California Energy Commission
DOCKETED
13-IEP-1D
TN 2989
OCT. 04 2013

BEFORE THE
CALIFORNIA ENERGY COMMISSION (CEC)

In the matter of	)	
	)	Docket No. 13-IEP-1D
2013 Integrated Energy	)	
Policy Report	)	
(2013 IEPR)	)	

WORKSHOP ON SOUTHERN CALIFORNIA ELECTRICITY
INFRASTRUCTURE AND RELIABILITY ISSUES

California Energy Commission
Hearing Room A
1516 9th Street
Sacramento, California

Monday, September 9, 2013
9:00 A.M.

Reported by:
Peter Petty

APPEARANCES

COMMISSIONERS PRESENT

Robert B. Weisenmiller, Chair
Andrew McAllister, PhD Lead Commissioner 2013 IEPR

STAFF PRESENT

Heather Raitt, IEPR Lead
Sylvia Bender

ALSO PRESENT AT DAIS

Michael Peevey, President, California Public Utilities Commission (CPUC)
Michel Florio, Commissioner, CPUC
Mary Nichols, Chairman, California Air Resources Board (CARB, ARB)
Felicia Marcus, Chair, State Water Resources Control Board
Steve Berberich, President and CEO, California Independent System Operator (CAISO)
Barry Wallerstein, Executive Officer, Southern California Air Quality Management District (SCAQMD)

PRESENTERS

Ed Randolph, CPUC
Phil Pettingil, CAISO

Also Present (* by phone)

Public Comment

Jeremy Smith, State Building & Construction Trades Council
Sache Constantine, California Center for Sustainable Energy
Rob Anderson, San Diego Gas & Electric (SDG&E)
Jim Caldwell, CEERT
Dorothy Rothrock, California Manufacturers and Technology Association (CMTH)
Chris Anderson, ARB, Inc.
Steven Kelly, Independent Energy Producers Association (IEPA)
Ray Pingle, Sierra Club
John Chillemi, NRG Energy, and on behalf of the Carlsbad Energy Center Project
Mark Nelson, Southern California Edison (SCE)

APPEARANCES (Cont.)

Also Present (* by phone)

Public Comment

Cynthia Mitchell, Energy Economics, Inc.
Sierra Martinez, Natural Resources Defense Council (NRDC)
*Fran Inman
*David Zizmor
*Frank Lopez, L.A. Chamber of Commerce
*Puchkar Wagle
*Ted Owen, Carlsbad Chamber of Commerce
*Stan Williams, Poseidon Water
*Barbara Barkovich, California Large Energy Consumers Association
*Barbara George, Women's Energy Matters (WEM)

INDEX

	PAGE
Introduction	
Heather Raitt, IEPR Lead	5
Opening Remarks	
Lead IEPR Commissioner Andrew McAllister, CEC	7
Chair Robert B. Weisenmiller, CEC	8
President Michael Peevey, California Public Utilities Commission	13
Chairman Mary Nichols, California Air Resources Board	15
Chair, Felicia Marcus, State Water Resources Control Board	16
President & CEO Steve Berberich, California Independent System Operator	18
Commissioner Michel Florio, California Public Utilities Commission	21
Executive Officer Barry Wallerstein, South Coast Air Quality Management District	23
Overview of Southern California Reliability Assessment	
Ed Randolph, California Public Utilities Commission	27, 38, 41
Phil Pettingill, California Independent System Operator	31
Sylvia Bender, California Energy Commission	39, 56
Public Comments	69
Adjournment	126
Reporter's Certificate	127
Transcriber's Certificate	128

P R O C E E D I N G S

SEPTEMBER 9, 2013 9:07 A.M.

MS. RAITT: Good morning. Welcome to today's IEPR Workshop on Southern California Electricity Infrastructure and Reliability Issues.

I'm Heather Raitt, Lead for the IEPR. As I mentioned at the last workshop, Suzanne Korosec, the previous IEPR Lead, is now heading the Energy Commission's newly created Renewable Energy Division. So I look forward to working with you all on the IEPR.

I will begin by going over the usual housekeeping items. The restrooms are in the atrium. Please be aware that the glass exit doors near the restroom are for staff only and will set off the alarm if you try to leave through them. A snack room is located on the second floor at the top of the atrium stairs.

If there's an emergency and we need to evacuate the building, please follow staff to Roosevelt Park which is across the street, diagonal to the building, and wait until we're told it's safe to return.

Today's workshop is being broadcast

through our WebEx Conferencing System and parties should be aware that you are being recorded. We will post the audio recording on the Energy Commission's website in a couple of days and the written transcript will be posted in about three weeks.

Today's agenda is short. We will have one joint presentation by the staff at the Energy Commission, the California Independent System Operator, and the California Public Utilities Commission. After the presentation, the Commissioners and other executives on the dais will have an opportunity to ask questions of staff.

We will then provide an opportunity for public questions and comments. We are asking parties to limit their comments to three minutes during the public comment period and we will take comments first from those of you in the room, followed by people participating on the WebEx, and finally from those on the phone.

For those in the room who would like to make comments, please fill out one of these blue cards, they're up by the front desk, and give it to me or Lynette.

When it is your turn to speak, please come to the center podium and speak into the microphone; it is also helpful to give the Court Reporter your business card.

For WebEx participants, you can use the chat function to tell our WebEx Coordinator that you want to ask a question or make a comment during the public comment period, and we'll either relay your question or open your line at the appropriate time.

For phone-in only participants, we will open your lines after we've taken comments from the in-person and WebEx participants.

Written comments on today's topics are due at the close of business on September 23rd, and the workshop notice, which is on the table with the handouts and also posted on our website, explains the process for submitting comments.

And with that, I'll turn it over to the Commissioners for opening remarks.

COMMISSIONER MCALLISTER: Thank you, Heather. I'm Andrew McAllister, the Lead Commissioner on the 2013 IEPR. We are happy to have the IEPR provide lodging for this particular workshop, host it, and I want to thank you all

for coming, as well as our guest group of agency leaders here on the dais. I won't introduce them individually, you probably know them all, but we're very very happy to have them all here and to talk about what is really one of the most critical issues of the day, which is how to maintain reliability in Southern California with all the issues that we'll talk a lot about this morning and into the early afternoon.

I will pass it off to Chair Weisenmiller, who has, along with the other agency, President Peevey, Chairman Nichols, and Mr. Berberich, have been really pushing this issue together and working, I know, incredibly valiantly behind the scenes in all hours of the day and evening to really take this seriously, it's of the highest level of importance for the Governor and all of us Californians, frankly. So this is a really critical issue and I think it's the time for it and the place for it. So I'm really looking forward to today's workshop and to putting its outcomes into the IEPR and really pushing this discussion forward. So thank you again all for being here.

CHAIRMAN WEISENMILLER: Yeah, I would

also like to thank everyone for being here today. Let's start off with a correction. We had a misunderstanding which resulted in a mistake, and we were trying to replicate what we did at UCLA, but in terms of getting all the procedural stuff in place, we didn't quite get it together, so this is a CEC Workshop, it's not a Joint CEC/PUC Workshop -- just for clarification.

But that being said, we have a very distinguished number of guests here today and I think, as you can tell from the dais, we have a close working relationship and that, in fact, we are determined to continue that close working relationship.

I'd like to start out by certainly thanking the staff who worked on the technical report from the Energy Commission, the PUC, the CAISO, the Air Board, the Water Board, and the South Coast, and also Edison and San Diego.

I'm particularly aware of the CEC part, so I would like to call out Kevin Barker, Sylvia Bender, and Mike Jaske, among others, for a lot of hard work in a very short period of time. But I think today, again, we're trying to move this issue forward. I think certainly life going

forward without San Onofre is both a challenge and an opportunity.

Let's start with the challenge part. San Onofre, which it was operating it was a very significant amount of power, over 2,000 megawatts, 24 X 7 located exactly where we would want it in Southern California. And having said that, indeed the entire transmission system in Southern California was built around the presumption that San Onofre was operating. And so, as we're going forward, we have to figure out how to deal with things like reactive power, inertia, all the things which by its location and by the design of the transmission system it provided, along with energy and capacity. And it's a very complex system; things can go wrong, I think all of us remember yesterday's anniversary of the outage down in Southern California. So in terms of looking forward, it's not an easy situation to replace it, and there are no real simple silver bullets.

In terms of opportunity, having said that, it's gone, it's a real opportunity to remake the power system in Southern California in a new way to reflect the new realities. And we

have put together a portfolio which certainly respects and reflects the priorities of this Administration and of California, that we have a very ambitious goal on preferred technologies, the 50 percent; this basically takes the LTP commitment and doubles that down. And it's going to be a heavy lift for the PUC, it's going to be a heavy lift for all of us, but we can make it happen.

Similarly, rewiring the transmission system in Southern California is a heavy lift. I mean, the ISO has a lot of planning to do, and the PUC will have a lot of permitting to do. And again, we know from our experience that planning, permitting and building transmission lines, they are not easy.

We also have conventional resources that we have in this mix and they will provide some of the operational glue or flexibility we need, certainly they will be operating within California's cap-and-trade system, which certainly I think when Mary Nichols talks, we anticipate, if anything, that the cap is going to keep going down over time. So basically we will move in that direction, it's pretty clear given

the key challenge of our time is climate change. And so we have to continue to make progress on that and, at the same time recognize that the climate change is influencing our energy system. Loads are higher, we're going to have more extreme events, we're going to have more fires, we're going to have less water. It's a pretty dreary combination of events that we're trying to respond to.

At the Energy Commission, certainly going forward, we will deal with projects that have applied to us for permits. As you know, we reflect in our DNA the joint characteristics of Al Alquist and Charlie Warren wanting a one-stop expedited siting agency, but one which is very transparent, very geared toward environmental mitigation, and a very public process. At the same time, we are coming up with contingencies for all these resources, certainly transmission, certainly preferred, certainly conventional. And that's again a new way of business for all of us on the contingency side; but given the importance of Southern California in our economy, given the importance of reliable power there, we will have belts and suspenders going forward.

Along contingency, certainly we will continue with agency, we'll continue to push the envelope on energy efficiency. We have new building standards going into effect at the end of the year, we have battery charger standards, we're working on Demand Response under Commissioner McAllister's leadership, and also existing buildings. But as I think he can say, when we're having a hearing talking about our building standards going into effect, and some were asking that we delay those, I explained that I personally, if anything, would want to accelerate the timing. The staff looked a little shocked, but anyway…. That's the basic message; we all need to have a sense of urgency about getting things done. President Peevey?

MR. PEEVEY: Thank you, Bob. Like Bob and all of us, it's a pleasure to be here this morning and be with all my colleagues. As Bob Weisenmiller indicated, we have this Energy Principles group and they're arrayed by both my right and my left. We have worked countless hours on aspects of planning for a post-SONGS Southern California energy scene.

What we're going to be hearing about

today, I want to emphasize, is a preliminary reliability plan prepared by the staff, it is not something that Commissioners -- Commissioner Florio and myself, or my other three colleagues, have endorsed or adopted per se, although the thrust of it, I think, which we'll hear more of from Ed Randolph from the Public Utilities Commission, as well as the other two speakers, the thrust of it is consistent with something that we set as policy in this state 10 years ago, what we called at that time the "Loading order." We now have this more elegant term, "Preferred Resources." I'm not quite sure who coined that, but it has a nice ring to it and a certain kind of vagueness that it covers an awful lot of things. Before we said "Energy Efficiency," now we have "Energy "Efficiency" and we have "Demand Response" and we have "Renewables" and "Transmission," but the first three are all part of those preferred resources and, as will be outlined again today, the belief strongly of the staffs of the ISO, the CEC and the PUC, is that 50 percent of the needs, or maybe even more, can be met through Preferred Resources over the next multiple years in Southern California.

So I look forward to hearing in more detail about that this morning, and also I look forward to the opportunity to hear from those of you in this room, and those of you on the phone, as well as those who submit written remarks, as to how you feel about all this going forward because, believe me, we take this as critically important, particularly those of us who are domiciled, like Ms. Nichols and myself in Southern California, and feel a particular responsibility to ensure that the lights stay on in Southern California under all circumstances. So thank you very much, Bob.

MS. NICHOLS: The mic is on, thank you. It's a new hearing room and a new set of buttons to learn to push. Thank you, Bob, for inviting me to be part of this, and thanks to the team for including ARB staff, as well as South Coast, although they can speak for themselves. But the recognition of the importance of SONGS' replacement in the overarching goal of meeting our climate objectives and also staying on track to meet Federal health-based air quality standards has been part of this process from the very beginning, and we appreciate that

recognition very much.

I am someone who remembers fondly the days before SONGS was built and I was part of an advocacy group at the time that fought very hard to keep it from being built, and it pains me now to be in the position of saying that we miss it. But in addition to having been big and in the right location to support the overall power grid in Southern California, the power plant also provided a large amount of GHG-free electricity. And so replacing it is not going to be a simple matter. I think the report that we're going to hear more of indicates a number of different paths that can be pursued, and I appreciate the commitment to maintain our steady progress towards 50 percent being Preferred Resources, but I would only just add to that that I think as we move forward with our Scoping Plan work, with our energy planning work, we're going to be finding that there are additional opportunities here to ring more carbon out of the system and make it more efficient, and I hope we can keep our eyes focused on that goal. So, thank you.

MS. MARCUS: Good morning. I appreciate being here, as well, with my colleagues to

discuss this important issue. For the Water Board, I believe I'm here because of the once-through cooling policy, of course, if anybody. I didn't call it "OTC" though, I just want you to know, I did not use the acronym. We can't really have an acronym-free zone in this work, I think. But it was long considered and thought out with the public and with the energy agencies. It obviously addresses a significant issue for aquatic resources, an unintended consequence, but nonetheless significant consequence. And the policy gives a long implementation timeline to try and account for the complexity of transitioning some of the energy across California.

Fortunately, my colleagues -- this predates me -- fortunately they also worked with their energy colleagues to anticipate the need to deal with changing circumstances, and SONGS is clearly a changing circumstance, and so built into the policy is a very clearly thought out procedure for coming to the Water Board in full public session for changes, etc. etc. that might be supported by record and thoughtfully done and agreed upon by all of the energy agencies.

I appreciate, and I know our staff appreciates being engaged early, as well, in this process and I want to commend you all for doing that as opposed to thinking of us as an afterthought, or that pesky agency that can now be ignored. And I think it is a hallmark of the leadership of the folks here that they've thought in an integrated fashion from the beginning as this issue came up, and I really do appreciate that, and we appreciate that and are working closely with our energy and our ARB colleagues.

And so I'm just looking forward to spending today with all of you, as well as with the public, to learn and listen as we just stay engaged through every step of this process. So thank you.

MR. BERBERICH: Thank you, Chairman Weisenmiller, Commissioner McAllister. I, too, appreciate being here today and I also want to echo what President Peevey said, a lot of work has gone into this plan. But also, the hallmark of the plan is that we all have a shared goal of a clean environment, as witnessed by those that are here with us today, reliability, and also cost.

But I also think this gives us an opportunity to show the world how we can react to things in a creative way and be able to solve for a number of things that might be difficult to solve for otherwise. We certainly have an interest and respect for the loading order and paying specific homage to energy efficiency and Demand Response, which can play a critical role in how the system develops in the future.

We had to solve for a number of needs as we went through this planning process. First is the energy that came from San Onofre, which was about 2,200 megawatts. It also provides a reactive power, or otherwise known as Voltage Support which makes power flow. Making power flow into that area is a critical concept because it's so transmission dependent and transmission constrained, and the ability to make the power flow allows us to bring renewables and other assets into that area. We also need inertia. San Onofre provided a lot of inertia on the system 24/7. And it is also in a critical location straddling very large local capacity areas in San Diego and Los Angeles.

These complexities had to be solved for

with a number of constraints. As we talked about earlier, we have once-through cooling obligations that are looming and they're looming within the current timeline it takes to construct a number of facilities, transmission, renewables, or traditional generation.

There's constrained transmission into that area and building new transmission into that area would go through protected areas, populated areas, and big transmission lines aren't particularly popular. We also have to look at costs and then, finally, the laws of physics and consumer demand patterns.

Yet an opportunity exists for us, I think. We have the opportunity to repower once-through cooled units that allow us to have yet more renewables on the system because they're flexible, so that we can turn them off at night, and so that they can ramp on when we need them, whereas the once-through cooled units now stay on all night long because they take 24-36 hours to start. And when they're sitting down at their lowest level, they're emitting pollution much more than if you had a high efficiency unit there.

We have to find ways to really -- and I mean really -- integrate Demand Response in a dispatchable way and make it an asset on the system, and use energy efficiency in a way that can compete with generation.

All of this eventually will go through procurement processes at the Public Utilities Commission, and we look forward to continued conversations there. Thanks again for allowing me to be here today.

COMMISSIONER FLORIO: Well, thank you. It's a pleasure to be here and to see all of the eager faces in the audience. We're going to need all of you to meet this challenge. I think Chair Weisenmiller put it very well, it is a huge challenge. We have a significant portion of the energy infrastructure in Southern California going through transformation. San Onofre, the biggest and most critical, but also the many once-through cooling plants up and down the coast, that's a major chunk of the California energy infrastructure that's going to have to be replaced in the next 10 years.

I'm not sure anything on quite this scale has ever been undertaken before and, at the same

time, we want to aggressively ramp up energy efficiency, Demand Response, renewables, electricity storage, all these promising and in many cases new resources that can play a vital role in providing the reliability of the future. It's not going to be easy. It's going to take hard work, it's going to take creativity, it's going to take involvement of the community in a way that we've never had before. A lot of these things cannot be done tops down. Energy efficiency, Demand Response, rooftop solar, all of these require customers to be involved in the process and we need to motivate and educate those customers to the challenges of the future. An electricity world where we all just sit back and wait for the power to be delivered when we flip the switch is going to be a lot more expensive and a lot more polluting than a future in which customers play a role in moderating the demand for electricity.

So we've got a lot to do here. I think this entire Administration and all these agencies are committed to the similar goals, but the fact that so many different agencies are involved is an indication of how big the challenge is.

So look forward to hearing the staff proposal. As I was looking through it, I started counting up how many PUC proceedings could result from this, and it was a little bit daunting. We've got to move a lot of activity through the system in a way that's transparent and open and that is flexible to adapt to changing conditions. So looking forward to an informative day. And thank you for being here.

MR. WALLERSTEIN: I also want to express my appreciation for the inclusion of the South Coast Air Quality Management District in this work effort by the State agencies.

As you heard from several of the other members up here on the dais, this is really an important -- not only an important plan, but the integration that went into this plan relative to energy supply, to local air quality, to climate and water, really serves as a model of how we should be doing environmental planning in the State of California, and we're very appreciative of the approach that was taken, and our inclusion also at the early stages of this project.

I want everyone in the room to know that, from the South Coast District staff's

perspective, we believe that this is really a very very good plan, and that the timetable set forth is an appropriate timetable.

I also wanted to echo what you just heard from the Commissioner, that the process going forward ensures public participation as we move these recommendations to actual actions, and I wanted to underscore that it's not just at the CEC or CPUC, but that's also at the local Air District level, as well.

Finally I want to say that you have our commitment that this is a start and we will be with you until the finish line in helping to implement the plan and ensure grid reliability for Southern California.

COMMISSIONER MCALLISTER: Thank you, Barry. And again, I'll just briefly put on my Energy Commission hat as Lead on Energy Efficiency and echo something that several of the speakers, including Chair and a couple of others talked about. Certainly, I want to echo many of the comments of Commissioner Florio.

You know, I wanted to highlight the aspects of energy efficiency and Demand Response to some extent, but energy efficiency. We really

do need to make it real and community participation in this context doesn't just mean participating in our various proceedings and submitting public comments and being there at our open meetings and things like that, it means actually participating in a marketplace to get adoption of energy efficient technologies that are going to really tradeoff with supply, and that are going to allow us to optimize the system in an atomized way, in a locational way, in a deep way. We really do need to figure out how to encourage markets for energy efficiency services to grow.

You could say the same thing for Demand Response to a large extent, but that is a little bit more command and control, relies more on rules. Energy efficiency really is -- it can be -- demand driven, it can be customer driven, and it can be facility manager driven, it can be Chief Investment Operator driven, in a way that we can certainly encourage with policy and incentives and things like that, but that really fundamentally folks are going to make those decisions when it's in their best interest to make those decisions, not because a policymaker

told them to. And so I think we really do need to find ways to be more nimble to get folks to see that these things are in their best interests and invest their resources in them, encourage that, facilitate that, provide financing, provide technical assistance, all the things that we already do and we do it well. But we really do need to take it to another level and I think it's critical that the agencies continue to work together and really take that challenge going forward.

I know that the Public Utilities Commission and the Energy Commission are working together very closely on a couple of initiatives to get into existing buildings and help them make those decisions, and then also here within the IEPR on Demand Response and energy efficiency, as well. So I really, you know, the creativity and the community participation really is critical across the state to make this happen, and particularly in Southern California, I'm really looking forward to hearing about the plan and hearing some of the aggressive initiatives that are being contemplated for implementation to really solve some of these problems where we most

need it at the moment. So thanks again everybody for coming and really looking forward to the presentation from the staffs.

MS. RAITT: Great. Okay, so we'll have the staff presentation.

MR. RANDOLPH: Good morning. This is quite the panel to testify in front of. I normally start out with, you know, "Good morning, Mr. President and Commissioners." But if I go through all of your titles we'll be here all day, so I'll just leave it at "good morning."

Sylvia Bender, Phil Pettingill and myself are here today to discuss the Draft Staff Plan for Meeting the Reliability Needs in Southern California with the Loss of the San Onofre Generation Station.

Before we start, I want to echo the statements from President Peevey and further qualify our presentation today by making it clear that at this stage what we're presenting is a staff report that should not be interpreted as indicating decisions made by any of the agencies out there.

The point of the document today and the work that has led to this document is to create a

roadmap for how we will meet the reliability needs with the loss of San Onofre, identify where we think problems could exist, and identify the timelines we need to deal with these problems.

You know, speaking from the perspective of the CPUC, most of the issues discussed in this report will need to be further vetted at other proceedings at the PUC. The main proceeding so far identified would be the long term procurement plan. There will be other proceedings. I hope it's not the full list that Commissioner Florio has counted up and we figure out how to streamline that a little bit more. With that, if we could move to the second slide?

The details which Commissioner Weisenmiller has already identified some of the critical issues here, San Onofre represented 16 percent of the local generation in Southern California. But more importantly to the issues we're dealing with, it's not the loss of the 2,200 megawatts of capacity, it's the critical location that plant was located at and the support it provided to the grid in Southern California, especially in terms of voltage support.

And then going forward, not only do we have to deal with the challenge of the loss of that 2,200 megawatts, that couples with the planned retirement of 5,000 megawatts approximately of once-through cooling plants in Southern California, forecasted annual load growth in the region of about 400 megawatts a year and, again, back to the core need that the San Onofre nuclear generation plant provided in terms of providing voltage support and other grid services in that region.

As the staff began working on this paper, you know, the requirements we were looking at for this first step, and I think for every step going forward, is the number one priority is maintaining reliability in the system. That has to be first and foremost at all times. You know, as we saw several years ago with the blackouts in San Diego that has major safety implications and major economic implications if those sorts of events occur.

The other initial requirement and goal we had was to make sure all the agencies involved are having a common understanding, that's a common understanding of the needs that need to be

met, with the loss of SONGS what we have to fill in terms of megawatt needs, but that's also in terms of other resource needs and in terms of when we get to issues like once-through, some of the Preferred Resources, what those actually are. And when we say things like we need Demand Response or energy efficiency that those are done in ways that they actually provide benefits to the region affected by the loss of SONGS, in ways that mitigate the need to build fossil generation.

Moving on, our approach and the overriding goals of this plan going forward is to have at least 50 percent of the incremental need identified from the loss of San Onofre come from what has been dubbed Preferred Resources. I'm going to try as much as possible to actually spell those out, which is energy efficiency, Demand Response, distributed generation, and storage. After that, try to meet the transmission needs as much as possible through transmission upgrades, again trying to avoid the need to build additional conventional generation. Finally, building conventional generation only or reauthorizing conventional generation only where

we can't meet that need with Preferred Resources and transmission upgrades.

All of the lists above come with some risk and some difficulty, especially in terms of timing, so we also need to develop contingency plans in case any of the above issues can't be met in a timely basis, and we'll talk more about what those contingency plans would be later in this presentation.

And finally, and very critically, is when you need to manage the critical risk in Southern California with the need for air permits, the difficulty that inevitably we'll face with transmission siting, the difficulty in developing additional preferred resource plans and programs that are above and beyond what's already in place, and then also the need for additional natural gas supply in San Diego, that will inevitably result from -- it's actually already in San Diego, even without the loss of SONGS.

With that, I'll hand it over to Mr. Pettingil.

MR. PETTINGIL: Well, thank you. And the esteemed panel we have today, I wanted to start off and just sort of fill in a little bit about

what's the problem and how do we get to at least the foundational issues that led to some of the recommendations we have in our plan for you today.

As a general matter, most of the ISO's balancing authority has sufficient resources. One of the things we do on an annual basis is to look at the whole balancing authority, which covers most of the State of California, also now into Nevada and Arizona, and a little bit in some other areas. But for the most part, what I wanted to highlight here is we have 10 load pockets, or local capacity areas in our system. And those exist because there is a limited amount of transmission into those areas of load, and as a result we need to rely on specific resources in those load pockets to help us meet reliability criteria.

Our challenge now is to focus on LA and the San Diego area, so the next slide. Not only have we been trying to plan for compliance with the once-through cooling policy, but now, in addition to that, the loss of San Onofre creates significant reliability challenges for us in these two load pockets.

And what I wanted to do was just take a minute here and point out that the LA Basin has some fairly robust 500 kV system that helps bring energy into that area, but again, that transmission system was built up around the assumption that SONGS was going to be there. San Diego's system also was reliant on the San Onofre generator station being there, as well. And so now the challenge is to look at these two load pockets with the limited transmission and try to look at what are the challenges of the underlying physics that are driving needs.

And so what I've got here on this slide is to identify three major characteristics. First and foremost is just the real power, the energy. And as you've heard, for the most part, at least for the foreseeable next couple of years, we've got enough energy in the L.A. Basin and even in San Diego, however, that starts to degrade once we start to look out, look three, four, five years, and certainly by the time we look out 10 years from now. And I'll talk about that some more.

The second major issue we've already discussed is a little bit about the reactive

power and, as Steve pointed out, what Vars do, and what that reactive power does, it helps us move the energy around the system. And so, again, in the absence of SONGS, it becomes much more difficult for moving energy between these two load pockets and, in particular, moving energy from the LA Basin into San Diego.

Finally, we have to be really careful about what happens on the transmission system. As we're relying on that transmission grid to help bring energy into these load pockets, we have specific reliability criteria and we plan for that, and that's why this upper slide talks about a contingency response. As a general matter, if we lose a major transmission line, we need to respond within 30 minutes. And so when we start talking about what are the alternative resources that can help us reliably operate the system, these are sort of the three key factors for us to consider and what we did when we started to put together the plan that we're sharing with you today.

CHAIRMAN WEISENMILLER: I just want to make sure each of the speakers identifies himself as we go through the slides, for those on the

phone.

MR. PETTINGIL: Sure. My name is Phil Pettingil. I'm with California ISO. I'm the Director for Regulatory Strategy.

On the next slide here, what we've done is we've laid out a timeline and we look forward from ear 2013 into about the year 2022 timeframe. What we're identifying for is there is a significant amount of resources that are expected to go off the system, or our needs will grow. And that's the bottom half of the line here, the blue section. Top of there is San Onofre. But certainly, the next major bar you see is load growth and we do expect load to continue to grow over this period of time, making it more and more difficult, and we need to plan for that.

On the top half of this timeline is the green section, and the green section is identifying the resources that we think we need in order to plan and respond for those needs that are going to arise, represented by the blue section. Again, we are having a significant quantity of energy efficiency DG and so forth in this top half.

A couple other key things I want to point

out when we look at the right-hand margin, we're saying we need about 7,600 megawatts of new resources to come in and 12,200 going away, so there is clearly a 4,600 megawatt difference. We could see that, at least in the studies we're doing so far, that about 4,600 megawatts of resources can go away over the same timeframe.

Now, the other thing I wanted to point out, as part of our ISO transmission planning processes, we've already identified some of the voltage support projects that are needed, and those are represented in the top middle section, just above the green. Talega Substation and the San Onofre Generator Station, Mesa Substation, are two projects that we have identified, and San Diego Gas & Electric is moving forward to put reactive support in there. Sycamore-Penasquitos is another transmission line that would help reinforce the system down there and, again, move energy and Vars in support of the loss of SONGS.

And so finally, just a couple more points here, the little red dots on the bottom are places where we've started to identify where do we want to consider decision points where potentially we would need to work together to go

over to the State Water Board and look at a potential change in the once-through cooling policy. So we've got a little bit of time to see how this plan works out before we would need to come over to Felicia's organization and potentially work with them and a schedule change, but that's what the red dots are trying to identify. The reason there are two of them is we have two major changes in the system. When we get into the end of 2017, we see the Encina plant needing to come in compliance with once-through cooling, and that's over 900 megawatts of capacity in the northwest portion of San Diego's system. That's a significant change in system dynamics for us. And then, finally, it's not until the end of 2020 where we have the 5,000 megawatts or so of once-through cooling plants in the L.A. Basin that would need to come into compliance, and so we have the two red dots to try to identify that.

Finally, in the lower left-hand corner, we've got a green check mark here, and what we're suggesting is, next year is the time to actually talk about the contingency plans that Ed had mentioned, and how would those work -- what's the

criteria? How do we trigger those? What's the process in order to have a contingency in case this set of recommended solutions that we're going to share with you need to be triggered over the course of this time horizon? So this just maps it out over the course of the next eight or nine years for you. Next slide. Ed?

MR. RANDOLPH: Yes. So again, this is Edward Randolph. I'm Director of the Energy Division at the CPUC. So the next slide -- and I won't go through every line on this table -- it is illustrative of one of the big difficulties we're facing in trying to come up with the portfolio of resources to meet the incremental need. It lists pretty much every technology option we have out there from energy efficiency all the way down to new combined cycle gas plants. No one resource out there meets all of the goals we have to meet out there, you know, SONGS as we know, or San Onofre as we know was relatively carbon-free, replacing that we're going to need to be very conscience of the carbon impact of what we're doing. At the same time, as we've discussed, providing critical voltage support is critical to meeting some of the

contingency response requirements that FERC and NERC impose on the ISO. So as we go through the various lists, as we come up with a portfolio of this, there's no one perfect magic bullet out there that does it. You know, for example, lots of conversation of can we meet a lot of this with rooftop solar, rooftop solar definitely is one of the best ways -- or one of the better ways to get actual megawatts available that would be as carbon-free as possible; however, at least as the systems are designed, and the inverters are designed today, they don't provide much voltage support and they probably wouldn't be available to meet the contingency response requirements. Where, on the other side of that, something like combined cycle plant does meet the voltage support requirements and the contingency response, but we would need to deal with the carbon emissions and other air emissions from those plants. And unless there are questions, then we can get to that later, that's all I have on that slide.

MS. BENDER: This is Sylvia Bender from the California Energy Commission. Now that we've laid out the summary of our approach, along with

the fact that no single resource can provide all three of these characteristics that we need for reliability, let's start talking about our proposed mitigations and contingency options. We divide the actions into two time horizons -- near term, 2013-2018, and then 2019 and beyond. And we have a summary slide here for each of those two time periods.

This first slide is the specific near term actions discussed in more detail in our preliminary plan document. The actions are organized in two ways on this graphic; they're color coded first for agency responsibility, and in columns, based on the necessary characteristics that resource or that action could provide such as the real power in watts, or the reactive power in Vars.

You'll see that staff is suggesting a broad portfolio of actions, preferred resources, transmission, and conventional generation, that we will each discuss in more detail in a moment. The next slide, please.

Longer term reliability concerns are largely driven by once-through cooling compliance dates in 2020, and load growth in the area. San

Diego Area is experiencing some difficulty with sufficient natural gas delivery to existing fuel gas generation since the San Onofre closure. Air permitting challenges in the LA Basin are likely to continue. Longer term actions are still focused on a continued Preferred Resource procurement, but planning for future safeguards such as careful monitoring of how all resources are developing and performing, and contingency backstops that could be triggers as needed, must start now.

Other longer term options could include some form of contingency site permitting, delays in some once-through cooling compliance deadlines, or additional system infrastructure alternatives or upgrades.

So now we'll turn to the specific agency actions starting with Ed.

MR. RANDOLPH: And again, this is Edward Randolph with the Public Utilities Commission. In trying to follow the loading order a little bit, talking about the actions that the CPUC needs to follow, you know, first and foremost, and what may very well be the most challenging for us, is the commitment to meet at least 50

percent of the incremental need with preferred resources, with distributed generation, energy efficiency, demand response, and storage. Right now based on our numbers, and as we've discussed at the beginning, some of these numbers can change as it gets discussed and vetted through the LTTP process. That looks like it's about 800 to 1,000 megawatts of additional resources on top of the 3,000 megawatts approximately that we're already committed to and baked in. And that 3,000 megawatts includes the existing renewable distributed generation program such as CSI, such as the Reverse Auction Mechanism, such as the RAM programs we have, it includes what we anticipate as a available through our Demand Response Programs, even though we need to do significant changes to our Demand Response Programs so that they're more effective, and it includes what used to be referred to as the Uncommitted Incremental Energy Efficiency, which we're now referring to as Additional Achievable Energy Efficiency.

Anybody that has been following all this knows that, even that 3,000 megawatt goal is a tall lift, so adding another 1,000 megawatts is going to be a challenge to get there, it's a

challenge we're definitely committed to, but it is a challenge.

The biggest challenges there as it relates to focused on replacing needs from the loss of San Onofre is that these resources now are going to need to be more geographically targeted than they ever have before. Most of our programs now are statewide programs and they aren't focused on targeting to specific areas, so that will need to be a programmatic change as we go forward. We'll also need to look at these to get the right resource mix to make sure the overall balance is something that actually reduces the need for Var support and for other grid needs in Southern California, otherwise we're committing resources to this and still getting the need for peakers or other plants out there.

Finally, these particular timing is going to be extremely critical. If we look at timelines of proceedings even that are fast tracked to the Regulatory Agencies, when those proceedings would even fast track, finish up, when programs are developed and out to the market under new rules, how long it takes for the

utilities or, if we're depending on third parties or community groups to actually develop those, get the programs going so that we know that the megawatts are real, the timing of all this is going to be very tight to make sure that these resources are available in the 2017, the 2022 timeline, so that they're real, and then we can avoid some of the contingency plans that are out there. Next slide, please.

Within the Long Term Procurement Plant Proceeding, studies will be needed for new resources, both the amounts of the resources and the types of resources. That is going on right now in terms of the loss of SONGS and what's referred to as the Track IV Proceeding, and that currently right now is looking at the San Onofre retirement. There is another proceeding in the Track II retiring looking at system-wide flexibility need. I'll note there is a typo on this slide that is actually -- it's actually a very good typo because it may have been unintentionally inadvertent in that there's some issues in the timing that will be discussed in the future slides. The next slide, please.

And not to go through the whole table,

but this table is very beneficial to take a look at it in terms of what's already been done in 2013, and this year the PUC has authorized procurement needs in the LA Basin and San Diego, 1,400 to 1,800 megawatts in the LA Basin, of which a good portion of that is through a requirement that the utility pursue a preferred resource procurement plan. Southern California Edison has submitted their procurement plan to Energy Division and we did approve that last week for them to go forward, it's a very innovative plan; I'm not really ready to talk about that much today. Pieces of that plan are confidential while they're going out and doing their RFOs within that. I will say it's a very innovative plan and, going forward on the preferred resources, I think there will be a lot of things to learn hopefully from the successes of that plan, and probably from a few failures in that plan, but it's a lot of credit to Southern California Edison for being creative and trying to figure out how to go out and procure some additional resources.

Then the Track II, as I've mentioned the decision is expected in March of next year,

that's for system need, and I think most importantly for the conversation today is the Track IV proceeding. And if could move to the next slide.

The Track IV proceeding, the original Scoping Plan of that had a PUC approval procurement authorization late 2013. If all went according to plan after that, that would have us approving Edison PPAs in the early 2015 timeframe, after they've gone out and done their RFOs and come back. The ISO in recent weeks has suggested that we should delay the initial approval of the LTPP procurement authorization by several months in order to allow them to finish their transmission procurement planning and have that feed into the LTPP. The thinking there would be the transmission plan would better inform the generation needs and potentially could reduce some of the generation needs, depending upon what's coming up in the transmission plan. The difficulty with that is that it would push back actual procurement of new resources in Southern California potentially to the end of 2015 would be when we'd authorize the actual new procurement, not the beginning of 2015. Given

how crucial timing is, you know, pushback of any period of time is a little bit scary. At this point, that's an open issue in the LTPP. The Judge has in the LTPP made an alternative timeline which would still lead to approval in 2015, but right now they're seeking comments within that proceeding for that timeline. Next slide, please.

And this slide, most of everything that's in this slide, we've already covered. One thing that is important to note for the public is here is a timeline for public process. In the upper left box, it shows where the major analytical work comes from. The analytical work that went into the staff report here today was based on a scenario analysis that had been done at this moment in time, you know, since then and it did inform this report, the ISO has filed their analysis into the LTPP, so has Southern California Edison, so has San Diego Gas & Electric, and so has the City of Redondo Beach. So these studies are in there and are all part of the record there and will inform the LTPP as it goes forward. Next slide. And this is on to you, Phil.

MR. PETTINGIL: Thanks. In terms of some of the things --

CHAIRMAN WEISENMILLER: Phil? Identify yourself.

MR. PETTINGIL: Oh, I'm sorry -- Phil Pettingil, Director of Regulatory Strategy at the ISO. One of the things the ISO is doing, I wanted to talk briefly about the Huntington Beach Synchronous Condensers. I think most everybody is familiar with at least this -- we were able to get the Synchronous Condensers converted from generators at Huntington Beach Unit 3 and 4, and they've been operating all summer for 2013. We do expect that, as they're still needed going into next year, that we would do an extension on that RMR contract and ask those facilities to continue to operate through the summer of 2014, and some way that the ISO's reliability must run contract works, it's basically an annual agreement and on a year-by-year basis we reassess whether there's a need to extend or not. We have been able to confirm with Sylvia and the CEC that at least the facility has an operating permit to take it all the way through 2020, so we don't need to worry about permits, but there is a

repowering plant and, again, in order to try to work towards compliance with once-through cooling, we're going to need to look at how that fits in and our need for Synchronous Condensers by the time we get to 2016 and 2017. Next slide, please.

In regards to transmission, the ISO is currently running our annual transmission planning process. We've got a number of transmission lines that are in there and are being evaluated. We certainly expect that our purpose here is to try and identify what's the potential value and cost and benefit of the various different options, and this is what Ed talked about we'd like to bring into the LTPP in January of next year. Some of these lines, we think can provide as much value as about 1,000 megawatts to reduce needs in meeting this solution. So we're just now doing those studies to try to confirm the specifics, and that's what we'd like to try to bring forward in the early part of next year. They clearly bring benefit not only in terms of the megawatts we've talked about, but also the voltage support and each of the projects have a different value of benefits

to them.

MR. BERBERICH: Phil, if I might? This is Steve Berberich for those on the phone. Not all of these transmission lines are expected to be needed. These are just the whole portfolio of possibilities. Many of them would compete against one another, so just to be clear about this slide, these are all the ones that we're studying; certainly, we don't expect all of them to be needed.

COMMISSIONER MCALLISTER: So would you then come up with sort of a set of scenarios, like, okay, on the one hand, on the other hand, maybe there's some limited group of scenarios, "if this, then that" kind of thing?

MR. BERBERICH: Exactly right, Commissioner. The transmission lines would interplay with generation, so you could have a transmission line, as Phil said, it would offset 1,000 megawatts of transmission need, which is why we want to go through this analysis. We will look, as we stated, in the plan for transmission solution first because, particularly if we have renewables in the outlying areas, we can bring those renewables into the market, so that will

really be a part of the analysis.

MR. PETTINGIL: So next slide, please. So then finally, one of the other elements identified in the plan here is really to try to look for alternative ways to acquire the preferred resources and what we suggested is very limited, it's about two sentences worth in the plan, but what I've done is expand a little bit on that thinking, and it is that the ISO would potentially run a multi-year forward auction. As we've talked with Demand Response and other providers of these Preferred Resources, they're giving us some pretty strong feedback. They need a price signal that's multiple years forward. And so the concept here would be the ISO to run an auction, to acquire the Demand Response and/or energy efficiency and other potentially preferred resources, and it could offset the reliability and the operating needs that we have. And so, conceptually we'd be able to identify multiple different products -- two hour, or four hour, or six hour, as long as it could meet that 30-minute contingency response, we could really seek an opportunity to try to expand on or run in parallel with the procurement authorization that

the PUC would be lending to the IOUs and the entities in Southern California that need to do procurement.

We feel like we could actually set this up and potentially run the first auction as early as next year in 2014, and that would make it available for meeting resource adequacy requirements as early as 2015. So we'd still need to work with Ed and the rest of the folks at the PUC to try to go through that process, see how we would implement it, and certainly work with Edison and San Diego in regards to what are their authorization levels, and how would we design and clear this kind of a market for kind of resources. But we really see it as something as an augmentation to the processes that are already in place, and still needs a lot more work to try to flesh it out on how that would actually function.

COMMISSIONER MCALLISTER: So I wanted to chime in a little bit and ask a question for you and Ed. So how does that map over into -- what's the interaction between that and the proceeding process at the PUC and the timing of that to bring sort of taking a procurement approach

through the IOUs to get more DR online, particularly with Edison and SDG&E?

MR. PETTINGIL: I'll start and just say right now the thinking is that going through the LTPP process would identify a procurement authorization, then there's an opportunity to do that. As Ed mentioned, Edison's current plan is to go out and go through an RFO process to acquire those resources. Now, what we could do is augment that and say, well, what if the ISO were to run an auction, to give them an opportunity to come into that auction, put in their prices or bids for what they'd be willing to pay for the resources, then we could look at attracting new resources from Demand Response aggregators, for example, and help Edison be able to meet its authorization for a procurement. So that's kind of the way the thinking is at this point.

COMMISSIONER MCALLISTER: Interesting. So you basically would be offering -- you would sort of be helping marshal the marketplace to offer into the RFOs that would be being run --

MR. PETTINGIL: Yes.

COMMISSIONER MCALLISTER: But there would

only be one, I guess, is what I heard.

MR. RANDOLPH: You know, I'll have to admit, this is really --

COMMISSIONER MCALLISTER: This is Commissioner McAllister, by the way.

MR. RANDOLPH: -- plans need -- and this is Edward Randolph again from the PUC where these plans need to be worked out a little bit more. As I've understood this plan to date, it's actually slightly different there and this would be done through the ISO's markets, and potentially would be billed as part of the TAC, not as part of the utility's plans, so I think there are some details that need to be worked out on this.

I think it's important to notice for anybody in the crowd who is tracking this, this is separate from the conversation that we're having with the ISO and what's being referred to as the joint reliability framework, which would be alternate to a long term forecasting market.

COMMISSIONER MCALLISTER: Okay, so I think this is really a key area that we've got to sort of get the anvil out and start hammering out something that's got some steel associated with

it. So I guess I really think this is super important and this is why we're focusing on it in the IEPR and figuring out what's going to actually get real Demand Response on line in a couple years max, you know, we've got to just figure out what's going to do that. And so the back and forth, I'm worried that we're going to end up going down a road where there's a lot of layers to this onion that we don't see yet, and they're just going to keep coming up, coming up, and coming up. And I think we just can't put ourselves in that situation, so I want to really encourage us all to put on our thinking caps and figure out how to quantify, and then go after these resources.

MR. RANDOLPH: And on that, one of the reasons why this is in here now, even though there's a lot of details that need to be worked out, is that in order to move quickly and get the thinking cap on, it's better to throw the ideas out there and work through it than it is to say let's not talk about it until we have the details worked out.

COMMISSIONER MCALLISTER: Absolutely. Really appreciate it. And I think it's going to

be a great conversation and very necessary, so thanks.

MR. PETTINGIL: That's all I had. Sylvia?

MS. BENDER: Okay, this is Sylvia Bender from the Energy Commission again. Next slide.

Three proposed repower projects in Southern California have recently submitted Applications for Certification, or license amendments to the Energy Commission. The Certification filings from Alamitos is expected in late 2013. The current once-through cooling phase-out schedule for these units is all 2020. Generally, these repower applications propose new natural gas, combined cycle, dry cooled, fast start facilities that can provide more flexibility in the system. Start-up times would be reduced from 12 to 18 hours to as little as 10 minutes to allow for fast ramping in these new configurations.

These proposals generally involve replacing unit payers building those as other units on the same site, or being demolished until the entire facility is converted to modern technology. The practical considerations of

repowering one or two units at a time to maintain reliability standards may trigger early decisions about once-through cooling compliance schedules.

Generator owners repowering old steam boiler facilities into advanced gas turbine technology are able to use exemptions under SCAQMA's Rule 1304(a)(2). For these, the Air District debits the needed emission credits from its own internal bank; however, concerns were raised at the July 15th workshop about the sufficiency of these credits, which also serve other public policy purposes for the large amount of potential repowering in the coming decade.

And once these facilities may be licensed, the owners of the facilities will still need to secure power purchase agreements that are approved by the PUC. So there are a number of decisions that involve any kind of repowering with these units before they reach operations, so timeliness will be an issue here, as well. Next slide.

Recent experiences also show us that it can take seven years or more for new generation, even repowering existing generation to be permitted and built. Contingency Plans for fast

tracking additional conventional generation may be needed to be considered as a backstop in the event that repowering projects do not proceed, Preferred Resources do not materialize on time, or in sufficient amounts, or that transmission projects prove infeasible or are delayed.

The CEC does not have a contingency permitting process now. During the 2022 energy crisis, the Energy Commission had several alternative processes and timelines that were put in place via Executive Order or legislative authority. One of these was a six-month licensing process. And the purpose of this particular process was to expedite clean projects that met a series of screening criteria that are shown here, complying with all legal requirements, no public health or safety concerns, no significant adverse environmental impacts, no adverse impacts on the electrical system, little or no public controversy, and site control.

Although the legislation contains sunset clauses and the process itself has expired, it may be possible that the current 12-month permitting process could be expedited in certain

conditions using the Energy Commission's existing authority, providing these same screening criteria are applied.

Pre-filing meetings with staff, tribes, Air Quality Management Districts, and the Transmission Interconnection Authority that all have long lead times in their reviews would be a critical part of this. To be able to receive a decision in less than 12 months, the Application for Certification would need to be thorough and exceptionally complete upfront. Next slide.

Another process that dates from about this time period is the Notice of Intention process. Here, the Applicants suggest building a power plant at any of at least three possible sites. The purpose of the Notice of Intention is to engage the Applicant, the Commission, Agencies, and all interested parties in an open planning process to look at technical, environmental, health and safety, economic, and social and land use acceptability of alternative sites and facilities. The detailed study on engineering and design aspects and the analysis of significant adverse impacts are not done in this process.

In practice, very few of these Notices of Intention have been filed. The Assessment of Alternatives including alternative sites is now usually covered in the Application for Certification, which presents project details for specific sites.

Both SCE and San Diego Gas & Electric are looking into the possibility of identifying sites in their service areas that could be secured, permitted, and then made available to independent generators under some form of competitive solicitation process. The Energy Commission has a current Order Instituting an Informational Proceeding on Power Plant Siting, Lessons Learned that may be a potential vehicle for an expanded scope to allow discussion on the feasibility of some form of contingency planning.

Next slide, please.

A final contingency approach involves once-through cooling compliance dates and we've talked about this a bit already. The State Water Board's adopted policy includes provisions that would allow modification or two compliance dates if the energy agencies recommend delays due to reliability concerns. Parties at the July 15th

workshop suggested that any plans for changes be made soon to allow the once-through cooled plants to continue reliability support. These plants are seen by some as an insurance policy, or an emergency reserve that could allot time for Preferred Resources to develop.

The Water Board has indicated that it would expect a plan and some substantial justification for these delays. Further work with the Water Board would be needed to establish the circumstances and define the evidence that could justify recommending such a delay and for the Water Board to accept such recommendations in its hearing process. Short delay periods may be anticipated, but some delays of more than 10 years have already been granted.

So with that, you've heard our discussion of identified needs in our proposed recommendations for mitigations and contingency options. These actions collectively comprise a preliminary reliability plan. In order to realize this plan, a variety of decisions will need to be approved and implemented in key State agency and ISO proceedings. The implementation also includes monitoring that verifies near term

actions are in place and performing as expected, or that will trigger appropriate contingency options. Although some of these options will take years to come into reality, beginning effective decision coordination now will ensure that the regulatory actions are taken in time to ensure future electricity reliability needs and GHG reductions are met cost-effectively in the Los Angeles and San Diego Areas. So we now invite your questions.

CHAIRMAN WEISENMILLER: This is Chair Weisenmiller. And I certainly again would like to thank the staff of the agencies and the utilities for their hard work on this. I think the next question is, does anyone on the dais have either questions or comments? Otherwise, I have some blue cards from the audience.

MS. RAITT: And if there are other folks who have blue cards, please hand them to me or Lynette. So we would take questions from the dais and, if none, then we'll move on to participants in the audience.

COMMISSIONER MCALLISTER: So really just one question. I guess, you know, time is obviously of the essence here and I really like

the graph with the green up and the red down, and it's sort of mapping it out over time, year to year, to see what resources are likely to go offline, what might come on line, sort of matching that up, and I think it becomes very clear that if we can get a resource over the projected on the positive side, then that really helps us on the negative side, and so I think understanding those tradeoffs is really important. And we've got to kind of do that more or less in real time, and so I guess I would ask, as far as monitoring performance, you know, in the last slide, you know, I guess it was in the context of OTC compliance dates, but I think more broadly, just figuring out what's working and quickly so we can move on and make those adjustments as we go on to the next, you know, two, three, five years, this is going to be really important, particularly on the demand side. And so, as we try to do Demand Response and we try to get aggressive energy efficiency as Edison and SDG&E work on their particular initiatives, how might we make sure that we're understanding how those are going quickly, and sort of maintain the flexibility, you know, in

this group and within this sort of operational level of redirecting them if necessary, and allowing them to be flexible?

MR. RANDOLPH: I think the answer to that is we need to answer that over the next couple months, at least on the Preferred Resources side, is to figuring out what are the acceptable measurements and milestones to know that some of these Preferred Resources actually did come on line and can be counted on to be there over a long period of time. There's some difficulties in there; for example, if energy efficiency does come on line in Southern Orange County, how are we measuring that in a cooler than normal summer versus a warmer than normal summer, and having some level of confidence that it's there. Those are issues that we're going to have to work out over the next -- very quickly, so the next few months to figure out what those milestones would be and how the other agencies and the other folks' tasks with keeping the lights on on an hour-to-hour basis are comfortable that that's real.

MR. PETTINGIL: And I think I would add -- this is Phil Pettingil again -- I would add

that what we've done here in this last really just couple of months is to try to put together a set of ideas that looks like it works, as you say, in terms of the pluses and minuses, it looks like it works for meeting reliability. The next step, you know, Ed called out the Preferred Resources and those things, but I think now we've got a list of items that look like it will work, we probably need to start at that high level and break each of those down into almost like a project management plan, if you will, so we know what are some key decision points, or key milestones on the way to those solutions, and then if those milestones of whatever start to slip or we get behind, then we can reassess and see what does that mean in regards to the plan.

COMMISSIONER MCALLISTER: That's great. And I guess, just since -- oh, sorry --

MS. BENDER: I just wanted to comment on that, sorry --

COMMISSIONER MCALLISTER: -- great, go for it.

MS. NICHOLS: This is not staff, but from another perspective here, I think that the reason why the energy principles group was created in

the first place was to develop a project management approach to implementing California's energy plans. And while we obviously don't have the tool quite right and ready to use yet, a lot of work was done on that actually a few years ago, and once we have the basic parameters agreed to, as I think was being suggested by both Ed and Phil, I think we have some pretty good resources within the agencies to develop something that could be quite transparent to all the agencies that have responsibilities here, so that each of us would see where we were with respect to the timelines to track our progress, and hold each other accountable.

MR. RANDOLPH: And to that note, it's worth noting right now that there's now I believe two different project managers, or people with project management expertise assigned to this. The ISO has taken one of their folks and assigned to the big project, a project managing that, and then at the PUC we have had somebody internal with us who has a deep expertise in project management to help facilitate the planning of our end of the Preferred Resources since there are so many moving parts there that we really feel we

need to take an overall project management approach to that.

CHAIRMAN WEISENMILLER: I also thought it would be useful to say that I think what I'm really looking for is to get the load data or sales data from the ISO for the relevant substations in Orange County year by year, and it may be that, you know, we've talked about the weather variation, but also we could get surprises in terms of the economy there, and it could be stronger or weaker than we anticipate, but anyway, the idea is to keep tracking it, keep working on the Preferred Resources, as there's got to be some sort of weather adjustment, but also there could be some wild cards on the economy, either up or down, and that I think we have to track.

COMMISSIONER FLORIO: Looking at -- I think it was Slide 5 -- or 6 -- that had the pluses and minuses and the resource mix, I noticed we have load growth at -- I assume that's LA area versus San Diego area, but does that include load growth from expected electrification of transportation? Is that a part of that? Or is that something in addition?

CHAIRMAN WEISENMILLER: This is Bob Weisenmiller again, for those on the phone. When the Energy Commission does its Demand Forecast along with energy efficiency and DG, one of the things we're also looking at is electrification, particularly the transportation sector. And we work very very closely with the Air Board on that. We also look at some of the initiatives like the South Coast is doing in terms of electrification on the ports and stuff, so again, it's a new area, so in some respects there's not certainty on that side. But again, that's another key part of it. And obviously one of the drivers for us on reliability is, as we move into the electrification and transportation system, transportation is -- goods movement is such an important part of the LA economy, we have to make sure we've got the reliability of the grid in place as we do that.

COMMISSIONER FLORIO: Yeah, that's good. Thank you.

CHAIRMAN WEISENMILLER: Okay, let's start hearing from the public. Again, blue cards, if you pass those to Heather, or someone on our staff, we will collect those and we'll sort of

get you in line for that. These are looking for comments and sort of for three minutes, certainly there will be written comments later also. Let's start with Jeremy Smith of the State Building and Construction Trades Council.

MS. RAITT: And as a reminder, please state your name and affiliation.

MR. SMITH: Thank you, members of the Disparate Boards that are on the dais. [Laughter] My name is Jeremy Smith. I'm here on behalf of the State Building and Construction Trades Council. I didn't think I was going to get to go first, but I'm happy to go first. I'm here just to sort of reiterate the tenor of the presentation, which is to support a balanced approach to replacing SONGS. Thinking into the future long term for greenhouse gas emission reduction is very important, I understand. I represent over 400,000 Unionized construction workers in the state, they breathe the air just as much as anybody does, they want it to be clean, as well. But they also build quite a bit of the power generation facilities in the state, both renewable and more traditional gas-fired power plant type facilities. And we want to make

sure that, as we think about how to make the environment cleaner moving forward, and making sure all the new state laws to make the environment a better place to be, that we don't lose sight of the fact that building facilities to take the place of SONGS will also have a very important short term goal for our economy in terms of work, for my members that I represent, and other types of construction workers who may not be in a Union.

Our members are depending on the craft to go through a three to five-year apprenticeship training program when they become journeymen or journeywomen. They continue their training throughout their career. So we are poised, my members are poised to build anything that comes out of this proceeding and in the future, but we just want to make sure there's a balanced approach to replacing SONGS moving forward so that not only can we ensure the generation is there for the grid, but that we create the maximum amount of jobs that the economy, during this still fragile recovery, deserves and demands. So for those reasons, I'm very supportive of today's presentation and look

forward to working with you in the future to move forward in finding a solution for replacing SONGS. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Sache Constantine from the Center.

MR. CONSTANTINE: Good morning to one and all. I am Sache Constantine. I'm the Director of Policy at the California Center for Sustainable Energy. And I want to say thank you to all the agencies and the staff and the utilities that have worked on this plan. We would like to come forward to commend this plan for its foresight and its comprehensive review of ways to offset this capacity that we're losing. And we do look forward to submitting more formal comments, I just want to offer a few quick observations here today. And I don't want to sound too Pollyannaish about this, I don't want to be too optimistic or over-simplify, but we might characterize this not so much as a problem looking for a solution, but as the problem that our solutions that we already have have been looking for, and we have a number of great programs here in the state that already think about comprehensive approaches to our energy

future. That's something the CCSE has been working on for decades with Commissioner McAllister's support, of course, over the many years. AB 758 implementation, SGIP, CSI, the Statewide MEAO, the Statewide Marketing, Education and Outreach Program approved by the CPUC recently, and the support that will provide to the State's brand, Energy Upgrade California. The new storage program that's just been announced by the CPUC. These are all programs already in place with years of experience and foresight that can contribute to this solution here today. So we like to look at this, as everyone has been saying, a great opportunity, something we already do, we do very well. I think Commissioner McAllister said that earlier. We do a lot of these things well already. So we shouldn't be faint of heart, we should move forward in confidence that we have the basis to create the solution.

I did want to speak to a couple of minor things, and we will support these more in written comments, but one of the charts up there pointed out that DG solar can provide Var support or reactive power control under the current set of

installations; however, there is technology out there in that case, reactive power control -- I think the German word is (indiscernible) -- inverters capable of reactive power control, and we could talk about that, there are proposals already out there that we're working through how to improve the inverters that get installed with our systems. I thought it was great that we talked about the electrification of transportation. That is actually an open door. When people are buying electric vehicles, when they are electrifying their fleet, that's also an opportunity to sell them DG, it's also an opportunity to get them more energy efficiency. This is not so much a burden that we have to now carry, but an opportunity, a door opening. So we look forward to more formal comments and thank you very much.

CHAIRMAN WEISENMILLER: Thank you. Continuing on with the San Diego theme, Rob Anderson of SDG&E.

MR. ANDERSON: Good morning. I'm Rob Anderson, Director of Resource Planning for SDG&E. Just a few points. I think that the word I heard the most this morning was we have a

challenge, sometimes it was a huge challenge, sometimes a very complex challenge, but, yes, we have a challenge. And I think there's a number of things that we'll need to really focus on in order to work through this challenge. First is going to be timely decision making, and this will be both on the planning side and on the project-by-project specific approval side. And I don't mean that we need to get all of our data and know everything perfectly before we make a single decision, I think this will be a process where we'll make multiple decisions, we will take multiple steps along the way, and so we shouldn't let our fear of not having perfect information stop us from making a decision to at least get moving as quickly as we can.

Secondly, a few things specific about San Diego. As we look to aggressively pursue the Preferred Resources in our area, there are a couple things that may make us a little different, one is our entire service area is in the load pocket, okay, so we can pursue basically these resources anywhere in our service territory and be just as effective as meeting the need as others. Edison will need to essentially focus on

certain substations, certain subareas, we can go after the entire service area.

Also, the LCR requirement or the local capacity requirement is a 12-month requirement, so this isn't a single day we're planning for, so we're going to need to make sure we do have a mix of resources that are going to get us through all 12 months of the year.

And lastly, we also need to keep an eye on what's going on in the system as a whole. As you're all aware, our resource mix as a whole is changing very differently. We're starting to see that, given the amount of renewables we have coming on line, if we subtract all the must-take renewables off of our load, we're beginning to see that the need for new generation is really being driven by nighttime loads, not by afternoon loads. So we ought to make sure as we're looking to solve a local reliability problem, we're getting the kinds of resources that can also address that nighttime load, as well as the afternoon load.

And with that, I think it's just important that we pursue both short term and long term solutions at this point in time. Many of

the transmission options we're looking at could be a solution that won't come on line for another eight, 10, 12 years, having just gone through one of those, but that doesn't mean we shouldn't start on them now. So I think many of the long term transmission solutions may be the thing that gets us from 2020 on, or 2022 on, and yet we'll need to still make sure we plan how we're going to get from today to 2020. With that, thank you.

CHAIRMAN WEISENMILLER: Thank you. Jim Caldwell, CEERT.

MR. CALDWELL: Jim Caldwell, CEERT. My observation on this, I guess, body is that I think this is the first hearing I have ever attended that is two hours into it and I don't disagree with anything anyone has said. [Laughter] I'm almost speechless, but as you can imagine, we'll fix that.

I think -- oh, one other point I wanted to say on that is that I want to appreciate particularly Phil Pettingil putting forth Slide 6, that as we were reading through San Diego's and ISO's and Edison's testimony at the PUC, it's very hard to follow because it's in Tabular form, and you're adding and subtracting numbers from

different places, and you can't figure out where it goes; and for example, I have no idea what the 6,200 megawatts that is in this plan -- how that compares to the 4,600 that's in the other plan, or anything else. I don't think they're any different, but I just don't know, and so that chart is very helpful and I think, going forward, we should use that chart in all of our discussions in all the thing or it's component to keep things straight.

Before we get into -- I think we need to take one step backwards, and that is that for over 40 years we've defined reliability the electric grid in the South Coast as the ability to withstand the loss of one unit at San Onofre plus one 230 kV element on a peak day without unplanned load drop. Obviously, that criteria must change.

Now, the CAISO transmission planners have proposed and are using a new standard which is the loss of both 500 kV lines in the San Diego on a one and 10-year peak day without any planned load drop as a contingency. Now, that standard, with that new standard, is clearly well above Federal minimum standards, it's well above WECC

minimum standards. It's clearly within the discretion of the ISO to adopt that standard, but that standard in and of itself is a billion dollar decision. That's a thousand megawatts of this need. And I would submit that we need to adopt that reliability standard in the public. We need to at least have a specific vote of the Board of Directors of the LISO after having some input from this Commission, from the PUC, from the State, before we proceed down this slide. Now, I don't object to spending a billion dollars for new reliability in the basin, but I do think that that deserves a specific vote before we move forward, then we can confidently turn to the issue of what is the appropriate mix of resources to fill that need. One of the things I think we need to talk about is that I don't think it's possible to do a procurement authorization prior to understanding the transmission issues. The ISO says it's going to take them roughly six months to come up with these transmission alternatives. I think we must wait for that and then we must figure out how to keep the timeline of authorization or procurement in 2015 given that front end delay. It simply is not possible

to do that.

One of the projects that we haven't talked about specifically here today is, for example, the Mesa Lupin project proposed by Edison. That in and of itself is roughly 1,200 megawatts of new need. It involves no new right of way, it involves no new transmission lines, although there is some reconductoring, it could be done. It needs study and it needs to be expedited and it needs to be studied now. We shouldn't wait, we should do that now.

CHAIRMAN WEISENMILLER: Okay. Thanks, Jim.

MR. CALDWELL: There are other projects along --

CHAIRMAN WEISENMILLER: We'll take your written comments?

MR. CALDWELL: Yes. Thank you.

CHAIRMAN WEISENMILLER: Okay. Dorothy Rothrock, CMTH.

MR. BERBERICH: Chairman Weisenmiller, if I might, the Mesa Lupin, Jim, that you were talking about, I expect will be part -- I know it will be part of our transmission plan. And I think you'll see it as part of the plan. The

plan should be done for January.

MS. ROTHROCK: Thank you, Chairs and members. My name is Dorothy Rothrock and I'm with the California Manufacturers and Technology Association. I really appreciate being able to say this to all of you all in one time, I think I can bill many clients for all the time I'm here. [Laughter]

COMMISSIONER MCALLISTER: You're being recorded, by the way.

MS. ROTHROCK: Oh, no, busted. But the reality is, I'm here actually learning more than anything else. It is absolutely crucial that the industry in the state become aware of the challenges that we are facing going forward to get this solved, and that we be an active participant in providing solutions. I'm hopeful that we will be part of the problem going forward and that there will be load growth in the basin that may increase emissions and it might increase some demands on the system, however, I think on net we can be more of a contributor to the solution if we're allowed to participate fully. And I know that's a challenge because industry does its own thing, has its own timelines, has

its own use of the money that they have, but I was reflecting on the comments of Commission McAllister and Commissioner Florio about the importance of being very creative and understanding what customer decision making is going to look like over the next few years, so that we're capturing the benefits of that, or at least becoming aware of when things are going to go south in ways that you may not have anticipated in your planning.

I wanted to agree with the previous speakers, so that will save me some time here about the importance of dealing with transmission first, and then going beyond that to see what our resources need to be. I wasn't sure in the presentation how the 800 to 1,000 megawatts of Preferred Resources -- what that meant in terms of what transmission may have already been done first to then change that number going forward, or if that's net of whatever transmission you're going to do, I just didn't know how that was going to play out. And also, we're also very intrigued with the Mesa Lupin proposal and glad to hear that it's going to be considered.

Finally, there's real timing challenges.

We've got short term problems to solve, but then perhaps longer term solutions that may be more beneficial in the long term. We want to make sure -- and here's a word that I haven't used in a long time -- we don't have stranded costs going forward when we finally get the more permanent robust solutions post-2020 that maybe some of the decisions we've made here early on are a problem.

Finally, since I have just 13 seconds, I wanted to just let you know that, since Bill Keese is in the audience, I got a little nervous that maybe we were going to have another energy crisis, but maybe that's not true. Thank you very much.

CHAIRMAN WEISENMILLER: Thank you. Chris Anderson, ARB, Inc.

MR. ANDERSON: Hi. I'm Chris Anderson. I work for ARB, Inc. We're a general contractor based in Orange County. We've been in California for over 60 years, we've worked on a sizeable number of California's latest power plants, both renewable and conventional.

With retirement of San Onofre and increasing reliance on renewable power sources, California still requires a substantial

investment in conventional power, along with upgrade transmission and natural gas transmission resources in Southern California to support California's recovery and future growth, both population and industry. Near generation and gas-fired plants through advances in technology and design has addressed two of the major concerns the public has voiced, both emissions and water usage.

California construction workforce has yet to fully recover in this economy, and these types of projects, depending on size, create anywhere from 50,000 to a million man hours worth of work, which equals wages and benefits between five and a hundred million dollars. The wages paid on these projects is generally substantially higher than the service and retail sectors, and various studies have shown the economic impact in areas these projects are built in is six to 12 times actual wages paid to the workers due to the commodities and services purchased by the workforce. Since we're in Sacramento, all of these multiple transactions create revenue to the state in the form of income and sales taxes. Sales tax on a major plant can be in excess of

$15 million alone.

After the completion of these plants, there are permanent jobs completed in the form of plant operators and maintenance personnel, also seasonally there will be a need for maintenance by outside contractors for the life of the plant, which will create a legacy of economic benefits for both the workers and the community.

Recently, the El Segundo Plant has come online. There is also some major solar projects that are due to be wrapped up at the end of the year, beginning next year, so there's a readily available workforce in the area to do anything that comes out of this plant.

In closing, while both conventional and renewables will get the region partially to its goals, both new transmission projects and generating capacity need to be added to guarantee the area's electrical reliability and load. Thanks.

CHAIRMAN WEISENMILLER: Thank you. Steven Kelly, IEP.

MR. KELLY: Thank you, everybody. I'm Steven Kelly, the Policy Director for the Independent Energy Producers Association. And

within my membership, for those who don't know, we represent a lot of the installed renewables, gas-fired, people interested in storage, pretty much the whole gauntlet of technologies which puts me in trouble a lot of times, and also it's opportunities.

I would like to speak on three things, one about decision making, two, the approach to solutions, and then three, kind of a specific concern I have regarding the plan proposed that I've seen so far today.

First on decision making, I want to reiterate the comment that was made earlier about the need to act timely. The plan speaks to a 50/50 split between Preferred Resources and conventional resources; I actually think the issue is more aligned between uncommitted and committed resources. A lot of the preferred resources are committed, the CHP, the renewables, and those, but a lot of them are uncommitted. And as a practical matter, many of those uncommitted Preferred Resources are kind of unproven, certainly on the scope and scale we're talking about.

The committed resources, particularly the

thermal, on the other hand, need time to develop over time, to build, to plan, to permit, and so forth. And I just want to emphasize the need for moving now on moving on those conventional, those committed resources. Conventional thermal provides capacity. If it's not needed, it's not going to run. The environmental impacts in that case are de minimus, but you have the security of knowing that you've got a resource that can be available if the uncommitted preferred resources don't emerge. And I really urge you to think of it in that way.

Secondly, I'd like to talk about the approaches to the solution, and I think the plan speaks to the need for competition in moving forward in this, and we support that wholly. Robust competition in California over the last 10 or 15 years have brought a tremendous amount of innovation and flexibility in resource procurement, resource selection, and so forth, and have helped the state achieve its least cost, best fit goals that we've been promulgating since around 2005 in the loading order. And these resources tend to be viable when they come through a competitive process, IEP, among others,

have advocated for a number of years that the resources that get selected be viable, and that's critical when you're planning for 10 years in terms of the kinds of resources you're expecting to occur. This has been a proven approach, it works, and we think it provides tremendous ratepayer value.

Now, the one thing that I did want to bring to your attention was a concern about the plan. There is a proposal in the plan for a contingency permitting of land and the idea, as I understand it, Edison or San Diego would go out and permit a large area of land and make that available to independent power producers. We have some significant concerns about this, as we understand it, 1) we're concerned about its viability, 2) we're concerned about the risk that that plan would delay the actual procurement that we want to see happen now. My members are out in Southern California looking for places to permit and build projects now. A lot of them are already permitted, they're ready to go. We would not want to wait until that contingency plan is put in place, if it actually ever gets there. So we have those concerns.

And then, third and finally, we're not sure if this is a solution begging for a problem, or whatever, we don't know yet that there's a problem in terms of being able to find places for the appropriate resources. We'd like to see a competitive procurement process implemented first before we engage in that contingency planning process. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Sierra Club.

MR. PINGLE: Good morning, all. My name is Ray Pingle from Sierra Club California. First of all, we'd really like to compliment the staff and all your agencies for this very well done collaborative effort. I think the structure of the approach makes a lot of sense, it's very logical. I also appreciate the sense of urgency expressed by many of you on wanting to move as quickly as possible, accelerate the progress, particularly on energy efficiency, Demand Response, and so on.

We've always supported transmission solutions that follow the Garamendi principles where they use existing right of ways, those kind of things, those all make a lot of sense. And we

think it makes sense to have contingency backups because we do have to keep the lights on.

I would say the most important question we would ask is, why couldn't we make up any net generation required 100 percent with Preferred Resources, with renewables? From 2008 until 2012, so in just four years, the state increased its RPS by eight percent. In the first quarterly report of the PUC to the Legislature, they forecasted that the state will add 3,500 megawatts of renewable energy just in this one year alone. Of course, that's statewide. So what we would propose is that the agencies working with the utilities really make a full bore effort to see why can't we? What would it take to do this? What are the obstacles? What are the programs that we could accelerate? I mean, we could do residential PACE, we could expand the Commercial PACE program, we could look at tweaking the CSI, we could accelerate Smart Inverters with an adequate power factor. We could provide financial incentives to target some of these things within this basin that's affected. So that's really the most important thing -- as Mary Nichols said, you know, let's

try and squeeze as much carbon out of this. We don't want to go backwards. You know, we lost SONGS, and as you know the Sierra Club is not shedding too many tears over that, but we don't want to replace low carbon emissions with new carbon emissions, let's take advantage of this opportunity. Thank you very much.

CHAIRMAN WEISENMILLER: Thank you. John Chillemi, NRG.

MR. CHILLEMI: Good morning. My name is John Chillemi and I'm the President of the West Region for NRG Energy, and I'm here on behalf of NRG and more specifically the Carlsbad Energy Center Project, a proposed new power plant to be located adjacent to the existing Encina Power Station.

I first wanted to state that we are fully supportive of the Draft Preliminary Reliability Plan from the CEC, CPUC, and CAISO regarding the need for new additional conventional generation resources to ensure grid reliability. And while we agree that energy efficiency, Demand Response, and renewable resources are a very important part of the energy mix going forward, there still remains the need for sufficient conventional

resources to provide a balance which the draft report recognizes.

Since taking ownership of the Encina Power Station, NRG has traveled a long and complicated path toward a redevelopment. After filing in 2007, the Carlsbad project received its license from the CEC in May of 2012, and the last of the appeals were dismissed October of 2012, rendering the decision final.

As currently configured, the Carlsbad project is a 550 megawatt combined cycle plant that is capable of being on line in 2017, which coincides with the OTC compliance date of the existing Encina Power Station. The Carlsbad project provides both the benefits of fast start capability and combined cycle efficiency. In fact, it would rely on the exact same generating facilities that just reached commercial operations at our El Segundo facility, which is bringing the same reliability benefits to the LA Basin that the Draft Report identifies are needed in San Diego.

The Carlsbad project will enable the retirement of the Encina Station, which is a preferred outcome. And while we are proud of

Encina's ability to answer the call when needed, a 50-year-old plant is not the best solution for California's reliability plan going forward, and it should not be assumed to be on line indefinitely.

A new plant like Carlsbad not only offers better reliability, but also a more efficient, lower profile plant, with reduced emissions. NRG's plan to build the Carlsbad project accomplishes three critical objectives: first, it is more efficient and less polluting, second, it allows for the elimination of once-through cooling generation on schedule, and finally, it offers more reliable generation that is designed to integrate renewables.

Lastly, I would be remiss not to address another issue that has been directed toward the Carlsbad project in the past, namely the cost. NRG has competed in several recent utility RFOs and has been awarded contracts in these competitive solicitations where cost is the driving factor. In fact, our Marsh Landing in El Segundo Plants that both came on line earlier this year are perfect examples of low cost facilities. We are quite confident in our

ability to put forth a project in any future solicitation that is price competitive.

So in summary, the Carlsbad project is well positioned to address the operational challenges posed by the loss of SONGS, and the integration of renewables. Carlsbad also allows for the timely retirement of once-through cool generation, all without the need for extensive and expensive new gas and transmission infrastructure. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Mark Nelson, Edison. And, again, I certainly want to thank Edison and SDG&E for their hard work on the technical task force.

MR. NELSON: Thank you very much and welcome to the members here today. I guess I'm going to try to stop the alphabet soup for a second, as well. Edison and San Diego and CAISO have filed in the Long Term Procurement Plan our view of needs and potential solutions for those needs. And in the case of Edison, we've identified about 2,800 to 3,300 megawatts of need in our service territory as a result of load growth uncertainty, and the retirement of once-through cooled plants. So not to throw out yet

another set of megawatt numbers, but there are a number of them.

It's really composed of three large blocks of solution. One is the Mesa Lupin that several people have spoken to. That allows us to move power around inside the basin more effectively. It will probably defer the need for generation, or move it outside of the basin, so that's really the big advantage to that type of a project, and that project will be, or perhaps even has been submitted in the CAISO's transmission planning process that's going on now, so that would be a part of that process.

We've also looked at additional preferred resources recognizing that those preferred resources will need the sorts of operating characteristics that it takes to be counted for local capacity, so that really means we'll probably be looking at a different mix of resources than we have now. Clearly, we'll be working with the CAISO in this case because, again, they need to make sure that they've got things, especially in Demand Response, that will meet the needs for planning purposes.

And then really the third component of

this, and Sylvia talked about it quite a bit, is the contingent generation, or contingent siting. The intent of the contingent siting is to have a relatively quick way to get new steel in the ground so that we can let preferred resources and the rest of the plan play out as long as it can before we need to pull the trigger. So if things are either permitted, or -- again, as Sylvia described -- really quick to be permitted, so in that last sort of six month portion, we can have things that are available to put in to Request For Offers, RFOs, that would be able for third parties to come in and bid on. At the same time, as part of our larger RFO process, we'll also be taking bids, as well, or looking at plans. So, again, there's really a way for all different forms of solutions to come in here.

So what I'd like to say is I think that this report has a number of building blocks in it that we will take into the Long Term Procurement Plan into Track IV, we'll work with them there in the PUC process, we'll work with it as part of the CAISO's transmission planning process, and use that in order to get the public involved, get the rest of the constituent groups involved, and

look for solutions. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Is there anyone else in the room -- well, blue cards, please. Blue cards. Again, anyone else in the room, please fill out a blue card and we'll be happy to hear from you.

MS. MITCHELL: Good morning. I'm Cynthia Mitchell. I'm Principal of Energy Economics, Inc. Many of you associate my name with TURN, The Utility Reform Network, I've been their consultant on energy efficiency since 2000-2001, and continue on in that capacity. I'm here today, though, not in that capacity, in my own role. Kevin Woodruff is TURN's LTPP consultant.

So I do have a few brief comments and I wanted to note that the closing of the SONGS, once-through cooling, and even your greenhouse gas reduction targets are opportunities for more robust utility approach where energy efficiency is a utility resource, and this is no small matter given the 35-year regulatory approach to efficiency as a consumer resource, and a utility expensed cost. Now, utilities invest capital in generation and transmission distribution efficiencies all the time. Utility capital

investment in efficiency stops at the customer meter in that we leave it to the customer to do the heavy lifting with efficiency, supplemented by utility energy efficiency programs. What this means is that utilities have little, if any, financial skin in the game, other than some sort of energy efficiency shareholder incentives. And while the utilities are certainly receptive to this additional income, it has not created a structural change in the way the utilities make money, and rightfully cautious of being too successful with efficiency as to cause significant earnings erosion, California utility efficiency is more of a regulatory compliance function with the utilities an implementing partner with the CPUC on State policies. And while California has accomplished a tremendous amount with government mandated efficiency policies, the time is right for a new business approach to efficiency in California.

In July of 2011, Commissioner Florio, when he was new to the Commission, suggested that we shift our energy efficiency paradigm to more closely parallel that used for generation procurement, and we've talked some about energy

efficiency Purchase Power Agreements as a possible regulatory construct to increase energy savings. All said, though, EE PPAs modeled after capacity and energy PPAs still leave utilities with only an expensed product and there's no earnings contribution and possible earnings erosion. Now, a variation of that worth considering would be one where utilities provide the invested capital and enter into a long term, say a 20-year contract, with the building owner to harvest efficiency on the customer side of the meter, and then, with the generally easier and cheaper access to capital, and a business model favoring long term capitalization, energy efficiency could then be a business asset that cycles efficiency savings into utility cash flows. And at the recent hearing, the July 15th hearing in LA on the SONGS closure, Commissioner Florio captured the moment with his opening statement. The closing of SONGS plus OTC retirements provide us with the challenge and an opportunity. The challenge is to replace thousands of megawatts in the LA Basin, and the opportunity is to reshape the electric generation in California and the world.

And I want to leave you with the rate compact for utilities attracted market capital to electrify the world, and it worked. And we could use that same approach to now green the planet. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Sierra.

MR. MARTINEZ: My name is Sierra Martinez and I'm the Legal Director for California Energy Projects at NRDC. Thank you, staff, for working on this draft reliability plan. I think it's very well thought out and a comprehensive overview of the challenges ahead of us. And thank you for coordinating among your various agencies.

First off, we fully support the endorsement in this plan of the existing procurement processes that are ongoing. We recommend that those come to their full fruition and their full information. I would caution against a rush to judgment on authorizations of conventional resources. These are long term investments that are going to last us long through our 2050 timeline to meeting our greenhouse gas goals.

On the other hand, Preferred Resources actually help us reach those greenhouse gas goals. Cost-effective Preferred Resources save customers money and alleviate the need for supply-side resources, therefore, we should proceed in an accelerated and aggressive manner to procure these resources.

In thinking about ramping up to meet these preferred resources, I want to highlight the unprecedented change that we are faced with today. Commissioner Florio noted it before that this is a fundamental change to the electric system. On the other hand, it's also a credible opportunity to empower local governments and communities with a new way forward, and we encourage efforts at the highest level of State Government to reach out to these local communities and inform them and educate them that there is an opportunity to invest in clean technologies in their homes and neighborhoods, instead of power plants in their neighborhoods. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Let's go to the phone.

MS. RAITT: Actually, we have four

comments on the WebEx.

CHAIRMAN WEISENMILLER: Okay, good.

MS. RAITT: So the first one I'll read out loud is from Tam Hunt for Ed Randolph. He wrote: "Can't solar with advance or smart meters meet voltage support needs? There's a Rule 21 working group looking at just this issue right now and early results are very promising."

MR. RANDOLPH: The answer to that, and I alluded at it, almost definitely yes. It's a timing issue, though. And it's a standards issue, it's a national standards issue, it's a safety issue for folks working on the utility lines. Within Rule 21, this is an issue. I think more importantly there is a workshop process between the Energy Commission and the PUC looking at new standards going forward for the Smart Inverters, for solar, that would enable them to potentially provide Var support and other ancillary services to the grid. And right now it becomes a timing issue. The last thing we want to do is approve standards that create a safety problem down the road. So we're working with IEEE and with UL to make sure that the standards are what's safe, and then from there we can move

forward.

MS. RAITT: Thank you. The next person on WebEx is Fran Inman. Did you have a question or comment? Go ahead, is this Fran?

MS. INMAN: Can you hear me?

MS. RAITT: Yes, I can.

MS. INMAN: Okay, so the question -- I have been listening today, and thank you very much. I think from the business perspective, reliability is just a key issue for all of us, and we've heard that brought up over and over this morning. As you may know, we're major landlords in Southern California, for that matter, across the United States. So we're a 65-year-old company, so we do have skin in the game in getting it right in our region. Like Dorothy Rothrock, I too have been learning today and hope that business can be part of the solution, but I really think that we need to be cautious with our off ramps and our triggers and our backstops because of the reliability and make sure that all of our analysis is comprehensive. I was glad to hear Chairman Weisenmiller ask the question -- answer the question, I should say -- about the goods movement and really understanding the 24/7

nature of that impact on our California economy, and especially the Southern California economy. So we will provide written comments, but thank you for allowing me to comment today.

CHAIRMAN WEISENMILLER: Thank you.

MS. RAITT: Thank you. Our next person on WebEx is David Zizmor. David, did you have a question or a comment?

MR. ZIZMOR: First off, I wanted to echo Jim Caldwell's concerns about the one in 10 peak load standard being significantly higher than previous standards, I think it really does deserve a much closer look than it's been given. But really, I just wanted to ask a question specifically to the ISO. You mentioned the idea of a multi-year auction for Demand Response and energy efficiency. As far as I'm aware, that's a new proposal, I certainly haven't seen it in any of the previous testimony. I was wondering if there is a timeline for the development of that auction and whether there are any target numbers for the amount of megawatts this option intends, or hopes to procure.

MR. PETTINGIL: Well, thank you for the question. What I said in my comments was we feel

like we could develop the auction and potentially be able to run it next year in 2014. In terms of the procurement targets, that would be a question that's still outstanding. And at this point, we were thinking, and my comment was, that it might be based on procurement authorizations that the PUC has already provided to Edison and San Diego.

COMMISSIONER MCALLISTER: So this is Andrew McAllister. So, Phil, would you be talking about sort of a number of megawatts or a percentage of procurement, or authorized procurement, or something along those lines? What might that metric look like?

MR. PETTINGILL: I think, honestly, it's a number of megawatts, it's where we would have to think about doing this, but there's always tradeoffs in terms of what if prices came in at very competitive levels, you know, would it make sense to buy a little extra megawatts because they were competitive? So one of the key issues in trying to design that market is how to clear it, at what price and what quantity? But certainly we would be, I think, starting with a quantity that is consistent with procurement authorization.

COMMISSIONER MCALLISTER: Thanks.

MS. RAITT: Thank you. Our next person is -- I'm going to mispronounce this, excuse me, Puchkar Wagle. And could you give your name and affiliation, please? I'm sorry, Frank Lopez is next.

MR. LOPEZ: Hi. Frank Lopez from the L.A. Chamber of Commerce. Thank you for the opportunity to ask this question. I appreciate the multi-agency collaboration effort undertaken to ensure energy reliability in Southern California, but we'd like to know what policies or procedures this multi-agency collaboration will put in place to ensure energy affordability in our region, which is also a top concern for the business community here in Southern California.

MR. RANDOLPH: That's kind of an open-ended question. I mean, I'll take it more as your point that that should be a prime goal in all of this, is to make sure that rates continue to see low and, more importantly, bills are continuing to see low. And that is in the goals of the PUC as we continue to look at these things, you now, to hit the benefit of what's

cost-effective and what's the right balance, and I'll say within the Preferred Resources, most of those programs under our rules and guidelines which would continue is the programs we develop have to meet a cost-effectiveness test.

MS. RAITT: All right, the next is Puchkar Wagle. Your name and affiliation, please.

MR. WAGLE: Yeah, I just have two brief comments to make. One is, I found the presentation to be very informative and I will second the observation made by CEERT regarding slide 6 on the expected resource needs and potential solutions. However, you know, it's quite confusing with the ISO's opening testimony, and Edison, and SDG&E's testimony on Track IV, and now with this Preliminary Reliability Plan to see how all the numbers match up. So I believe it will be pretty useful for stakeholders to provide some sort of table that compares the Preferred Resources, that's energy efficiency, Storage, DR, CHP, and so on, in both of this, LA or the SDG&E, and ISO studies, as well as the CPUC and CEC's Preliminary Reliability Plan. So that's one comment, it would be easier to see how

numbers match up, but if there are certain studies that need to be refreshed, then what are the changes, incremental changes?

And the second comment that I had was on slide 16, the ISO stated that they would first take a look at the need for appropriate level of transmission, and then it will be determined what level, additional level of generation resources, or types of resources that would be needed. Now, shouldn't there be sort of an interpretive approach that performs a sort of economic assessment of combined costs of procuring that generation and transmission resources. So I would like to ask the policy makers to be mindful in sort of the most economic way of meeting these needs, while meeting the policy goals. I think that's the key, that when you -- you should need to take an integrated approach for meeting both generation and transmission needs.

CHAIRMAN WEISENMILLER: Thank you. We do need on the record your affiliation?

MR. WAGLE: The Flynn Resource Consultants.

MS. RAITT: Thank you. We have one more from Ted Owen. Please give us your name and

affiliation, and whether you have a question or a comment, please. Are you there?

MR. OWEN: Can you hear me?

MS. RAITT: Now we can.

MR. OWEN: My name is Ted Owen. I'm the President --

CHAIRMAN WEISENMILLER: If you're on a speakerphone, could you go off the speakerphone? We have a lot of interference.

MR. OWEN: Yes. How about that? Is that better? Is it okay?

MS. RAITT: Yeah, but there's still a lot of interference.

CHAIRMAN WEISENMILLER: Just go ahead, but certainly if you can, you know, just speak on a direct line, no speaker phone?

MR. OWEN: I'm on a phone line, yeah. Okay?

COMMISSIONER MCALLISTER: Yes, please go ahead. Thanks.

MR. OWEN: Okay, my name is Ted Owen and I'm the President and CEO of the Carlsbad Chamber of Commerce. We're about the 10th largest Chamber of Commerce in California. And I have a comment and then a question. This chamber has

worked for 90 years to promote favorable business climates for our 1,600 businesses and 75,000 employees in and around Carlsbad. A reliable supply of electricity is a basic need of every business in our area. We were reminded of the dependence of electricity during the black-out of September 8, 2011, and it had a profound impact on the local economy. One local biotech company lost business as a result of that. We had closely followed the CEC process for the Carlsbad Energy Center and supported its licensing, not only as an option for enhancing reliability, but also because it would provide an economic boost to the local economy, including six to seven million dollars in local tax revenue, it would create 500 construction jobs totaling over $50 million in wages, and local spending on housing, food and other services needed to support the construction project. We've been living precariously for 18 months and our members are now concerned about the potential for blackouts given the permanent closure of the San Onofre Nuclear Generating Station. While transmission projects are helpful, they are vulnerable to wildfires like the one we experienced in October

2007. We also know that the most renewable energy is dependent upon the sun shining and the wind blowing. Natural gas fueled generation is therefore essential. We would encourage you to consider natural gas-fired projects like the Carlsbad Energy Center to ensure that Carlsbad and neighboring communities will have a reliable source of electricity. And I want to thank you for allowing me to present my thoughts today and I'm appreciative of the fact that we're having these meetings and discussing the many options.

CHAIRMAN WEISENMILLER: Thank you.

MS. RAITT: We have two more questions from WebEx. The next is Stan Williams. Please give your name and affiliation, please.

MR. WILLIAMS: Yes, good morning. This is Stan Williams with Poseidon Water, also calling from Carlsbad. As you may already know, Poseidon Water is constructing the largest desalination plant in the Western Hemisphere, in partnership with the San Diego County Water Authority. And this plant, which is located adjacent to the Encina Power Station in Carlsbad will provide up to 50 million gallons a day of drinking quality water. The project will also

provide a local drought resistant supply of water to meet the water supply reliability needs of San Diego County, that's three million residents, and $86 billion annual economy.

And when this plant goes on line in 2016, it will be a critical component of the regional water supply portfolio of the water authority, which currently imports over 80 percent of its water from the Colorado River or Northern California. Given the loss of San Onofre Nuclear Generating Station, we were also concerned about the reliability of the region's power supply.

The Carlsbad Desalination Plant is a significant consumer of electricity, requiring over 30 megawatts of power 24 hours a day to produce a continuous supply of drinking water. You know, as in the case with water reliability, we believe the solution to a reliable grid is a robust mix of power supplies that includes investments in local generation capabilities. We have committed the Carlsbad Desalination Plant to be carbon neutral for the investment in demand reduction measures, onsite solar, use of recycled carbon dioxide in the water treatment process,

and acquisition of carbon offset to State approved projects. Water and power are among the most vital of our daily resources and we urge you to consider local generation to help ensure the reliability of both. And thanks for the opportunity to comment.

CHAIRMAN WEISENMILLER: Thank you.

MS. RAITT: Thanks. The next person on WebEx is Barbara Barkovich. Could you give your --

CHAIRMAN WEISENMILLER: Barkovich.

MS. RAITT: Thank you. Could you give your affiliation, please?

MS. BARKOVICH: Thank you, Chairman Weisenmiller. Barbara Barkovich from the California Large Energy Consumers Association. I just have a question with respect to the ISO proposal to run a multi-year forward auction to procure energy efficiency and Demand Response. I believe that Mr. Pettingil said that it would be potentially procuring resources that the PUC determined the utilities should procure and I'm trying to understand what the role of the ISO is if these are part of utility procurement plans.

MR. PETTINGIL: Phil Pettingil.

Barbara, thanks for the question. What we're just suggesting is that this is another market, another procurement opportunity. The ISO, I think, as you are aware, is uniquely skilled at designing markets, running markets, and so what we're suggesting is this is a way to create a new marketplace to help with the procurement of preferred resources, and also was trying to point out that, you know, it would run as an augmentation just in parallel with the procurement authorizations that are coming through the PUC.

MS. BARKOVICH: So if it's running in parallel, to follow-up, does that mean that it would be in addition to the utility procurement?

MR. BERBERICH: Let me -- Barbara, this is --

MS. BARKOVICH: I'm just asking for clarification, though.

MR. BERBERICH: Sure. This is Steve Berberich. What we'd envision happening, we've already identified that there is need, the Public Utilities Commission would identify -- let's use an example of 500 megawatts of demand resources or energy efficiency that they wanted to acquire.

We could then run a clearing market that would pick it up in a competitive transparent way, so everybody could see the pricing, and you'd get it at the lowest cost possible. So it would be an interplay between the PUC and the ISO. I also want to point out, there are clearly -- this is an idea at this point -- we haven't gotten the details of this at all ironed out, but we think it is a way to get these quicker because we already have the market infrastructures in place, we could probably stand it up pretty quickly if we were just doing an auction, particularly if we were doing a one-time auction to procure these resources. So that's the idea that we're thinking about and, Barbara, that's how it would work.

MS. BARKOVICH: I see. And that will be the subject of the stakeholder process the morning of September 18th?

MR. BERBERICH: No. I believe -- is that correct, Phil? I believe that's probably the reliability -- I forget what we call that thing.

MS. BARKOVICH: Oh, I see, so this is separate from that?

MR. BERBERICH: Yes, I believe that's right.

MR. PETTINGIL: Yeah, Barbara. We haven't started the stakeholder process that would design this yet.

MS. BARKOVICH: Okay, thank you very much.

MR. PETTINGIL: Thank you.

MS. RAITT: The next person is Barbara George.

MS. GEORGE: Hi. Can you hear me?

MS. RAITT: Yes, thank you.

MS. GEORGE: Thanks. This is Barbara George. I'm with Women's Energy Matters. And WEM is a party in the Long Term Procurement Plan at the CPUC, as well as the SONGS investigation. And I wanted to thank you for beginning a public process for replacing SONGS. I look forward to hearing more about that.

Two and a half years ago in the procurement proceeding, two months after Fukushima, WEN recommended an expedited public process for procuring 100 percent Preferred Resources to replace both San Onofre and Diablo Canyon, just in case they shut down unexpectedly.

When San Onofre did shutdown, and I'm sorry to say that the planning process of San Onofre took place almost entirely in the back room, and for the last one and a half years since the outage, we've had about 98 percent dirty energy for replacing SONGS plus some transmission. The current plan is only 50 percent preferred resources. I think we really need to do better than that because the claims the nuclear folks who is the bearer of 100 percent GHG free, which isn't true, if you count the rest of the fuel cycle; but anyway, that's what they claim. The Long Term Procurement Proceeding finally starting taking up this issue last week, but we did file comments in a number of proceedings and we went to your public meetings and asked for a public process to identify 100 percent GHG-free resources. There was public comment today about ways to provide grid support with the Preferred Resources, and there are many more, targeted energy efficiency and Demand Response, for example, is in a less or even eliminated transmission constraint, but they can't do it in your context of embedding energy efficiency, Demand Response, and rooftop solar, in the Demand

Forecast. It makes it almost impossible to target those resources in any particular place. But the most significant problem is that they need a chance to bid. The SEC testified in hearings just last month that they held no solicitations in 2012 for replacement resources for SONGS, so there was no opportunity for anyone to bid, even though they probably wouldn't have allowed Preferred Resources to bid in their solicitations anyway. Unfortunately, the use of Huntington Beach Units owned by SCE's affiliate, Edison Energy, is frankly illegal. The failure to follow the loading order for the replacement resource also violates laws and decisions, including the decision that was made and finalized in February 2012, which specifically orders utilities to look for additional energy efficiency. So I want to see that at the top of the loading order, at the top of your agenda as we go forward, and I look forward to Preferred Resources having a fair chance to demonstrate what they can do. A twenty-eight percent price hike resulted from the process in the backroom office that happened last --

COMMISSIONER MCALLISTER: Barbara, if

you could submit some written comments, that would be great. And appreciate your comments.

MS. GEORGE: Thanks.

COMMISSIONER MCALLISTER: Thanks.

MS. RAITT: That concludes the folks on WebEx. So next we'll move on to people on the p phone lines and ask you each to -- if you're on the phone lines, to mute your line, unless you wanted to speak. So please mute your lines and then we'll go ahead and open them up and see if anyone has comments or questions.

CHAIRMAN WEISENMILLER: I'm afraid you have to mute your lines, otherwise the chaos is not going to work.

MS. RAITT: I'm sorry, we have a lot of people on the phone line. We're having trouble hearing you.

COMMISSIONER MCALLISTER: Everyone who is on the phone, if you could mute your phone line and I'm -- we're trying to figure out how they can let us know that they want to speak so we can unmute them appropriately.

CHAIRMAN WEISENMILLER: Remind people, when are written comments due?

MS. RAITT: September 23rd.

CHAIRMAN WEISENMILLER: So submit written comments, then for this docket, the Energy Commission docket, and do we have any chance of sorting out the phone lines, otherwise I think we'll have to move on.

MS. RAITT: So if there are folks that wanted to make comments, there's a slide up on the WebEx right now providing the information about how to do it. It's also on the Public Notice that's posted on the website. We do request comments by September 23rd.

COMMISSIONER MCALLISTER: I think we need the IEPR staff to let us know if there's a solution here for the phone lines.

MS. RAITT: There might be one speaker, if you could just be patient for another moment. Thank you for your patience, I don't think we have anyone who is going to speak from the phone lines.

CHAIRMAN WEISENMILLER: Thank you. I wanted to thank everyone for their participation and see if anyone on the dais has closing comments.

MS. MARCUS: I just want to thank you for the education and more acronyms than we use

in water, but also mention something I forgot this morning, that another part of what we've been doing is a statewide advisory committee on cooling water intake systems, which we do call STACCWES, which could end up in the panoply of ones I've heard today, so I want to encourage people to keep engaging with that. And again, thank you for including us early and often in all these dialogues as we move forward. There are definitely challenges, but there are huge opportunities ahead.

CHAIRMAN WEISENMILLER: Yeah. So, Steve, I had asked if anyone on the dais had sort of closing comments.

MR. BERBERICH: A couple, thank you, Chairman. I think we all need to make sure we have this plan in proper perspective because, while there are great ideas in this plan, for instance, the auction versus transmission lines, they're all going to have to be vetted in due course, as well as the procurement of renewable resources, energy efficiency, Demand Response, and conventional generation. Those will have to be done in due course, that will take place at the California Public Utilities Commission. I

would encourage everybody to be included in that process as we go through this. I can say, though, that we do need to move pretty quickly on this. The risks in Southern California are fairly high. Right now, particularly as you get fires, that area is particularly susceptible to fires, and with much of the load being served with long transmission lines, that becomes a bigger issue. So we'll move quickly, the collaboration that we've had on this committee, for lack of a better term, has been amazing. The groups work together very closely, and we certainly appreciate the disparate groups that have been involved in this. Thank you, Mr. Chairman.

MS. NICHOLS: Perhaps I'll just reiterate what Barry said at the outset, which is that there is a commitment on the part of the environmental agencies to work with the energy agencies going forward, to implement these ideas. We take this situation seriously and we think the plan has given us a good basis to move forward and to find ways that we can innovate also. Thank you.

MR. PEEVEY: I just want to make clear

what I said at the start again. And there's two pieces here. In the first place, this is a staff plan, and so we have been very clear about this, this is not a Commissioner plan, it's -- many aspects may be very attractive to Commissioners, but it's a staff plan. Secondly, one has to distinguish between a staff plan that we've heard articulated here, and a wish list. And the wish list includes an auction, and the wish list includes some of the things that were said regarding transmission. That is the ISO's hope, that is maybe endorsed by all the staff, but it's not quite the same as the more detailed planning that's gone into San Onofre in the short intermediate term. The other is a longer term thing. And the two have been comingled to some extent here today, and for those in the audience and listening in, they may be a little confused about that regard, so I just wanted to clarify that point.

MR. WALLERSTEIN: I also just wanted to again thank the Energy agencies for the early inclusion of the South Coast District, and I'd like to say in my personal viewpoint how remarkable it is where we are today when you just

started on this kind of crisis of the moment potentially a few months ago, and how very different it is than the last power crisis that we had in Southern California in 2001. And I think it speaks loads about where the energy agencies are today and where the Administration is today, and I think it lays a very solid foundation for California's future.

COMMISSIONER FLORIO: I just wanted to note that we will be taking up many of these same issues in Track IV of the Long Term Procurement Plan Proceeding that's already underway at the PUC and I expect to see many of you in that context. So the conversation continues.

COMMISSIONER MCALLISTER: I think the 80, between here and San Francisco is going to be a lot of traffic on it that we're going to generate here in the next few months. I wanted to just again thank everyone for coming, for Steve for reminding us that we have to actually obey the laws of physics, as well, that's always a nice reminder. And I'm extremely hopeful, I really think there's a lot of interesting things going on in all these different areas, energy efficiency in particular, Demand Response, I

really enjoyed the discussion today and it was an outside the box, a little bit, discussion which I think is kind of exactly what we need to do. At the same time, it's really nice to see that all of these disparate constraints are in fact adding up to putting some boundaries around the paths that we need to travel down, so I think we're getting clearer at each step here of what more or less and what general direction the path is taking us as a whole. And I think we have a lot of excellent staff at the various agencies on this, helping us think about this, and as we move through to define the right opportunities and flush them out, and bring them to our respective Commissions and bodies, we're going to be making decisions on the right things. And I think that's really -- just that intentionality, I think, is very good and heartening and very positive to see developing. So I'm happy that we can host this iteration of the discussion. I think this discussion actually is very helpful for the IEPR itself, as well as the various proceedings here with the PUC and our continuing work with the ISO, and the ARB, and the Water Board, and South Coast. So thanks again,

everyone, for coming and I'll pass the final word to Chair Weisenmiller.

CHAIRMAN WEISENMILLER: Yeah. I again want to thank everyone. I think certainly one of the hallmarks of the Peevey presidency, Nichols' Chair, and my time here as Chair, has been that we have a very collaborative approach to these issues, that having said that, it's a very big challenge we're looking at. I always remember when Steve and I did the legislative briefing and the reserve margin for this summer under worst case conditions was one in 10, which certainly as long as I've been doing this, which is many decades, that is the classic way one does planning in the utility system was under four percent. Now, obviously this is a combination of weather, outages and imports, but there's no time for complacency on this, and certainly the message I've gotten from the Governor is we will not replay the movie of the early 2000's in terms of the energy system. We will -- that's why we're really driving on for reliability here, and again, we're talking -- if you look at this in terms of projects that we need to put in place, Preferred, Conventional, Transmission, we're

talking billions of dollars, really, of investments that we need to make. And those investments really transform our grid power system in Southern California in lots of great ways, but we really will continue to need to work together very closely to make sure that those pieces go in place in a timely fashion. But the bottom line, it's no time for complacency, certainly when you look at climate change that we're dealing with, when you look at what's going on to our planet now, in many respects, our weather is on steroids. So I'm not that comfortable that one in 10 in classic mode is the weather patterns we're going to be seeing going forward. So again, the bottom line is that this is a phenomenal opportunity, it's a phenomenal challenge, and you're going to see a lot more of all of us up on the dais working together to just confront the challenge. So again, thanks very much for being here and looking forward to your written comments.

COMMISSIONER MCALLISTER: I think we're adjourned. Thanks. [Applause]

(Thereupon, the Workshop was adjourned at 11:37 a.m.)