for a particular  
7 product --

8 COMMISSIONER BYRON: Mr. Davies, go ahead and put  
9 the microphone right out to --

10 MR. DAVIES: For a particular product, a particular  
11 location, just from a cost standpoint, I think you want to  
12 be extremely careful about specifying constraints,  
13 conditions, limitations, because all you are going to do in  
14 a competitive market is add constraints and limitations,  
15 you are going to drive costs up. So as you look at the  
16 need for replacement of once-through cooling resources, you  
17 need to look very carefully at how much do I really need to  
18 replace, or does it really need to be, you know, does it  
19 really need to be at load center, is that a location where  
20 I really have to have the generation? Is that the amount  
21 of generation I need to have at that location? And set  
22 your requirements up front based on some very solid basis,  
23 stick with it. Clarity, communication and follow-through  
24 on what you are doing and why you are doing, is critical to  
25 the market if we are going to respond with our creative,

1 innovative ideas, and provide options and alternatives for  
2 you to consider. So leave it as open as possible, limit  
3 the constraints, because you are simply going to make it  
4 more expensive, tougher for developers to respond. In  
5 terms of responding to the replacement to a once-through  
6 cooling plant, Wellhead does not have any once-through  
7 cooling plants. Would we look at opportunities and would  
8 we propose developments in response to an RFO? Absolutely.  
9 We are going to look at what the opportunities are and we  
10 are going to look at what the requirements are, what the  
11 RFO wants, what the utility wants, and we are going to  
12 decide can we -- do we think we could compete in that  
13 arena? A once-through cooling plant may not need 1,000  
14 Megawatts in the same place, maybe it needs 500 and the  
15 other 500 could come from someplace else. Does it need to  
16 be at that same location? Maybe not, maybe so.  
17 Communicate that to us. From a length of contract  
18 standpoint, I would absolutely echo what Mr. Vawter said in  
19 terms of the longer, the better, but I also realize the  
20 utilities need to have a portfolio that is a balance of  
21 short and mid and long-term resources. But you cannot  
22 eliminate, if you want to have the lowest possible prices,  
23 you cannot eliminate long-term contracts, 20 or 30-year  
24 contracts, that is what utility rate making provides. You  
25 do not want a single set of options, utility-owned

1 generation that has 30-year financing benefits to the  
2 ratepayers. Let the market also provide that same benefit  
3 of long-term financing to the market, to the ratepayers.  
4 Getting the markets right is critical also, unless you want  
5 to add that, in terms of when you have a contract, or you  
6 are delivering your resources, you are looking at markets  
7 -- how you are being dispatched, how you are being  
8 operated, references to many exceptional dispatches.  
9 Developers and generators and owners are looking at how the  
10 markets are working, whether it is for local capacity --  
11 are you being called upon in a particular area more or  
12 less? Is the market working correctly and properly? So  
13 that is a critical element to the RFO process, that being  
14 selected is one thing, you are then subject to being an  
15 operator and what are the conditions of your contract, and  
16 how are you being paid? Is it a pure RA contract? Is it  
17 a long-term [inaudible] [38:54] contract? There are  
18 various contracts that are there, so there are a number of  
19 elements of the market that have to be pulled together to  
20 think about it from a development standpoint, what am I  
21 going to propose? How am I going to be compensated? You  
22 will have confidence that I will get paid and will be able  
23 to make a return on my investment. Same exact question a  
24 utility asks any time they want to build something and they  
25 go for a CPCM, they want to know -- investors want to know



1 they have a return potential and they can manage the risks  
2 that are there. One last comment I wanted to make, and it  
3 is not specifically on here, but I think it is of critical  
4 importance to the energy agencies to understand, is that  
5 once the decision has been made that a particular resource  
6 is, in fact, desired and needed, there needs to be support  
7 from the energy agencies, from the CAISO, from the  
8 utilities, from the Utilities Commission. Particularly in  
9 our case, we look at a lot of local permitting. We end up,  
10 in many cases, with a lot of local opposition. We have no  
11 support because the public agencies do not like to support  
12 specific projects. They will say yes, the resource is  
13 needed, but in the venues where we are doing permitting,  
14 the only voices that are frequently heard are by the local  
15 opposition, the "not in my backyard" people, and if we are  
16 going to solve the problem, have the resources come on line  
17 and get permitted, small resources under 50 Megawatts that  
18 are not CEC jurisdictional, as well as large, the energy  
19 agencies need to be proactive in supporting the resources  
20 that have been selected by the utilities to go forward. I  
21 will stop at that point.

22 MR. BAKER: Thank you, Mr. Davies. I will also  
23 make one additional -- share an additional piece of  
24 information, which I neglected to mention in my procurement  
25 rules presentation, pertaining to the contract length,

1 under current procurement rules, the eligibility for CAM  
2 treatment, the Cost Allocation Mechanism, is limited to the  
3 term of contract of 10 years, and so we will be hearing  
4 from some of the panelists that contract lengths of up to  
5 20 years may be preferred from a cost perspective, so that  
6 is relevant in terms of how changes might be considered,  
7 going forward. With that, I will be turning now to Will  
8 Mitchell from CPV. And I would like to ask you, Will, to  
9 focus on question 3, how should RFO project products be  
10 targeted to a particular location or product type? And  
11 also contract length.

12 MR. MITCHELL: Thank you. Good morning,  
13 Commissioners and staff. Commissioner Mansour, as you  
14 recall, the recent CAISO Forum participants who praised  
15 your work were given additional time to speak, I must say  
16 what good work and praise your organization zealously. You  
17 are looking at a brief opportunity to contextualize here.

18 MR. MANSOUR: I am going to leave now.

19 COMMISSIONER BYRON: Mr. Mitchell, I would like to  
20 remind you, you are at the Energy Commission today.

21 MR. MITCHELL: Yes, I apologize.

22 COMMISSIONER BOHN: Yes, we welcome you at the PUC,  
23 [inaudible] [42:10] efforts down there.

24 MR. MITCHELL: As I mentioned in my brief comments,  
25 Competitive Power Ventures, we are the company behind the

1 Sentinel project in Southern California, which has had an  
2 opportunity to observe the many elements that have come  
3 under increasing consideration in this evolution of the  
4 California regulatory arena. In light of these  
5 observations and the CPUC's recently released LTPP straw  
6 proposal, we believe it is important to recognize the  
7 energy agency OTC Report, which brought us here today,  
8 among other factors, within the greater planning context.  
9 Currently, CPV does not manage any power generation in  
10 California, they do utilize once-through cooling. But as a  
11 developer of green field gas-fired projects like the  
12 Sentinel project, which is capable of serving as a  
13 replacement capacity for generation that does utilize OTC,  
14 we look at this report, as well as the greater umbrella of  
15 the proposed LTPP, as a step in the right direction in  
16 providing improved regulatory certainty for industry  
17 investment, as DG's and other folks have mentioned, as well  
18 as environmental objectives, which have become an  
19 increasingly large part of the process. As the report  
20 states, Southern California has the largest concentration  
21 of facilities that utilize once-through cooling, but given  
22 the number of barriers, as we all know, most of which have  
23 come to a boiling point over the last 12 months, the  
24 development of cleaner and more efficient generation has  
25 been substantially delayed. The genesis of that and a

1 number of other factors have made it apparent that the  
2 regulatory and planning process by which we develop power  
3 plants needs to be adjusted. With that, the inter-agency  
4 collaboration, as Will had said, which is sometimes not  
5 there, the inter-agency collaboration that came together  
6 for the once-through cooling report should serve as the  
7 precedent for directly addressing the remaining barriers,  
8 which are inter-dependent upon effective OTC policy,  
9 particularly in Southern California. It was an incredibly  
10 useful report and to have the three agencies together. The  
11 proposed power plant infrastructure plan that they touched  
12 on, as explained in the reports, heads in an interesting,  
13 and in our opinion, beneficial direction. The  
14 Commissioners made it clear there is a fine line between  
15 spending resources to improve system planning, but the  
16 specifics, which are being discussed today, intends to  
17 substantially reduce the regulatory uncertainty and also,  
18 at the same time, conciliate a growing opposition movement,  
19 which is why we have extensively, on behalf of improved  
20 system planning, it really works in a direction that is  
21 good for investment, as well as the development sector. So  
22 in our opinion, we look forward to more inter-agency  
23 collaboration, especially panels like this with the ISO and  
24 the CPUC and the EC's are here. Now, to answer the more  
25 specific question that the CPUC asked, another recent

1 report in the MRW Report touched on the future of gas-  
2 fired generation in California, and identified five primary  
3 roles -- intermittent support, general energy support,  
4 replacing old infrastructure -- those types of  
5 classifications could be very beneficial in being utilized  
6 in the upcoming RFO's when identifying specific resources  
7 in specific regions. Developers can develop any product  
8 that is needed, and the more certainty at times, the more  
9 certainty that is given on what is needed, we can create  
10 the most specific package, it is what we are here to do.  
11 And I can continue on the contracts, if you would like.

12 MR. BAKER: That would be great, thanks.

13 MR. MITCHELL: Sure. As others have said, long-  
14 term contracts are always beneficial for a number of  
15 reasons, but by far they are the most beneficial for  
16 ratepayers. As costs continue to come up, nothing saves  
17 the ratepayer more money and lowers the over-regulatory  
18 cost than a long-term contract. And there are numerous  
19 studies, some of which focus specifically on competitive  
20 procurement. The Maryland Public Utilities Commission  
21 recently commissioned a study which focused entirely on the  
22 competitive procurement aspect of long-term contracts, and  
23 it showed that, over a period of time, they appeared to  
24 save billions of dollars. And with that, we have found  
25 that investors are becoming increasingly concerned with the

1 10-year contract terms in California, and with today's  
2 distressed financial markets, 20-25 year contracts are far  
3 more likely to be followed by private investment, which is  
4 what the state needs. Thank you.

5 MR. BAKER: Thank you very much, Mr. Mitchell.  
6 Now, I will turn to Vafa Mohtashami with RRI Energy. And I  
7 would like to ask you to just focus on question 4 and 5 on  
8 contract lengths. Question 4 is, "Do current markets  
9 provide adequate incentives to design plants to provide  
10 ancillary services, for example, regulation, to integrate  
11 renewables into the system?"

12 MR. MOHTASHAMI: First of all, I would like to  
13 thank the Commission and the overall agencies for the  
14 opportunity to present RRI's perspective on the once-  
15 through cooling rulings before us.

16 COMMISSIONER BYRON: Please pull the microphone  
17 closer to you and everybody in the room will be able to  
18 hear you better.

19 MR. MOHTASHAMI: Okay. With respect to the current  
20 market structure, the short answer is, yes, the current  
21 market can provide the price signals to direct new build or  
22 existing assets for the ancillary services that are  
23 currently defined as products within the ISO. However,  
24 given the number of out-of-market commitments and  
25 acceptable dispatches that our plant has seen over the last

1 few years, it does seem to indicate that there are  
2 services that our assets are providing. They are not  
3 formally identified products. And so, I think it is  
4 incumbent upon the ISO to go through an assessment of what  
5 products it needs to reliably operate the grid and  
6 integrate renewables into the portfolio. For example, the  
7 ISO is currently contemplating a 30-minute product as an  
8 ancillary service. So I think having an honest assessment  
9 of the needs is paramount to the implementation of this  
10 policy. Additionally, it appears that there are location-  
11 specific services that these once-through cooling  
12 generation units provide, as mentioned before, that needs  
13 to be assessed in determining the scope and the sub-regions  
14 by which these ancillary services are here. So,  
15 acknowledging the need and the nature of these services,  
16 both on a grid-wide basis and a location-specific basis, I  
17 think it is paramount to ensure that the equivalent  
18 reliability standard is met as we look to comply with the  
19 rule.

20 MR. BAKER: Do you have a comment on the contract  
21 length?

22 MR. MOHTASHAMI: Yes, I do. So, given the  
23 ancillary service and acknowledging that there is a need  
24 for probably a broader scope in ancillary services, and  
25 then tying it back to the contract length, we are advocates

1 of a centralized capacity market, and we think that the  
2 proposal that we have put forth under the CFCMA  
3 contemplates a 10-year lock-in price period based on the  
4 clearing price of the option for the planning enterprise.  
5 But in parting, you know, I would like to bring up some  
6 other points, as well. We have focused on the Air Quality  
7 District permitting issues and those are real, but there  
8 are also local constraints in terms of permitting new  
9 facilities, namely the issues that SCE ran into with  
10 permitting the McGrath peaker and the City of Ventura where  
11 Ventura County had a problem with incremental industrial  
12 development. So I think, you know, we probably need to be  
13 more holistic in assessing what other permitting hurdles  
14 are out there as we seek to eliminate the reliance on once-  
15 through cooling and comply with the rule.

16 MR. BAKER: Thank you. Next, I would like to hear  
17 from Matthew Barmack of Calpine, and I would like to ask  
18 you to focus your comments on question 1, can OTC  
19 replacement be done via the IOU's RFO process, kind of  
20 wrap-up, and question 5 on contract length. And also, if  
21 you have any comments on the AB 1576 question, as well.

22 MR. BARMACK: Okay. I will take a stab at that.  
23 With respect to Question 1, I interpret this question a  
24 little bit more generally. I interpret it as asking is  
25 competitive procurement to replace OTC units feasible. I



1 think my comments will echo a lot of the things you have  
2 already heard. If there is competition, you can have  
3 competitive procurement and the way you get competition is  
4 defining the requirements or replacement is generally as  
5 possible, you know, potentially include both new and  
6 existing units in the procurement, and you can put units at  
7 multiple locations, so just echoing some of the comments of  
8 my fellow panelists. I would like to pick up on one thing  
9 that I think I heard Don say, which is, it is unclear that  
10 the utilities have the appropriate price signals and the  
11 appropriate analytic tools to differentiate between  
12 different projects with different locational attributes and  
13 different operating characteristics, and so that is  
14 probably one aspect of the current procurement process that  
15 will have to change. The analytic tools that are used in  
16 the IOU's, RFO's, will have to become more sophisticated.

17 MR. BAKER: And could you provide any specific  
18 examples in that regard?

19 MR. BARMACK: You know, I would like to keep my  
20 comments at a relatively high level, but based on one  
21 utility's procurement process, my sense is that, in that  
22 process, location and operating flexibility are kind of  
23 subjective factors, and it is really unclear how that  
24 utility makes trade-offs between projects which are all  
25 attractive, but have slightly different bundles of

1 locational characteristics and operating characteristics.

2 Thank you.

3 COMMISSIONER BYRON: And what are those  
4 characteristics we are talking about?

5 MR. BARMACK: Well, location is location, but then  
6 operating characteristics would include things like ramp  
7 rates and the ability to provide regulation, for example.

8 COMMISSIONER BYRON: Thank you. That is general  
9 enough.

10 MR. BARMACK: Okay.

11 MR. BAKER: And did you have anything on AB 1576?

12 MR. BARMACK: Did you ask about contract term?

13 MR. BAKER: And that, as well.

14 MR. BARMACK: Why don't I speak to that. I think I  
15 have a somewhat different view than what I have heard up  
16 here. I mean, first of all, I would like to differentiate  
17 between existing assets and new assets. You know, I think  
18 one under-appreciated fact is that there is a lot of latent  
19 flexibility in the existing fleet, and if you pay guys, the  
20 flexibility will be forthcoming. And you do not need long-  
21 term contracts to do that, you need many of the things that  
22 the ISO is already pursuing like, you know, scarcity  
23 pricing and potentially some additional ancillary services,  
24 and higher big caps and higher price caps. So I think we  
25 are moving in the right direction and I think we will be

1 surprised about how much flexibility the existing fleet  
2 can provide. With respect to new build, you know, nothing  
3 in California gets built without a long-term contract with  
4 an IOU. As I alluded to, I have a somewhat contrary view  
5 about contract length. I think it is true that, you know,  
6 the price to ratepayers, measured very narrowly, is lower  
7 with very long-term contracts, but what that does not  
8 recognize is, through committing to long-term contracts,  
9 utilities and their customers are assuming a risk. And  
10 there is a trade-off there, I just wanted to indicate that  
11 there is a trade-off that does not cut all in one  
12 direction.

13 MR. BAKER: Thank you, Mr. Barmack. With that, we  
14 will move to Alan Comnes, and you will have the final word  
15 of the panelists. I would like you to focus your comments  
16 again on Question 1, can OTC replacement be done via the  
17 IOU's RFO process, hear your comment on contract length,  
18 and also hear about AB 1576.

19 MR. COMNES: Thank you. I just wanted to add that  
20 since I go last, I get all the remaining time --

21 COMMISSIONER BYRON: However, there is none, so  
22 please go quickly.

23 MR. COMNES: Okay. Can the existing RFO process  
24 work to accommodate once-through cooling replacement? NRC  
25 would say yes, but... And there are some important "buts"

1 here, it is going to take you longer, and it is going to  
2 cost you a lot of money, I think you have heard that, and  
3 it is going to take you longer, and if you want to succeed,  
4 you need to be flexible along the way. You need to be able  
5 to define success pretty generally so that you can get  
6 there eventually. So what do I mean by more flexibility?  
7 And it is something that I have not really heard raised  
8 today. But, first is, you know, NRG does own once-through  
9 cooling units and, of course, we have repowered units, we  
10 have contracts to repower units, and we want to bid more  
11 peak days into repowering units, but we understand that  
12 there is an importance in competition and so, the way to do  
13 that is you have to have a very well-defined set of market  
14 requirements on what is acceptable replacement generation.  
15 And I really think that comes to -- it is a two-fold  
16 requirement, one is the market has really got to signal  
17 what kind of products they are going to want in the future,  
18 and I think Matt alluded to that, but we really need some  
19 clear signals in terms of regional ancillary service  
20 requirements, making the sort of hidden reliability  
21 requirements that are not well understood like, say, SCIT,  
22 well communicated, you know, we need new products, we need  
23 a 30-minute reserve, we need it for reserve markets. So  
24 those things will help to set a market signal. Second, we  
25 need a very well-defined LCR study. There is talk about a

1 10-year LCR. I would venture a guess that is going to  
2 take a little bit more work on a spreadsheet in that that  
3 information needs to be communicated very clearly in an  
4 advance CRFO so that you can actually get generation that  
5 meets your needs. Second, flexibility in the actual  
6 procurement process; we have been through a few BPA's with  
7 these utilities, it is a -- we like the bid-based system,  
8 but again, you are going to need even more flexibility to  
9 meet this additional requirement of once-through cooling  
10 retirement. So the things that we see that could be  
11 reformed or modified, the PPAs, include allowing the  
12 sufficient time in change of law provisions to respond --  
13 to bounce along the way in terms of getting PUC approval  
14 and necessary permits. We all have this going on, for  
15 example, with the South Coast Air Credits. We need  
16 reasonable credit and collateral provisions; there are some  
17 pretty onerous requirements out there by some of the load  
18 serving entities that are procuring, it is obviously a  
19 natural protection on the part of the buyer to want a  
20 credit-worthy counterparty, but on the other hand, you are  
21 going to severely limit competition with some of the  
22 requirements that are out there. Third, you do not want to  
23 have punitive penalties in the contracts for certain  
24 operational characteristics. We have heard time and time  
25 again that you are going to need certain operational

1 characteristics to accommodate renewables, and some of the  
2 attributes that once-through cooling units have  
3 traditionally provided. Just to give you an example, you  
4 know, the LMS100, it is now somewhat established, it has  
5 been built, but I would venture to guess that if, in the  
6 current credit market, if the LMS100 came along today, it  
7 would be very hard to finance. So think about that. There  
8 are new technologies coming. The gentleman from DG  
9 mentioned some of them. We are proponents of them, but you  
10 have got to build contracts that can accommodate the new  
11 technologies and actually be financeable. I know this is  
12 not really the crowd to get into these details, but where  
13 this comes into, the process that I have heard is, that  
14 Simon talked about, as part of the RFO process, he needs to  
15 review the RFO documents and the pro forma, and that is  
16 where I think the Commission staff really needs to take a  
17 careful look, again, if they want to succeed. Another area  
18 in terms of flexibility is -- or, I am sorry  
19 -- in terms of making the procurement process work to meet  
20 once-through cooling objectives, is a solution that is  
21 hidden in plain sight, you know, I will not even call it  
22 the elephant in the room, I will call it the pony in the  
23 room, it is the capacity market. The gentleman from RRI  
24 mentioned it. Right now, my existing assets earn one-  
25 quarter to one-third the price that new units earn; if you

1 want to figure out a way to get existing units to  
2 accommodate to any sort of medium-term to more possible  
3 retrofits that actually might meet once-through cooling or  
4 sort of the 316B requirements, a capacity market is a way  
5 to do that. A capacity market could also handle new  
6 generation, as the gentleman from RRI mentioned. And all  
7 those attributes I talked about, contract flexibility, or  
8 PPA attributes, can be built into the tariff design of the  
9 capacity market, so they are not mutually exclusive. I  
10 will move on, yes, about contract length. NRG is not  
11 doctrinaire about contracts. We have built repowered  
12 generation on 10-year contracts, again, with the capacity  
13 market, we think that can support new generation with a 10-  
14 year strip built on the end, or really, when we say that a  
15 longer-term contract provides better ratepayer benefits,  
16 that is true if you have sort of the market structure that  
17 is sort of a gotcha at the end, where once your contract  
18 ends, you again once get \$.25 on the dollar in terms of  
19 what the capacity is worth. So if you have a market  
20 structure that has capacity market, then you will actually  
21 see the better prices with shorter tenure deals. That  
22 said, given the current market environment, if you want to  
23 have a lot of obligations and you are trying to manage  
24 costs, so you are probably going to get a wider range of  
25 prices if you allow for longer tenure deals. One final

1 thing I will say about the longer tenure deals, it is not  
2 only the LSE's consider the CAM to be the requirement, some  
3 of the LSE's are entering the 20-year deals, they do not  
4 seem to be concerned about -- or they are willing to take  
5 on the risk of cost recovery past year 10. So I think you  
6 can also ask questions of the LSE panel about whether they  
7 are willing to enter into longer dated contracts. You  
8 asked about 1576.

9 MR. BAKER: Yes, I did.

10 MR. COMNES: Okay, well, the last long-term  
11 procurement proceeding had an extensive record on 1576.  
12 There was detailed proposals provided by both the utilities  
13 and generators. And yet all that came from it was, I would  
14 say, a strengthening of the rebuttable presumption language  
15 that is in the LTTP order, namely that the Commission  
16 should -- or, sorry -- utilities and their RFOs should go  
17 to great lengths to try to procure sites that utilize  
18 ground fuel and also lead to the retirement of once-through  
19 cooled facilities. However, there was no adoption of any  
20 of the cost-based proposals from the point of view of the  
21 generators, and some of the utility proposals were pretty  
22 onerous, they essentially required us to hand over the  
23 asset at the end of the contract term, which is not really  
24 our business model. So I guess my suggestion is, you know,  
25 we support AB 1576, we understand it, and one of the



1 reasons for it was to try to achieve the state's  
2 objectives with regards to 316B to have requirements, but I  
3 would suggest maybe that the Commission or its staff,  
4 actually, come up with a proposal and actually drive this,  
5 rather than ask for a lot of proposals and then not really  
6 take them to completion, which is what happened the last  
7 Long-Term Procurement Planning Proceeding.

8 MR. BAKER: Thank you, Mr. Comnes.

9 MR. COMNES: Did I use my time?

10 MR. BAKER: Yes. We do have a few minutes  
11 remaining if there are any questions from the dais.

12 COMMISSIONER BYRON: Absolutely, there are. Mr.  
13 Mansour, did you have some questions?

14 MR. MANSOUR: There are a couple on that  
15 opportunity and get some free consulting from this very  
16 powerful panel, so first of all, I agree virtually with  
17 just about everything you said in terms of identifying what  
18 the issues are, and how we may go about -- but this is  
19 going to get into the next level of detail, two details  
20 about the fact and get some ideas, and more specific. And  
21 if it is not today, maybe some other time, so in one of the  
22 other forums. On the planning side, a number of you said  
23 we need to read now well in advance what the requirements  
24 are so we can respond to it. So we move from an annual  
25 process, which was the ISO's, and the PUC's results and

1 adequacy to combine -- to align the two, and came with the  
2 local capacity requirement, which really took care of most  
3 of what used to be at [inaudible], and had it in the  
4 procurement process to do what the results adequacy to  
5 consider locational stuff. Now -- and that was spelled  
6 year by year; now you saw the proposal that we will do  
7 multi-year, a 10-year advance of locational capacity  
8 requirement, and we will do that open and it will be  
9 published and, you know, as a planning protocol of the ISO,  
10 or even under 890 for the whole state. Anything else that  
11 you can think of that, you know, you are looking for? Or  
12 that will do it? That is my first question. I have  
13 another question if we have time.

14 MR. BAKER: Anybody want to address that?

15 MR. BARMACK: I have one comment on that.

16 MR. BAKER: Go ahead.

17 MR. BARMACK: I mean, I think from the ISO's  
18 standpoint, that is a lot of what we need, but I think what  
19 is still lacking in California, which some other markets  
20 have, is some link between these planning activities and  
21 procurement. So I think, if you go ahead with what you  
22 just described, and the PUC sort of closes the loop, then  
23 we will have everything that we need.

24 MR. MANSOUR: Anyone else? Anything else?

25 MR. MITCHELL: From a capacity market standpoint,

1 which RRI and NRG both touched on, we are of the opinion  
2 from experience and other ISO's that a centralizing  
3 capacity market is not necessarily green field generation.  
4 You take ISO New England, for example, they have got a  
5 large -- thousands of over-generation that puts them up in  
6 a 2017, and one could argue that ISO New England is over-  
7 filled, but there are also clearing and existing capacity  
8 old gas capacity and coal capacity and products that use  
9 once-through cooling, and there is not a venue or a system  
10 to incent green field to come on there. So what perhaps,  
11 as this process at capacity market builds and ebbs and  
12 flows here in California, a bifurcated capacity market may  
13 need to be looked at as a viable argument to incent  
14 existing and green field if we want to bring on new  
15 generation to improve the system as a whole.

16 MR. MANSOUR: Well, you actually got me to the  
17 second question that was, how many of you -- or, would any  
18 of you -- agree that, if we have a capacity market and  
19 ancillary service market, you would be able to finance  
20 [inaudible] [69:07]?

21 MR. DAVIES: One thing that is absolutely critical  
22 on that is confidence and if those markets are put in  
23 place, they will be there and they will remain there for  
24 the long-term. And right now, I do not think California  
25 has a history of putting things in place that stay there

1 long enough to give investors confidence that they will  
2 remain and they will, in fact, go with the time frame they  
3 anticipated, earn the returns, or get even fair returns  
4 back, much less --

5 MR. MANSOUR: Maybe some one will tell me a place  
6 that actually have that, instead of do I have it, but just  
7 with all of what you know and what you do not know, like  
8 realities in terms of, you know, the regulators can change  
9 things and it is not disturbing that that is their  
10 intention, but from time to time, there might be a change,  
11 a crisis happened in 2000, and it will require some change;  
12 you cannot expect regulators -- look at what is happening  
13 in the financial market, one is off until it crashes and,  
14 so, "My gosh, how come we did not fear early on?" So it is  
15 -- with all the realities that you know, do you think that  
16 if we had a capacity market and an ancillary service  
17 market, and on that subject, as you wish, would you be able  
18 to have the right capital to invest in new green field?

19 MR. DAVIES: I think that was my point, Yakout, is  
20 that, without the certainty, it is going to be very  
21 difficult to get investors on new green field major  
22 projects, and therefore, even markets as has been  
23 discussed, may be more well suited for existing generation  
24 and market that comes into play at the end of a 10, 15, 20-  
25 year contract, as compared to a structure that is going to

1 facilitate or allow green field investment.

2 MR. MANSOUR: Anyone else?

3 MR. COMNES: I, well, first of all, it is going to  
4 take a while to pass more of the grounds early [71:00] and,  
5 given the pretty ambitious schedule that is laid out in the  
6 energy agencies' paper, you are going to need one or two  
7 rounds of RO's in addition to getting the RFO that has  
8 already been done out of the ditch done. But eventually,  
9 to answer your question, yes, I think there is evidence in  
10 PJM that, you know, a capacity market supported new  
11 generation.

12 MR. PETERS: I think capacity market, newly  
13 established, would not be financeable, you could not  
14 finance a new green field project. It would take some  
15 time, and therefore, at minimum, it ought to be phased in.  
16 I think the long term PPA is the solution because that, for  
17 example, allows a full range of competition. The PUC has  
18 indicated in its rulings that it wants to promote  
19 competition for new generation. Well, exactly what does  
20 that mean? Private firms such as ours that want to bid  
21 into an RFO will look at competition against utility-owned  
22 generation, and competition from other established water  
23 [inaudible] [72:13] who have a longer term horizon than  
24 maybe some of the financial markets, and therefore, if you  
25 are going to have a broad range of competition available,

1 and encourage that, you need to encourage the type of  
2 competition that allows new interests such as our firm has  
3 brought in on some of these projects, so that if they have  
4 the confidence that they can come in, offer a competitive  
5 bid, and know that they have a long-term, say, 20-year or  
6 so, contract to support it, that allows them to offer a  
7 much lower price because they do not have to be so  
8 concerned about residual value, and debt service coverage  
9 ratios that are ever changing in a volatile capital  
10 marketplace. That provides long-term stability and  
11 encourages a broader range of competition.

12 MR. MANSOUR: So, Commissioner, actually my  
13 question is, even though it may sound like it, are we off  
14 track or not, like on the eighth OTC we are talking about,  
15 do we focus on the mechanism that exists to repower? Or do  
16 what is necessary what can be done in the existing plant?  
17 Or offer competition of replacement to green fields to  
18 actually ban one and move with the others? I am trying to  
19 think of what mechanism we shall have, other than what we  
20 already have, that would make that at least that  
21 competition between the two, [inaudible] [73:30] as  
22 possible.

23 COMMISSIONER BYRON: Uh, Simon, you said you had  
24 some closing remarks on this panel and we are a little bit  
25 behind schedule, so --

1 MR. BAKER: I actually was referring to Mr.  
2 Comnes. He played wrap-up.

3 COMMISSIONER BYRON: Okay, well, I would like to  
4 thank you all very much. I mean, we could go on for  
5 another hour or two. I think it is also worthwhile just  
6 mentioning maybe the obvious to you all; first of all,  
7 there are so many acronyms, I apologize to those in the  
8 audience that are not familiar with all the acronyms that  
9 we use in this panel. I started writing them down when you  
10 were speaking and you had eight of them by yourself, so --

11 MR. COMNES: I will post a glossary.

12 COMMISSIONER BYRON: But this is all about the  
13 procurement process and this input is extremely valuable,  
14 but I would remind everyone that this just addresses really  
15 the investor-owned utilities procurement process, we also  
16 have a number of once-through cooling plants that are in  
17 the public-owned utility domain. These gentlemen all  
18 participate in that process and it is rather complicated.  
19 I have a feeling, Mr. Baker, it is going to get more  
20 complicated. I appreciate your openness to listening to  
21 all this input. We are not going to make your job any  
22 easier. But this is very good input. We are going to take  
23 a break now until 1:15, just checking by the clock in the  
24 back of the room, which is different than other clocks. So  
25 I would like to thank you all and hope you will return. We

1 have got a packed afternoon. Again, our panelists, thank  
2 you.

3 [Off the record at 12:07 p.m.]

4 [Back on the record at 1:19 p.m.]

5 **Agenda Item 5: Panel 2: Changes to Procurement from**  
6 **an LCE/IOU/Consumer Point of View**

7 MS. KOROSSEC: All right, let's go ahead and we will  
8 begin with our second panel, which is going to be moderated  
9 by David Vidaver from the CEC staff. David.

10 MR. VIDAVER: Thank you, Suzanne. For the record,  
11 my name is David Vidaver, V-i-d-a-v-e-r, and I am with the  
12 California Energy Commission's Electricity Analysis Office.  
13 As far as this process goes, a true lynch pin of  
14 successfully eliminating OTC is the CPUC procurement  
15 process. Long-Term contracts for new capacity or to pay  
16 for capital investments to rethink existing facilities, are  
17 needed in order to secure financing. There has been only  
18 one major facility that was permitted by the CEC since 2001  
19 that has come on line without a long-term contract. The  
20 goal of this process is an RFO, or more correctly three, or  
21 four, or five, where minimal amounts of gas-fired capacity  
22 are solicited in order to meet local and system reliability  
23 needs and the other policy goals of the state. And to do  
24 so, in a least cost fashion, in RFO's that are more  
25 competitive, drawing as many green field, brown field, and



1 perhaps even refits, as possible.

2           This panel is being asked to discuss the  
3 implications of the Joint Energy Agency Proposal for the  
4 procurement process, from the single and unique perspective  
5 of the utility ratepayer environmental community. I hope  
6 this discussion involves everybody. Although many slides  
7 are being somewhat utility centric, I encourage all and  
8 other panelists to interject when they have something to  
9 say, and I will probably bushwhack Mr. White with a  
10 question or two at the outset in order to make sure his  
11 concerns are fully captured. Rob Anderson, the  
12 representative from San Diego Gas & Electric, sits on my  
13 far left; we have Kevin Cini from Southern California  
14 Edison; Marino Monardi from PG&E; Matthew Tisdale from  
15 Department of Ratepayer Advocates at the CPUC; the  
16 Honorable Mike Florio, representing TURN; and V. John White  
17 with CEERT. We hope to have a representative from LADWP  
18 online, at the moment he is not here, I have no comment  
19 about that.

20           COMMISSIONER BYRON: Mr. Vidaver, just because this  
21 is an AFZ, and Acronym Free Zone, you called it CEERT,  
22 which is making a word out of an acronym, let's give it --  
23 let's work on helping everyone understand what all these  
24 things are.

25           MR. VIDAVER: Oh, Lord, Con - something for

1 Emergency Renewable Efficient Renewable Technology -- I  
2 am sorry, perhaps Mr. White would like to --

3 MR. WHITE: Close enough.

4 COMMISSIONER BYRON: The Center for Energy  
5 Efficiency and Renewable Technologies.

6 MR. WHITE: Thank you.

7 MR. VIDAVER: I stand embarrassed. There is one  
8 person who actually volunteered for this panel. If you  
9 have ever tried to herd one of these together, you will  
10 know how rare that is, and that is Rob Anderson from San  
11 Diego Gas & Electric. San Diego Gas and Electric is  
12 perhaps closer than the other investor-owned utilities to  
13 finding itself not afoul of OTC requirements. I am sure  
14 Mr. Anderson could more adequately explain what that means.  
15 So, in an effort to reward his enthusiasm for being here  
16 today, and to demonstrate to the State Water Board and any  
17 other entity or individual who believes that we cannot pull  
18 this off successfully, I will let Rob sort of go first and,  
19 more or less, address the question, "What do I think of all  
20 of this," after which the dais is more than welcome to ask  
21 him questions. Rob, thank you.

22 MR. ANDERSON: Thank you. I am Rob Anderson,  
23 Director of Resource Planning at SDG&E. And what Dave did  
24 not say was, in that same e-mail note that I volunteered, I  
25 also, then, a few lines down, said, "I just volunteered. I

1 better schedule a doctor's appointment."

2           Just a little bit from San Diego's perspective  
3 because I think we are in a little bit different situation  
4 than Edison -- I know definitely than Edison, maybe more so  
5 than PG&E, and that is really on taking care of our once-  
6 through cooling issue, or being able to eliminate those  
7 projects, I think we can probably get there maybe quicker  
8 than the other plants can. I would not want to say,  
9 though, that it is a quick process. I think it is really  
10 resulting from the work on the Sunrise Power Link, and  
11 knowledge years ago that the owners of the South Bay Power  
12 Plant wanted that plant shut down at a date specific, which  
13 we are trying real hard to meet. And so I want to say,  
14 yeah, we might be close to eliminating it, but it is not  
15 because we are starting now, it is probably because we  
16 started six, seven, or eight years ago on this problem now.  
17 So can the problem be solved? Yes. Just because we may  
18 get it done in the next three or four years, I do not think  
19 that means that everyone can get it done for three years,  
20 this is probably a 10-year process for everyone to go  
21 through.

22           How are we really going to do it? I think what  
23 will finish the job, because I think we are part of the way  
24 through it, is through the RFO process. There were some  
25 things said this morning and I think I would very much

1 agree with, is we try to stretch the RFO's to be as  
2 flexible as possible. We do not structure the RFO's saying  
3 we are looking for X Megawatts to replace X Megawatts.  
4 What we really do when we structure our RFO's is we are  
5 looking for moving from a portfolio of plants that included  
6 once-through cooling plants, to a portfolio of plants that  
7 does not include once-through cooling plants. And by  
8 looking at it from a portfolio basis, I think we are not  
9 targeting, "Okay, this plant provided this service,  
10 therefore we need to go get that same service," but,  
11 rather, as we add different plants into the portfolio,  
12 services may move around from plant to plant. So we think  
13 it is important to look at it from a portfolio basis.  
14 Also, by being fairly flexible, we are not -- we have to be  
15 a bit restrictive on location because it has got to be  
16 within the San Diego zone, the local area, but other than  
17 that, we are willing to look at offers anywhere in the  
18 zone. There may be offers where the power plant is  
19 cheaper, it might need some transmission upgrades, but that  
20 might be cheaper than a more expensive plant that does not  
21 include any transmission upgrades. So we want to make sure  
22 that we look at those things and trade them off as we  
23 evaluate the portfolio.

24           We currently do have an RFO out on the street, the  
25 bids are due back to us on August 10<sup>th</sup>. We are hoping, if

1 we get enough competitive bids, that through that RFO and  
2 the evaluation of it, we will be able to select enough new  
3 plants that would be able to replace the last of the once-  
4 through cooling plants in our service territory, so that is  
5 our goal. Whether or not we will meet it or not, I do not  
6 know, we are going to have to wait and see, see what all  
7 comes in on the bid. As part of that bid, we are asking  
8 for new plants, obviously. We are also offering a 20-year  
9 contract, so we are not limiting it to 10-year contracts,  
10 and I think you heard before that there was a desire from a  
11 lot of the new builders to have a longer-term contract.

12           Around the AB 1576 issue, we really do not see that  
13 as being an issue. We think we are going to do it through  
14 competitive solicitations. We will then take those  
15 contracts to the Commission for approval. We never viewed  
16 that law as creating the need to do any special  
17 procurement, do it in a special way, so that, to me, has  
18 become a bigger issue and talked about a lot more than what  
19 it was ever meant to be.

20           And so finally, and kind of in conclusion, we think  
21 we can get there, we are moving ahead. As I read through  
22 the staff proposal, the one thing that lingers in the back  
23 of my mind a little bit is will this proposal, with all  
24 this analysis, slow us down? We hope it does not. We want  
25 to work with you to make sure that is not the case. I do

1 not think you want that to be the case, but we really do  
2 not want to have lots of new studies to go on, or lots of  
3 new work to go on, we would like to get on with the job at  
4 hand. Also, we think what will be important out of this,  
5 and one of the things we would like to do, is we would like  
6 to be able to give some surety or some, as close as we can,  
7 dates certainty to the existing plant owners. We used to  
8 run both of those power plants, I know what it is like, a  
9 lot of them are dealing with capital investment issues.  
10 Those issues may not make sense if their plant is going to  
11 be around two years, it may make sense if their plant is  
12 going to be around four or five years. So we are hoping,  
13 out of this RFO, we can then get a plan laid out so the  
14 owners of the existing plants will pretty much know what  
15 life do I have left. I think that will give them a bit  
16 more surety, it will allow them to make better business  
17 decisions, and help keep the costs down, down for all of  
18 us. And that is all I have. Thank you.

19 MR. MANSOUR: Yeah, just a clarifying question,  
20 Commissioner. I understand from what you said that you  
21 have less of a concern than [inaudible] [9:53], yes? Is  
22 that correct?

23 MR. ANDERSON: Yes.

24 MR. MANSOUR: So I just want to make sure that what  
25 you mean by that, so do you mean that the 30 or 40 percent

1 of the generation, if, let us say, with much less than we  
2 have now, like the San Diego lights will be on, and the  
3 rest is off? Or -- you are not part of that system as a  
4 whole, so when Edison has a big issue, it does not affect  
5 you and L.A.?

6 COMMISSIONER BYRON: That is not a clarifying  
7 question, that is a trick question.

8 MR. MANSOUR: I just want to know what he said, "we  
9 don't have as much of an issue," I just want to --

10 MR. ANDERSON: Sure.

11 MR. MANSOUR: -- what is it that you say you do not  
12 have, and what is it that you still have, or just a  
13 clarification?

14 MR. ANDERSON: I think maybe the issue of getting  
15 replacement capacity that I think will provide the services  
16 the ISO needs, quick starting capacity, ramping capacity,  
17 we have been adding that, we will add some more of it.  
18 Once we do that, the numbers will add up for a local  
19 reliability area that we would be able to allow the once-  
20 through cooling plants to shut down, and still meet your  
21 local reliability. Okay? I understand that there are  
22 wider statewide issues assigned to this, but I am counting  
23 on the two gentlemen to my right to handle that in each of  
24 their own service areas.

25 MR. MANSOUR: Okay, thank you.

1 MR. VAWTER: Rob, if I may, would you be willing  
2 to elaborate a little on what you have to get out of this  
3 RFO and your understanding of what that will allow with  
4 respect to Encino, whether another RFO might be necessary?

5 MR. ANDERSON: Well, when you issue an RFO, you  
6 never know exactly what you are going to get bid-wise. You  
7 never know if the bids that come in, when you sit down and  
8 negotiate them, you can get to a final agreement and that  
9 part is going to move forward. So our goal would be to get  
10 enough new capacity signed up under this RFO that would  
11 allow, from a long-term look at the local reliability  
12 criteria, that we would have added enough new capacity to  
13 allow all the existing once-through cooling units to shut  
14 down. That is our goal. Whether or not we will be able to  
15 get there, I do not know.

16 MR. VAWTER: What do you think would prevent you  
17 from getting there?

18 MR. ANDERSON: Like I said, it is more of will we  
19 get bids, will we be able to reach a mutual agreement with  
20 the developers in order to get that.

21 MR. VAWTER: Okay, thank you.

22 MR. VIDAVER: Several of the panelists before lunch  
23 noted that -- Mr. Pizarro, as well -- noted that we have  
24 established a very ambitious schedule, hoping to get  
25 information out of the procurement process and directions



1 issued to the utilities as early as 2011 and 2013, to  
2 replace once-through cooling capacity. This is not a very  
3 long time -- two to four years is nothing and, if we are to  
4 reach those goals with respect to renewable energy, we may  
5 be foreclosing the opportunity to develop additional  
6 infrastructure, or at least making it more costly to meet  
7 most local capacity needs, system capacity needs, and meet  
8 the state's ambitious renewable energy goals by requiring  
9 new capacity to replace OTC plants, to be on line in as  
10 early as 2014, and 2015 in some cases, and no later than  
11 2020, and according to that schedule, currently  
12 established. I was wondering -- here comes a bushwhack,  
13 Mr. White -- how you might feel about the sort of tension  
14 between replacing OTC capacity and meeting the State Water  
15 Board's policy objectives in a timely fashion, and perhaps  
16 either precluding, or making more expensive overall system  
17 costs in an effort to reach 33 percent renewables?

18 MR. WHITE: Well, thank you for the question.  
19 First of all, I think that the regulations of the Water  
20 Board have already been relaxed, if I am not mistaken, from  
21 what was proposed. So the idea of this being in an urgent  
22 crisis is something I am not sure is the case. But, I  
23 think, first of all, I commend the Commission for putting  
24 this subject on the series of topics that it has been  
25 looking at on metro gas and renewables, because I think the

1 first challenge is to recognize the need for something we  
2 might call "Integrated Resource Long-Term Procurement  
3 Plan," in that we have to accommodate a variety of  
4 interests and issues to move forward. And I think one of  
5 the things we have to look at that has been referenced, but  
6 is the attributes of the fossil system we have versus what  
7 we need it to be. And I think one of the reasons these  
8 plants, the once-through cooling plants, are important is  
9 because, in many instances, they are the ones that actually  
10 operate the most flexibly on the system. One friend of  
11 mine described them as the "old '57 Chevys," you know, they  
12 burn gas and they are inefficient, and they have some  
13 higher emissions, but they run beautifully for purposes of  
14 what we now need. So I think that is an important  
15 attribute to keep in mind and it is why the subject is  
16 relevant for renewables. But, secondly, I think we need to  
17 take a look at the existing fossil capacity and look at how  
18 flexible it is, or might be, compared to what we need  
19 because we built a lot of combined cycles, a lot of them  
20 have been permitted by this agency and the air quality  
21 agencies with a very heavy focus on the lowest possible  
22 emissions per million Btu's or Megawatt-hour, but this has  
23 then resulted in the plants, as I understand it, not being  
24 able to flexibly ramp up and down. So all of this new  
25 capacity we have added has not helped us in the way that we

1 need help going forward. So it seems to me that one of  
2 the things -- and then we have got the priority reserve  
3 issue in the South Coast, which is a topic that could  
4 easily be alongside this, and perhaps deserving of a future  
5 conversation because, there, you have the problem of some  
6 of the new capacity that we might like to have for its  
7 attributes, if not always this location, is constrained by  
8 the conversation about the availability of offsets. And  
9 when you talk to the folks in the community groups who are  
10 opposing new power plants in their neighborhood, that  
11 conversation has gotten more evolved as time has gone by,  
12 and the negotiations and lobbying around various Bills to  
13 exempt the permits from having to get offsets have  
14 crystallized the problem a little bit. And one of the  
15 things you hear from them is, "We might be able to agree  
16 that there needs to be more capacity, but we've also got to  
17 look at what we are going to retire, and what the net  
18 emissions would be," which is not the way our planning and  
19 siting process is set up. We got rid of the need  
20 assessment in our over-confidence of the value of the  
21 markets, so we do not now have an independent Energy  
22 Commission forecasted need. I am not sure having the  
23 Energy Commission alone through a forecast is the answer,  
24 given the interactivity and the need for the ISO, the  
25 public utilities, the PUC, to all be involved.

1           Two other issues that bear on this, not to  
2     complicate things further, but we have already seen  
3     progress and movement towards joint operational planning by  
4     the ISO, the publicly-owned utilities, and the IOUs. That  
5     process is something that I think came out of the RETI  
6     discussions where we needed to look at the value of joint  
7     operations. I think we need to add something --

8           COMMISSIONER BYRON: Mr. White, RETI is another one  
9     of those acronyms --

10          MR. WHITE: Renewable Energy Transmission Issue,  
11     pardon me, Mr. Chairman. So there is the other issue we  
12     might want to look at in that same light, is what are the  
13     possibilities for combining and jointly operating the  
14     balancing areas because, ultimately, in Southern California  
15     you have two completely separate systems that do not talk  
16     to each other for reasons of history, and religion in some  
17     respects, and yet, in the basin, were those systems jointly  
18     operated, or had access to each other, and for these  
19     purposes, you could end up having a significantly less  
20     amount of fossil capacity than you would have if you  
21     otherwise kept the systems separate. So two specific  
22     suggestions I have, one is to examine the capacity of the  
23     fossil system to be run differently, in other words, from a  
24     renewable standpoint, I do not think we want to necessarily  
25     have 20 percent of 120 percent be our goal. At some point,

1 we ought to be able not to keep all the fossil we have  
2 and back some of it off, but to back some of it off  
3 probably depends on its operating characteristics. The  
4 second thing is to really push forward with this joint  
5 planning effort that the ISO and the utilities have  
6 undertaken, and see what we can do with the balancing  
7 areas, with the goal of minimizing fossil emissions while  
8 maintaining system reliability. Thank you.

9 MR. MANSOUR: This is the best speech I have heard  
10 since I came to California.

11 COMMISSIONER BYRON: Well, I will not take offense  
12 from that, how about you? Very good, Mr. White.

13 VICE CHAIR BOYD: One comment, John. You mentioned  
14 that, as I have sat here, I have been quite concerned about  
15 the number of simple cycle peaker -- large peaker plants --  
16 that we have been asked to put in place, and their virtue  
17 is, you know, quick start, quick ramp-up, etc., and you  
18 mention in your comments that basically we have not seen  
19 plants with those virtues very much in the past. I think  
20 there is somewhat of a balance. There is a lot more of  
21 them in the cue now, but that is bothersome to me because  
22 they are inefficient, they use a lot of gas, I worry about  
23 natural gas consumption a lot. And the other thing I do  
24 not hear enough talk about, although we heard this morning,  
25 as many of us know, that there are lots of new technologies

1 out there that can go both ways, so to speak, they can be  
2 combined cycle, quick start, etc. etc., so maybe some of  
3 these will sit on the shelf long enough to change the  
4 technology to apply. The other concern I have is, I do not  
5 feel I hear enough discussion of all the other alternatives  
6 to building any generation in a lot of these areas, and I  
7 am just taking advantage of your comments, to make that  
8 comment. I said it in my introduction and I will say it  
9 again, regularly, that there are a lot of other alternative  
10 approaches to meet your need, and we need to more  
11 cooperatively talk about them in the comments.

12 MR. VAWTER: May I? If I could say, I think the  
13 two things we did talk about just a moment ago is the  
14 strategic role of energy efficiency at minimizing that  
15 need, as well as the role of demand response, as well as  
16 distributed generation. We have a lot of tools in the tool  
17 box, the question is how we put them together. And one of  
18 the things about the siting process -- and this is a  
19 criticism of both the area agencies and the siting process  
20 here, we tend to look at these plants in isolation and how  
21 their environmental performance is, individually, as  
22 opposed to how they operate within the system. It is also  
23 a legacy of Order A88 where all the generation was the same  
24 and when we could not get preferences, and everybody had  
25 equal rights to the grid. I think we are heading towards a

1 policy by default is that clean goes first, and second,  
2 that we do seek to move the fossil units from the center of  
3 the portfolio to the side, with a very important role in  
4 balancing, but not absorbing as much of the energy load as  
5 they now do, and I think that is partly because we need to  
6 think about using them differently than we have in the  
7 past, and I think that requires a different kind of  
8 planning and siting process than the one that we now have,  
9 that actually is informed by the IEPR, it is informed by  
10 the ISO's interest, and it is informed by issues like this,  
11 so that when we look at new generation, we have a better  
12 idea of what it is for and what it is going to displace.

13 MR. VIDAVER: Thank you, that would be a general  
14 representative of the Center for Efficiency and Renewable  
15 Technologies. One of the major concerns that has been  
16 expressed is that, with the location of requirements  
17 associated with replacing once-through cooling capacity,  
18 that bidders into competitive assessment and competitive  
19 RFOs may have a substantial amount of market power. This  
20 is especially an issue in the ISO portion of the L.A. Basin  
21 where the SCAQMD PM10 credits are kind of constraining and  
22 a very expensive factor. I would ask that the  
23 representatives of the utilities begin by discussing what  
24 they believe might constrain or, alternatively, increase  
25 participation in RFOs to be held in response to the 2010

1 and, in Edison's case, 2012 Long-Term Procurement Plan,  
2 and whether -- what additional direction that might not be  
3 forthcoming, or that is absolutely necessary, that they  
4 receive in order to accurately put forth RFOs and provide  
5 information to prospective bidders, needs to be forthcoming  
6 from the CPUC, and whether they feel that, if the economics  
7 allow for it, that simple refitting of existing plants, if  
8 this proves to be far and away the cheapest bridge toward a  
9 low carbon, no once-through cooling future, if the  
10 economics allow it, if they feel that the current  
11 procurement process, or a modified procurement process,  
12 might allow for that -- I am trying to ingratiate myself to  
13 Commissioner Bohn here, paying a lot of attention to cost  
14 -- is in place, are not furloughed three days a week, or a  
15 month. So, Mr. Cini, I am just picking randomly, if you  
16 might elaborate on some of the concerns you might have  
17 about schedule and costs, and who is going to pay for all  
18 this, and how it is going to get done?

19 MR. CINI: My field is wide open with that  
20 question. Thank you. Let me start with what we would need  
21 to do any competitive procurement. We would kind of have  
22 to know what plants are slated for retirement, and we never  
23 know for sure whether a plant is going to retire because we  
24 do not own them, but we would look at some of the  
25 compliance date, and we would look at those plants coming



1 up on their compliance dates as potential candidates for  
2 retirement. We would need to have enough lead time and, by  
3 that, I think it is five to seven years, given the process  
4 we have to go through with the regulatory approvals,  
5 permitting, and this is all assuming we can get the  
6 priority reserve problem solved because, in a long-term  
7 basis, as Pedro Pizarro said, because without the offsets,  
8 and there are just no offsets down in the South Coast  
9 District right now, we just cannot do anything, we are  
10 stranded. But given there is a solution to that problem, a  
11 big wishful "if" there, and we kind of know what plants are  
12 slated for compliance, by what date, you know, given a five  
13 to seven year lead time, we can try to go out and replace  
14 that. It would also be good to know if there is any  
15 transmission alternatives that are competitive, that should  
16 be considered, as well. And actually, those might even be  
17 considered outside an RFO process on a separate track, but  
18 assuming there is no transmission solution forthcoming, and  
19 it is going to be a procurement solution, and it is going  
20 to be Edison doing the procurement solution -- I could go  
21 into a lot of side bars here -- but assuming all that, we  
22 would need to know, obviously, what needs to be replaced.  
23 We would also need to know how this is going to fit in with  
24 the other initiatives, most notably the potential to go to  
25 33 percent RPS by 2020 or 2025, and how all that is going

1 to fit in because there is probably going to be some  
2 increased ramping requirements that we are going to have to  
3 fulfill. So we are going to have to know kind of what  
4 those are, hopefully the solution set here is not just, you  
5 know, build a replacement plant in this particularly place,  
6 hopefully there is some latitude, there is some wider  
7 geographical area, you know, the wider the geographical  
8 area is, the more opportunity there is for competition.  
9 And if you have got to build a plant here, you have got all  
10 kinds of market power issues, if you have got to build a  
11 plant within a 15-mile radius, there are all kinds of  
12 market power issues, if it is a broader area, there is more  
13 competition, and we like to see competition, frankly, that  
14 is the way you are going to get the best result. So those  
15 are the precursors we would need to do this. And I have to  
16 say, you know, this is a huge undertaking because, in our  
17 service territory, excluding the nuclear now, there is  
18 about 8,000 Megawatts of generation that is 40-50 years  
19 old, that uses once-through cooling, and to put a price tag  
20 on replacing that, a simple rule would be \$1,000 per  
21 Kilowatt, that is \$8 billion, and then you add on the  
22 transmission to interconnect it, and we heard from Dennis  
23 Peters, the high figure was \$4 or \$5 billion, so maybe a  
24 couple billion dollars, I do not know, but I think you are  
25 easily talking \$10 billion, and you want to spend that over

1 the next approximately 10 years, that is a lot of money,  
2 and when you add on that the cost to go to 33 percent RPS,  
3 it is a lot more money, when you add on the combined heat  
4 and power goals the state has, 4,000 Megawatts incremental  
5 there, that is more energy efficiency, and the list goes on  
6 and on. You have to build the transmission to interconnect  
7 the renewables, it is another huge cost. I am just kind of  
8 worried about the combined total of all these initiatives,  
9 and who is going to pay for that, what the total price tag  
10 is going to be. Is it just going to be just too huge to  
11 swallow? I mean, basically what we are talking about here  
12 with all these combined initiatives is to rebuild the grid  
13 in about 10 years, and, I mean, from a cost perspective,  
14 that is a big issue, from a portfolio perspective, that is  
15 a big issue, too, because you want to just suddenly do  
16 everything in 10 years, assuming you can even do it,  
17 assuming you can do it with the utilities financing it, and  
18 the utilities' balance sheets can bear it, which I am not  
19 sure that is even possible, that is something that needs to  
20 be examined. But the wisdom of doing a whole portfolio in  
21 the next decade of generation for the next 40-50 years, you  
22 have to question the wisdom of that. Technological  
23 advances occur over time and, if you do everything at once,  
24 then you lose the benefit of future technology, so I just  
25 have to wonder, I mean, these are some of the things that

1 are running through my mind and through the minds of  
2 people that work for Edison, and it is just a big big deal,  
3 and I am glad that I am here to speak to some of these  
4 issues today, and I really could go on and on, but maybe I  
5 should just stop at this point.

6 MR. VAWTER: I am sorry for the open-ended  
7 question. I will try to return to you with something -- a  
8 couple of things more specific. Mr. Monardi, do you have  
9 anything --

10 COMMISSIONER BOHN: May I -- just a question if I  
11 could. I am struck with two concerns from your comments.  
12 First is it is an impossible problem, therefore it cannot  
13 be solved. That is probably not a good answer. The second  
14 piece of it is, all the things that you outlined, quite  
15 rationally and quite sensibly, in terms of information you  
16 need in order to make the most sensible decisions, where do  
17 you look for that information to come from?

18 MR. CINI: Okay, well, first I did not mean to say  
19 it is impossible, I hope I did not convey that --

20 COMMISSIONER BYRON: Well, you conveyed some other  
21 things, too. You also said energy efficiency and  
22 renewables and combined heat and power were all going to  
23 cost more and, of course, the policy of the state is that  
24 all economically achievable energy efficiency -- we are not  
25 after the energies that cost more, and combined heat and

1 power should essentially be cost savings because of the  
2 increased efficiency. And you also indicated that these  
3 were the statements of other Southern California Edison  
4 employees. So I am not as kind as Commission Bohn on this,  
5 I think some of your statements were actually quite  
6 incorrect, and he said it much more kindly than I, but I  
7 was troubled by your comments, as well.

8 MR. CINI: Well, I am sorry. I did not mean to  
9 trouble you, but I am talking about capital investment, and  
10 capital investment costs a lot of money. We have seen this  
11 in our procurement today, there is a huge disconnect  
12 between -- as one of the other panelist said, I believe  
13 Alan Comnes -- what it costs to keep an existing plant  
14 around, this is what it costs to put a new seal in the  
15 ground, including all the transmission interconnected, and  
16 that is true whether you are talking about a renewable  
17 power plant, combining heat and power, or a new fossil  
18 plant. They all cost a lot of capital, about a thousand  
19 for a typical number for a combined cycle might be about a  
20 thousand dollars per Kilowatt. So I think there is a big  
21 disconnect between just keeping what you have around today,  
22 keeping it running, versus putting a lot of capital  
23 investment in the system, and that is what I was talking  
24 about, the increased capital investment that has to be  
25 made. So I hope that clarifies it. Now, I do not think it

1 is impossible. Maybe I am more addressing the time scale  
2 in what is all done, and the more you spread out the time  
3 scale, and the more feasible it is, I honestly do not think  
4 you can do everything by 2020, all these once-through  
5 cooling replacements, all the 33 percent RPS, I do not  
6 think that is even achievable. I mean, we could try our  
7 best, but honestly, I just do not think it could happen  
8 that fast. But on a longer time scale, I think it is  
9 possible. I think these replacements could happen anyway,  
10 over time, because these plants are 40 or 50 years old,  
11 they need to be replaced at some point. But in the next 10  
12 years? I am just saying it is a daunting task.

13 MR. VIDAVER: The task is perhaps slightly less  
14 daunting for PG&E with a transmission solution for Potrero  
15 already in place, and part of Contra Costa, I believe, no  
16 longer needed because of the arrival of the Gateway  
17 project, but there remains Pittsburgh and the remaining  
18 units of Contra Costa. So, Mr. Monardi, if you could  
19 address what information that PG&E might need to move  
20 forward, and how an RFO might best be structured?

21 MR. MONARDI: Thank you, David. And I also would  
22 like to point out that PG&E has taken proactive action in  
23 terms of replacing Humboldt Bay Power Plant with our  
24 repower, which should be on line some time in 2011. A  
25 couple points I want to make. First of all, I want to

1 address just kind of a foundation, you know, PG&E does  
2 follow the loading order, PG&E in its cost-effective,  
3 energy efficiency and demand response and renewables  
4 obviously are preferred resources. PG&E also obviously is  
5 working through the long-term planning proceedings, which  
6 determines its need for the residual resources, if you want  
7 to call them that, and included in that is an assumption  
8 about retirement of once-through cooling units. So that  
9 all gets baked into our specific need which drives our RFO,  
10 and I want to make sure everybody understands that this  
11 process is a process that is, you know, obviously worked  
12 through the CPUC process, and it is a number of  
13 stakeholders that participate in it. I am not sure there  
14 is a need for another additional process on top of that.  
15 Through that process, obviously, we come up with a need for  
16 resources which are identified, typically those are  
17 resources identified as being operational flexible.  
18 Obviously, that operational flexibility is important for a  
19 variety of reasons, it meets the portfolio needs that a  
20 number of parties today have mentioned, the need to  
21 integrate renewable resources, as well as the need to  
22 replace the operational flexibility from existing once-  
23 through cooling units. And PG&E has actually gone through  
24 a long-term RFO process in 2004, and we have identified a  
25 number of units that have come through that, including the

1 replacement for Humboldt, as I mentioned, and it is the  
2 tail end of a RFO currently right now. A couple things  
3 that we have taken away from that process. Number one is,  
4 we think that it is better to be more general than specific  
5 in these RFO's. I think you have heard a number of parties  
6 say, and I think say correctly, that you want to have a  
7 competitive process, and our opinion is that, what we have  
8 discovered is, having an open and as competitive process as  
9 possible will tend to drive down costs and benefit the  
10 consumers in the long-term, and so we think that is an  
11 important attribute. Getting too specific probably  
12 constrains the options that counterparties have, and it  
13 also, and our feeling is, it reduces innovation. And one  
14 thing that we are always surprised at, what we have  
15 discovered is, people come up with all different types of,  
16 you know, new technologies are coming up, you have heard  
17 some of them being touted today, these technologies are  
18 highly flexible, they are efficient, and we welcome that in  
19 our RFO, so we do not want to get too overly specific.  
20 Likewise, in terms of finding good locations to site power  
21 plants, that is something that we find that, you know, the  
22 market is usually fairly good at determining -- developers  
23 are fairly good at scouring sites and figuring out where  
24 the best place is to site new power plants. Then, at the  
25 end of the day, getting all these offers, PG&E evaluates



1 them on a number of different factors, including  
2 economics, obviously, is an important factor. But also,  
3 when we have an RFO, I also want to point out, it includes  
4 brown field sites, it includes repowering, and it includes  
5 green field sites. We do not include in our RFO, and this  
6 is to speak to David's earlier point, this concept of  
7 refitting existing power plants. From our perspective,  
8 that is not really fulfilling the long-term planning  
9 proceedings' findings of basically new steel in the ground.  
10 At the end of the day, new steel in the ground is an  
11 important attribute; we are doing that for an important  
12 reliability need. So if we threw in refitting there, the  
13 concern that we have, and I think it was also voiced  
14 earlier today, is that you are going to basically -- you  
15 will have investors who are looking to invest new steel,  
16 new power plants, or they are not going to want to compete  
17 against something that is an existing power plant that only  
18 has an incremental upgrade. We are not also convinced that  
19 refitting these existing once-through cooling units is  
20 really a cost-effective solution, in any event. So, as I  
21 was describing, our RFO process has generally been very  
22 flexible, and we have opened it up to a wide variety of  
23 technologies, and we typically define the number of  
24 Megawatts we need, we typically define operational  
25 flexibility that we are looking for because, obviously,

1 that is what we are trying to achieve, and then, at the  
2 end of the day, we evaluate it against a number of  
3 different attributes, and those attributes include the  
4 environmental impacts, it includes the consideration of  
5 repowering as an important attribute, it includes  
6 viability, and viability is a critical component when we  
7 look at new steel. And obviously someone who is repowering  
8 a power plant is going to have a highly viable project, and  
9 that is something that is an important attribute in our  
10 consideration. So those are just several of the factors  
11 that we consider.

12 That being said, we have actually gone out and have  
13 done a targeted RFO. We needed to do that for Humboldt.  
14 That was a very unique load pocket sort of situation. But  
15 one of the things that we did when we did that, and I think  
16 this is something that I would like to point out, is we  
17 actually did look at the cost of replacing that power plant  
18 with transmission, and we actually had that as an  
19 alternative. When I say "transmission," you just cannot  
20 say "transmission" alone, we had to obviously get the  
21 Megawatts from someplace else. So the question was, do you  
22 build the transmission line and buy the Megawatts from  
23 someplace else? Or do you try to replace and repower the  
24 plant at that specific location? We did look at that cost  
25 trade-off, and I think if we are interested in moving

1 forward and in phasing out OTC in a cost-effective  
2 manner, and we want to have a flexible RFO process, we need  
3 to have information on transmission alternatives. We need  
4 to have -- the utilities need to have that information, as  
5 well as just the general marketplace needs to have that  
6 information. What does it cost to build the transmission  
7 upgrades -- I should say -- and we do not have to go crazy  
8 and talk about every potential transmission upgrade, but we  
9 really should identify the more cost-effective transmission  
10 upgrades that could be used in addition to a new site,  
11 outside of the load pockets, or outside of the LCR, that in  
12 tandem would be a cost-effective alternative to somebody  
13 building within that load pocket. And that would actually,  
14 I think, improve the competitiveness of those RFO options  
15 out there. And it would give the utility, I think, a  
16 better position to drive the least cost solution in terms  
17 of procuring these types of Megawatts.

18           The last thing I want to point out and I want to  
19 say is, I think there has been a lot of bashing or -- and I  
20 am using the term, you know, it is a fairly strong term,  
21 but I think there has been a lot of negative statements  
22 about combined cycles that have been made about, you know,  
23 different technologies, new technologies, and I just want  
24 to be careful about that because I think the older or  
25 previous vintages of combined cycles, they were built for

1 base load, previous vintages of CT's did not necessarily  
2 all have these quick start capabilities. If you look at  
3 the most -- and this once again gets back to my theme of  
4 keeping these RFO's flexible and opening it up to different  
5 technologies, is if you look at the new technology, it has  
6 a tremendous amount of operational flexibility, and they  
7 are very clean. And I do not think that you can say that  
8 this new technology is, as a portfolio, when you add it  
9 onto the portfolio, and I think that is another important  
10 element, when you look at them as a whole, it is no less, I  
11 would say, operationally flexible than what we have right  
12 now in once-through cooling units. I think the important  
13 thing to remember is that they are different. Once-through  
14 cooling units have a different operational characteristic  
15 than a fleet of combined cycles, or combustion turbines.  
16 They are operated differently and, as a system operator, I  
17 think you have to think of them differently; but, at the  
18 end of the day, we see a lot of flexibility in these new  
19 technologies. So anyway, I have said a lot here in a few  
20 minutes and I have spoken very fast, so I will just stop  
21 right there.

22 COMMISSIONER BYRON: Mr. Mansour?

23 MR. MANSOUR: Yeah, I have again another clarifying  
24 question, a really different question. You said that the  
25 utilities need information about the transmission and all

1 this so you can go forward. What agencies want, or what  
2 utilities want, first of all, we did the cost [inaudible]  
3 [43:37] actually from the utility, so when we want to know  
4 what the cost of transmission is, you ask the utility, we  
5 do not do it ourselves, and no one else other than the  
6 utility knows the cost of [inaudible] [43:42]. Secondly,  
7 the utility knows even how much capacity is required  
8 locally because that is where they [inaudible]. So I just  
9 had one -- what is it that you are missing, from who, to  
10 make that comparison?

11 MR. MONARDI: Well, I think that, at the end of the  
12 day, you bring up a good point. Obviously, the PTO, the  
13 utility, and I am still working under the vestiges of 2004,  
14 so I have not talked to our transmission planners too much  
15 --

16 MR. MANSOUR: Oh, I see.

17 MR. MONARDI: But now I can actually talk to them,  
18 but they generally do not like to -- they generally do not  
19 like to talk to me.

20 MR. MANSOUR: Right, it is not confidential  
21 anymore.

22 MR. MONARDI: But I think the important thing is,  
23 though, it is really the CAISO, though, that determines the  
24 local area reliability requirements, right? And so I think  
25 the CAISO has a very important role in determining what are

1 the transmission -- well, the utility can determine what  
2 are the costs of building various transmission upgrades,  
3 but I think it is the CAISO that really needs to identify  
4 what the transmission fix is.

5 MR. MANSOUR: Yeah, but what I am saying is, the  
6 ISO does not just sit in a room by itself and determine --  
7 we get information from the utility, load for gas and the  
8 capability of the transmission system, and from the  
9 transmission side of the company, and then we accomplish,  
10 say, "Here is what is missing," and how much generation we  
11 want. So all of that, I want to put my hands on what is it  
12 that is missing, and I know that you are talking about your  
13 one side of the additional dollar, but let's talk about  
14 just the utility holistically. I want to make sure what is  
15 missing, that I can put my hand on, and say we will need to  
16 fill that from what you were talking about.

17 MR. MONARDI: I think what needs to happen from our  
18 perspective, I am talking from the energy procurement  
19 perspective --

20 MR. MANSOUR: From one side of it.

21 MR. MONARDI: And what I think needs to happen is,  
22 really, we need to be able to say that -- and I am not  
23 going to point fingers, transmission or the CAISO -- what  
24 we really need to say is what is the cost of the  
25 transmission alternative, that with additional generation,

1 somewhere else in the system, can relieve the local  
2 reliability requirements. And I think that is actually a  
3 joint task between the CAISO and the utilities, that needs  
4 the help to develop that.

5           COMMISSIONER BYRON: I would just remind you, and I  
6 did not want to interrupt you, Mr. Monardi, but speak right  
7 into the microphone, gentlemen, because we have got lots of  
8 folks listening at home, and for those of you listening at  
9 home, CAISO is another acronym that has been turned into a  
10 word, and that stands for Mr. Mansour's Independent System  
11 Operator -- actually, it is the California Independent  
12 System Operator.

13           MR. VIDAVER: We have on line Hamid Nejad from the  
14 LAPWP. Can you hear me?

15           MR. NEJAD: Yes, I can. Good afternoon.

16           MR. VIDAVER: Good afternoon. And we can all hear  
17 you. You are a rather unique animal, as it were, and an  
18 integrated utility. Some of the people sitting here on  
19 this panel are probably a big jealous, you get to decide  
20 what to build, your ratepayers are a little more captive  
21 than anybody else's in the long-term, you even do your own  
22 CEQA analysis, you do not have to worry about the CPUC, or  
23 the Energy Commission. So I imagine there are people who  
24 are thinking this is all going to be a piece of cake for  
25 you. On the other hand, you are sort of pinned against the

1 coast in Los Angeles and have three once-through cooling  
2 plants that play an indispensable role in providing  
3 reliability not only for your utility, but for your  
4 balancing authority. I was wondering if you could briefly  
5 speak to the plans that you have for complying with the  
6 Water Board policy, what you see to be the investments that  
7 you are going to undertake, that you have planned to  
8 undertake, if only for business reasons, that would reduce  
9 water flow, and what additional steps you see would need to  
10 be taken to comply with policy, and whether or not those  
11 are technologically possible and, if so, what the cost  
12 implications of those might be. I realize that is a lot to  
13 discuss, and I think you probably have about five minutes.  
14 Is that something you can do? I will start the clock when  
15 I finish talking.

16 MR. NEJAD: Thank you very much. So those are a  
17 lot of questions combined into one, I will try my best to  
18 answer as best I can. The LWP has been working on  
19 upgrading some of its fleet. We have [inaudible] [49:09]  
20 and there is also some of these repowerings we have,  
21 reduced ocean cooling, we have reduced the number of our  
22 ocean cooling plants from 18 to nine, and we do have plans  
23 to do additional repowering that will replace some of these  
24 old units, more efficient either combined cycle, or  
25 combustion turbine units. We are moving towards more and



1 more renewable generation, but we find that, because our  
2 system was built around these coastal plants, we have too  
3 many limitations in reducing the capacity in any of these  
4 existing plants. In fact, we think that having the  
5 capacity, having at least the same capacity that we have,  
6 you know, existing plants, is [inaudible] [50:18] to have  
7 more renewable energy available to our customers, and then  
8 having the back-up of these units in case it is needed. We  
9 find it very difficult to meet the load on the peak hours  
10 with existing renewable technology and availability of  
11 energy in the markets. So, let's see, what our current  
12 plants call for another repowering at Haynes Unit, we are  
13 getting two old units, units 5 and 6, and we are planning  
14 to repower those with six -- combustion turbines, about 600  
15 Megawatts, and we also have plans on our Scattergood  
16 generating station to get two very old units with combined  
17 cycle, it would be a one and one combined cycle, and gas  
18 turbine. I believe you asked if it is going to be  
19 difficult for us to meet these goals and the answer is,  
20 absolutely, yes. We have very limited space, we have a lot  
21 of concerns of the neighbors about noise, cooling tower  
22 drift, size obstructions, noise, and it seems pretty  
23 difficult to meet those challenges technologically, let  
24 alone the impact on finances because we are spending a lot  
25 of money also on renewable generation, and having to do all

1 of these in parallel is having huge financial impacts on  
2 the system. Is there any more specific parts that I can  
3 answer?

4 MR. VIDAVER: Have you done any studies of the  
5 transmission upgrades that would be necessary to further  
6 lower the in-basin capacity needs at Haynes, Scattergood,  
7 and Harbor?

8 MR. NEJAD: I believe we have done some  
9 transmission studies, and we are currently working on some  
10 transmission upgrades, however, the majority of the  
11 generation of power that is coming to our system, is coming  
12 from up north. And it would be very difficult to have  
13 generation that is coming from there on some of the  
14 southern portion of the system. Is it possible? There is  
15 a possibility for our neighboring utilities are making a  
16 lot of generation, or have another program on that side,  
17 but we are physically relying on our own system to provide  
18 that power, and if we are relying on our own power, it is  
19 going to be very difficult to meet that, and also it has  
20 become a huge reliability issue if there is any problem on  
21 the northern side, to be losing all the power; we are going  
22 to have major reliability issues, of course, and for  
23 neighboring systems, too.

24 MR. VIDAVER: Thank you. I do not know how long  
25 you have been on the line, there was a proposal -- a

1 suggestion about how you could alleviate the problem of a  
2 lack of interconnection with your neighbor, and I am not  
3 sure whether or not you would appreciate it. Thank you  
4 very much.

5 COMMISSIONER BYRON: Mr. Vidaver, because the clock  
6 is at your back, I will point out to you that we are at  
7 2:15 and you have two panelists we would like to hear from.

8 MR. VIDAVER: Okay. Do you have any questions of  
9 Mr. Nejad?

10 COMMISSIONER BYRON: Please.

11 MR. VIDAVER: Last, but certainly not least, I  
12 would like Mr. Tisdale and Mr. Florio to comment on what  
13 they have heard here today and any concerns that they have  
14 on behalf of ratepayers regarding this process, how  
15 procurement might need to be changed to result in least  
16 cost outcomes --

17 MR. TISDALE: Should we go at the same time? I  
18 will be brief. My name is Matthew Tisdale, representative  
19 of the Division of Ratepayer Advocates. Our mission, of  
20 course, is to obtain the lowest possible rates consistent  
21 with safe and reliable service. Consistent with that  
22 mission, obviously, this is a question which is near and  
23 dear to our hearts, I appreciated hearing from Commissioner  
24 Bohn this morning that there is a noticeable lack of  
25 discussion of the costs of this process, and would be

1 interested in working with you and other parties to  
2 engage in your suggestion on some sort of an net  
3 incremental cost estimate of the transition. That said, we  
4 want to talk a little bit more about the way we use  
5 competitive procurement to do this at the lowest possible  
6 cost. We do have some expertise in the subject, we do  
7 monitor all of the utility RFO's as a participant in their  
8 procurement review groups, so that experience is what  
9 informs our remarks.

10           The main message I would leave is that all options  
11 should be on the table, should not be restricting the  
12 procurement solutions that we are discussing; I believe  
13 that is pretty consistent with what I have heard today.  
14 All options, starting with competitive procurement through  
15 RFO's, but including transmission solutions, cost based  
16 bilateral agreements, and/or utility-owned generation. As  
17 a member of the PRG, we do watch these RFO's and I would  
18 say with confidence that we believe cost competitive RFO's  
19 can go a long way in mitigating our problem, and we would  
20 only offer the caveat that, in structuring those, we should  
21 be as broad as possible, both in terms of location and in  
22 terms of the product technology, that we are trying to get  
23 broadly defined RFO's, is the emphasis there. In addition  
24 to defining the RFO's broadly, we would suggest that we  
25 create further competition in the market by sending a clear

1 signal that we do have an appetite for alternative  
2 solutions, for transmission solutions, for UOG, or for cost  
3 based bilateral agreements. And I would echo Mr. Monardi's  
4 comments in saying that, the sooner and more aggressively  
5 we can identify alternative solutions, and to the extent  
6 possible price those solutions, that will give us a, we  
7 feel, more competitive advantage in the RFO's that we would  
8 use to mitigate this problem. So, given that we are short  
9 on time, I will stop there and be happy to answer any  
10 questions. Also, of course, looking forward to hearing  
11 from Dr. Florio.

12 MR. FLORIO: I have been promoted. Mike Florio,  
13 Senior Attorney for TURN, The Utility Reform Network.

14 COMMISSIONER BYRON: Mr. Florio, I am going to ask  
15 you to take the microphone and pull it right in front of  
16 you.

17 MR. FLORIO: Thank you.

18 COMMISSIONER BYRON: Thank you.

19 MR. FLORIO: Yes. I have not heard a whole lot  
20 that I disagree with here. I think that obviously our  
21 concerns center around cost, and related to cost, the issue  
22 of potential market power. And I do think that, like DRA,  
23 we have monitored the utility RFO's very closely and feel  
24 that the process is robust enough to encompass these new  
25 needs. I mean, this is not something we just discovered,

1 people have known that this issue was coming, and the  
2 utilities have already done a lot of procurement in local  
3 areas that can help to reduce OTC generation. I think,  
4 clearly, the Los Angeles area is the most difficult because  
5 there is so much OTC generation, and just by virtue of the  
6 size and complexity of the urban area there, so many issues  
7 including the priority reserve that all have to work  
8 together, but I think your staffs have done an excellent  
9 job in moving us to the point we are at now, and I was very  
10 pleased to read the report and see that a lot of good work  
11 had been done. I think, in terms of the ability of RFO's  
12 to achieve the goals, I think a lot depends on, as others  
13 have already mentioned, how specific locationally the needs  
14 are identified to be. Both the Bay Area and the L.A. Basin  
15 local capacity areas are quite large, but if you read the  
16 details of the ISO's local capacity requirement studies,  
17 not every unit in every location is equally effective at  
18 meeting the local reliability need. And, in some cases,  
19 you know, a plant at the southern end of the L.A. basin may  
20 be fulfilling a need that simply cannot be met by a plant  
21 located on the eastern edge. And I think, you know,  
22 hopefully we do not get into a situation that someone said,  
23 where we need a plant within a 15-mile radius. It is going  
24 to be very difficult to get effective competition if the  
25 need is defined that narrowly. But I think that there is

1 talk of a 10-year LCR study. I think, to the extent that  
2 can delve into these effectiveness issues and really  
3 isolate the extent to which there are within local area  
4 constraints that have to be considered, that will be very  
5 helpful. But another question that has come up a lot in  
6 our RFO's, in terms of these other characteristics, are  
7 things like ramping capability, quick start, you know,  
8 there is not a lot of clarity around how much of that do  
9 you really need, and I think, if any help that the ISO can  
10 give in that area would be very helpful. We know we need  
11 ancillary services, we know we need ramping, but is it 300  
12 Megawatts, or 1,300 Megawatts? It is not always clear.  
13 And to the extent that the folks who are evaluating an RFO  
14 can be as well informed as possible about what is needed  
15 from an electrical standpoint, I think all the better. And  
16 to the extent that the market is informed through the RFO,  
17 the more creative solutions we are going to see. I want to  
18 second the comments that we have seen a lot of evolution in  
19 the technologies, even in the last 10 years, and we are  
20 seeing offers that include the hybrid types of units that  
21 may have a higher heat rate than an older combined cycle,  
22 but is much more flexible and can provide the ramping and  
23 cycling that maybe a unit built 10 years ago cannot. So  
24 there is a lot being done and there are always surprises in  
25 RFO's about what someone has come up with, and we want to

1 continue to encourage that. But I do share the concern  
2 that we are trying to do an awful lot in a short time, and  
3 even if some of the things that we are doing are cost-  
4 effective over their 20-year horizon, the upfront costs may  
5 be very significant, and obviously that is something we  
6 need to keep a close eye on, replacing a fully depreciated  
7 unit with a brand new unit has a definite cost impact in  
8 the short run, that added to all the other initiatives we  
9 are pursuing, our rate situation is bad and getting worse,  
10 so I am glad to see that there is continuing concern on  
11 that front. Thank you.

12 COMMISSIONER BYRON: Mr. Bohn?

13 COMMISSIONER BOHN: I know we are behind schedule.  
14 Let me just ask Mr. Florio a quick question. The  
15 uncertainties that you refer to, ancillary services and the  
16 rest, where would you look for answers to that? Is that  
17 something that you expect the CAISO to simply deliver? Or  
18 does it come as part of the RFO? Where would you get the  
19 information such that it would be satisfactory to clarify  
20 it within the competitive process?

21 MR. FLORIO: Well, what we hear from the utilities  
22 often, and we are hearing one side of a conversation, I  
23 acknowledge that, is that, while we ask the ISO and they  
24 could not tell us, and we do not know now -- I think some  
25 of that goes back to when the generation and transmission



1 arms really could not talk to each other at all -- I  
2 think it is something that the transmission element of the  
3 utility, working with the ISO, can help to develop. But  
4 the folks who do procurement, you know, the folks who are  
5 sitting here, are not the ones in the utility who have that  
6 information, and whether it is through their transmission  
7 departments working through the ISO, or through the ISO  
8 directly which, I think, to the extent things come through  
9 the ISO, they can be public and everybody can see them, and  
10 people feel maybe that is a little more fair. That, I  
11 think, is beneficial because there are questions that just  
12 nobody has the answer to when you are sitting around  
13 looking at the bids in an RFO today.

14 MR. MANSOUR: Just let me -- maybe what is known  
15 now and -- in terms of what is required to support RPS,  
16 which we think about, frankly, it is after starting a new  
17 market in MRTU, this is the number one job for us at ISO,  
18 to make sure that the system can accommodate whatever  
19 volume is coming from the RPS and [inaudible] [66:42]. For  
20 the 20 percent target, the entire capability of a existing  
21 fleet is needed. Now, let me clarify that. What I am  
22 saying, some of that will need more of, so we need less  
23 energy from the existing fleet [inaudible] [67:01]. But  
24 for ramping, we know that we need 25 to 30 percent more  
25 than what we have today. In the early morning hours today,

1 they spend about 7,000 to 7,500 Megawatts over three  
2 hours, you would need to add to that about 1,500 to 2,000  
3 Megawatts of ramping up. Does the existing fleet, which  
4 did not do that before, have it? So we are going on paper,  
5 it does. In reality, that is what we are checking, unit by  
6 unit. And those units, as Mr. White delicately described,  
7 have actually capability more than they even think about as  
8 [inaudible] [67:39] talk about. Yes, they are better than  
9 before, but not as much as what you get from those  
10 [inaudible] [67:44]. So the regulation that count for  
11 error in forecast and, believe me, we have done a lot of  
12 work the last year and a half to see if we can improve the  
13 data forecast for when, for example. Regulation would  
14 increase by about 500 Megawatts of regulation requirements,  
15 again, from the existing fleet, or otherwise. So those --  
16 for the 20 percent we know, reasonable extent, we have done  
17 an [inaudible] [68:12] and that study is public, and has  
18 been published now for over a year and a half -- for the 33  
19 percent we do not know, and the reason we do not know is  
20 the following, it is about half of what is on paper, what  
21 is signed, especially when it comes to solar, and solar  
22 thermal, where we really do not even know how they  
23 [inaudible] those technologies, and that is what we are  
24 working on. Like some of the stuff, for example, there is  
25 about 8,000 to 9,000 Megawatts of a type of solar

1 technology of which, worldwide today, there is less than  
2 500 Megawatts. Now, we would like -- in 10 years, we would  
3 like to be in the forefront of application of how do they  
4 behave, and what the characteristics are so we can  
5 [inaudible] [68:55] them and we do it as -- now, what we  
6 say to account for this [inaudible] flexibility, that is  
7 why we are saying, you know, as we go, we know what our  
8 collective objective is, to get RPS, AB 32 on all of this,  
9 have flexibility on the fleet as to what we phase out and  
10 what we phase in, and what we replace it with, make it  
11 flexible enough so an entire portfolio of initiatives can  
12 be accommodated in a reasonable way, especially that we are  
13 talking about 10 years, so the stuff that is known, we have  
14 been publishing it for more than a year and a half, you can  
15 extrapolate from that, some say, it will be more than this,  
16 but at least it will give you certainty for last two or  
17 three years, of certainly a way or a guide of what you  
18 should at least use as a corner stone over the next 10  
19 years. So I just want to be clear on what we know and what  
20 we do not know. Do we have enough to work with, at least  
21 to know what not to do or what to be careful about? I  
22 think so. In terms of cost and in terms of cost of  
23 transmission, this state has come a long way in  
24 transmission. You talk about the 890 process, long-term  
25 planning, including even talking about the joint planning

1 with the municipals, and whenever we are talking about 10  
2 years of load capacity requirement, we have come a long  
3 way. So the unknowns are getting less. But, at the same  
4 time, it also calls for flexibility in terms of the full  
5 package. I just wanted to make that --

6 COMMISSIONER BYRON: I think we -- Mr. Vidaver, do  
7 you have something else you need to add at this point?

8 MR. VIDAVER: No, I do not.

9 COMMISSIONER BYRON: I would like to add one more  
10 comment, as well. Just so it is clear to everybody here,  
11 how important Mr. Florio's and Mr. Tisdale's  
12 responsibilities are in this procurement renew groups,  
13 being the non-market participant, Mr. Florio is one of the  
14 few that participates and provides input to the procurement  
15 process, and it is interesting to hear your comments and  
16 some of the information that you need, going forward. So  
17 my question for you is, based upon the customer class that  
18 you represent, the investor-owned utility, residential  
19 customer, do you think there is a willingness to -- and I  
20 will go back to Mr. Cini's comments earlier -- do you think  
21 there is a willingness to pay more to help provide some of  
22 the solutions that are going to be necessary to address  
23 once-through cooling in the procurement process? Will you  
24 pay more?

25 MR. FLORIO: Yeah, well, I think we are going to,

1 whether we would like to, or not. I think there is in  
2 the public a willingness to pay for clearly identified  
3 benefits, and I think the once-through cooling may be an  
4 issue that has not gotten as much public attention,  
5 perhaps, as air quality, but certainly, you know, there are  
6 some folks who are very informed in that area, and have  
7 been trying to do the public education to make it clear,  
8 you know, when the salmon run does not show up for a couple  
9 of years running, people start to notice, and there are  
10 other problems of a similar nature. So I think, you know,  
11 for example, our organization has been willing to engage in  
12 raising the AB 1X rate cap because we realize you cannot  
13 achieve all of these other objectives and not have some  
14 amount of rate increases. And, at the same time, of  
15 course, we are in an economic tailspin where more and more  
16 people probably cannot pay their utility bill, they cannot  
17 keep their homes, so it is a difficult balance and we  
18 appreciate all the attention that the agencies are giving  
19 to working together to try to do this as cost-effectively  
20 as possible.

21 COMMISSIONER BYRON: I know we are late, but I also  
22 feel we may have shortchanged Mr. White. We will give you  
23 the opportunity, John, just for last remarks because we  
24 really addressed you earlier on and --

25 MR. WHITE: I appreciate it. The badgering I took

1 earlier was my opportunity --

2 COMMISSIONER BYRON: Bushwhacking.

3 MR. WHITE: I think it worked out usefully. Just  
4 one thought. A couple thoughts that relate to this last  
5 topic, I think there has been, in this conversation, sort  
6 of a recognition that we have a lot of silos in which these  
7 decisions are being made, even within the utilities. The  
8 fact is, the power flow studies are the utilities database,  
9 and I think one of the things we need is to really put the  
10 integrated back into resource planning and I think we could  
11 start by taking a look at, statewide, the capacity to add  
12 renewables with an existing transmission capacity, not just  
13 waiting for the new capacity while working on it -- by  
14 looking at how we operate the fossil units. I think we  
15 have sort of made the assumption that we are going to keep  
16 operating the fossil units the same way that we have and  
17 are today. And as Mr. Mansour said, there will be an  
18 opportunity to displace energy with renewables, but we may  
19 also be able to displace some of that fossil capacity more  
20 directly if we look at it carefully, and if we examine  
21 these assumptions. I think that this requires more of the  
22 kind of meetings that you are doing, and I commend the  
23 Commission for the work on the IEPR, for getting through  
24 some of these topics, but it seems to me we need to work at  
25 trying to integrate the planning that the utilities and the

1 agencies are doing more than we have. I think the air  
2 quality issue is very very important, but we cannot just do  
3 not do fossil onto the existing air pollution problem  
4 without some consequences being revisited, and I think  
5 there may be a way to actually minimize costs by not just  
6 adding these all up, but looking at how they relate  
7 together, looking at how the distributed generation, for  
8 example, could help with some of the locational market  
9 powers that were described, looking at how renewables can  
10 minimize fossil consumption, and look at how the  
11 transmission can be done synergistically to accomplish all  
12 these goals, while minimizing costs, instead of just adding  
13 them altogether.

14 COMMISSIONER BYRON: Thank you. And with that, I  
15 am going to thank this panel very much for being here for  
16 their input. And if we could transition quickly, Ms.  
17 Allen, if you will come forward to the podium and you can  
18 start introducing your panelists as they take their seats.  
19 And we will transform ourselves into the next panel as  
20 quickly as we can, only because we are behind schedule and  
21 we have a full calendar. Ms. Allen, you go ahead and start  
22 whenever you are ready.

23 //

24 **Agenda Item 6: Panel 3: Changes to Power Plant**

25 **Licensing**

1 MS. ALLEN: Good afternoon. This is Panel 3,  
2 related to power plant siting. I am Eileen Allen. For  
3 those of you in the room who have not worked with me  
4 before, I am the Manager of the Commission's Siting and  
5 Compliance Office. On behalf of the entire Siting staff, I  
6 can tell you that, in addition to the role that the staff  
7 has in fulfilling the Commission's responsibility for  
8 recommendations as the California Environmental Quality Act  
9 lead agency, looking at proposed thermal power plants that  
10 are 50 Megawatts and larger, the entire Siting staff is  
11 keenly interested in these resource and policy issues. So  
12 we are very happy to hear from the panelists and others on  
13 these questions related to replacing once-through cooling  
14 capacity.

15 In the convention that we are dealing with today, I  
16 am going to go slightly out of order on the questions. We  
17 will be starting with number two, and then that will be  
18 followed by number one, three, four, and five. It is time  
19 for me to ask the panelists to introduce themselves, so  
20 could we start with Alan on the left?

21 MR. COMNES: Hi. I am Alan Comnes with NRG Energy,  
22 Incorporated.

23 MR. NAZEMI: Good afternoon. I am Mohsen Nazemi,  
24 Deputy Executive Officer with South Coast Air Quality  
25 Management District.



1 COMMISSIONER BYRON: Welcome.

2 MS. PHINNEY: I am Suzanne Phinney, Energy Program  
3 Director for the League of Women Voters of California, and  
4 I am following in the footsteps of Jane Turnbull, which we  
5 all know is a very tough act to follow.

6 COMMISSIONER BYRON: Boy, I would not have included  
7 that in my introduction. Thank you, Ms. Phinney, for being  
8 here.

9 MR. PETTIT: Good afternoon, I am David Pettit. I  
10 am a senior attorney with the Natural Resources Defense  
11 Council. I am a lead counsel for NRDC on the Priority  
12 Reserve matters that have been mentioned many times today.

13 COMMISSIONER BYRON: Welcome.

14 MR. HARRIS: Good afternoon. I am Jeff Harris. I  
15 am a partner in the law firm of Ellison, Schneider &  
16 Harris. I am here on my own behalf today, not wearing any  
17 particular hats for any clients, but we represent gas  
18 generators, renewable generators, wind, solar, the whole  
19 variety of folks, including some folks with once-through  
20 cooling. And just a quick caveat, again, I am here on my  
21 own behalf and not for any of my clients.

22 COMMISSIONER BYRON: Nevertheless, you and I both  
23 should be wearing hats.

24 MR. HARRIS: No one needs a hat more than a bald  
25 guy.

1 MS. ALLEN: We also have the possibility of a  
2 panelist phoning in, Jane Williams from California  
3 Communities Against Toxics. Is there anyone on the phone  
4 right now? All right, we are ready to begin. Mr. Nazemi,  
5 could you lead off with responding to number two?

6 MR. NAZEMI: Sure, I will be happy to do that.  
7 Thanks again for inviting me to this workshop. I have been  
8 here before and I continue to participate as long as is  
9 necessary to resolve the issue related to power plants. I  
10 think the question relates to what are the pros and cons of  
11 making the offset credits from district available to power  
12 plants, compared to the other sources that might be using  
13 those credits. And I think it is important for the  
14 Commissioners and other members here to recognize that,  
15 during the 2000 and 2001 California energy crisis, our  
16 agency -- and I am going to, in honor of not using acronyms  
17 here -- instead of SCAQMD, can we all just refer to "the  
18 District" as our agency? The District did recognize that  
19 there was a need to put additional generation on line to  
20 avoid black-outs that were happening at that time, and also  
21 to avoid the use of the more dirtier, diesel back-up  
22 generators, which was a very significant concern to our  
23 agency, as a leading agency for controlling air pollution  
24 and the worst polluted area in the nation. So we had  
25 experienced this before and we did amend our rules to allow

1 power plants to access the District credits due to  
2 shortage of credits in the open market. When we, in the  
3 mid-2000s were in receipt of additional projections from  
4 the state agencies, the Energy Commission and CAISO, in  
5 terms of potential additional shortfalls that will be  
6 coming in the coming summers and in Southern California, in  
7 particular, and not the rest of the state, but Southern  
8 California, our Board, once again, took another action to  
9 allow the use of the internal credits by power plants, but  
10 at the same time, there were also discussions with respect  
11 to once-through cooling that was between Water Act  
12 requirements, the court decisions coming out, and we know  
13 that we have an aged power plant fleet in Southern  
14 California, but also the other factors were the  
15 implementation of the AB 32 and renewable portfolio  
16 standards. So why did we go forward with this, considering  
17 there are some pros and cons related to that? When we  
18 looked at the credits in the open market to build  
19 additional new generation, we found that there are not  
20 enough credits available in the open market. In fact, if  
21 you look at the three power plants that were able to obtain  
22 through the RFO process long-term contracts from Southern  
23 California Edison, the NRG, El Segundo, the CPD Sentinel,  
24 and the Walnut Creek Mission Energy Project, and you look  
25 at the amount of credits that those three power plants

1 alone would have needed, those were twice as the total  
2 number of credits that were out in the open market for  
3 PM10. And I have to point out that the credits that are in  
4 the open market are not necessarily all available for sale  
5 because some of those are held by companies that have their  
6 own future projects, that they would need to use those  
7 credits. The other reason, and maybe in response to  
8 whether or not these credits should be available to power  
9 plants, and their projects, we looked at our bank accounts  
10 and we determined that there were actually adequate amount  
11 of credits available for power plants to be used, as well  
12 as the other sources, such as essential public services,  
13 small businesses, and other projects that use our credits.  
14 The only difference was that those other sources will get  
15 the credits for free from the district, based on policies  
16 that our governing board has established in the past,  
17 whereas we determined that the power plants need to pay a  
18 mitigation fee, which in turn, we take that money and  
19 reinvest it in emission reduction projects with a third of  
20 it actually going into solar renewable energy in the areas  
21 impacted by the power plants. But it was to be used only  
22 as a bank of last resort, so we still required the power  
23 plants to look out in the open market and see if they can  
24 get those credits first, and if they could not, then come  
25 to us. So it was not an issue of, well, there is plenty of

1 credits in the market, why not use those.

2           The other thing that I want to point out is that,  
3 through this process, we did not just say, well, any power  
4 plant that wants to use our credits is free to come forward  
5 and get it. We put a lot of restrictions and a large  
6 number of it had to deal with the community concerns that  
7 we heard during our process to provide these credits. We  
8 made it necessary for the power plant to have, for example,  
9 a long term contract before they can obtain our credits.  
10 We made that requirement to have a CEC license, or we said  
11 you have to be a municipality that you actually have  
12 designed your project to serve your native load. And an  
13 example of that is the Vernon Power Plant, which is in  
14 front of the Energy Commission, I believe, that we ended up  
15 actually denying their permit because they were a  
16 municipality, they proposed to build a project larger than  
17 their native load demand, and they did not have a long-term  
18 contract. So we did not provide credits for that type of a  
19 project. We also put additional limitations on new and  
20 repowered plants to be able to get credits for us, for  
21 example, we said you have to be more efficient, cleaner,  
22 and have less toxics emissions than any other project that  
23 would otherwise provide their own credits. So, again, put  
24 additional restrictions that would make sure that not every  
25 power plant that comes through will obtain credits from the

1 district.

2           When we looked back at our existing fleet, we  
3 recognized that over 7,000 Megawatts of power plants in  
4 Southern California, in our District, actually, not just  
5 Southern California, are once-through cooling. And when we  
6 look at the age of our power plants, more than half of our  
7 power plants are 40 years or older. And I know, for the  
8 young folks around here, 40 years is very old. But also,  
9 when we looked at how would the efficiency requirements  
10 under AB 32 and renewable portfolio standard meet, as Mr.  
11 Mansour indicated, in terms of ramping up needs would be  
12 satisfied, we felt that those are all important issues that  
13 need to be addressed. However, I think you heard from Mr.  
14 White about the issue of replacement that, you know, we do  
15 not want to just build, build, build, we want to replace  
16 the existing old power plants. And I want to point out  
17 that, in the early 2000, during the energy crisis where we  
18 allowed our credits to be used, we actually permitted over  
19 4,000 Megawatts of new power plants; but, at the same time,  
20 over 3,000 Megawatts of older, dirtier and less efficient  
21 power plants, or units, were taken out of service. So, it  
22 is the chicken and the egg, but it really needs the  
23 reliability to be there before you can remove existing  
24 power plants from the fleet.

25           Now, in this process, as you heard from Mr. Pettit,

1 NRDC filed a lawsuit challenging our rule amendments to  
2 allow power plants to access credits, along with a number  
3 of other environmental organizations and, as a result of a  
4 State Court decision last year, our agency is prohibited  
5 from the ability to use offsets for licensing of power  
6 plants, so permitting of power plants, as well as other  
7 permits for essential public services and other projects.  
8 Presently, there is legislation that has been sponsored in  
9 proposing California to address this court decision under  
10 Senate Bill 696. I should point out that NRDC and other  
11 environmental organizations had also filed a federal  
12 lawsuit that basically challenged all credits that are in  
13 the District's possession, and earlier this month, that  
14 lawsuit was dismissed by the Federal Judge. So with the  
15 passage of SB 696, we think that will smooth the process  
16 for the District to be able to grant credits to power  
17 plants and other projects, and basically these are reasons  
18 and pros and cons that we evaluated, and moved forward with  
19 the changes we made to our rules.

20 MS. ALLEN: Thank you, Mr. Nazemi. Mr. Pettit, do  
21 you have anything you would like to add?

22 MR. PETTIT: Well, thank you. When I was listening  
23 to V. John White's testimony earlier, I thought I might  
24 just come up here and say what he said, and then go out and  
25 have a beer and leave it at that, but I think that I will

1 not. And I want to talk just a little about the  
2 background of the priority reserve case, and the larger  
3 implications both in South Coast and otherwise. What we  
4 are seeing in South Coast is a conflict, or a potential  
5 conflict between the demands of the Federal Clean Air Act  
6 and the need for more power, and cleaner power, in South  
7 Coast. Because the District is in non-attainment, which,  
8 you know, is not some kind of Buddhist term, but it means  
9 they are not meeting the Federal standards for a number of  
10 pollutants, including ozone and PM, if you are going to  
11 have a new source of one of those pollutants in the  
12 District, you have to get offsets from somewhere. And it  
13 is a market-based system, it was put into place in the  
14 1990s, in the amendments to the Clean Air Act. It is a  
15 market-based system and the idea is very simple, when the  
16 price of the traded commodity, whether it be gasoline at  
17 the pump, or whether it is PM credits, when the price gets  
18 really high, the idea is that people in that market are  
19 incentivized to do something different. You buy a Prius,  
20 you drive less or, in the case of electrical generation in  
21 the District, you listen to Mr. White and you think about  
22 things like renewables within the existing transmission  
23 patterns, and the like, as opposed to just throwing more  
24 fossil fuel in there. And, in fact, the premise of this  
25 hypothetical, things got expensive, is exactly what



1 happened. The market price in the market, if you could  
2 get PM credits, it skyrocketed. It was in the low six-  
3 figures per pound, and if you need, say, half of it for PM,  
4 and if you need half a ton, then you do the math and that  
5 is an awful lot of money that, at the end of the day, the  
6 project proponents will be asking that the ratepayers pay  
7 for. So that really got out of hand. But instead of  
8 taking the lesson that something different needs to be  
9 done, what the District did, supported by industry, is the  
10 District ran up here to Sacramento and tried to get the  
11 rules changed so it would not have to comply anymore with  
12 those rules, and then it could go ahead with business as  
13 usual in permitting, or helping to permit, these fossil  
14 fuel plants. And that is the SB 696 that we just heard  
15 about. I think we have different views on whether there is  
16 any liability to that, but I am not a politician and, at  
17 the end of the day, I do not pretend to know what is going  
18 to happen to it. The larger problem with it is that the  
19 Clean Air Act is a Federal law, and asking the State  
20 Legislature to deal with it, that is about as effective as  
21 passing the law here in California that says, henceforth,  
22 Arnold Schwarzenegger will be on the \$5.00 bill. You can  
23 pass that, but it is not going to have any effect at all.

24 So here is where we are on the priority reserve  
25 litigation. When the District put this idea forward, we

1 and a bunch of community groups said, you know, you are  
2 going to be bringing in more PM pollution just by way of  
3 this example, into the District than a multiple of the Port  
4 of Los Angeles, and you need to look at that under CEQA,  
5 and you need to look in particular at alternatives to just  
6 bringing in more fossil fuel, and what alternatives, for  
7 example? Well, what he said, what Mr. White said, is a  
8 good start, and they did not do that, and they said, "We  
9 don't have to. We don't have to do that." And then the  
10 State Court Judge said, "Yes, you do have to do it," and  
11 they got religion and they said, "Okay, we'll do it," and  
12 then they did an environmental review. But I thought, or  
13 we thought, it was perfunctory and unscientific, and the  
14 Judge we took that to agreed, and she said -- she did not  
15 say, "Your credits are no good," she did not say, "You can  
16 never give these credits away," or, "You can never sell  
17 them." What she said is, "Do a decent environmental  
18 review, look at what you are actually going to do, look at  
19 the..." She laid it out. She put a menu in her decision of  
20 what the District needs to do. That was a year ago, and  
21 they have not done it, there is no draft EIR even out yet,  
22 and when it is going to come out, I have no idea. And as  
23 soon as they do that, and they do that to the Court's  
24 satisfaction, the CEQA challenge will go away, and they can  
25 resume doing whatever they think they can do, subject to

1 the issue of do they really have any credits, or are the  
2 credits phony? But that is an issue, the phoniness, or  
3 reality of the credits, is an issue that the Federal Courts  
4 are going to need to decide. And so, in the mean time,  
5 when you see these conflicting interests, the interest of  
6 the Clean Air Act -- the Federal Clean Air Act -- the  
7 interests of the environmental transparency analysis in  
8 California, and the interests in having more power and more  
9 renewable power in South Coast and otherwise, it is posited  
10 by many as a terrible problem you cannot solve. I am not  
11 buying that. I think there are ways to solve it, and if we  
12 listen to Mr. White and people who are very thoughtful  
13 about what the alternatives are to fossil fuel plants, and  
14 I do not need to lecture you folks about what those are,  
15 that is how I think we get out of this problem, both in  
16 South Coast, and throughout California, because the South  
17 Coast is not the only district, as you know, that is in  
18 non-attainment, that has bad air. The San Joaquin Valley,  
19 for example, where people are seeing those problems right  
20 now, and until we have a good handle on how to resolve all  
21 these conflicting interests, they readily, I think, a lot  
22 of these issues will be resolved in Court.

23 MS. ALLEN: Thank you. In the interest of time, I  
24 am going to move on with the questions and then, at the  
25 end, any of the panelists can weigh in on their thinking.

1 We are going to return to the sequence with number 1, "Is  
2 there any advantage to a repower project which could be  
3 provided with a long-term cost-plus contract per AB 1576  
4 versus a green field project, an Energy Commission process  
5 as it exists today? Should there be in the future?"

6 MR. HARRIS: Thanks, Eileen. Again, Jeff Harris  
7 here on my own behalf to talk about this issue. I  
8 appreciate the invitation to the Commission. Given some of  
9 my recent interactions here, I am surprised I was let in  
10 the building, let alone invited, but I very much appreciate  
11 the opportunity to speak with you here today.

12 As I said at the top, we represent a wide variety  
13 of generators, some of them have once-through cooling, some  
14 of them are traditional gas generators, we also have some  
15 folks trying to do some of the large solar projects that  
16 were alluded to earlier, and so I bring a pretty diverse  
17 background to this discussion, and that is part of the  
18 reason I am not speaking on behalf of any one client. I  
19 guess the other thing I would note, too, is that we do some  
20 work for the WECC, the Western Electricity Coordinating  
21 Council, and so reliability is first and foremost in my  
22 mind when I first start thinking about generation issues,  
23 and it is pretty incredible to think that we are sitting  
24 here talking about knocking out 30 percent of the in-state  
25 capacity, given that we import about 40 percent of our

1 energy needs in California during the peak. But in terms  
2 of the question, and whether it is an advantage for these  
3 projects moving forward in the Energy Commission process, I  
4 am lawyer, so I parse the words a little bit, and I guess I  
5 want to note one thing, which could be provided with a  
6 long-term contract per AB 1576, I understand that issue is  
7 still outstanding at the PUC and we will be looking to see  
8 how that might get resolved. I tried to think of what  
9 question my advantage is and, really, the Energy Commission  
10 project is a siting process, and you are looking at  
11 potential environmental impacts and compliance with laws,  
12 ordinances, regulations, and standards, and I will not say  
13 lores, I picked up on that. So what kind of advantage  
14 could a project be provided? And, really, the only  
15 advantage I could think of would be an expedited permitting  
16 process. Well, the answer to the first question, directly,  
17 no, there is nothing -- the Energy Commission process as it  
18 exists today does not allow any special advantages to these  
19 projects moving forward. It is simply the case. And if  
20 you look at the statute closely, there is actually not a  
21 way for the Commission to prioritize even, say, renewable  
22 projects over gas projects. I heard in the ether a little  
23 bit -- something a little bit different than that, but as a  
24 matter of law right now, as the laws exist, there is not  
25 any way to expedite these processes. The Energy Commission

1 provides that they will essentially bring these in first  
2 come, first serve, there is a reason that they give them a  
3 docket number, which is the year and then the number it  
4 came in the door. So that is the way existing law is now  
5 and I do not see that changing.

6           In the future, should there be any changes? It is  
7 a very interesting question because we start looking at all  
8 these policies you have been wrestling with all day. There  
9 is a clear relationship between generation and load and  
10 transmission, and so this Commission only has jurisdiction  
11 over one of those things, and I would hate to see a siting  
12 case that involved a power plant and a Sunrise Power link  
13 because I know I would probably be retired before that  
14 would be finished, and so I am not sure that the Energy  
15 Commission alone can solve those problems. I am also not  
16 eager to go back to centralized planning where the state  
17 decides where projects should be, how big they should be,  
18 and where they are put. So the law, in my view, the way it  
19 is fine, it really is more a question of resources. I  
20 think it is quite ridiculous if you are being asked to do  
21 what you are supposed to do in terms of siting cases with  
22 three furlough days and a lack of other resources. I would  
23 like to see all of these projects move through more  
24 quickly. I am a firm believer in that California ought to  
25 control its own energy destiny, as opposed to being an

1 importer of electricity. If you want to talk about  
2 greenhouse gas and greenhouse gas portfolio and what the  
3 profile of California's generation fleet is, if you were a  
4 net exporter of power, if we had more generation than we  
5 consumed, we would know exactly what your greenhouse gas  
6 profile looks like, and you would be able to control it.  
7 And so, if there are going to be any changes made in the  
8 process, I would like to see expedited those processes, I  
9 would love to see a project done in the statutory one-year  
10 time frame, it happened once in 1998, that I recall, with a  
11 case that I was working on. And part of that may required  
12 the Commission not to change the law, but go back and look  
13 at how it processes these applications. We do wind  
14 projects, we have done other large industrial projects in  
15 California, and none of those projects had the scrutiny  
16 from the environmental perspective that the power plant has  
17 in California. And in some ways, the Commission has tapped  
18 its own resources by really over-analyzing these projects,  
19 in my view. You cannot tell me that every other project  
20 that is CEQA compliant, that does not do the same detailed  
21 level of analysis that the Commission does, is somehow not  
22 approved pursuant to CEQA. And so I think there are ways,  
23 short of changes in the law, to try to move things along  
24 more quickly. And I guess in the interest of time, I am  
25 going to stop there.

1 MS. ALLEN: Mr. Comnes? NRG is the owner of a  
2 green power project, El Segundo. So do you have any  
3 succinct thoughts on this question?

4 MR. COMNES: On the 1576 question?

5 MS. ALLEN: Whether there are any advantages to a  
6 repower project versus a green field project in the Energy  
7 Commission processes that exist today, and whether there  
8 should be in the future.

9 MR. COMNES: You know, obviously we believe that  
10 the repowers and brown fields offer a lot of factual or  
11 situational advantages. You know, it is worth going back  
12 to 1576 and reminding ourselves what was required to be a  
13 1576 project, it had to use existing transmission natural  
14 gas rights of ways, it had to be more efficient, and so  
15 these are obviously positive attributes that would work  
16 well with any -- with the Commission's existing processes  
17 under CEQA, or the Warren Alquist Act. So I do not think  
18 we are asking for a special process, other than, you know,  
19 the project, as Jeff said, a project has got advantages and  
20 the Commission needs to not over-analyze things and get the  
21 project through. There are obviously some very pressing  
22 mandates out there that need to be addressed, and in this  
23 case today, we are talking about once-through cooling or  
24 316B agendas.

25 MS. ALLEN: Thank you. I would add that we often



1 hear from the coastal communities where the once-through  
2 cooling facilities are currently located, and I am not  
3 aware of any that are embracing the idea of a brand new  
4 power plant right on the coast.

5 MR. COMNES: I -- well, I am sure they are out  
6 there in the ether and they will speak up -- well, actually  
7 I do not want to -- we have an open docket on El Segundo,  
8 but I would say we enjoyed pretty good support from El  
9 Segundo. And I will leave it at that.

10 MS. ALLEN: Thank you. That brings us to Question  
11 3, "Please discuss the advantages and disadvantages to  
12 alternative sequencing and Energy Commission permit,  
13 followed by a power purchase agreement, or a power purchase  
14 agreement, then an Energy Commission permit.

15 MR. COMNES: You asked me to address this one  
16 first. I keep wondering if this is a trick question.

17 MS. ALLEN: No, not intended.

18 MR. COMNES: Okay. Short answer is we want to see  
19 the PPA first, I mean, again, NRG has done them both ways,  
20 we have had a docketed -- we had a permit for the El  
21 Segundo repower, it is going through some permit  
22 modifications, but that docket and permit has been in hand  
23 -- the docket has been in place for about a decade, the  
24 permit has been in hand since, I think, 2005. Obviously,  
25 we have been willing to take the risk to get a permit in

1 advance of PPA. Alternatively, we have done repowers  
2 where we got the PPA and had to scramble to get the permits  
3 and get it built in a little over a year. So we are  
4 capable of, you know, all means necessary to pursue our  
5 core business, which includes repowering our sites. That  
6 said, I guess a lot of advantages to having the PPA in hand  
7 before embarking on the permitting process in California,  
8 it has always been an issue, but it is even more of an  
9 issue since last November. The financing is an extremely  
10 big issue, and so lining up, you know, for Management  
11 willing to line up, risk capital and development, and to  
12 structure a project, it very much helps to have a PPA in  
13 hand. And then, you know, second, I will just observe, is  
14 that so many of the environmental agencies are looking to  
15 having the PPA in their process of prioritizing projects.  
16 It is obviously a part of the Air District's criteria, the  
17 priority reserve is predicated on having a PPA or some  
18 other proof that it is being used for local load. And I do  
19 not know Chapter and Verse, but I have seen it sited in the  
20 Energy Commission and the Water Board proceedings. So I  
21 think the answer is easy, and that is I think the RFO  
22 process, as I spoke earlier in Panel 1, the RFO process  
23 should start it, but have sufficient flexibility to allow  
24 for a bumps along the way in terms of getting environmental  
25 permits.

1 MS. ALLEN: Well, we are heading right towards  
2 the time that it was originally allotted for Panel 4, and  
3 Questions 4 and 5 could have quite a few ideas.

4 COMMISSIONER BYRON: You go right ahead. You have  
5 another half hour.

6 MR. HARRIS: Could I interject something on this  
7 question before we move on, real quick? I guess I would  
8 want to call the attention to the Public Utilities  
9 Commission the recent proceedings here at the Energy  
10 Commission on the Tesla license extension, and to answer  
11 the question, I think this is as much a procurement issue  
12 as it is an Energy Commission issue. A Power Purchase  
13 Agreement, or not, does not affect the environmental review  
14 that the Energy Commission performs, and so it is a non-  
15 issue in a siting case whether there is a PPA or not. So,  
16 to me, the trick of the question is I do not know why it is  
17 asked, but it really is irrelevant to the Energy  
18 Commission's review. But I wanted to point out for your  
19 attention that the PG&E Tesla case, PG&E seeking five  
20 additional years to build that project, and their main  
21 argument in favor of five years versus one, two, or three,  
22 is that they want to participate in their own procurement  
23 cycle. They are looking at needing five years, in their  
24 mind, to potentially change some rules at the PUC, and also  
25 participate in a cycle that will start, I believe, next

1 January. So there is a long lead time that is associated  
2 with those procurement cycles; it does not line up very  
3 well with the Energy Commission's five-year license, and it  
4 is something that I would hope the two Commissions could  
5 talk about, but inter-aligning the procurement process,  
6 which -- and by the way, for my independent generators, I  
7 do not think we got five years from PPA to actually build a  
8 project -- but I think there might be some way to better  
9 align the two Commissions' processes so that your license  
10 term and your procurement process actually do line up in a  
11 way that allows people to move forward with their projects.

12 MR. NAZEMI: Eileen, could I also add 30 seconds to  
13 that? I think, in my mind, the reason that question is  
14 probably being asked is to address whether or not a power  
15 plant, and you heard today and all along about concern with  
16 fossil fuel fired power plants being added, the capacity is  
17 needed, but what kind of power plant is the question. I  
18 think the reason for this question is whether or not there  
19 is really a need for that power plant to be built, and so  
20 the Power Purchase Agreement does put a little bit more  
21 certainty that, yes, it was needed, there was an RFO  
22 process, it came in front of the PUC, and it was approved  
23 to be granted, the Power Purchase Agreement. So that -- I  
24 know it does not satisfy completely the question of whether  
25 or not we need more fossil fuel power, but it does address

1 it to some extent, I think.

2 MS. ALLEN: Thank you, Mr. Nazemi. Something that  
3 does not really come out specifically in terms of the  
4 Warren-Alquist Act, but nevertheless, we hear about it  
5 often, is questions of need for specific power plants,  
6 particularly in the community setting when we have public  
7 workshops and hearings, need questions often come up So  
8 your observations about the relevance of the Power Purchase  
9 Agreement in that question are helpful. Barring further  
10 comment, moving on to number 4, "Using the terminology of  
11 the Joint Energy Agencies Proposal for Once-Through Cooling  
12 Retirement, given the analyses as embodied in Step 2, and  
13 eventual decisions that will be made in Step 3, should the  
14 Energy Commission siting process attempt to ensure that new  
15 power plants have the necessary operating and environmental  
16 characteristics to replace those of OTC capacity that is  
17 retired?" This is a bit complicated, but -- particularly  
18 the second part of the question, you know, what next in  
19 terms of replacement for OTC's capacity? So, Mr. Pettit,  
20 would you lead off with your ideas?

21 MR. PETTIT: Sure, I will take a run at this. I  
22 actually view Questions 4 and 5 as alternatives of the same  
23 question, and have kind of the same attitudes towards them,  
24 is that the questions have assumptions built in that I  
25 think are backwards, that instead of looking at what

1 technology do we have, and what to replace that with, I  
2 think it is better to look at what is our demand going to  
3 be, and how can we best fulfill that within the values,  
4 whichever values are brought to bear. Ours would be, I  
5 mean, you have heard this a million times, ours would be,  
6 let's start with energy efficiency, what can we get from  
7 that, move on to renewables, what can we get from that,  
8 before we start going down and talking about which piece of  
9 steel should we -- which piece of metal should we replace  
10 with which other piece of metal. So I would approach both  
11 of these questions differently than the way they are posed,  
12 and would say, as I just mentioned, that I think we have it  
13 backwards, and we need to look at demand first, rather than  
14 looking at replacing metal first.

15 MS. ALLEN: Okay. Are there any comments on  
16 question four from the other panelists?

17 MR. COMNES: I will just comment that, I mean, I  
18 believe the states heavily embrace the loading order  
19 concept that is part of the energy action plan, and so I  
20 mean, you only have to look at the last LTPP Order to see  
21 how hard, just how clearly the Commission worked to make  
22 sure that they met loading order objectives before they  
23 found some net residual need that they would release to an  
24 RFO, to procure fossil generation. So I would challenge  
25 anybody to just go back and read that decision in terms of

1 how they went through and loaded up on energy efficiency,  
2 renewables, cost-effective distributed generation -- am I  
3 forgetting anything -- and then, you know, looked at  
4 remaining fossil capacities as a way to meet the load  
5 requirement and the requirement to replace once-through  
6 cool generation due to a very oppressive retirement  
7 assumption that was in that order.

8           COMMISSIONER BYRON: Mr. Comnes, I am glad you  
9 brought this up. Mr. Pettit, if we could just go back to  
10 your comment for a second, I am a little bit troubled by  
11 it, and maybe we are not doing a good enough job. You are  
12 conveying the fact that the loading order is the law of the  
13 land, and the efforts that these Commissions have been  
14 putting forward to pursue energy efficiency and renewables  
15 -- am I to understand from you that we are not doing nearly  
16 enough?

17           MR. COMNES: That was not the intent of my remark.  
18 What I meant to say, or the point I meant to make is that,  
19 to me, question 4 and 5 have assumptions built in that, if  
20 some current projects go away, how do we, without really  
21 thinking about it much, we need to just replace them. And  
22 I think that that assumption is incorrect.

23           COMMISSIONER BYRON: No, I think what those  
24 questions are asking, if given that energy efficiency, all  
25 economically achievable, given the demand response, given

1 that we are pursuing a high level of renewables, then how  
2 do we address the characteristics that those existing  
3 plants have that we are interested in having on the system  
4 in order to accomplish these other goals, namely  
5 integration of high renewables, etc. So starting from that  
6 point, please answer the question.

7 MR. COMNES: Right, well, I think, if I understand  
8 you right, instead of by "new plants," you mean "to come,"  
9 not the plants that are being, you know, taken off line, or  
10 whatever, the OTC plants that are being retired, and having  
11 gone through all of the other things that you said, I think  
12 that actually the CEC has done a robust job of looking at  
13 the environmental consequences of putting in fossil fuel  
14 plants wherever they are proposed to be put in, and in  
15 terms of the question about looking at the environmental  
16 characteristics, that is what I took that to mean, and in  
17 terms of -- this may seem not coming from me, but in terms  
18 of looking at the air quality, in particular, the air  
19 quality aspects, you know, our issues with the District are  
20 not that they do not have the technical expertise and the  
21 inclination to do that. We have legal concerns about  
22 whether there are credits available such that, at the end  
23 of the day, they actually have things to either give away  
24 or, you know, give away to the essential public services,  
25 and the like, or sell to the power plants. It is not that



1 the district, as I say, does not have the technical  
2 capability of telling the CEC, "Well, yes, these people  
3 need the Clean Air Act," or, "Those people don't need the  
4 Clean Air Act." So I am not really suggesting that we need  
5 some kind of vital change in the way that those substantive  
6 matters are now handled, as between the Air District and  
7 the CEC. Does that respond to your remark?

8           COMMISSIONER BYRON: No, but I am kind of dense, I  
9 guess. How do we replace the ramping, the firming, the  
10 load support, the auxiliary services, the kind of  
11 capabilities that these once-through cooling plants provide  
12 on the system? How do we meet -- there is another Federal  
13 law that we are talking about here today --

14           MR. COMNES: Right.

15           COMMISSIONER BYRON: How do we meet that law and  
16 have the capabilities that we are going to need to operate  
17 the system at the higher integration of renewables, etc.?  
18 And that is the question we are trying to get at, and I am  
19 not sure that we have an answer for it.

20           MR. COMNES: I personally do not have an answer for  
21 it. I am basically an air guy and air quality guy, I can  
22 get you an answer from people who would know that, but I am  
23 not the guy.

24           COMMISSIONER BYRON: No, you have got everything  
25 tied up in court and that is probably a good part of the

1 reason why we are all here today, is we are trying to  
2 figure this out. So --

3 MR. COMNES: Well, I do have an answer for that  
4 one. I think that one is easy to answer. The part that is  
5 tied up in court is that the District needs to do an  
6 Environmental Impact Report that is not a joke. They have  
7 had a year to do it, they have not done it, someday now, we  
8 will get a notice in the mail that the Draft EIR is out,  
9 and we will take a look at it, and if it is decent, then  
10 the Judge is going to bless it, and then this little so-  
11 called moratorium will go away; if it is not decent, then  
12 we are going to have more tsuris, if you will, more grief,  
13 in the District because the moratorium will probably be  
14 continued. And at that point, I think the Governing Board,  
15 or the District, needs to take a hard -- would need to take  
16 a hard look at just what it is that its staff has been  
17 doing for the past however many years to comply with what I  
18 think is a rather simple laundry list of tasks that the  
19 Judge has set out for them to do in terms of their  
20 environmental review. You know, CEQA is not rocket  
21 science, you just have to do a decent analysis of the  
22 project that is before you and look at realistic  
23 alternatives, that is really the heart of it. And it  
24 should not take more than a year to get that done.

25 COMMISSIONER BYRON: Okay, thank you. Ms. Allen.

1 MS. ALLEN: Thank you.

2 MR. NAZEMI: I would like to add something,  
3 Commissioner Byron. I think --

4 COMMISSIONER BYRON: Gentlemen, you know 34 years  
5 of marriage, I have done a lot of marriage counseling, and  
6 -- I mean, for me -- and let's just accept each other's  
7 viewpoints here and acknowledge, you know, we all have our  
8 own perspectives, okay? So, Mr. Nazemi, I hope you do not  
9 feel you have to respond as though you are in court.

10 MR. NAZEMI: I do appreciate your comment. I was  
11 going to actually go back to your comment about the loading  
12 order because that is what our agency felt was needed in  
13 order to determine whether a power plant was really needed,  
14 fossil fuel fired power plant was really needed, because  
15 that loading order that goes through the state agencies'  
16 process does look at all the factors that you indicated,  
17 the energy efficiency, demand response, renewable, and  
18 then, at the end, if you still need that power plant, then  
19 it comes back that, okay, now can we approve this process?  
20 And I think it is important to point out that question four  
21 deals with what other alternatives should be used, and I  
22 will wait until you get to question five, but in terms of  
23 question four, I think it is important that our agency did  
24 not feel that, just replacing what is there with what was  
25 there is enough; we felt that something needs to be there

1 that is better than what was there before, and the longer  
2 this process takes, and I do not want to turn this into a  
3 debate because I disagree with a lot of the statements Mr.  
4 Pettit is making here, but the longer this process went,  
5 look at the realistic view of the older, dirtier power  
6 plants, not just once-through cooling, but the other fleet  
7 is going to stay in place. We are not shutting them down,  
8 they are staying there, they are operating. So if you need  
9 to ramp up, you are going to use that. Now, if you had a  
10 replacement with a cleaner, more efficient power plant,  
11 that you could ramp up, your emissions are going to go  
12 down, they are not going to go up --

13 COMMISSIONER BYRON: Thank you.

14 MR. NAZEMI: -- but that is a different --

15 COMMISSIONER BYRON: No, you characterized the  
16 problem very well and that is why we are here, and we are  
17 all keenly interested in accomplishing all of these  
18 objectives, and you are both important stakeholders in this  
19 process going forward.

20 MS. ALLEN: Thank you. We have had a spirited  
21 exchange, stimulating and provocative. Since there has  
22 been a bit of bushwhacking, Ms. Phinney, do you have  
23 anything to add to number four from the League of Women  
24 Voters of California's perspective, which is process  
25 oriented?

1 MS. PHINNEY: Well, I am glad you mentioned the  
2 process because the League's mission is to promote the  
3 active informed participation of citizens in government, so  
4 I do have some overall remarks, and they do reflect on  
5 process, as well. And I would first like to thank the  
6 agencies for holding this workshop because the League  
7 actively promotes open and transparent decision making  
8 processes that involve multiple stakeholders, so obviously  
9 you are doing that. The League does have an energy  
10 position which we updated in 2007 through member study and  
11 consensus, and I believe that both our overall position  
12 speaks to the issues that need to be considered when  
13 looking at something as complex as once-through cooling,  
14 and then we do kind of get down to the nitty gritty of  
15 certain factors that should be considered when evaluating  
16 new resources. Our position states, in brief, that the  
17 League supports development of state energy policy that  
18 will ensure reliability of energy resources and protection  
19 of the environment and public health and safety at  
20 reasonable customer rates, giving primary consideration to  
21 conservation and energy efficiency and renewable resources.  
22 We do not have a position on once-through cooling per se,  
23 that would involve detailed study by our members, and we  
24 seem to be diverted to budget and legislative issues at the  
25 moment.

1           COMMISSIONER BYRON: Good. I am glad somebody  
2 is.

3           MS. PHINNEY: But in acquiring new energy or  
4 electric resources, our position indicates that factors  
5 that we think should be included are reduction of  
6 greenhouse gas emissions, developing and deployment of  
7 renewable resources, contribution to the diversity of the  
8 resource mix, availability at times of peak power demand,  
9 support for base load power requirements, and protection of  
10 public health and safety. And when considering repowering  
11 or green field sites, we think these factors should be  
12 evaluated. We also think that the state agencies should be  
13 considering the land use objectives and plans of local  
14 governments, as you look at the various options in front of  
15 you, and whether green field, or repowering, it is going to  
16 happen somewhere in some local government's backyard, and  
17 we would encourage the energy agencies to communicate with  
18 local governments throughout this 11-step process, and  
19 particularly provide information that is related to  
20 reliability issues in their specific areas. And while I  
21 have the microphone, I will also touch briefly on number  
22 five which, again, is probably a much more detailed  
23 question than the League's position would allow it to  
24 respond to. But I would point out that there are very  
25 strong views that have been put forward, that say rooftop

1 PV will solve all of our problems, meet all of our energy  
2 needs and goals, and equally strong views that say  
3 renewable energy in the desert and new transmission  
4 construction will meet our energy needs and goals, and we  
5 think the public is confused by these messages that have  
6 not necessarily been resolved at the state agency level, so  
7 we would encourage the state agencies to tackle this  
8 directly to make determinations that will inform the public  
9 process and debate as we move forward, and we think that  
10 the Energy Commission's Integrated Energy Policy Report is  
11 a very good vehicle for that. Thanks.

12 MS. ALLEN: Thank you. We have somewhat smoothly  
13 flowed into number five which is, "What are the most  
14 environmentally and economically feasible technological  
15 alternatives, if any, to gas-fired generation for OTC  
16 replacement? Please discuss the generation options, both  
17 distributed and centralized, that you think will be  
18 available and practical within 10 to 15 years, assuming  
19 similar air quality restraints in areas such as the South  
20 Coast Air Basin." Now, I formulated this question and I  
21 had in mind items like the number of remarks I have heard  
22 that there is no need for a proposed fossil fuel power  
23 plant with a certain amount of capacity because options  
24 like rooftop PV should be able to take care of that, and  
25 should be a much higher priority in terms of the Energy

1 Commission activity. So I am wondering whether there is  
2 something like a credible, specific roadmap out there that  
3 would lead to a plan for much greater implementation of  
4 rooftop PV, for example, in an area like the Los Angeles  
5 Basin, and then, you know, how much could we expect it to  
6 contribute versus something like a gas-fired replacement  
7 option? So I am looking to hear pretty wide-open  
8 commentary here. Go ahead.

9 MR. PETTIT: I do not want to have again the  
10 discussion we just had, but let me just say something about  
11 the phrase here, "similar to air quality constraints." I  
12 actually think that, although the district has been doing a  
13 good job in cutting down, for example, on the ozone, in  
14 particular, because about 80 percent of the ozone problem  
15 in the District is from mobile sources, I think that  
16 despite the District's best efforts, we are going to have  
17 at least as bad issues and possibly worse, given how the  
18 District and the State propose to meet the Federal rules or  
19 guidelines within the date that they are supposed to meet  
20 it. So I think that, in terms of the strictures the  
21 Federal law may impose on the South Coast, as years go by,  
22 that things are going to get worse, not better, and that  
23 the conflict -- the perceived conflict that we see now  
24 between the Clean Air Act and the need for additional  
25 fossil generation in the Basin is going to get worse, not



1 better, over time.

2 MS. ALLEN: Well, following up on that, what kind  
3 of mechanisms that are in place now would it take to see a  
4 lot more rooftop PV in widespread warehouse areas like  
5 Ontario? When you fly into the Ontario Airport, you are  
6 faced with a sea of roofs, and it is often a very hot day  
7 there, so, simplistically, you know, what kind of  
8 contribution could rooftop PV make that is above and beyond  
9 what is occurring now?

10 MR. NAZEMI: I think I can address this briefly.  
11 Part of the process deals with economy and cost-  
12 effectiveness, and I think there is clearly a movement  
13 towards making these more cost-effective and, as a result,  
14 one of the criteria that we have actually established, that  
15 if the power plant uses our credit was that the money we  
16 get, a third of it will be used for rooftop solar, and it  
17 would be done in the area where the power plant is going to  
18 be built, so it will reduce the need, it would provide the  
19 communities with the money that they need to put in these  
20 installations, so they do not have to pay for it, it will  
21 be paid by the power plant proponent. But when we talk  
22 about distributed generation, I would like to point out, in  
23 terms of some of the existing technologies that have been  
24 used in combined heat and power, even reciprocating  
25 engines, when we look at emissions that will come from the

1 reciprocating engines, even a combined heat and power,  
2 and compare that to the centralized power plant, we see  
3 that the emissions are sometimes three times higher from a  
4 distributed generation unit. So unless we talk about more  
5 advanced technologies such as fuel cell and other types of  
6 technologies that result in lower emissions, I think it is,  
7 again, a misnomer to say that we do not like central power  
8 plants because of the bad air quality, but distributed  
9 generation is okay. In fact, distributed generation will  
10 contribute to ozone three times more than a central power  
11 plant would, and if we are worried about the fine  
12 particulates, it is typically distributed generators that  
13 have much lower stack heights, and the concentrations of  
14 particulates will be greater at the ground level compared  
15 to a very tall 200-foot stack of a power plant. Now,  
16 again, I am not suggesting that power plants are the best  
17 way to go, but when we talk about distributed generation, I  
18 think we have to frame this, that not every distributed  
19 generation is better than central generation.

20 MS. ALLEN: Thank you.

21 MR. HARRIS: Eileen? I guess a couple things that  
22 bother me as I sit here listening, and I did not want to  
23 get involved in the earlier brawl, so I did not say  
24 anything. The question of need keeps coming up, do we need  
25 this power plant? Is it needed here? Is it needed there?

1 And that -- I find that terminology very alarming, for  
2 someone who works in the power plant industry, and the  
3 question of whether a project is needed or not. As I said  
4 before, we are a net importer of electricity, so if you  
5 just want to do it on "how many Megawatts do we need in  
6 California," every project that is going to be built is  
7 needed. I guess the other thing that bothers me about that  
8 terminology is that, at least in the merchant setting,  
9 there is no public money at risk for a project that is  
10 trying to be developed, and believe me, you can look at  
11 some of the recent bankruptcies to see that that is the  
12 case, there are millions of dollars spent in developing  
13 these projects, but it is not public money that is being  
14 spent. So if you want to argue a need for a project, to  
15 even want to license or certify a project over here, just  
16 "do we need it," there are public resources that are going  
17 into reviewing those projects, I already acknowledged that,  
18 there are also some fees that are paid that maybe should be  
19 a little different, but the whole question of need, I think  
20 --

21 COMMISSIONER BYRON: You mean a little higher?

22 MR. HARRIS: You know, they ought to be reasonable.  
23 If I get what I paid for in a full [inaudible] [1:16]  
24 decision, oh, yeah. I will be glad to pay for it. So, you  
25 know, the whole question of need, to me, it is really a

1 strongman in a lot of respects, and part of the reason  
2 for that is that, if you build superior projects with  
3 higher heat rates, one of two things is going to happen,  
4 either they are going to displace a unit that we are not  
5 tearing down, I acknowledge that, but they are going to  
6 displace it, and you are going to get the same amount of  
7 Megawatts for fewer air pollutants. Or the other thing is,  
8 if it is not needed, it is not going to run. There will be  
9 zero environmental impacts with it. So I see the whole  
10 need argument as really something that you ought to set  
11 aside, certainly in the merchant setting, it is something  
12 that -- if the project is not needed, it is not going to  
13 run and it is not going to have those impacts, and so I  
14 really do not think you should be focusing on that issue in  
15 this discussion, in the debate.

16 COMMISSIONER BYRON: Mr. Bohn?

17 COMMISSIONER BOHN: I would like to ask, then, what  
18 concept you would substitute in its place. Need is the sum  
19 of an evaluation of policy objectives, cost benefit,  
20 technology, and the rest. If you do not utilize the  
21 concept of need, what would you do? Like it? Want it?  
22 It's pretty? What would you put?

23 MR. HARRIS: Well, I am not suggesting that the PUC  
24 should not continue to try to handle the needs of the  
25 utilities to serve their ratepayers, that kind of analysis

1 makes sense, then you fold that into a procurement  
2 process where those resources are procured, but the idea  
3 that you could say any project is not needed, at least when  
4 there is a merchant facility involved, to me, is  
5 nonsensical because, as I said, they will not be built or,  
6 if it is built, it will run and displace something else, so  
7 I think you ought to keep a very close eye on the IOUs and  
8 what they are doing, and what they are planning to develop.  
9 They have asked for reimbursement for their development  
10 costs, which merchant facilities do not get, and you ought  
11 to be very cautious about providing that kind of  
12 reimbursement to them.

13           COMMISSIONER BOYD: I just want to follow-up on  
14 this need exercise because I think it is a little  
15 simplistic, if I may suggest, when you say, "If it is not  
16 needed, it won't be built," one can look around the state  
17 and find all kinds of silly things that have been built  
18 that, in some way or another are not [quote] "needed."  
19 Needed is a function of time, it is a function of  
20 particular circumstance, it is a function of forecast, it  
21 is all those things. I am okay with an alternative  
22 concept, but you seem to want to do it on a plant by plant  
23 basis, and I guess "need" is really a systemic kind of  
24 thing. One can say you do not need any particular plant  
25 until you shut down the one that makes the lights go out.

1 So I am troubled by your sort of short shrift of the  
2 concept of need. I would argue quite the converse, that a  
3 balanced and systemic view of need is, in fact, the right  
4 focus on these kinds of discussions.

5 MR. MANSOUR: If I heard Mr. Harris right, maybe  
6 that is a missing point, he is talking about total  
7 [inaudible] [4:38], someone was not asking for recovery  
8 from, you know, their [inaudible]. There is no risk to the  
9 ratepayers, just like someone building an apartment  
10 building [inaudible] and take the risk whether they find  
11 tenants or not, compared to a government building where you  
12 need [inaudible] of government or not because it is the  
13 taxpayers' money. So I think the difference, this is the  
14 difference we are talking about. So if someone is putting  
15 their money at risk, either it is needed to replace either  
16 imports that we know -- 20 to 25 percent on average, and  
17 they represent about half of the contribution to emissions.  
18 So if you think your point is if you build something at  
19 risk-free from the ratepayers' point of view, that would  
20 replace that. That is a good thing, and if it does not  
21 run, then it does not pollute. Is that your point? So I  
22 think the distinction between the need from a pure investor  
23 point of view compared to an IOU who is expecting the  
24 recovery is worth looking at, that my question to you is,  
25 how many investors these days are willing to actually go

1 100 percent merchant?

2 MR. HARRIS: As you know, not many. It is a very  
3 expensive process. You have to get a hold of the land,  
4 some that are optioned or otherwise, and this process of  
5 licensing California thermal power plants is a multi-  
6 million dollar venture, and what you are hoping for at the  
7 end of the day is a license that you can use to bid into an  
8 RFO to actually pay back your investment. So you are  
9 seeing fewer and fewer folks doing that. I think that one  
10 of the things this Commission has to acknowledge, too, is  
11 that there are going to be more gas projects, I do not  
12 think natural gas is a very -- two words -- it is the kind  
13 of fast starting, flexible stuff you are going to need to  
14 be able to integrate renewables into the system. And so I  
15 understand and appreciate the emphasis on renewables, and  
16 some of my clients very much appreciate that emphasis, at  
17 the end of the day, I think natural gas -- at least over  
18 the 10 to 15 year horizon that is talked about in the  
19 question, is going to continue to be an important part of  
20 making sure the lights stay on.

21 MS. ELLEN: Thank you. I have received a discrete  
22 signal that we need to move on. So thank you very much for  
23 participating as panelists, and offering us your insights  
24 and views.

25 COMMISSIONER BYRON: Ms. Allen, thank you. And

1 thank you to our panelists. People would have to wonder  
2 why is it that you have time to be here and share this  
3 panel given that you have 27 power plant siting cases  
4 before this commission and many more on the horizon coming  
5 in. I do not expect you to answer that, but do you want to  
6 respond?

7 MS. ALLEN: I will have to get back to you.

8 COMMISSIONER BYRON: Well, I have a comment that I  
9 would like to end the panel with. We appreciate your input  
10 very much. As you can tell, the work load is rather high  
11 right now in this Commission; we do not see that going down  
12 any time soon. But I would like to respond directly to  
13 some additional comments Mr. Harris made early on for the  
14 benefit of everyone here. Past is not prologue. The  
15 assumption that this Commission pre-judges or will move  
16 through CEQA on your time schedule is incorrect. It is  
17 becoming very difficult in this state to site these  
18 applicants -- to fully mitigate and site these  
19 applications. So I want to make it clear, this Commission  
20 will not be shortchanging CEQA to meet the applicant's  
21 schedule of requirements on any projects going forward.  
22 Given that, and the comments we heard today, you are not  
23 making it any easier for us. So thank you very much to the  
24 panel. And we look forward to the next panel, which we are  
25 going to transition to very quickly. And I apologize, I am



1 just going to continue right through the break, we are  
2 not going to take a break here, we are going to go right to  
3 panel 4, and Mr. Hesters, if you will approach the podium,  
4 and if the other panelists will go ahead and please be  
5 seated, we will go right into our discussion. Mr. Simpson,  
6 I am not going to recognize you at this time, we are moving  
7 on to the topic before the panel.

8 MR. SIMPSON: Thank you.

9 **Agenda Item 7: Panel 4: Changes to California ISO**  
10 **And Other Balancing Authority Transmission**  
11 **Planning Processes**

12 COMMISSIONER BYRON: Mr. Hesters, you may go ahead  
13 and begin in the interest of preserving time and we have so  
14 many people that are here, I want to make sure that we are  
15 respectful of that.

16 MR. HESTERS: I was sort of counting on the break  
17 for some coffee, but I will try and stay focused. We are  
18 missing Pat, and so she will be here -- let's give her a  
19 few seconds to start.

20 COMMISSIONER BYRON: Please proceed.

21 MR. HESTERS: The sort of purpose of this fourth  
22 panel is, so far, we have really looked at generation and  
23 the characteristics of generation, and permitting  
24 generation, and paying for generation. We are now turning  
25 to transmission alternatives to generation and how we go

1 about identifying and planning for potential transmission  
2 alternatives to once-through cooling generators. We have a  
3 panel of four. One the far side, we have Mark Esguerra  
4 from Pacific Gas and Electric; next to him, we have Mo  
5 Beshir from Los Angeles Department of Water and Power; the  
6 empty chair is Pat Arons from Southern California Edison;  
7 and then we have Laura Manz from the California ISO. The  
8 panel, we sort of structured around five questions. The  
9 first three questions are sort of focused on transmission  
10 planning processes, those -- the first two that come  
11 directly from the joint energy agencies proposal, the third  
12 one talking about length of time and data needs. I am  
13 going to break this up into sort of talking about the first  
14 three questions, then, we will talk about the fourth  
15 question, which is looking at the approval and permitting  
16 process for transmission facilities, and finally, to the  
17 fifth question which is how the Edison and LADWP --  
18 Southern California Edison and Los Angeles Department of  
19 Water and Power, because the two areas are essentially  
20 right around each other, could somehow coordinate to deal  
21 with once-through cooling transmission needs and generation  
22 needs. So let's start with the first, sort of first three  
23 questions, in general. Mark, since you are on the end,  
24 let's start with you.

25 MR. ESGUERRA: Okay. As Mark mentioned, I am Mark

1 Esguerra from Pacific Gas and Electric Company. The  
2 first question I had was on commenting on the Step 2 of the  
3 Joint Proposal and if it identifies the necessary studies.

4 COMMISSIONER BYRON: Mr. Esguerra, is your  
5 microphone on?

6 MR. ESGUERRA: It is on now, sorry. So response to  
7 the first question, and my comments, looking at Step 2 in  
8 the Joint Proposal, it appears that it does have all the  
9 necessary studies identified, it does it actually really  
10 well. I do see linkages between other transmission  
11 planning processes such as the Renewable Energy  
12 Transmission Initiative, as well as the Transmission  
13 Planning Process, it also does have some tie-backs to -- it  
14 emphasizes not only looking at what the local requirement  
15 and impacts are, but as well as from the entire system. So  
16 I think it does a decent job in covering that. One thing  
17 that I would like to see a little bit more vetted out would  
18 be some of the discussion of how the other utilities -- the  
19 transmission planning organization utilities, how they can  
20 get more involved in looking at this process, participating  
21 in it, as well. And obviously, the devil is in the details  
22 in some of these items, from a high level, it looks like it  
23 works, making sure that we continue to show the integration  
24 throughout; with all the different initiatives going on, it  
25 is going to be a challenge.

1 MR. HESTERS: I sort of made a mistake here.  
2 Let me give a brief overview of what is in Step 2, just in  
3 case you all have not read it or memorized it. In general,  
4 it is an extension of the current local capacity  
5 requirement studies, basically taking a one-year study and  
6 extending it out over 10 years by escalating loads,  
7 projecting future resources, projecting future  
8 transmission, projecting energy efficiency, and demand  
9 response, and local generation -- not local, but  
10 distributed resources. It is essentially a spreadsheet  
11 analysis, it allows you to look at a number of different  
12 scenarios, generation alternatives, transmission  
13 alternatives. It is not as detailed as sort of the one-  
14 year study that is done with a power flow analysis, but it  
15 does give you an idea of what is needed in the long-term.  
16 Let's -- rather than go -- let's go with Pat first, and  
17 then we will go to Mo on this question.

18 MS. ARONS: Which question?

19 MR. HESTERS: We are working on Question 1, oh,  
20 actually, sorry, let's have Mark continue on the second  
21 question which has to do with the Step 7, which is  
22 basically folding in the once-through cooling policy  
23 requirements in through the ISO annual planning process.

24 MR. ESGUERRA: Okay, so my take on that is that the  
25 existing transmission planning process that the ISO set

1 forth has the framework to accommodate this. I think it  
2 has a portion of the process where you are setting the  
3 assumptions, as well as allocating time for studies, as  
4 well as accepting proposals for either transmission or for  
5 non-transmission solutions. However, I think it can be a  
6 little more revamped to provide some special focus on this  
7 area. As I mentioned before, there are a number of other  
8 initiatives that are also participating in this, and  
9 without this special focus on the OTC, I am afraid that  
10 some of the work that is undertaken in a transmission  
11 planning process can get lost in terms of where this lies  
12 in there. Another thing that I point out is that some of  
13 the solutions here in maybe the larger spectrum, it could  
14 take multiple planning cycles if it involves other  
15 alternative load within transmission when we are trying to  
16 weigh and vet out the differences between the two.

17 MR. HESTERS: Yeah, that was the second part. How  
18 would you sort of look at generation alternatives to  
19 transmission? Because the existing process does not really  
20 look at generation, it sort of takes generation from a  
21 proscriptive view in that generators that are under  
22 construction are included, generators that are not under  
23 construction are not included.

24 MS. ARONS: Okay, this is Pat Arons. I am with  
25 Southern California Edison. I think there are a few

1 missing pieces in the recommendation in Step 2, and that  
2 is, it is focusing on load pockets, if you will, and  
3 focusing on the question of how much capacity might be  
4 needed to be put under contract, to reliability serve that  
5 load pocket. But I do not think it really goes to the  
6 methodology that you need to begin to use to shut down on a  
7 permanent basis once-through cooling generation. You do  
8 not get an examination of the stability issues, you do not  
9 get an examination of loss of import capability, and so  
10 there are some missing pieces there. So I think there is  
11 some expansion to some of the tools that are used, and I  
12 think there are some new methods that we maybe need to  
13 develop that are specific to examining the questions on  
14 once-through cooling.

15 MR. HESTERS: Just as a follow-on to that, it does  
16 not seem to me like even the current local capacity  
17 requirement studies encompass some of the -- they do not  
18 really deal with the stability issues so much, and they  
19 also do not deal with the import -- changes in imports, as  
20 thoroughly as we would need to look at once-through  
21 cooling. Is that sort of where you are leaning?

22 MS. ARONS: Yeah, I think -- yes. I think it is a  
23 slightly more detailed kind of technical study that needs  
24 to be done. I think the LCR tends to focus on the end  
25 product being a capacity contract, potentially, somewhat

1 like the old LCR, RMR type contracts that generators had,  
2 where we had reliability issues related to the grid. I am  
3 not sure the value of going out one year or 10 years if  
4 your focus is on a reliability contract. For example, on  
5 the old RMR contracts that we had with the ISO, they were  
6 evergreen contracts, and you had to propose a transmission  
7 upgrade to eliminate the contract. I think that might be a  
8 model that we follow for a business of managing the  
9 shutdown process because, frankly, transmission is a very  
10 long lead time item that is going to take 10 years or more  
11 to get built. You want to have some sort of security  
12 knowing that the generator is not going to shut down while  
13 you are working on a potential solution.

14 MR. HESTERS: Okay, and then the next, we are sort  
15 of going through question two, as well as kind of a general  
16 -- they are both related to the planning and changing in  
17 the planning process, and Step 2 is basically --

18 MS. ARONS: Do you want me to comment on that, as  
19 well?

20 MR. HESTERS: Yes.

21 MS. ARONS: I think what is important about the  
22 studies that we do, that we do not capture in the current  
23 LCR studies is that we need to broaden the study basis to  
24 be all of California utilities, so the publicly-owned  
25 utilities, in addition to the investor-owned utilities

1 under the ISO would have to be brought into the study  
2 mechanism. And so I think the ideal venue for doing that  
3 is this newly developing California transmission planning  
4 group, where all of the pertinent entities are at the  
5 table, we are talking about, in fact, a study plan for  
6 doing the studies jointly because many utilities have  
7 generation that might be at risk for shutdown, and so you  
8 have to look the system on an integrated basis. So I do  
9 not think the LCR process alone is the right venue, I think  
10 it is a slightly different venue and it has more utilities  
11 there.

12 MR. MANSOUR: Mr. Hesters, did I hear you  
13 suggesting or claiming that there are a lot of studies that  
14 are being done now [inaudible] [20:21]?

15 MR. HESTERS: No, I was trying to sort of build on  
16 -- they do, I know that is the case, but --

17 MR. MANSOUR: Well, you said you thought they were  
18 -- I just want to correct the record -- that they all were  
19 in trouble.

20 MR. HESTERS: Okay, good.

21 MR. MANSOUR: They do.

22 MR. HESTERS: I know they do. I mean, the enhanced  
23 LCR was not going to do any stability. The enhanced LCR  
24 did not include that.

25 MR. MANSOUR: Well, just to set the record, LCR is



1 a technical locational -- it is a coalesced thing that  
2 talks about a lot of stuff, to say it is reliability is met  
3 or not. So maybe --

4 MR. HESTERS: No, that is fine.

5 MS. MANZ: I was trying to wait my turn, but it  
6 might be time for me to jump in. So let me support exactly  
7 what you are saying, that the LCR needs to be taken in the  
8 context of everything else that is being done. And so it  
9 starts with, sort of having everybody in one balancing  
10 authority, which would be the happiest day, I think, for  
11 the State of California, to say we are all operating  
12 together, we are planning together, we are interconnecting  
13 together, we have something that looks like not necessarily  
14 integrated, but collaborative and coordinated. And so that  
15 is kind of where we are trying to go. If I can take a  
16 minute and just talk about the pieces of that, because I  
17 think that is the point that Pat is trying to make, and  
18 also the point Yakout is trying to make, is that the LCR is  
19 one of many things that informs the planning for the State.  
20 So we start with -- especially for the ISO, we are the only  
21 entity that has a fourth-quarter 890 compliant planning  
22 process, so we have that -- it is sort of on its own little  
23 track now, and it does all the stability and, you know, we  
24 look at all the technical things you need to plan a power  
25 grid. So it starts from a basis of technical soundness,

1 let me just start with that. And I think that is the  
2 point Yakout was trying to make for us. And then LCR is  
3 one of many things we study within that. And so we are  
4 looking at a transmission system, and so that is sort of an  
5 important notion that we try to hold in our heads as  
6 planners -- we are planning a system. And as you take each  
7 element in a system, such as an individual power plant that  
8 has a once-through cooling, you would want to look at how  
9 is that impacted within the whole system. And so we can  
10 talk about, is there a transmission solution, and I think I  
11 heard earlier that there might not be a solution, well,  
12 there is always a solution; the question is how do we find  
13 the most cost beneficial solution. And so that is the next  
14 piece of the ISO planning process, if I could just say, I  
15 am answering question two, right now, is to say, yes, we  
16 have those things in place. So we have the Order 890  
17 transmission process, we have a methodology to say, what  
18 are the ways we evaluate competing alternatives? And so we  
19 would have an economic assessment, a reliability  
20 assessment, look at does it provide the right technology at  
21 the right cost. So that is already there. And I would  
22 suggest, also, that within the ISO processes, we do this  
23 through an open, transparent, informed stakeholder process,  
24 so everyone is invited to show up to say, "Here is what we  
25 need you to look at," or, "We don't agree with the approach

1 you've taken, we would like you to try it this way." So  
2 I think those are some of the sort of backbone pieces. We  
3 are taking this and stretching it with all the  
4 environmental considerations to a whole new level. I mean,  
5 we started with the Renewable Energy Transmission  
6 Initiative to say, how do we move the planning process  
7 forward to really study some of the harder problems? It is  
8 planning unlike we have ever done before. This once-  
9 through cooling exercise, I would suggest, has sort of  
10 similar needs to it because it does need collaboration, it  
11 does need everyone at the table, it does need all entities  
12 that are trying to plan a power grid in the State of  
13 California, to get together and look at what is the best  
14 way to do this. Given that we have moved back from this  
15 being all one big energy balancing authority, the answer is  
16 we are going to do this through the planning process, and  
17 that is pretty standard at FERC, also, we are seeing that  
18 because they have not mandated big large power pools, but  
19 they have said, "You need to coordinate your planning."  
20 And so we have the California ISO planning process, which  
21 then works within the California transmission planning  
22 group to say, "How do we plan for the needs of the State of  
23 California?" That, then, fits within the Western Energy  
24 Coordinating Council, which you might have also heard  
25 called WECC, but I got the no acronym admonition, so I am

1 on that plan, and so we are looking at how do we  
2 coordinate our small footprint with the California  
3 footprint, with the regional footprint, to do this in a  
4 cost-effective manner, in as many ways and means as  
5 possible. The other thing the ISO is also looking at is  
6 some of the needs for -- it started as planning reserve  
7 margin, and so it is some of the needs around adequacy, and  
8 this, in our opinion, lends itself to some scenario  
9 planning as we look at overall adequacy. I think that was  
10 another point Pat was trying to make, is that you not only  
11 need to look within the pocket, you need to look at the  
12 system in total and make sure that, as you are moving  
13 things around, you have not inadvertently missed something.  
14 So it might be import capability, it might be load growth,  
15 it might be something that we have seen that we need to  
16 take the whole system into consideration. So I apologize,  
17 that is a very long way for me to say, "Yes, we are on it."

18 MR. HESTERS: No, no, actually it leads me to --

19 COMMISSIONER BOHN: Can I interrupt just for a  
20 second, before we pass this and in light of your comments?  
21 I would appreciate some guidance, and I do not know whether  
22 it is from you, or from the utilities, or from whom -- and  
23 this is the mechanic talking now, we are trying to figure  
24 out how we link all this stuff together to make it work --  
25 how might we encourage the utilities to make the changes we

1 are talking about? When we are talking about  
2 procurement, we need to have procurement take place before,  
3 presumably, you phase out some of these old plants; suppose  
4 the plant is phasing out, is in somebody else's hands, as  
5 opposed to the utility that we are permitting to build a  
6 new facility? How do we integrate the overall solution  
7 around the procurement process which perforce requires us  
8 to deal with dollars and cents and stuff that is supposed  
9 to happen? Is it from the ISO? Do the utilities have the  
10 responsibility of saying, "Here is the preferred solution  
11 and this is why?" Do they get their guidance from you? I  
12 am just trying to figure out how, mechanically, when  
13 somebody comes in and says, "We want to build a power plant  
14 and this is why," we link it somehow to the broader  
15 objective of this once-through cooling exercise when,  
16 perhaps -- and I suspect more than infrequently -- the  
17 mitigation of the once-through cooling is in somebody  
18 else's hands, and maybe somebody else's location -- how do  
19 we link those together in a meaningful process that is  
20 sensitive to the cost that we are again inflicting on the  
21 ratepayers?

22 MS. MANZ: I am going to suggest that this is a  
23 ripe area for discussion. I am going to suggest a few  
24 other things. I do not think it is the ISO that wants to  
25 be in charge of a procurement process for the IOUs, I am

1 pretty sure about that. So I think we can use the basis  
2 that we have right now, where -- let me just take the  
3 existing local capacity requirement process -- where the  
4 ISO will do the technical studies, and then say, "In these  
5 particular areas, you need more procurement as opposed to  
6 other areas where you do not," and that informs your  
7 existing process. I think we can do all of this within the  
8 existing process. Another thought that came to mind as you  
9 were talking was to tie this back to the merchant non-  
10 merchant conversation we had earlier where, if you do have  
11 a power plant that really wants to just use the ISO market,  
12 which has sort of gotten its revamp and is pretty much on  
13 its feet now, that is a different level of intervention, I  
14 would suggest more lite handed, than if you are going  
15 through your IOU direct to rate paying customers process,  
16 and that you would want to have definitely more technical  
17 rigor, and talk LCR, the Local Capacity Requirement, and  
18 then what would those be based on once-through cooling.

19 COMMISSIONER BOHN: One question, therefore, if  
20 that is the -- I will not hold you to this, I am just  
21 trying to figure out --

22 MS. MANZ: My boss will not know.

23 COMMISSIONER BOHN: I will not hold him to it  
24 either. If that is the available information that the ISO  
25 provides and takes responsibility for, now my question to

1 the utilities is, is that enough information for you to  
2 come in and ask for a mitigating solution to the once-  
3 through cooling problem for plants in your jurisdiction?  
4 Is there something else you need to know? Because part of  
5 our discussion is likely to be, because you are going to  
6 come in and say, "Well, we have this once-through cooling  
7 problem, but it is up in Tulare County," or somewhere, and  
8 I am trying to figure out, do you, based on what she said,  
9 do you now have enough information to make a meaningful  
10 argument that we at the PUC can actually evaluate? Or is  
11 there some other missing piece of information that we need?

12 MS. ARONS: Let me go back historically and tell  
13 you about how we used to handle reliability problems that  
14 we would find on the ISO controlled grid. We had a  
15 situation where, prior to deregulation, we could operate  
16 units according to what we felt the reliability needs of  
17 the grid were. And when we deregulated, we found that the  
18 units were not always operating that needed to be operating  
19 to manage reliability problems, and so they were given  
20 contracts under which they were obligated to operate, and  
21 they were given payments under those contracts that set, if  
22 you will, an economic target or threshold for which  
23 transmission had to be less expensive than, in order to  
24 justify that transmission project. The situation that we  
25 are faced with right now on once-through cooling is a

1 little bit different in that, those units are moving  
2 towards shutting down, and we are looking at the economic  
3 cost of doing some sort of cooling replacement  
4 construction. But if they had to do that, in order to  
5 manage the reliability of the grid, then the cost of that  
6 construction, whether it is cooling towers, or what have  
7 you, becomes, if you will, a threshold cost for the  
8 alternative transmission that might be necessary to  
9 mitigate that shutdown, and that could be through displaced  
10 power in the impacts on loading on the grid, or it could be  
11 through having to refurbish or increase, if you will, or  
12 "restore" is a better word, your import capability. So  
13 there is a dynamic in trade-off that, in the past, we had  
14 through RMR contracts. I am not sure that we are going to  
15 have that vehicle to look at today. And so the question  
16 is, because transmission is such a long lead time, we would  
17 have to commit to a transmission project today in the event  
18 that a generator said to us that they are going to shut  
19 down in 10 years -- how do we really know that what we are  
20 going to be building is going to be used and useful if, for  
21 some reason, that generator decides to go ahead and do a  
22 repower and continue operations, which would naturally  
23 satisfy the grid? I think the problem is the generator has  
24 very short lead time decision making that it can make,  
25 while transmission investments are much longer lead time.



1 And it simply becomes a question, "Do you know with  
2 certainty these generators are going to shut down?" Then  
3 you have to put something in on the transmission grid to  
4 manage the reliability issue. You know, that is a simple  
5 commitment that you can make, but you do not really -- you  
6 know, the need issue that would have to be proven at the  
7 PUC to your acceptance is something that we would have to  
8 think about -- how do we know for sure what the future  
9 holds with respect to that generator, or group of  
10 generators. We just do not know.

11 MR. MANSOUR: Maybe Commissioner Bohn, maybe I can  
12 give you actual examples of what happened the last year or  
13 two, the specifics, and see, you know, the process we are  
14 talking about. The record is in place that, for new  
15 generation that is required for resource adequacy and  
16 reliability to ISO, took a position and recommended to the  
17 PUC and participated in hearing to support the needs of  
18 certain facilities that happened, for example, Edison,  
19 there were over five locations over the past couple years.  
20 There are also cases where, like Potrero, for example, Unit  
21 3, where we said, "When the transmission goes into place,  
22 you can take it down, we do not believe that you can make  
23 the decision of taking what is in there out before the  
24 replacement is in." And that was the trust [inaudible]  
25 [35:11]. So that is the [inaudible], the one that comes in

1 2010, that Potrero [inaudible]. And there are other  
2 cases where also we said, you know, "Do you want to take  
3 something out before the solution is in," again, we took  
4 the position of saying, "No, you cannot take it out because  
5 [inaudible]. So in every one of those cases -- and there  
6 are some cases where there were proposals in front of the  
7 Commission where we really did not care where the location  
8 would be, it was not a location-specific, we did not come  
9 and say, "No, it is that location," we just said, "Well,  
10 [inaudible] that we would not take a position on where a  
11 location is going. So the ISO is being very over the last  
12 two years, I can give you many examples in front of the  
13 Commission where we did actually come and say, "Yes, this  
14 is needed." Or, "No, you cannot take it out," and then  
15 when it happened, it actually did," so it is through that  
16 same process, in spirit, that we will continue now as Ms.  
17 Manz said, it is the process of getting to that decision is  
18 getting complex, but you will still get from the ISO  
19 without taking the decision-making on natural [inaudible],  
20 you will see the ISO maintaining its role in actually  
21 supporting, for the record, what is needed and what you  
22 cannot do and what you can do from [inaudible].

23 COMMISSIONER BOHN: That is very hopeful. The  
24 question is, can you also order them to shut down to your  
25 point? That is to say, they say they are going to shut

1 down and you make a deal, and they decide they want to  
2 repower, can you control that decision?

3 MR. MANSOUR: No, we do not order it down. For  
4 example, if the transmission -- let us say the transmission  
5 is in place and [inaudible], now, the need for existence  
6 would be something else. So [inaudible] [37:07] repower,  
7 it would not be [inaudible] just the [inaudible] its own,  
8 it could be for resource adequacy, the overall system-wide,  
9 it could be for [inaudible], it could be merchant, like Mr.  
10 Harris said, that I am going to take my chance. That would  
11 be a different justification, but it would not be anyway  
12 just a [inaudible] because we solved it in a different way.

13 MS. ARONS: If I could speak to that --

14 COMMISSIONER BOHN: So your issue, Pat, if I could  
15 answer the question -- your issue, then, sounds like you  
16 never will know, that is to say, whether the generators --  
17 you come in and talk to us and say, "We are building this  
18 to deal with this plant that is being phased out," the  
19 plant -- you get to the time it is supposed to be phased  
20 out, it is not phased out, that situation cannot be solved.

21 MS. ARONS: Well, I want to speak to -- I think  
22 there are two problems that we are grappling with; the  
23 first is, we do not know the consequences, cost  
24 consequences, on the power grid from the shutdown of the  
25 once-through cooling from these new regulations. So nobody

1 really knows how big or how small those consequences are  
2 and we are all struggling with it. You are asking  
3 questions more along the line, we will assume that that is  
4 going to happen, you know, what are you going to do about  
5 it? And I cannot say that I know. I do not know what I am  
6 going to do about it because I do not know what is going to  
7 happen with those generators. There is no certainty around  
8 what the owners' decisions will be, and so what is  
9 appropriate to respond could be, well, we could on the one  
10 hand, in an extreme condition, be very cost conservative  
11 and say we do not want to do anything until we know with  
12 certainty. Or, we could say, well, you know, this thing is  
13 going to happen, we want to be very risk adverse, so we  
14 will build more than what we might actually need. So  
15 somewhere between the two ends of that scale is the reality  
16 where we would land, and I cannot say for sure what that  
17 would be right now because I just do not know.

18 MS. MANZ: I would like to try a little scenario  
19 with this to say, let's assume we did get an LCR  
20 designation, you did the procurement directive, it was  
21 completed. I think I am hearing your question, "How do we  
22 know that old stuff would go away?" And what would happen  
23 in our process is that we would no longer designate  
24 specific units as RMR, which is how they get their fixed  
25 cost recovery. And so that fixed cost recovery would go

1 away. We have an economic security constraint dispatch,  
2 which means we try to take a least cost, most efficient, to  
3 operate. And so, if you have no potential to recovery  
4 fixed costs, you are not called in the dispatch to run, you  
5 have no revenue stream any longer, and I think that would  
6 be a scenario leading to plant closure over time.

7 MR. MANSOUR: Unless they find something else, and  
8 that is what I am saying.

9 MR. HESTERS: Or unless they repower --

10 MS. MANZ: Right.

11 MR. HESTERS: -- but they are also required to make  
12 other investments if they do not repower or replace.

13 MR. ESGUERRA: So, to Mark, in saying that -- just  
14 ask another question -- so would this be something we want  
15 to consider revising ISO planning criteria to put language  
16 in there, to be more -- I think that is the direction we  
17 are going in, but do we want to look at that and say,  
18 "Well, you should plan for minimizing OTC," and be very  
19 proscriptive on locations?

20 MS. MANZ: I think we have the ability to do that  
21 already in the Order 890 process, that is where we have a  
22 whole big stakeholder process around what should go into  
23 the planning assumptions, and what should go into the  
24 scenario analysis, so I do not think we need a tariff  
25 change. I think we need just more voices in the room.

1 MR. ESGUERRA: Well, it is more codifying in the  
2 planning criteria document.

3 MS. MANZ: Which is done every year, yeah, that is  
4 part of the process.

5 MR. MANSOUR: And remember, as we said earlier,  
6 this is something you do not need locally, but you may need  
7 it for those [inaudible] [41:00].

8 MS. MANZ: Right.

9 MR. MANSOUR: Now, you may still need to solve the  
10 local problem, but if they stay, they have a contract in  
11 terms of adequacy, system-wide, with the utilities, not for  
12 local, as would be not ISO, but the utility part.

13 MR. HESTERS: Mo, I am going to get to you, but  
14 there is a sort of follow-on to this, which was question  
15 three. We got the LCR study, we have got the ISO planning  
16 process, one of which identifies capacity, the other which  
17 could be identifying transmission needs, which we then take  
18 -- we guess years to permit, as Pat has been saying, 10  
19 years is sort of minimum. The energy agency proposal talks  
20 about rolling the once-through cooling rule into the 2011  
21 ISO Transmission Plan; that essentially means it is studied  
22 throughout 2010 and goes before the ISO Board in 2011. If  
23 there are transmission solutions that are identified and in  
24 that process, is that soon enough? Or is something more  
25 needed? That was for Pat. Mo is going to come next.

1 MS. ARONS: You are asking me that question? I  
2 do not know. I think it is an interesting question. I do  
3 not really have an answer for you.

4 MR. HESTERS: Mark, do you have anything on that?

5 MR. ESGUERRA: I will let Mo take a stab.

6 MR. HESTERS: Well, actually, Mo is going to roll  
7 back into 1, 2, and 3, and how LADWP does this and works  
8 with the California Transmission Planning Group.

9 MR. ESGUERRA: Is there enough time -- well, for  
10 PG&E, because looking at our system and for a specific  
11 location in our area, I think it is not that big a deal for  
12 us because we have identified monies and know the forms,  
13 but I cannot speak for the other utilities on what type of  
14 transmission would be needed. Depending on the timing of  
15 when the shutdowns are going to take place and the time it  
16 takes to build large scale transmission, it is hard to say.  
17 I would probably say I would err more on the caution that  
18 it might not be enough -- enough time, but it is hard to  
19 say. It is tough to answer.

20 MR. HESTERS: Laura, did you want to weigh in on  
21 that?

22 MS. MANZ: Well, I think we have some answers in  
23 going through the Renewable Energy Transmission Initiative.  
24 We solved a similar kind of problem to say, how is it that  
25 we are going to identify competitive renewable energy

1 zones, how are we going to come up with a conceptual  
2 transmission plan, and what did it take us -- about 18  
3 months to two years, I would say. You know, and so --

4 MR. HESTERS: At least.

5 MS. MANZ: Well, and there is a lot of new things  
6 that happened there. I mean, it was the first time we  
7 worked together as the State, with all of the people, with  
8 a voice and something to say to come out with a solution on  
9 the other end. So I do think there was a learning process  
10 in all of that. I think we have at least a semblance of  
11 what I would call a conceptual transmission plan, and then  
12 the question is, how do we take it from paper, I mean, yes,  
13 we can do this as part of the regular ISO planning process,  
14 but then how do we turn it into stuff? And that is the  
15 part that I think we are still kind of working on. And to  
16 go back to something Yakout said, you know, there is every  
17 possibility and potential to, you know, hold at least in  
18 time until you get that transmission in, the plants that  
19 are there. So this sort of glide path out, I think, we can  
20 continue to push on all fronts until we have a good sort of  
21 longer term reliability plan.

22 MR. HESTERS: Okay, Mo, now it is your turn. And  
23 mostly, the energy agency proposal runs through sort of ISO  
24 and not LADWP specific, in which case -- the Los Angeles  
25 Department of Water and Power -- I would like you to



1 address it more from how the Los Angeles Department of  
2 Water and Power is dealing with it, and when we get to  
3 five, we will discuss sort of how the California  
4 Transmission Planning Group could be used to work on some  
5 other solutions.

6 MR. BESHIR: Thank you, Mark.

7 COMMISSIONER BYRON: Mr. Beshir, if I may, I would  
8 like to welcome you. You have been waiting very patiently  
9 all day, and here we finally get to you towards the end of  
10 the last panel, and if I could just use Ms. Manz's comments  
11 earlier about what a happy day it will be when the entire  
12 transmission planning process is all under one hat, I  
13 suspect you might not feel the same way, nor would you  
14 necessarily want to be part of this complicated procurement  
15 process that we have been discussing a lot. So we look  
16 forward to your perspective as to what LADWP is doing.

17 MR. BESHIR: Thank you for the opportunity.  
18 Definitely, I was kind of confused for a while on all these  
19 acronyms and processes, but on a serious note, in general,  
20 we do have the same concerns, the same issues. I mean,  
21 this is really -- we all live in the same area and the same  
22 neighborhood, so we do have the same issues with the  
23 generation concern we have, with the environmental issues,  
24 as well as the transmission considerations which go along  
25 with solving some of these issues. I think this is the

1 same kind of issue. Number one, of course, the documents  
2 and some of the write-up here does not really address the  
3 issue of how we solve or how we look into this process from  
4 LADWP or from other municipalities, or public power, which  
5 deal with similar issues. LADWP does have three major  
6 power plants which are in the coastal area where we have  
7 had issues of a similar nature, we are trying to solve. We  
8 have, I guess, repowering programs we have been working on  
9 for quite some time, which we have done one phase of one of  
10 the plants, we have two or three phases we need to address  
11 and we would like to do. One area, of course, is for us a  
12 good Commission consideration, is really repowering. We  
13 are not really looking at replacement of those generation  
14 with some non-coastal plant at this time, so it is very  
15 important for us to phase in the process in a more tight  
16 fashion because we cannot really take whole [inaudible]  
17 [47:55] of plants to repower and come back in two or three  
18 years for the resource. So we do have a meticulous  
19 planning process on how we would like to do a repowering.  
20 So that is one of the considerations we have. One of the  
21 things we have done, we do continuously, is we have  
22 integrated resource planning process for LADWP, where we do  
23 look at all the issues associated with resource needs on an  
24 ongoing basis. We have very aggressive renewable protocol  
25 standard problem. We also have pretty aggressive

1 greenhouse gas issues, mitigation problem, ongoing. So  
2 we do look at all of that in a very holistic fashion and  
3 try to solve all the issues as we go and in a comprehensive  
4 way, so it is very important and we do have integrative  
5 resource planning process where we do look at all the  
6 issues at the same time. On top of that, we do have  
7 transmission planning processes which we look at our  
8 transmission issues and try to meet our overall system in a  
9 more reliable fashion. Furthermore, we are engaged in the  
10 RETI process, as well as the efforts for the California  
11 Transmission Planning Group. We have -- I believe it is  
12 going to be a necessary component in solving this and many  
13 other issues the state faces, the greenhouse gas issue, as  
14 well as the transmission issues we have on an ongoing  
15 basis, including the ocean cooling scenario. We are  
16 talking about needs, a comprehensive look, by all of the  
17 California parties. As part of the California Transmission  
18 Planning Group, which has been set up to do many studies,  
19 some of the key components we see, and has been addressed  
20 in what we call our Work Plan, is of course the number one  
21 issue we are looking at, the renewable transmission  
22 development and meeting the 33 percent, or, for some of us,  
23 it could be maybe higher than 33 percent renewables, by  
24 2020. But also, in the mix, we are putting the ocean once-  
25 through cooling issue as part of our Work Plan to look

1 forward and try to solve and come up with a transmission  
2 component, or a plan to comprehensively solve that issue  
3 from all California perspective. In addition to that, of  
4 course, we have the AB 32 and many issues in that Work  
5 Plan, and as we speak, the California Transmission Planning  
6 Group is going to be having a stakeholders meeting on  
7 August 11<sup>th</sup> in San Francisco, where we are going to be  
8 talking about how to roll out a study plan to address  
9 number one right now, of course, is to do the RETI follow-  
10 up and look at the transmission components, and how to  
11 solve the renewable transmission issue. But, of course, we  
12 would also look at this as a component of the program and  
13 how to resolve these issues. So I guess, from your number  
14 one and number two questions, number one, I think to  
15 address our issue, the documents need to maybe address some  
16 of our unique considerations from that perspective. You  
17 had a question, I guess, about transmission issues and how  
18 long it does require to build the transmission. As part of  
19 solving some of our ocean cooling issue for our SACCWIS, we  
20 are looking at some additional transmission components,  
21 which will is essentially upgrading and enhancing our  
22 underground transmission, and that is in the works. It has  
23 been in the works for three years now, and hopefully in the  
24 next couple of years we will develop that and it will give  
25 us a little more room to maneuver and help us with some of

1 that issue. Another thing we have at SACCWIS, which is  
2 unique also is, that is a kind of [inaudible] [52:09], it  
3 has consideration not only from the reliability, but also  
4 from the renewables where we are taking a digestive gas and  
5 burn that in the boiler, so that has to be a 24/7 operation  
6 in order to take this renewable component. So we are  
7 putting in a separate unit support of that component, so  
8 that is going to help us move forward from that  
9 perspective.

10 MR. HESTERS: Thank you. I was going to run to  
11 question four, we have had some sort of answers to this and  
12 it is pretty complicated, again. Assuming we have got the  
13 studies done by the sort of start of 2011, the next step,  
14 assuming that the studies identified some transmission  
15 solutions or alternatives to once-through cooling, would be  
16 approval and permitting an approval of those projects.  
17 Would we need changes to existing permitting and approval  
18 processes to facilitate these projects and get them moving  
19 in accordance with the sort of aggressive schedule that the  
20 Water Board has set forward? And if we do need changes,  
21 are those changes something that can be made within an  
22 organization? Do they require stakeholder processes?  
23 Would they require a tariff modification for the ISO, or  
24 are they essentially legislative actions? And some of  
25 these obviously are longer than others. But, again, we

1 have got an aggressive schedule set forth by the Water  
2 Board. If we assume we are going to meet that, are there  
3 things that need to be done to the approval and permitting  
4 process for transmission?

5 MS. MANZ: I can speak all the way to the point of  
6 approval, I do not think I can go into the state's  
7 permitting. So let me try that part. We have a process  
8 that is already a FERC approved process, that we look at  
9 what the transmission solutions would be, and then we have  
10 a step that says all other comers can put their solutions  
11 into what we call the open window. And then there is a  
12 step that says and we assess to find the fit that is best.  
13 And that is a transparent stakeholder driven sort of  
14 platform, so I think we have the tariff language, I think  
15 we have that process. And part of the findings in that  
16 would inform the local capacity requirement, procurement  
17 obligations, or findings. So I am not sure that answers  
18 all of it, but in looking at the scenarios that we would  
19 want to do in once-through cooling, to sort of say this is  
20 in our planning assumptions, that we are going to find a  
21 way to mitigate that.

22 MR. HESTER: So this is just to run through years.

23 MS. MANZ: Uh huh.

24 MR. HESTER: Does the study in the 2011 process, or  
25 ISO plan, so that would be adopted by the ISO Board --

1 MS. MANZ: In 2012, yeah.

2 MR. HESTER: -- well, early 2011, so it is study  
3 that would be done next year and adopted in 2011.

4 MS. MANZ: Right, uh huh.

5 MR. HESTER: The open window solutions would then  
6 come by October of 2011, sort of the alternative solutions?

7 MS. MANZ: If you are studying it in 2010, the open  
8 window is at the end of 2010 because the final plan  
9 submitted to the Board would include those.

10 MR. HESTER: Okay, so that would mean --

11 MS. MANZ: So those would be included in the 2011  
12 submission.

13 MR. HESTER: So then you could have a comparison  
14 done by the end of -- assuming you could get it done.

15 MS. MANZ: 2010.

16 MR. HESTER: Yeah, in time for the 2011 -- okay.

17 MS. ARONS: Well, I will jump in again. I come  
18 back to the question that, let's suppose we knew with  
19 certainty that the consequences of shutting down all once-  
20 through cooling generation in California required three new  
21 500 Kv lines, and we had that project scoped out, and we  
22 had good cost estimates, the question that we still face  
23 is, until we know the fate of the decision of those  
24 generators, whether or not they are going to shut down with  
25 certainty, we cannot prove need in a licensing process.

1 And I am not sure if the ISO would even agree to approve  
2 need unless we knew for sure that those units were going to  
3 be shut down. From a utility and investor perspective, I  
4 think we would still -- if we were, for some reason,  
5 ordered to go forward, I think we would have to have an  
6 understanding upfront that we are doing so, not because we  
7 know the fate, and know the absolute need of these three  
8 lines, but because the state has made a policy decision  
9 that requires these facilities to be done, and therefore  
10 the need is, in effect, decided up front, if we can get  
11 assured rate recovery and 100 percent abandoned plan, if we  
12 can mitigate those regulatory risks from the utility  
13 investor perspective, I think that that would go a long way  
14 to making sure that things get done. But, you know, the  
15 situation that we are in, or the way the world works today,  
16 is that when we go for a CPCN application, for example, we  
17 have to know that there is a need that is demonstrable and,  
18 if it is tied to a generator whose owner has not decided  
19 what they are going to do yet, you cannot really prove  
20 that. So can you really get the CPCN? Can you even  
21 potentially go out and condemn and take property to  
22 accomplish those new 500 kV lines if you do not know the  
23 fate of those generators? So I think there are some real  
24 policy considerations that we have to think carefully  
25 about.



1 DR. JASKE: Ms. Arons, let me ask you to answer  
2 that question again in light of Mr. Bishop. Mr. Bishop  
3 says no Southern California OTC plant will be permitted to  
4 operate beyond 2020. Would you answer your question in  
5 another way?

6 MS. ARONS: Well, if it is an absolute certainty  
7 and we knew that these three lines were needed, and we knew  
8 that we could get a CPCN, that the need was in effect  
9 through that regulation proven, to the extent that, you  
10 know, where we felt that we could prevail in, say, a court  
11 of condemnation, if we had to take property in order to  
12 accomplish that line, I think that those policy pieces have  
13 to be absolute for us as a utility to go forward and build  
14 new transmission. I mean, we can look at 2020, but how do  
15 we know that those units are not going to repower in 2019?  
16 Because market conditions, for example, are very lucrative,  
17 and it makes the repower opportunity look like a very good  
18 deal for that plant. That is the problem that I am faced  
19 with. I do not know if they are going to shut down or if  
20 they are going to repower. And if they repower, there is  
21 no reliability need. Well, is the PUC going to give us a  
22 permit to build a 500 Kv line that may potentially require  
23 a condemnation, and come to find out in a court of  
24 condemnation that there is no real need; the need was on  
25 the theory that the generation was going to shut down, not

1 on the actuality. And that is the problem.

2 MS. MANZ: If I answered the question that was  
3 asked, if we knew this had to be gone in 2020, right? We  
4 would do the planning that said it needs to be gone in  
5 2020, and so that is the case that you would have, and then  
6 you would look at, all right, maybe the solution is three  
7 500 Kv lines, and then that is the solution against which  
8 we would do an offering, or a procurement, or offer other  
9 solutions to come in, maybe we could find something more  
10 cost beneficial that looks like power plants for three 500  
11 kV lines, and then that is, I think, what we would be  
12 moving forward with. So I am --

13 MR. HESTERS: Well, I guess --

14 MS. MANZ: I mean, I am happy to have more  
15 conversations around how this would work, but I am hearing  
16 more uncertainty presented than I am hearing in the  
17 question asked, that some of these are really points that  
18 are nailed down. And so either the power would be  
19 repowered and available, or they would not be repowered and  
20 available and we were working on the transmission solution,  
21 in which case I think we would be -- and we were 10 years  
22 out in front of it, nine years, eight years, whatever, but  
23 we are still a little bit out in front of it. I think we  
24 would be also looking to what else we could do from a  
25 demand side perspective, we would be looking at other

1 solutions to make sure that when, you know, hammer comes  
2 down in 2020, we are ready to do that.

3 MR. HESTERS: I guess what, I mean, it comes down  
4 to is you are looking at an L.A. Basin that is densely  
5 populated, hard to build transmission power plants, I mean,  
6 transmission lines tend to affect a lot more people. So 10  
7 years is probably a pretty reasonable time frame to at  
8 least get started on the planning, routing, that kind of  
9 thing, even if you were not getting to actual construction  
10 and everything else. So, I mean, one possible policy  
11 change is something that allows you -- that says, because  
12 of the once-through cooling uncertainty, and we do not know  
13 whether or not we can build generation into the basin  
14 because of air quality, or air permits, that you are  
15 allowed to recover planning and routing costs, but sort of  
16 delay making a construction decision as long as you can. I  
17 mean, is that -- does that sound like a change in  
18 regulation, or a change in current practices, that would  
19 facilitate adhering to meeting the once-through policy  
20 goals?

21 MS. AHRENS: Well, again, I mean, I have not been  
22 told that there is certainty that these units are not going  
23 to be there. I mean, I am being told there is the  
24 possibility that they can be there, and that casts  
25 uncertainty in my mind as to whether or not you can prove

1 your need in the way that you have to, to be able to get  
2 ISO Board approval, PUC CPCN's, and be able to prevail in a  
3 condemnation. So delaying decisions on new investments is  
4 just delaying that decision. You know with absolute  
5 certainty, you know -- how soon will the future get here,  
6 and what will the future hold are questions I cannot  
7 answer, but I can tell you that, you know, there is going  
8 to be a lot of transmission that will have to be done, it  
9 is going to be replacing potentially two 30 Kv facilities  
10 with 500 kV facilities, and potentially developed,  
11 congested areas with many new homes, and there is going to  
12 be big consequences and challenges of doing that kind of  
13 transmission. And I think that when you put the decision  
14 from a policy perspective to be risk adverse on  
15 reliability, you are really moving forward and potentially  
16 having to put in place some very big facilities on the  
17 theory that something might happen is somewhat difficult.

18 MR. HESTERS: My only problem with that is, almost  
19 all of transmission decisions are made under those kind of  
20 uncertainties. I mean, Devers/Palo Verde II is, you know,  
21 cost effective only if certain amounts of generation  
22 develop in Arizona. Sunrise has the same sort of issues.  
23 We spend a lot of time arguing over what the price of gas  
24 is and whether renewables are going to be developed. This  
25 is just another one of those uncertainties, but we actually

1 have a state policy in front of us.

2 MS. ARONS: No, this is very different. I would  
3 not agree with you there. The renewable generation that we  
4 identified and worked with in RETI is largely in  
5 unpopulated areas, and the issues that we are going to be  
6 faced with on dealing with once-through cooling shutdown  
7 are going to be in very very populated areas, and there are  
8 going to be some very big impacts that are going to be very  
9 challenging. And there is going to be lots of public  
10 opposition and lots of legal challenge, and so we have to  
11 be able to move forward with a lot of certainty if you are  
12 going to prevail potentially in court with putting, say, a  
13 500 kV line in the L.A. Basin. It is not going to be an  
14 easy proposition for us. Maybe LADWP has a different point  
15 of view.

16 MR. BESHIR: Well, I think in general I do support  
17 what Pat is saying because I think we do have similar kinds  
18 of issues with transmission in the Basin, not only  
19 transmission in the Basin, but we have tested transmission  
20 even from the renewables, which we thought was easy, but it  
21 is not easy, even from renewables. So I really -- one  
22 thing I say is, if it is a definite scenario, now we are  
23 talking about -- not a scenario, but it is a definite  
24 policy that the resources are not going to be there by a  
25 date certain, then you really have to plan for it and try

1 to find a way to do that, and I think it is probably a  
2 very expensive proposition. You are talking about -- it  
3 may not be overhead transmission, but you may have to come  
4 up with some very underground transmission, a very  
5 expensive proposition, you know, to do that. And as the  
6 investment becomes larger and larger, I think the certainty  
7 has to be bigger, higher to spend that much money. And  
8 that is really where the issue comes. But as of now, I  
9 think our main issue from the ocean cooling, or from that  
10 perspective, we are not really looking at shutting down any  
11 of our generation. I think all our transmission is built  
12 around this generation, the ocean cooled generations we  
13 have. It would be a measured restructuring and redoing of  
14 our transmission system if we were able to shut down those  
15 generation plants. So the whole concept we are talking  
16 about, we are trying to find out a right way and with the  
17 right time frame, and the time line has to allow for things  
18 just to happen for repowering because a good number of them  
19 are old units, they have to repower, we just have to  
20 repower them with the right technology, but there has to be  
21 time allowed to be able to do that in a timely fashion.

22 MR. HESTERS: Well, and also, as we heard, some of  
23 those plants have very limited space for repowering or for  
24 some other alternative cooling.

25 MR. BESHIR: That is correct, as well. Yes.

1 MR. HESTERS: Mark, anything?

2 MR. ESGUERRA: Nothing else to add other than I do  
3 support what LADWP and SE is saying on cost recovery and  
4 certainty.

5 MS. MANZ: I would like to speak to the issue of  
6 cost recovery. I really cannot talk too much about  
7 development. I am sure it is going to be complicated and  
8 sort of protracted at some point, but as far as our  
9 process, there is TAC recovery based on a determination of  
10 need from the ISO's planning process. And so, if this is  
11 sort of a thing that we are working toward, our planning  
12 process would then support this, and it would go in front  
13 of the Board within sort of that first cycle under our  
14 determination of need. Once the Board approves it, it  
15 would go into the TAC, or the tariff for cost recovery. So  
16 I do not know if that makes anyone feel better, but there  
17 is a way through in our process that I can think of.

18 MR. HESTERS: I guess we are pretty close. We do  
19 have the final question, which has to do with whether or  
20 not increased interconnection between essentially Los  
21 Angeles Department of Water and Power and Southern  
22 California Edison, should be investigated as a solution to  
23 this once-through cooling power plant retirement problem,  
24 given the sort of constraints of new generation in the  
25 area, mostly with regards to air permits.

1 MS. ARONS: Yes, that and more. I think we do  
2 not know the full scope of what the consequences of this  
3 regulation is going to be in terms of the impact on the  
4 grid. It can be, you know, you are shutting down potential  
5 large inertia contributors to the stability of the grid, it  
6 is going to require a lot of different kinds of solutions,  
7 potentially, to be developed, and it is going to be more  
8 than just interconnections between utilities, it is going  
9 to be voltage support, it is going to be some kind of large  
10 maybe even disbursed static bar compensators to provide  
11 voltage support in places where we need it, it is going to  
12 be a lot of different things. And a lot of work has to be  
13 done to even scope out what those elements are. But it is  
14 very far reaching and I think Mo said something very  
15 quickly that is worth remembering here, and that is our  
16 systems have grown up around these generators being in  
17 place, and you are talking about a really foundational  
18 element being removed, and having to restructure your  
19 entire grid is going to be a very big challenging activity  
20 for the engineers of the future.

21 MR. HESTERS: Laura, anything?

22 MS. MANZ: Nothing more to add.

23 MR. BESHIR: Yeah, I just wanted to maybe echo what  
24 was said, but in addition to that, the way the system works  
25 in that part of Southern California, of course, is we do



1 have, in terms of generation or local generation, but we  
2 also have generation outside the Basin, which we import.  
3 And it is a pretty known fact, the import capability of the  
4 transmission in the resource we have depends on the  
5 generation we have in the Basin; so the larger the  
6 generation we have, the more we can import, ironically. So  
7 we can extend that to say it takes a good number, which  
8 could be about 30 percent of the resources we are talking  
9 about in the Basin, out of the equation, you really need to  
10 do some creative ways to bring that power home from our  
11 side. And I think that is really what the challenge is.  
12 And it could be cost-wise very expensive, but most  
13 importantly, I think it does, I guess, underscore the need  
14 for planning, the need of coordinated planning, between all  
15 the parties involved, because it does require maybe  
16 integrating our system a little bit differently than what  
17 we have done before.

18 MR. HESTERS: Any questions, not that there are not  
19 many throughout.

20 COMMISSIONER BYRON: Gentlemen? Mr. Mansour, this  
21 is all for the benefit of the ISO.

22 MR. MANSOUR: We appreciate it. Well, let me just  
23 again, not just this time, but through the day, because  
24 actually, just correct me if I am wrong, which as a  
25 conclusion I would kind of at least, as a state, feel that

1 we are comfortable with it. Repowering or doing  
2 something where things are compared to spending it in the  
3 air is really without, you know, you can do it in the back  
4 of an envelope, or you can do it in a two-year study; it  
5 looks like everybody is saying, you know, focus on where it  
6 is. If it is, it is going to be faster, it is going to be  
7 more efficient, it is going to be more certain, all the  
8 issues you are talking about, and that takes us to, if we  
9 were to focus on the local one, then try to really  
10 encourage that by the procurement process and all the rest  
11 of it. Whether this panel or the rest, do you agree with  
12 that observation, at least from sitting there? Anyone?

13 MR. BESHIR: I will go first this time. I do  
14 agree. I think the most efficient way from my perspective  
15 and the most straightforward solution is really if can re-  
16 power, I mean, I think that is the way to go -- how we  
17 repower and whether to meet the environmental need, I think  
18 that is really going to be the challenge with space issues  
19 and some community concerns we have, and that also saves  
20 the timing requirement because now we can at least shut  
21 down a whole plant, to depower it for four or five years,  
22 because that kind of defeats the purpose right there  
23 because you do not have the reliability requirements for  
24 those years, so you can at least survive. So that really  
25 extends the time required to do this in a more meticulous

1 and more systematic way.

2 MR. MANSOUR: Pat, do you come to the same  
3 conclusion?

4 MS. ARONS: Well, I think, you know, given that we  
5 do not know as much as we do not know about the impacts, I  
6 think repowering is a very sensible approach to take. You  
7 know, with a lot of renewables, solar, wind, they do not  
8 have inertia, they do not have large voltage of core  
9 capability, they are good energy producers, but you really  
10 need -- in a big power grid like this, you need a very  
11 large central generating plant, you need big inertia, you  
12 need massive voltage support, you need the kind of boost  
13 that you can get out of these units on a millisecond notice  
14 if you have a major event. And I think that, to move  
15 quickly into just a shutdown scenario, I think is a big  
16 mistake. I do not think that we really understand or  
17 appreciate the value that those units, that they have, even  
18 with the future of 33 percent renewable, I think those  
19 units are very valuable contributors. I think we would  
20 make a mistake if we rush into regulation that is going to  
21 drive them out of business too quickly. So I think this is  
22 a decision that, whoever is doing the regulation, needs to  
23 be very thoughtful, take into consideration what those  
24 costs can be. I think they are going to be enormous, both  
25 dollar-wise, as well as reliability-wise.

1           MR. MANSOUR: So the proposal from, you know,  
2 the joint proposals from the three of us, which says, you  
3 know, focus on what is possible, technical reliabilities  
4 above all, do the cost analyses, and review every two years  
5 or so regularly the progress on both sides -- is the Water  
6 Board achieving its goals through the joint process, or if  
7 it is not going, then look at the schedule again. Do you  
8 have anything to add to that position? Is that  
9 appropriate? I just want to make sure that the three of us  
10 -- is there anything that we are hearing by which we need  
11 to change what we are supporting, or what we issue in  
12 support of this particular ruling?

13           MR. BESHIR: One area I do see, I guess, is I think  
14 that is very sensible, I think it is systematic for number  
15 one, it does have a feedback process, and it does have, I  
16 think, a thoughtful process going forward to achieve what  
17 we have. But what I see in Appendix B, though, the  
18 timeline seems very aggressive. And I think one of the  
19 things we have talked about a lot here, and there is  
20 already some timeline or anticipated timeline where this  
21 thing is going to occur, and that may really be short or  
22 may not really meet our expectations, and we really need to  
23 make sure that thoughtful process really has the  
24 appropriate time to go along with that.

25           MR. MANSOUR: But the fact that we are saying we

1 will visit regularly, every two years, whatever it is, to  
2 see really whether things are happening on the timeline, is  
3 it too fast, or -- does that give you the comfort?

4 MR. BESHIR: Yeah, definitely. I think that is a  
5 very thoughtful process. I think it does have to have a  
6 feedback process that is very well designed for feedback  
7 process, but we are just talking about a process at this  
8 point, we have not really seen, you know, what kind of  
9 mechanisms, how well the control is, what does that mean,  
10 and the different pieces we are talking about right now,  
11 for instance, the repowering we would like to do in  
12 Southern California, we do really need to have AQMD issues  
13 resolved so that we can have the right permits, so that we  
14 can start going -- we have some repowering in our books  
15 which really need to get going so that we can meet some of  
16 those issues. So all these things really need to work  
17 together to be able to meet our goals. But definitely, the  
18 process is appropriate.

19 COMMISSIONER BOHN: May I just -- as a layman, I --  
20 the repowering option, as a non-technical person, strikes  
21 me as almost too easy. You have got a box, you have got it  
22 connected to stuff, you pull out one thing, you stick in  
23 something else. Okay. From a policy point of view, as  
24 Yakout says, you can do that calculation probably on the  
25 back of an envelope. I guess my question is, is that

1 alternative -- does it have the same degree of longevity  
2 and flexibility that the system will need 15-25 years from  
3 now? In other words, if we solve the once-through cooling  
4 problem, have we solved enough of the problems that  
5 confront the system, such that we can say we have, in fact,  
6 modernized the system to be competitive at a reasonable  
7 cost? Or are we condemning ourselves to use -- or favor --  
8 either technology solutions or locational solutions which,  
9 over a longer period of time, or a broader perspective,  
10 might be better suited to the year 2025? I do not know the  
11 answer to that, but I would appreciate some guidance on  
12 that.

13 MS. ARONS: I think that, if you have to make the  
14 decision using one characteristic of these existing units  
15 as your guidance on what the future may be in terms of the  
16 adequacy of new technology, I would use the inertia factor  
17 on the generator. The fact that you have large, heavy  
18 rotating mass spinning at about 3600 revolutions per  
19 minute, provides a lot of electric stability to the grid.  
20 So if you have a 1,000 Megawatt generator, it is going to  
21 have a very big heavy shaft spinning at a very large speed,  
22 and it is going to tend to want to stay at that speed  
23 through disturbances on a grid. If you were to remove that  
24 single unit and replace it with one-thousand, 1-Megawatt  
25 unit, spread around the grid, you would lose a large amount

1 of inertia and your system would be negatively affected  
2 by that. So if you were to make your decision using one  
3 guiding factor, that would be my recommendation, to look at  
4 and judge every replacement technology, every replacement  
5 generator, in terms of not Megawatts that they produce, but  
6 the inertia that they bring to the system. You might need  
7 3,000 Megawatts of combined cycle units spread around the  
8 grid to be able to shut down that 1,000 Megawatt generator.  
9 So, to me, that might be the measure of impact on the grid;  
10 instead of counting Megawatts, count inertia.

11 COMMISSIONER BYRON: I think we -- in the interest  
12 of time, we need to move on. I would like to thank you all  
13 very much for being here. We are going to go to public  
14 comment. You are welcome to continue in your seats or go  
15 back into the audience, and I am going to proceed right  
16 into public comment.

17 **Agenda Item 8: Public Comment**

18 COMMISSIONER BYRON: Ms. Korosec, I only have one  
19 blue card, but that does not limit the rest of anyone else  
20 that wishes to speak. But I will go ahead with this one  
21 first. Mr. Krausse from PG&E.

22 MR. KRAUSSE: Thank you. And I can be very very  
23 brief because I know it has been a long day. Mark Krausse  
24 with Pacific Gas and Electric, mostly to say thank you all  
25 very much. We have been involved with most of the folks

1 sitting in the audience here on once-through cooling for  
2 the last three years on what feels like maybe a pogo stick,  
3 entirely dedicated to eliminating the use of once-through  
4 cooling. And it feels like, with the inclusion of the  
5 energy agencies, we are very encouraged, it feels like we  
6 have got a couple of new legs for a three-legged stool, one  
7 of those is reliability, and one of those, Commissioner  
8 Bohn has driven home a couple times today, is customer rate  
9 impacts. We are very encouraged to see that this plan sort  
10 of integrates so much of what we have been saying at the  
11 Water Board for several years now. And Jonathan Bishop was  
12 here, I have to say, until right up until the end. I was  
13 pleased that he heard an awful lot of this. I know that he  
14 is kind of one of the authors at the Water Board staff, so  
15 I think that shows up in the current draft, and we are very  
16 encouraged by some of the changes in the most recent draft.  
17 But I want to just point out a few things that we think  
18 still need some changes, and obviously we will feed this  
19 into the Water Board's process. First of all, on the  
20 question of schedule compliance and whether there should be  
21 any adjustments to the current schedule that your staff has  
22 identified in this implementation plan, I think only the  
23 energy agencies should be consulted on that, the Water  
24 Board should look to you and you only. The current  
25 SACCWIS, the acronym for the -- I am sorry, we are in an



1 acronym-free zone, but I have not memorized that one yet,  
2 what exactly it stands for, Statewide -- it involves the  
3 energy agencies plus the State Lands Commission, the  
4 Coastal Commission, several other permitting agencies that  
5 rightly are involved in parts of this process. But I  
6 think, on grid reliability issues and that schedule, that  
7 should be up only to your agencies in terms of the Water  
8 Board consulting you and you only. Secondly, on the  
9 nuclear studies, to determine for cost benefit purposes,  
10 sort of the cost side and the feasibility on the studies,  
11 Pacific Gas and Electric and Southern California Edison  
12 have done, and PG&E has already completed, a very detailed  
13 study to establish what the engineering challenges are,  
14 what the costs are of retrofit at SONGS -- on permitting at  
15 Diablo Canyon -- you will be pleased to know, we have got  
16 it all figured out -- Edison is underway with SONGS, the  
17 complete study of SONGS, and I think we would like to urge  
18 that the Water Board start from those studies and use your  
19 agencies as sort of peer review, as opposed to going out  
20 and conducting new studies. I think that is a pretty  
21 simple step. And then, finally, that being sort of the  
22 cost side of cost benefit, we would like to see more  
23 guidance given on the benefits side. And part of the  
24 reason, we have always been told, the utilities and the  
25 generators all along in this process, we need one statewide

1 rule that all regional boards can apply, well, I would  
2 argue the same thing with regard to how cost benefits  
3 should be handled, so those regional boards should be given  
4 guidance in the regulation about how the benefits are to be  
5 calculated, and then also what the ratio of cost to  
6 benefits should be in order to be wholly disproportionate  
7 as that cost benefit variance provides for the two nuclear  
8 plants and the already repowered, or newer technology gas  
9 plants. And finally, on that same point, that some  
10 guidance as to mitigation costs -- once you have been  
11 determined to be wholly disproportionate on a cost benefit  
12 basis, what are the appropriate ranges of the mitigation  
13 costs? I think that would also be very helpful. But  
14 again, very encouraged by the addition of the energy  
15 agencies in this process, and thank you very much for all  
16 your work and your staff's work.

17 COMMISSIONER BYRON: Thank you, Mr. Krause. We  
18 have another public speaker coming forward, but before you  
19 begin, though --

20 MR. NELSON: I am sorry, I did not know we had blue  
21 cards.

22 COMMISSIONER BYRON: No, that is fine. Mr. Krause,  
23 I just wanted to address, you know, your points in another  
24 way. The notion of consulting only these state energy  
25 agencies, using existing studies as a starting point, and

1 having one statewide rule, I just want to make sure that  
2 everybody understands, the energy agencies are not  
3 promulgating this rule.

4 MR. KRAUSSE: Absolutely.

5 COMMISSIONER BYRON: It is the State Water  
6 Resources Control Board that is promulgating it, and they  
7 are relying upon us for input, and to the extent that  
8 Commission decides these things, that is how it will be  
9 adopted. We cannot speak for that Commission. We do not  
10 know how they will proceed. And it is incumbent upon us, I  
11 believe, to demonstrate to the Board that we have this  
12 matter under control, if you will, that we will promulgate  
13 a plan that will meet their needs. So we are glad to have  
14 your comments, but I think you full well know, those  
15 comments and many of the comments we have heard here today,  
16 will be considered by the State Water Resources Control  
17 Board.

18 MR. KRAUSSE: Absolutely, and we will submit those  
19 last comments on the policy, I think "rely upon" were the  
20 words I was using, in other words, it is their discretion  
21 in the end whether that schedule slips or not, but I think  
22 they should rely on you -- the Coastal Commission and State  
23 Lands Commission, they have other data points to add, but  
24 not on grid reliability.

25 COMMISSIONER BYRON: Very good. I am sorry, please

1 reintroduce yourself and welcome, again.

2           MR. NELSON: David Nelson with the Coastal Alliance  
3 on Plant Expansion. There are lots of comment on -- up to  
4 three panels, but I will make it as short as I can. One  
5 point I would like to make is, last year, 2008, the Country  
6 of Spain installed 2,500 Megawatts of solar power -- Spain.  
7 I mean, there are as many people in Spain as there is in  
8 California. Our gross product is way more than Spain's.  
9 So, you know, it is out there. And you know, I sat through  
10 this whole hearing today and I counted about 18 out of 23  
11 people who were directly involved with fossil energy  
12 production, which is fine because that is what the backbone  
13 of our whole system has been up to now. But, if I could,  
14 the whole time I have been here, I have been admiring the  
15 calendar that is on the wall here, and may I just use a  
16 little pun -- "the handwriting is on the wall," look what  
17 these young people have put into these pictures. I mean,  
18 this is the future, and what we have got here is a lot of  
19 interest that have a lot invested in fossil fuel and making  
20 power the old-fashioned way. And what it is doing is  
21 stopping us from being the leader in the world, I believe,  
22 in the advancement of the solar industry. We talk about  
23 the South Basin and the air pollution problems down there.  
24 Here is the solution. We do not have to run these 500 kV  
25 lines. We do not have to do that. That is billions of

1 dollars. What we need to do is, the PUC come up with  
2 some sort of a regulation all of these producers are asking  
3 for this and that and how to keep their businesses viable,  
4 I say let's get the PUC to give me a 10-year contract to  
5 put all the PV's that I can on my house at a set price.  
6 Right now, I have friends that have very expensive solar  
7 panels at their houses and I go, "Well, how much energy are  
8 you making? How much money are you making?" "Oh, well, I  
9 don't know. My bill is too crazy to even understand." So  
10 this is one of the big problems out there, that is stifling  
11 this industry, is that you are not allowing the homeowner  
12 or the person who is a big warehouse to put as many photo  
13 cells as they can -- and see a return. All these people  
14 are asking you for a return, they are all saying to go to  
15 the PUC and do this. I see a lot of our state resources  
16 and I have been on this for 10 years, and I really do  
17 understand how complicated this is, but I see a lot of our  
18 state resources going to try to understand this once-  
19 through cooling problem, and it is a problem, it has been  
20 shown to be a problem for a long time. But they do not  
21 want to let it go because there is a built-in benefit to  
22 it. I mean, when you are using once-through cooling to  
23 make your energy, you are making it cheaper than the guy  
24 that is making it away from the water, it is as simple as  
25 that. And then there is money to made in it, even at these

1 crippled plants. But we are not taking into  
2 consideration global warming, and I certainly hope you all  
3 believe in global warming, and to put new power plants on  
4 the coast that is going to rise because you are making more  
5 pollution with gas does not make any sense at all. And,  
6 you know, I could go on, but, you know, just do not get  
7 just hung up on this one solution. I think the bigger  
8 solution, like I say, is all around you by the children of  
9 California, they are showing you we need a different way to  
10 do this. And this is not the only way, and it is not going  
11 to turn my lights out if you take a power plant off line.  
12 It is destroying fish stocks for the next who knows how  
13 long, and the damage that has already been done. When I  
14 first started this, there were energy producers up here  
15 claiming no damage to the environment at all, and  
16 regulators were taking that into consideration. Well, the  
17 damage has been proven, and it is huge. This should be an  
18 environmental disaster and every one of these power plants  
19 should be given a cease and desist order, and then prove  
20 that they have to keep running, to keep it running. That  
21 is the angle we should be coming at, not, "Gee whiz, we  
22 have always done this and your lights are going to go out  
23 if you take these power plants off." So take that into  
24 consideration. And like I say, a big thing is give  
25 consumers a reason to put these power panels on their

1 houses. I guarantee if you put out an ROF for people to  
2 give up their houses to put solar panels on that you would  
3 get plenty of people that say, "Put it on my house,  
4 please." Thank you.

5 COMMISSIONER BYRON: Thank you. Do we have any  
6 other public comment?

7 MS. HAREN: Good afternoon. I am Angela Haren,  
8 Program Director for California Coastkeeper Alliance.  
9 Thank you for the opportunity to speak today. You have to  
10 forgive me because I am starting to lose my voice. Just  
11 really briefly, I wanted to note that we have heard a lot  
12 of comments today about the need for flexibility in the  
13 planning process, and we definitely acknowledge that  
14 phasing out once-through cooling is very complicated and it  
15 will take a dynamic review process, as you guys have  
16 proposed. But we also want to underscore the importance of  
17 enforceable deadlines for the State Water Board, and  
18 obviously they put some preliminary ones in their proposal.  
19 And I just wanted to note that, in terms of the agencies --  
20 your three agencies -- working together to improve the  
21 planning and permitting coordination that Dr. Jaske  
22 referred to earlier this morning, is to keep in mind the  
23 goal of -- although it will be dynamic and there might need  
24 to be some review -- the goal of meeting enforceable  
25 deadlines for the State Water Board. And that is about it.

1 Thank you very much for this workshop, and we look  
2 forward to opportunities to comment further.

3 COMMISSIONER BYRON: Thank you, Ms. Haren. Is  
4 there anyone else that wishes to make public comment?

5 MS. KOROSSEC: If there is no one in the room, I  
6 would like to suggest we open the WebEx lines. All right,  
7 the lines are open. Is there anyone online who has any  
8 comments? We have no comments online.

9 COMMISSIONER BYRON: Well, I would certainly like  
10 to thank our public commenters for getting us back on  
11 schedule. We do have -- the last item on our agenda is to  
12 talk about next steps and action items. I have not  
13 reviewed with staff how they would like to go about doing  
14 this, but the first bullet says Energy Agency Staff Summary  
15 of the Day's Discussion. Dr. Jaske?

16 **Agenda Item 9: Next Steps and Action Items**

17 DR. JASKE: Here I am in between everyone going on  
18 their way, so I will be brief. I have about five  
19 significant points I thought I heard, so I thought I would  
20 just run through them. Integrated Planning -- we heard  
21 some congratulations that the three agencies are getting  
22 together and proposing a process, but we also heard,  
23 particularly from Mr. White, a call for much tighter  
24 integrated planning going forward, and perhaps in the  
25 implementation of this process that we described.



1           Reliance upon preferred resources. Just by our  
2 attempts to say that what we are proposing here is that  
3 fossil plants not be replacing these OTC facilities,  
4 Megawatt for Megawatt, and that we are doing that because  
5 we are pursuing energy efficiency and renewables, and  
6 distributed generation, and other core resources, that  
7 message is apparently not fully getting through because a  
8 number of commenters seem to think that we should be  
9 pursuing all those things, as though we are not aware of  
10 that, and not planning on doing the best we can. So there  
11 is a communication gap, perhaps, between what we think we  
12 are doing and what the public things we are doing.

13           Licensing new thermal power plants -- I did not  
14 hear the panel really come to grips with the extent to  
15 which Energy Commission should do something different,  
16 despite a couple of questions that seemed pretty pointed  
17 about whether we should be modifying our processes, or  
18 whether air credits should be reserved for just power  
19 plants that are going to be replacements for OTC, I did not  
20 clear answers to that, so that seems either no one is just  
21 independently thinking about whether our process should  
22 change, or they just do not think it needs to.

23           Of course, there were a huge number of comments  
24 having to do with the timing of this whole OTC replacement  
25 process, and boy, if I was Mr. Bishop, I would be a little

1 worried that he hitched himself to our star at this point  
2 because there are an awful lot of roadblocks being thrown  
3 up in the air about whether the timeline put forward in the  
4 staff paper, and that the Water Board staff has bought into  
5 in their proposal is viable. Many of those seemed to  
6 revolve around -- and I will just pick on Ms. Arons, you  
7 know, as the most outspoken person on these points -- about  
8 cost recovery of transmission projects, and the disparity  
9 between timelines of many many year transmission projects  
10 versus shorter generation projects, and the lack of,  
11 despite team and all the other things that ISO was doing  
12 over the years to try to be able to bring generation  
13 transmission into some sort of comparable process, that we  
14 are still not all the way there, yet. So that seems like a  
15 major issue, at least from the cost recovery side of  
16 things, that needs to be dealt with.

17           In contrast, I thought our two procurement panels  
18 seemed, by and large, to gather the details, but that the  
19 procurement process can adapt itself to deal with the  
20 challenge in front of them. Ms. Manz was pretty clear that  
21 the ISO's transmission planning process is perhaps  
22 broadened by this new stakeholder group that is just  
23 getting its act together, you know, is the right forum to  
24 examine transmission options. She did seem to suggest it  
25 might need some further tweaking as that process has been,

1 you know, modified fairly continuously over the years to  
2 bring together the sort of massive set of resources that  
3 RETI brought together, both people and timeline and, you  
4 know, bring together a lot of detail. OTC might not be  
5 that complicated, but it certainly has major challenges.

6 I did not hear any person say today that the  
7 schedule that is Appendix B of the staff paper was too  
8 slow, that they had some means of going more quickly than  
9 that, with the possible exception of Rob Anderson, who, if  
10 San Diego's next procurement process, you know, manages to  
11 luck out, there could be a replacement for Encino  
12 identified and brought on line faster than what is in that  
13 schedule, I think that is the only possible place where  
14 what the joint staff put together could be improved upon.  
15 And we do not know that, that is just a possibility. But  
16 all of the other side of things was what was emphasized,  
17 that that is too aggressive, too fast. But as Mr. Mansour  
18 and one of our last panelists were engaging in dialogue,  
19 the whole point of the proposal and what the Water Board  
20 has accepted as this reopener's periodic update, is it  
21 allows us to correct that schedule as we learn more and  
22 more information, either from the first rounds of intensive  
23 analysis that we will do, or from the actual beginnings of  
24 procurement and transmission projects that are identified.  
25 So those are the major points that I heard today.

1           I think that in terms of some next steps,  
2 clearly we need to broaden the conversation from the energy  
3 agency staff and you folks who we had a number of  
4 discussions with, and the Water Board, to bring in the  
5 utilities, the transmission planning folks. When exactly  
6 we do that, and how we do that, that there is some working  
7 group process or some other mechanism, is not clear to me,  
8 but we will need to do that at some point to move to the  
9 next set of detail.

10          The LTTP process is proposing to be changed, to bring  
11 together a focus on OTC. It is written up in the energy  
12 division staff proposal already, they have a workshop, I  
13 believe it is next week, where that can be examined in  
14 conjunction with all the other many things that are  
15 proposed for LTTP. So there is a forum already for that  
16 side of things to be pursued.

17          And I think, lastly, we need some means by which  
18 the transmission planning process, particularly a  
19 broadening one that extends beyond the ISO balancing  
20 authority, you know, comes to grips with this problem, and  
21 how the regulatory agencies, the planning agencies, are  
22 part of that process, not just the stakeholders as the new  
23 stakeholder group has proposed. That is obviously an  
24 important effort that stakeholders come to grips, but the  
25 agencies need to be involved in some manner, as well.

1           So that is my summary of what I heard today and  
2 the immediate next steps. Do you have any questions?

3           COMMISSIONER BYRON: Dr. Jaske, thank you for that  
4 summary on the fly, and thank you very much to you and  
5 Dennis Peters at the Independent System Operator, and  
6 Robert Strauss, and all your staffs for the work that you  
7 have been doing thus far. We are only just beginning,  
8 really, and I see some heads nodding up and down, but that  
9 does not stop us from taking a breather and saying thank  
10 you. But I am sure my fellow dais members here have some  
11 closing comments that they will make with regard to next  
12 steps. Commissioner Bohn, Mr. Mansour, do either of you  
13 have some comments?

14           COMMISSIONER BOHN: Well, I just -- let me say from  
15 my perspective, this has been a most interesting and  
16 informative process. It is always interesting, again, as a  
17 non-expert in the field, to listen to the policy process at  
18 work. I want to thank, of course, our PUC staff, Simon  
19 Baker and Robert Strauss, who have been involved in this,  
20 and I will look forward to spending probably more time than  
21 you want with you guys over the next couple of weeks to try  
22 to sort through, sort of sort though some of these things.  
23 I think there are probably three points that I would make.  
24 The first is, I am even more convinced than I was when I  
25 started that this is a complex and interactive process.

1 And I think we need to be both cautious of our ability to  
2 get it done, and confident enough that somehow we will get  
3 it done. The mechanism, I think, is continued discussion  
4 and cooperation, as everybody has said. But I think we are  
5 a ways from the conceptual framework around which these  
6 various considerations can be weighed in the concrete forum  
7 of a procurement process. There is just a lot of stuff and  
8 we and others have to sort out whether OTC is more or less  
9 important than RPS and all of those kinds of decisions. I  
10 feel a little bit like we are a microcosm in this  
11 discussion of the current Federal Government dilemma in  
12 trying to do too much, too fast, and losing track of the  
13 process by which we order the priorities. So I think it  
14 incumbent upon all of us, and certainly at the PUC, and I  
15 expect we all feel similarly, to take enough time in the  
16 beginning of this process so that we do not waste a lot of  
17 time. There has been a lot of discussion, and I think much  
18 progress has been made in bringing reality into  
19 aspirational goals, I think the adjustment process that  
20 Yakout has outlined is a very good one. I am less  
21 concerned about getting the technical procurement process  
22 from the IOUs sorted out so that it is more efficient,  
23 perhaps than others. Once we have gotten some more  
24 guidance collectively as to the trajectory in which we are  
25 flying, and the pavement on which we are in fact riding,

1 and water in which we are now swimming, all of these  
2 different dimensions, and the reason I mixed the metaphors  
3 is to try to highlight the different dimensions that we are  
4 talking about. And so I think that is an important factor.

5           The second brief comment I would make is that I  
6 think it is incumbent upon all of us to understand that we  
7 are at the edge of a major transformational process in the  
8 State of California. We are doing it in the face of a  
9 serious financial situation, nationally, at least as  
10 serious a financial situation in the state, and in the face  
11 of a mechanism which has shown itself often ill-equipped to  
12 deal with accommodation. So I think we are going to have  
13 to be a little more creative and a little more flexible  
14 among ourselves, and not worry so much about structure and  
15 not worry so much about who goes first, and if you want any  
16 kind of fuzzy logic approach, that is not a bad way to  
17 think about it.

18           And third, and finally, I want to thank Jeff and  
19 the Commission, and Yakout, and everybody spending so much  
20 time on this, and mostly for their patience in laboriously  
21 answering what, to them, are sort of simple and trivial  
22 questions, but for me, as a finance guy and sort of a  
23 policy person, new to this game, that they have all been  
24 very patient and very helpful, and I would extend that  
25 appreciation to the staff both up here and at the PUC for

1 helping get me up to speed. Your patience is only  
2 exceeded by your good looks, Jeff.

3 COMMISSIONER BYRON: Thank you, Commissioner.

4 MR. MANSOUR: I echo my thanks to the Commission  
5 and you, Commissioner Byron, your leadership has been great  
6 in getting us together, as well.

7 COMMISSIONER BYRON: And what about the good looks,  
8 Mr. Mansour?

9 MR. MANSOUR: I was going to get to that on my  
10 closing comments. But, you know, in 2006, when we had the  
11 heatwave of 2006, and 2007, which was kind of a semi-heat-  
12 wave, the thing that probably most people should give  
13 attention to is, it is told, useable capacity in the State  
14 of California is about 54,000 or 50,000 Megawatts, counting  
15 everything. The peak load so far on record is close to  
16 51,000 Megawatts, so when you talk about the capacity in  
17 California, compared to a peak load, even now, it is kind  
18 of 47, 46, you cannot stand on your own. We cannot stand  
19 on our own, period. So we are already importing about 25  
20 percent of average of our needs from out of state. And  
21 those people are accepting that they maintain their plans,  
22 to actually give us that 25 percent or so. We do not have  
23 a lot of luxury within California in terms of, yeah, we can  
24 also take this and take this out, it is already slim. And  
25 also, during the 2006 heatwave, of 2007, and even during



1 the crisis that I was watching from the outside, when we  
2 were kind of hanging by the teeth and we were asking people  
3 to raise temperature in the homes and all that stuff, we  
4 were on continuous scrutiny and questioning, why are we so  
5 tight? And at that time, I have not heard one voice that  
6 comes and says, "It is okay, what is the problem?" It is  
7 only when it is cool, like today, in a time when people  
8 say, "Why [inaudible] [112:04]?" But, you know, so can I  
9 please have your vote when there is something really tight,  
10 then you can actually tell people it is okay to lose power,  
11 and it is okay?" In fact, I faced kind of a hearing in the  
12 Legislature at that time, and people questioning, you know,  
13 the wisdom of asking people to raise their temperature to  
14 78 and 80 degrees at that time, not cutting them off, but  
15 just that. So it is not like we have a luxury there that  
16 we can actually cut off, it is tight and with the fact that  
17 we are actually counting on 25 percent from out of state,  
18 the majority of it is in real time, on-the-spot, and it is  
19 not guaranteed forever, and for quantity, the state is  
20 cutting a lot more than usual.

21           Some people mentioned Spain. I will tell you, if  
22 you give me what is in Spain, I can rely on getting them to  
23 spinning wheels, and then I will be comfortable with it.  
24 Half of the capacity is reserve. Half of their installed  
25 capacity is reserve -- huge amount of reserve. It is not

1 that they are putting all solar up and they are shutting  
2 the plants. If I have that amount of reserve in the state,  
3 that they are maintaining, I can tell you, you can do  
4 anything you want and I will come and tell you I can still  
5 maintain, you know, keep the lights on. You know, it is  
6 just like it is okay to sit around here in kind of in  
7 comfort, arguable of what is here and what is there, you  
8 know, why don't you do this, and the suggestion, it is not  
9 like we are not doing. In energy efficiency, we are  
10 talking about the state that, over the last 30 years, the  
11 average consumption per capita has been constant, compared  
12 to the rest of the country, you are talking about 30  
13 percent or so, I mean, you can go on and on and on and the  
14 state has done incredibly better than any others. Now we  
15 are talking about really big issues, especially we did not  
16 talk a lot more today about, in particular, out of the  
17 volume that we are talking about, the crucial role of the  
18 new power plants. These are huge, this is big, this is big  
19 inertia, as Pat mentioned, and they are right in the whole  
20 center. Their issue is apart from even what it will take  
21 to do -- I am not saying going to do, or -- but it is  
22 something that you have to carefully, even within that  
23 volume, to have to look at very carefully about intent of  
24 how we handle during the [inaudible] [114:32] if it  
25 happens, or apart from the cost. So in total, we are not

1 at all -- and our position with the agencies was never to  
2 question the wisdom of the policy, it is how to get there,  
3 and not just on its own, but in combination with everything  
4 else. The photovoltaic roofs, the sun does not -- we only  
5 start to pick up at 6:00 in the morning and goes to 1,500  
6 Megawatts and 2,000 Megawatts per hour, the sun is not  
7 [inaudible] [115:11] force to give you what you want, and  
8 the wind actually is getting [inaudible] [115:16]. During  
9 the summer, the heat of the summer, the average outcome of  
10 the wind is on average about five percent of the  
11 [inaudible] capacity. So, you know, I could keep going on  
12 and on and on, what we are managing today and what we are  
13 accommodating, we never lose site of what we try to do as a  
14 policy, but we also know that the minute you start  
15 implementing those policies, and the lights go off, or  
16 things go crazy, then actually that will be counter-  
17 productive to the policies that you are trying to achieve,  
18 [inaudible]. And that is what we try to do, it is a  
19 balance, it is tough, and frankly, as one person, I am  
20 excited about it, I am taking it as a challenge, it has a  
21 lot of leadership, that if it is implemented, I would not  
22 even compare it to Spain, it would be way ahead of anyone  
23 that can do all of those things, it can do -- anyplace that  
24 can do all of those things combined. Again, thank you very  
25 much for your effort, the Commission, the staff, and all

1 the comments that we have heard today, and the panelists.

2           COMMISSIONER BYRON: Thank you. Excellent  
3 comments. I will be brief. I think I will pick up where  
4 Commissioner Bohn started, as well. Commissioner, this is  
5 not easy, this is not an easy issue to wrap our arms  
6 around. Something I said earlier, if you think you  
7 understand this issue, you probably do not. It is  
8 extremely complicated. I started jotting down, you know,  
9 the physical constraints, the contractual issues, the how  
10 to deal with the cost distribution issue that you bring up,  
11 there are jurisdictional aspects, not all under single  
12 control here. The safety issues associated with it with  
13 the nuclear plants, reliability, the competitive  
14 environment that we are trying to retain in the State, as  
15 well, and, of course, the goal of all of this is  
16 environmental mitigation. These are difficult constraints  
17 to figure out how to put together. And there will be a lot  
18 of analysis involved, and I suspect a lot of it will not be  
19 on the back of an envelope. And we know that our  
20 Independent System Operator is going to get stuck with some  
21 of that, and there is a little bit of resistance there,  
22 because once you do one analysis, everybody wants to look  
23 at 17 analyses, and the parametric sensitivities associated  
24 with it, so we are very sensitive to that and it is going  
25 to be expensive, the cost associated with figuring this out

1 in this economic environment is going to be challenging,  
2 as well. And then maybe a comment that Mr. Mansour made  
3 with regard to the approach the agencies are taking, and I  
4 was a little bit concerned with some of the comments I  
5 heard from some of our panel members. Some folks, whether  
6 they admit it or not, still seem to be fighting the need  
7 for mitigating once-through cooling. That train has left  
8 the station. A rule is going to be promulgated by the  
9 State Water Resource Control Board, and we must address it,  
10 it is not a question of if and there is not uncertainty  
11 around some dates that they have put forward at this point.  
12 And having met with members of the State Water Resources  
13 Control Board, I can tell you, they take their  
14 responsibility to promulgate a rule very seriously, they  
15 will move forward with a rule this year, and they must be  
16 convinced that the three agencies have a plan that will  
17 meet their needs, and I am talking about a reliability-  
18 based plan.

19 And another comment that came up that I cannot help  
20 but address, this concern about shareholders and whether or  
21 not they are going to be made whole throughout this  
22 process. Thank goodness there is at least one commission  
23 here in the state that is worried about cost and to  
24 ratepayers, and making sure shareholders of the investor-  
25 owned utilities are kept whole. But we need to meet the

1 Resource Control Board's needs now and worry about the  
2 shareholder aspects later.

3           There is a lot of emphasis, well, on the IOUs and  
4 jurisdiction of the Public Utilities Commission and the  
5 ISO's jurisdiction of all the IOU service territories,  
6 around procurement -- remember, that is not the full state  
7 solution, we have other participants in this process, the  
8 publicly owned utilities and the Muni's have an important  
9 role going forward, as well, and we need a statewide  
10 solution that addresses once-through cooling with all the  
11 load serving entities considered.

12           So that means we need all the stakeholders'  
13 participation, some of them I have not even mentioned yet,  
14 but you have heard from some of them today, and those being  
15 the environmental community, those that are concerned about  
16 ratepayers, there is a lot of participation that is needed  
17 going forward. This will not be the last workshop, I  
18 suspect, that we conduct on this subject. I think it  
19 merits a little bit more consideration, too, Commission  
20 Bohn brought it up, with regard to the financial impact.  
21 You know, we just do not discuss this much, we now  
22 apparently have a state budget going forward, but, really,  
23 the structural issues associated with our financial crisis  
24 in the state were not addressed in any substantial way.  
25 Most agencies in the state will be experiencing furloughs

1 and that will have an effect on how quickly we can  
2 address this and a myriad of issues that are before us.

3 Finally, of course, this -- we are only really dealing  
4 with energy policy here, that has been the focus of our  
5 workshop, we are not really dealing yet with the cost  
6 impact of all of this, and Commissioner Bohn is right to  
7 bring that up with regard to ratepayers, and I am sure that  
8 the municipal publicly-owned utilities are concerned, as  
9 well. That is why I am so glad that he was here today, to  
10 hear all this, and the reliability aspect of all this  
11 continues to be extremely important, and I know that is why  
12 Mr. Mansour is here, because he is very concerned about it.  
13 I think the Energy Commission has an important role going  
14 forward because we bring the statewide perspective with  
15 regard to policy setting through our Integrated Energy  
16 Policy Report, and jurisdictionally for all the entities in  
17 the state. Having said all that, I believe that, in fact,  
18 we could not get enough at lunchtime, so the three of us  
19 sat and talked about this issue even more. I believe that  
20 the three energy agencies, going forward, are very  
21 committed to providing the State Water Resources Control  
22 Board what it needs to promulgate their rule, and I  
23 certainly welcome -- probably more stronger than that, I  
24 plead for your continued involvement in this issue because  
25 they will be the ones that will be looking to us to solve

**REPORTER'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 reported by me, 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 10th day of August, 2009.

A handwritten signature in cursive script, reading "Peter Petty", is written over a horizontal line.

Peter Petty  
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