ENERGY COMISSION

STATE OF CALIFORNIA

BUSINESS MEETING

CEC HEADQUARTERS

1516 9TH STREET

HEARING ROOM A

SACRAMENTO, CA

FRIDAY, JANUARY 15, 2014

10:00 A.M.

REPORTER: TIFFANY C. KRAFT, CSR

LIC. #12277

APPEARANCES

COMMISSION MEMBERS:

Robert D. Weisenmiller, Chair
Karen Douglas
David Hochschild
Andrew McAllister
Janea Scott

CEC STAFF:

Robert Oglesby, Executive Director
Jared Babula, Staff Counsel
Shahid Chaudhry
Thanh Lopez
Cheng Moua
Marla Mueller
John Nuffer
Heather Raitt
Raoul Renaud
Linda Spiegel
Peter Strait

APPEARANCES CONTINUED

ALSO PRESENT

Jim Baak, Vote Solar

Gwen Barley, Wilderness Committee

Sean Barr, San Diego Regional EDC

Rochelle Becker

Barbara Boyle, Sierra Club

Marissa Blunschi, Southern California Edison

Scott Busa, Nextera Energy

Sara Clark, Colorado River Indian Tribes

Ben Davis, California Nuclear Initiative

Jaime Fine, Environmental Defense Fund

Scott Galati, Nextera Energy

Steven Kelly, Independent Energy Producers Association

Michael Lozeau – LIUNA (telephonic)

Sierra Martinez, Legal Director, California Energy Project, NRDC

Peter MacLauggan, Poseidon Water, LLC

Keith Nakatani, California Hydropower Reform Coalition

George Nesbitt, HERS Rater

Toni Padron, Carlsbad Chamber of Commerce

Eric Pendergraft, AES Southland

Tamara Rasberry, the Sempra Energy Utility Companies, SoCal Gas, and San Diego Gas and Electric

APPEARANCES CONTINUED

ALSO PRESENT

Jeremy Smith, Building Resources and Trades

Brian Theaker, Director of Regulatory Affairs, NRG Energy West

David Weisman, Alliance for Nuclear Responsibilities

Valerie Winn, PG&E

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SACRAMENTO, CALIFORNIA

FRIDAY, JANUARY 15, 2014

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CHAIR WEISENMILLER: Good morning. Let's start the meeting with the Pledge of Allegiance.

(Thereupon the Pledge of Allegiance was Recited in unison.)

CHAIR WEISENMILLER: Welcome. From time to time, I may need to take a call. The Office of Emergency Services is running a drill today, and I may exercise in the drill involving an earthquake at Diablo Canyon. So if I get notifications, I have to listen to those. Excuse me. Somehow they always pick business meetings as the date for these drills.

With that, basically let's move onto Item 2. Blythe Solar Power Project Amendment, 09-AFC-06C. Raoul, please.

MR. RENAUD: Commissioners, just to give you a quick run-down of where we are and how we got here.

The original Blythe Solar Power Project was licensed in September 2010 during the ERA project area. It was to be a 1,000 megawatt solar thermal trough project on roughly 7,000 acres. At that time, the Commission approved the project, but made override findings with

respect to the areas of cultural resources, land use, and visual resources impacts, all three of which were cumulative -- deemed to be cumulative impacts. And then in the area of traffic and transportation, the Commission made an override finding with respect to the Airport County Land Use Compatibility Plan due to potential conflict with the aircraft from glint and glare from the mirrors of the solar troughs.

The petition to amend, which you're considering today, was filed by Nextera Blythe Solar Energy Center, LLC, on April 12th, 2013. And under that petition, the project would be converted to photovoltaic technology and reduced in size to roughly 4,000 acres and 485 megawatts.

Now, photovoltaic, of course, as you know, is not normally within the jurisdiction of the Energy Commission.

Would you like me to pause while you deal with the phone call? Shall I pause?

CHAIR WEISENMILLER: No.

MR. RENAUD: Photovoltaic is not normally within the jurisdiction of the Energy Commission, but a legislative exception was enacted, which is Section 25500.1 of the Warren-Alquist Act, which allowed under some circumstances for the Commission to have jurisdiction if it was a conversion of an already licensed solar thermal project to photovoltaic technology. And the

Blythe solar amendment does fall within that legislative exception.

Now under 25500.1, there is no need to file a new application for certification. What is required is that the Commission prepare supplemental environmental review documentation and provide for public notice and hearing concerning the amendment.

So we began the proceeding with the staff working on the staff analysis and issuing Part A of that document on September 23rd of 2013 and then Part B on October 14th of 2013.

Shortly after that, we received notice from the Laborer's International Union of North America that they wished to intervene in the proceeding, filing their petition on October 23rd, 2013. And then the Colorado River Indian Tribe filed their petition to intervene on November 1, 2013.

Very shortly after that, we held the evidentiary hearing on November 19th, 2013, and issued the PMPD on December 13, 2013.

Subsequent to that, in the intervening period between then and today, we've received comments on the PMPD from the staff, the applicant, Colorado River Indian Tribes, which I'll refer to as CRIT from now on, Laborer's International Union, which I'll call LUINA and the Airport

Land Use Commission of Riverside County.

The approach of the Committee in this case was to consider the changes in the impacts that were caused by the amendment. And the general finding was that the impacts were either the same or reduced simply because the project is smaller and because photovoltaic technology is not involved the production of steam. It doesn't use heat transfer fluid. It doesn't have cooling towers and so on.

However, based on lessons learned in the construction of solar projects since 2010, the Committee did reconsider the override findings and made a determination to add a finding of override with respect to biological impacts. The traffic and transportation override was no longer necessary because there are no cooling towers and no mirrors and therefore no real issue with respect to aircraft safety.

The biological impact override was added due simply to the fact of the proliferation of solar projects and therefore the increased likelihood of avian collisions with a project. This is all kind of a matter of chance, but obviously the more acres you have covered with solar panels, the more likely it is the bird will hit one of them.

In addition, cumulative override is recommended with respect to cultural resources, with respect to land

use, and with respect to visual impacts.

So the Committee recommends that the Commission adopt the PMPD, the override findings, and the errata. And I'm available for questions. Also may want to hear from the parties.

CHAIR WEISENMILLER: Great. I'm going to turn to the applicant.

MR. GALATI: Scott Galati representing Nextera Energy Resources.

MR. BUSA: Scott Busa with Nextera Energy Resources as well.

MR. GALATI: We have reviewed the PMPD and made comments. We reviewed the other comments. We have reviewed the recent errata. We support it and we ask you for you to adopt today the PMPD with the errata and grant approval to this important project. Thanks.

STAFF COUNSEL BABULA: Jared Babula, Staff Counsel.

I just wanted to add one element to the Hearing Officer's statements. Staff also held a workshop on the staff assessment so there was another opportunity for public engagement.

Other than that, I don't have anything further to add. Thank you.

CHAIR WEISENMILLER: Thank you. Let's go through

interveners.

Is CURE on the line or in the room? Okay.

Let's go to the Labor Union. Laborer's

MR. LOZEAU: Good morning, Commissioners. This is Michael Lozeau. I'm on the phone obviously, for LIUNA.

We don't have any elaborate comments for this morning. We did submit a comment on the proposed decision that does raise a constitutional issue about the review provision in the Public Resources Code 25531(a). And we submitted extensive comments on biology and air concerns previously. And we continue to stand by those comments and would prefer that the Commission not make a decision today and further evaluate those concerns and add the mitigation measures -- some of the additional mitigations that we have proposed.

But with that, that's the only comments I have this morning.

CHAIR WEISENMILLER: Let's go to CRIT.

MS. CLARK: Good morning, Commissioners. My name is Sara Clark. I'm an attorney with Shute, Mihaly & Weinberger. I represent the Colorado River Indian Tribes on this issue.

CRIT is a federally recognized tribe on the Colorado River Indian Reservation, which is home to many of CRIT's members. Is located in very close proximity to

the proposed project. The area in particular that's proposed is part of the ancestral homeland of both the Mohave and Chemehuevi members of the Colorado River Indian Tribe.

As a preliminary matter, CRIT joints in the comments made by LIUNA on the PMPD. We believe the judicial review provisions not only improperly inflate Commission decisions from scrutiny, but are also unconstitutional for the reasons raised by LIUNA. And for that reason, we also concur with their request to further delay the decision to address this issue.

But CRIT is primarily concerned that the Commission has failed to analyze and consider the project's impacts of cultural resources. The project is slated for construction in one of the most important trail corridors in the region. And there's been little analysis about how fencing off this area will impact continued use of this trail.

There's also been no (inaudible) study completed for this project and consultation with area tribes have been minimal.

The CEC staff and the Committee have taken the position this analysis cannot be completed at this time because the Commission has already decided on the original project. But we nevertheless urge the Commission to

exercise its considerable discretion to thoroughly understand project impacts prior to making a decision on this amendment.

CRIT is also concerned about the project's considerable potential impact to disturbed cultural artifacts. Time and time again, CRIT has watched as renewable energy developers have uncovered artifacts in unanticipated areas. From our perspective, the handling of these discoveries has been painful and problematic.

While we appreciate the modifications and the conditions of certification, CRIT remains concerned these conditions do not go far enough to mitigate these impacts and do not comport with California law.

For these reasons as well as those that are in our briefing, testimony, and comment letters, CRIT urges the Commission to reject the PMPD and deny the proposed amendment. Thank you.

CHAIR WEISENMILLER: Thank you.

Staff, do you have any response to any of the intervener comments?

STAFF COUNSEL BABULA: In regards to the constitutional issue, this wouldn't be the appropriate venue. There is no issue that the Commission has the authority to review an amendment and approve or disapprove an amendment. That's kind of what we're here for.

As for some of the more substantive comments, I think there's been a lot of effort to work with CRIT. The project shrunk its size and moved away from areas to reduce impacts on a number of cultural resource sites. And that's clear in the record, the number of sites that have been avoided. So that effort was made.

Also, the PMPD made changes to the some of the conditions to address both the biological issues raised by LIUNA and some of the cultural issues raised by CRIT. So I think that at least from staff's view, this process has been thoroughly reviewed. And the outcome is a good project that reduces a lot of the impacts.

CHAIR WEISENMILLER: Thank you.

Applicant?

MR. GALATI: I guess our response, we would echo what Mr. Babula just said. We would also just like to make sure the Committee knows that -- and the Commission knows that we worked very hard and we accommodated a lot of changes to the conditions of certification that are unrelated to the amendment, specifically because of lessons learned. The entire compliance section was re-written, which we have accepted those. We revamped and revised what we've learned in the biology area with respect to avian species. We have added at the direction of the Committee, and we've added very specific changes to

the cultural conditions to do our best to accommodate CRIT.

And we'll continue -- we'd like to make sure everybody understand that one of the things we agree to is that the Indian tribes would have a role in reviewing and commenting on the CRMMP, which is the mitigation plan, and their procedure and their process and they've been invited into the process a lot more than other projects have been. And that was with agreement of the applicant.

So we may not be able to solve all of those problems, but I think we've done everything we can. This project is -- the impacts in every area are reduced.

MR. BUSA: If I could add to that just to recall the original project from Solar Trust of America had started construction. The access road was cut in. Hundreds of acres were previously disturbed on this area. NextEra stepped up to hopefully revive this ARRA project. We've recently just brought on line the first unit of Genesis, which is right down the road. And our track record there hopefully will be able to bring life from what was a bankrupt project into a successful project. And just wanted to thank the Committee, in particular, Staff Counsel Jared Babula and our Compliance Manager Mary Dyas for getting us this far.

CHAIR WEISENMILLER: Let's start with

Commissioners -- transition now to Commissioners. Since we've heard from all the intervenors -- I believe that have comment. Let's start with Commission Committee.

Commissioner Douglas.

COMMISSIONER DOUGLAS: Thank you, Chair Weisenmiller.

I just wanted to make a couple comments as the presiding members of the Committee that oversaw this amendment.

First of all, I want to thank applicant and staff and really all the parties for working diligently through this process. As was noted, I think very effectively by Mr. Babula and staff just now, this is a project that reduced the impacts from the proposed project. This is an amendment. Nevertheless, the PMPD that's before us today increases the stringency of conditions in a number of areas.

The petitioner/applicant was very cooperative in working with staff and working with us too, as we've noted, accommodate some of the lessons learned from construction in the first round of projects and ensure that we have a strong proposal in front of us, including the conditions that are needed and the findings that we made in the PMPD.

I specifically asked applicant to work with CRIT

and try to incorporate and address some of the concerns they've raised about cultural issues during construction. I think applicant did a good job of working with CRIT, working with staff, and proposing a way of going forward that I think is going to be effective. And we're all going to have to work together to get the most advantage out of it. But I think it's a very good approach that we have in the PMPD.

We had a thorough process. We have addressed all the comments and the evidence that was raised to certainly my satisfaction. And I don't -- I don't support the request by LIUMA that we spend more time rehashing these issues. I think we've been through these issues in a thorough way.

I also agree with Staff Counsel that there is no purpose served in delaying a decision on this case so that in our forum the constitutional issues raised by LIUNA could be argued or addressed. We do not have the ability. We are not the forum to resolve those constitutional issues. So there's really no purpose served by our going into it. And certainly not by our delaying a decision on the environmental review of this proposal in order to do so.

So with that, I'm prepared to move approval of this item, but there may be other questions. And

Commissioner Hochschild, as the associate member of the Committee, may in fact have a comment.

COMMISSIONER HOCHSCHILD: Let me just thank Presiding Member Commissioner Douglas who did a terrific job ushering us through the process and all the interveners for a very thorough engagement with the process.

From my perspective, this project actually represents an improvement and impacts in virtually every fashion. The footprint of the project is smaller. The water use has been essentially limited. The visual impact is less. And I think compared to the original project, you know, it's very clear this is a lower impact. And again, this is an amendment rather than a new project to be brought to us.

With that in mind, I'm happy to support the project.

CHAIR WEISENMILLER: I want to say a few words on the project.

First would note that I was on the original Blythe Committee. And at that point, when we approved it, at least two of the factors that were very much in my mind and certainly as we look at this current proposed decision very much of my mind is, one, this project will result in jobs, you know. And we're talking about an area that has

high unemployment. And these jobs give people a chance to really -- again, in terms of people's lives without -- if you're looking for work and you can't find it, that's a real hardship and tragedy. Now, having people get the jobs they need and so they can take care of their families and in that economic area is very important.

And second of all, this will reduce greenhouse gas emissions. And certainly, the fundamental challenge of our time is climate change. And climate change, things that we do to reduce fossil fuel use, which the solar plant will do is critical. And obviously, this is an area that will be adversely effected by climate change so that we see this project as part of the mitigation frankly for dealing with climate change issues. And at the same time, we'll deal with our other big challenge of the economy and jobs. So I think it's really important to move forward on this.

Now, having said that, I would note in a way it's in some respects poetic in that when I was here the first time at the Energy Commission, my first round of public service in the '77 to '82 period, we considered another project at Blythe, which was the Sun Desert Nuclear Plant. And we turned it down ultimately after the NOI phase and the Legislature gave us direction to go through a series of potential alternatives, and we voted it down shortly

thereafter when TMI, Three Mile Island, happened. Remember people from PG&E said thank God we would have gone into bankruptcy if we had done this construction program when you had suddenly the whole nuclear apparatus was changed.

Having said that, part of the issue in this case certainly raised by the intervenors come back to the original vision of Warren-Alquist Act. When it was passed, it was an unusual combination which is certainly reflected in the DNA of this organization. Alquist really wanted an expedited one-stop siting agency. And he was very concerned about reliability in the state. He represented Silicon Valley, even in those early days and also a very strong proponent of energy efficiency. But he really wanted to make sure -- and that's why we have such a detailed time line in the Act saying that, in fact, you know, these decisions ought to come out within a year. And also I'm sure he was one of this thing has to go straight to the Supreme Court. It has to be able to move forward in an expedited fashion.

Now, the other part of the Warren-Alquist Act was actually Charlie Warren. And Charlie Warren obviously did all the landmark California environmental laws in the '70s. His remarkable legacy. What he was really looking for was a very public process and also that we really take

a very strong look at environmental mitigation.

So again, I think you can see all -- in the Warren-Alquist Act all that detail and public process. And it was certainly in contrast to the last CPCN that the PUC granted which was at Healms never had a public hearing. None. So this is where we have a very explicit public process here.

So the notion was to combine those three attributes: Expedited siting with public participation and with a strong environmental mitigation consciousness.

And part of that then leads to the question of as you look at the various appeals -- again, I think the notion was to say, if anything, we are to do CEQA on steroids, the type of process we're doing. Certainly much more rigorous than a conventional facility, even if it was a refinery would undergo. And the notion is then moving forward to go to the Supreme Court so that particularly in this era of project financing, in the current era to make sure that things can move forward in a timely fashion.

And again, if you have all kinds of judicial appeal, at some point, this project is going to slip out of the window of being able to take advantage of the tax credits. So I think it's really important. Obviously, time is money. And the applicant has put a lot of time into a very good faith effort to really work with its

neighbors and to protect the environment. So I certainly would agree on the Resolution.

COMMISSIONER DOUGLAS: So with that, I will move approval of item -- Item 2.

COMMISSIONER HOCHSCHILD: Second.

STAFF COUNSEL BABULA: Just let me intervene for one moment to assist in making sure we draft the Resolution correctly.

And I do have a very minor housekeeping matter on the errata. We published the errata yesterday. Part of that errata says that -- under the soil and water section we're adding appendices to Part D per staff's comments, which were filed and are transaction number 201548.

What we failed to clarify was that Part D has Parts 1, 2, and 3. And so we added a new Item 22 just to make sure double clear everybody understands that.

So that is errata Revision 1. And it is on file. And so I would recommend that your motion be to adopt the PMPD, the errata revised Revision 1, and the override findings.

COMMISSIONER DOUGLAS: So I move to adopt the PMPD, the errata as revised in Revision 1, and the override findings.

COMMISSIONER HOCHSCHILD: Second.

CHAIR WEISENMILLER: Okay. All in favor of this

Resolution.

(Ayes)

CHAIR WEISENMILLER: This Resolution passes five to zero. Thank you.

Let's go to Item 4, which is the 2013 Integrated Energy Policy Report. And Heather Raitt, please.

(Thereupon an overhead presentation was presented as follows.)

MS. RAITT: Good morning.

Today, staff is asking for your approval of the 2013 Integrated Energy Policy Report. The Public Resources Code requires Energy Commission to prepare an IEPR every two years and assessed energy supply and demand, production, delivery and distribution market trends and major challenges. These assessments are used to develop energy policy recommendations.

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MS. RAITT: The IEPR lead Commissioner issued a scoping order on March 7, 2013, identifying the topics that would be covered in the report. Between October 2012 and October 2013, the Energy Commission held 29 public workshops on topics identified in the scoping order. Throughout the process there was extensive stakeholder participation both in the workshops and through written comments. This input was instrumental in developing the

IEPR.

The Energy Commission released the draft IEPR in October 2013 and received 38 sets of comments. The IEPR lead Commissioner revised the draft report in consideration of public comments. Changes are reflected in the final -- changes reflect the find demand forecast, which was adopted in December, market development since the draft was released in October, and editorial changes for clarification.

The final draft was publicly released on December 20th. The Energy Commission received eleven sets of public comments on the final draft. And the errata, which was posted yesterday, is available on the table at the entrance of the hearing room and reflects comments received.

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MS. RAITT: The need to reduce greenhouse gas emissions and prepare for climate change through development of energy efficiency and demand response is a policy overlay of IEPR.

Another important policy emphasis is on maintaining system reliability. The IEPR includes nine chapters with analysis of key aspects of California's energy systems as follows: Energy efficiency, particularly in existing and new buildings, demand

response, bio-electricity, transmission, nuclear energy, natural gas, transportation, and climate change. I'll go over the highlights from each of these chapters.

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MS. RAITT: The IEPR first addresses energy efficiency, which is first in the order. The Energy Commission is working with the CPUC and other stakeholders to develop a comprehensive program to advance energy efficiency in existing plans. The plan is expected to be finalized in 2014.

Other opportunities for energy efficiency advancements including achieving the goals for State buildings and Governor Brown's Executive Order and increasing energy efficiency in schools by the use of Prop. 39 funds.

Recommendations include working to improve energy efficiency in property appraisal processes, improving compliance with efficiency standards, and considering ways that standards can address demand-response and grid resource opportunities.

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MS. RAITT: California also has a policy goal of achieving zero net energy building standards by 2020 for residential low-rise buildings and by 2030 for commercial buildings. Towards this goal, the Energy Commission

worked closely with the CPC and stakeholders to develop a definition of zero net energy.

The Energy Commission continues to refine the definition as needed through ongoing discussions with stakeholders. Recommendation include increasing the efficiency of the new buildings by 20 to 30 percent in each triennial update of building codes, developing training and incentives to help achieve these standards, tracking market progress, and developing the needed workforce.

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MS. RAITT: The IEPR also discusses progress toward utility energy efficiency targets, efforts needed to help achieve all cost effective energy efficiency including advancing mechanisms to finance energy measures. Vocational and peak period energy, natural gas, end use efficiency, and modernization of energy-related information management.

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MS. RAITT: For publicly-owned utilities, recommendations address improving transparency and evaluation, measurement and verification.

Assembly Bill 2339 directed the Energy Commission to evaluate policies with greater penetration of geothermal heat pump and ground loop technologies,

including recommendations in the 2013 IEPR.

The Energy Commission encourages the industry to take various actions, including producing the model ordinance and promoting the use of California's specific geothermal heat pump standards for training and certification.

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MS. RAITT: Demand response is a top priority of the 2013 IEPR. Demand response can play an important role in maintaining a reliable electric system by influencing demand according to system needs and constraints and the need for new power plants and transmission lines.

Despite its potential benefit and position along side energy efficiency, demand response is under-used resource in California.

The retirement of San Onofre nuclear generating station, approaching once through cooling requirements, increasing need for flexibility to integrate renewable resources, as well as the local term challenge of climate change required demand response play a much larger role in electricity supply and reliability.

Because slippage and demand response market development will necessitate more generation and transmission than would otherwise be required, a need to advance demand response is urgent.

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MS. RAITT: The Energy Commission has identified five strategies to advance demand response:

Establishing rules for direct participation in California ISO markets.

Developing a pilot testing additional market products.

Resolving regulatory barriers.

Continuing the collaborative process among the Energy Commission, CPUC, California ISO, and Governor's office including efforts to fast response demand response and advancing customer acceptance.

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MS. RAITT: Following energy efficiency demand response in the loading order is renewable energy. California is on track to meet 33 percent of its electricity needs by 2020. Bio-energy can help achieve environmental protection, waste reduction, and greenhouse gas reduction goals, primary disposal and treatment options of low value biomass.

AB 1900 by Assemblymember Gatto directs the Energy Commission to evaluate barriers and solutions to advance procurement of bio methane of fuel that can be used for electricity or transportation.

The analysis found the challenges include

regulatory uncertainty, the expense of upgrading biogas to pipeline quality, lengthy and costly pipeline inter-connection processes, pipeline safety concerns, and the need for technology commercialization. Research and development efforts can help address several of these issues.

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MS. RAITT: Recommendations for biomass management include exploring all mechanisms to fund biomass collection and distribution and developing biogas use goals and sustainable practices. Biopower recommendations include developing a programmatic EIR and modifying procurement practices at the CPUC. Further research and development are needed to advance biofuels and biomethane.

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MS. RAITT: The discussion on electricity begins with the demand forecast. The energy demand 2014 to 2024 final forecast presents three demand scenario, high, mid, and low, different assumptions about economic and population growth electricity prices and other factors. Also includes five scenarios for additional achievable energy efficiency.

The analysis shows the annual average electricity demand growth for 2012 to 2024 is expected to range from

.88 to 1.82 percent. Peak demand growth is expected to range from .97 to 1.92 percent.

Combining the mid-demand case with the demand and additional achievable energy efficiency, the annual growth for 2012 to 2024 is expected to be nearly flat for the investor-owned utilities, even with the expected economic population growth.

The Energy Commission requested stakeholder input on which demand and additional achievable energy efficiency scenario to use as a single forecast for planning purposes. After careful consideration, the public comments, leadership at the Energy Commission, in consultation with the CPUC and the California ISO, recommend using the mid-base case forecast in combination with the mid additional achievable energy efficiency scenario for system wide planning for the 2014/2015, procurement and transition planning cycles.

Since reliability needs are localized and the State's ability to forecast load and energy efficiency at specific locations is still evolving, it's prudent at this time to use a combination of the mid-based case forecast and the low-mid additional achievable scenario for local studies in these planning processes.

This agreement on a single demand forecast is one of the commitments that joint agencies lead to Legislature

to better coordinate energy planning.

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MS. RAITT: In addition to forecasting future California electricity demand, it's important to make sure the infrastructure needed to generate and deliver that electricity is in place. Southern California is uniquely vulnerable, not only because of the potential retirement of power plant that use once-through cooling, but because of the permanent closure of San Onofre which provided more than 2,000 megawatts of generating capacity and support for the region.

The Energy Commission, CPUC, and California ISO staff jointly developed a preliminary reliability plan for the base in San Diego to ensure reliability in southern California. The agencies are committed to balance portfolio energy efficiency, demand response, distributed generation and storage to meet the resource needs.

The plan will include off ramps and contingencies if preferred resources do not materialize on schedule on or the remounts required for reliability or in the event transmission projects are found infeasible or unavailable.

The finalized plan will culminate into an action plan to be implemented by the agencies and closely monitored by the Governor's office.

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MS. RAITT: Estimates of future generation cost trends are important when evaluating the kinds of resources that will meet California's future energy needs. Rapid declining cost is expected to continue for solar, photovoltaic technologies and cost reductions are expected for solar thermal technologies. Fossil fuel technology costs are expected to remain flat, but there will be increase of roughly 15 percent over the coming decade as a result of mitigating or offsetting criteria air pollutants and greenhouse gas emissions.

To support the 33 percent by 2020 RPS, California needs to ensure that transmission projects that deliver renewable energy are permitted quickly and effectively. Seventeen transmission projects have been identified and approved for the integration of renewable resources. As Governor Brown noted in the Clean Energy Jobs Plan, the energy agencies should continue to work together with a sense of urgency to permit these new transmission lines without delay.

Recommendations related to transmission include encouraging participation in the California ISO's energy and balance market, continuing joint agency efforts to recommend long-term potential transmission solutions that address reliability concerns associated with the recent shutdown of San Onofre and ways to reduce transmission

permitting time lines and identifying appropriate transmission corridors.

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MS. RAITT: Moving on to nuclear power, California's two nuclear power plants, the Diablo Canyon Power Plant and San Onofre are located near larger faults causing increased concern about potential safety issues, particularly given the Fukushima Daiichi nuclear disaster in 2011.

The 2011 IEPR made recommendations on issues such as spent fuel storage, seismic issues, replacement power and reliability, emergency response plans, and relicensing.

The 2013 IEPR provides updates on utility progress implementing the recommendations. The permanent closure of San Onofre negated many of the recommendations for SCE, but continued storage of fuel on site will require ongoing attention.

The 2013 IEPR discusses events that led to the closure of San Onofre, recent federal events on nuclear waste, and pending legislative proposals.

Policy recommendations address comprehensive design basis, seismic analysis, timely compliance with fire protection regulations, accelerated transfer of spent fuel storage, and scenario for the federal efforts to

develop and integrated to management and disposal of nuclear waste.

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MS. RAITT: Natural gas continues to play an important role in California's energy portfolio. The 2013 IEPR discusses hydraulic fracturing, or fracking, pipeline safety, integration of renewable energy, increase interest in exporting liquefied natural gas, and combined heat and power.

Recommendations include continuing to monitor and better integrate pipeline delivery and natural gas with electric system and reliability needs, monitoring the national interest in liquefied natural gas, staying abreast of the changing dynamics of natural gas.

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MS. RAITT: Another important part of California's energy outlook is transportation. It accounts for nearly 40 percent of California's total energy consumption and roughly 39 percent of its greenhouse gas emissions.

In September 2013, the California Legislature reauthorized the Alternative and Renewable Fuel Vehicle Technology Program by Assembly Bill 8 by Assembly Member Perea. The bill extends program funding through January 1, 2024. The program was originally established by

Assembly Bill 118 in 2007. As of June 2013, the Energy Commission funded 233 projects through the program totaling more than $400 million for electric drive categories such as hydrogen, natural gas, propane, biofuels, manufacturing and workforce training and development. This investment supports the State's energy, clean air, and climate goals.

Program investments have helped California develop the largest network of electric vehicles, electric vehicles, charging systems, and the largest number of hydrogen fueling stations in the country.

The Energy Commission contracted with NREL to evaluate the expected benefits of projects funded by the project. The final draft IEPR includes a discussion of the benefits, such as petroleum reduction, greenhouse gas reductions, job creation, and workforce training. Benefits will also be summarized in the stand alone energy contractor report.

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MS. RAITT: The Energy Commission also required a report on transportation fuel, supply, demand and trends in each biennial IEPR. The analysis found that existing incentive and regulations combined with alternative fuel price advantages, expected economy of scale for vehicle manufacturing, and technology advances could lead to at

least a three-fold increase in alternative fuel growth by 2020. This progress should allow California to fulfill its 2020 goals to reduce transportation related greenhouse gas emissions, displace petroleum, and develop in-state biofuel.

Recommendations to advance alternative fuel vehicles and infrastructure include helping to implement the Governor's Executive Order advancing zero emission vehicles, balancing multiple policy objectives of the electrification of transportation, supporting national renewable fuel standard goals, developing a multi-year strategy to fund electric hydrogen and natural gas rebates and incentives for related infrastructure expanding the Energy Commission and Air Resources Board joint data collection authority.

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MS. RAITT: The need to reduce greenhouse gas emissions is a driving force behind many of the energy policies discussed in the IEPR. In May 2013, Governor Brown, joined by more than 500 world renowned researchers and scientists from 44 countries in making a ground-breaking call to climate change and other global threats to humanity.

The document translates key scientific findings to improve the nexus between scientific research and

political action on climate change.

As part of the 2012 IEPR update and 2013 IEPR proceedings, Energy Commission staff held public workshops to discuss the latest findings relevant to the energy sector, potential impacts on California energy supply, and responses to better prepare for climate change.

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MS. RAITT: Achieving California's 2015 greenhouse gas emission reduction goals require substantial transformation of California's energy system. These challenges are part of the ARB's AB 32 scoping plan update with an emphasis of potential targets for 2030 and 2050.

Climate recommendations include to sponsor research to reduce climate risk and greenhouse gas emissions and continue to coordinate climate change research by California agencies, support actions to both reduce greenhouse gas emissions and increase preparedness, assess the vulnerability of transportation fuel infrastructure to climate change, and support the development of greenhouse gas reduction targets for 2030 and metrics to track progress.

That concludes my presentation. I'll be happy to take any questions before public comments.

CHAIR WEISENMILLER: Great. Thank you. Let's

move on to public comment. Let's start with Environmental Defense Fund.

MR. FINE: Commissioners, thank you. Jaime Fine with Environmental Defense Fund. Thank you for an opportunity to offer some brief comments.

First, I just wanted to note that EDF does very much support the intent, tone, and scope of the IEPR. We are here today to highlight one significant exception we see on with our support. And that is with respect to the codification of the preliminary reliability plan, the so-called 50/50 reliability split. We think that's a premature decision and shouldn't be codified in the IEPR. And we recommend that language be stricken from the IEPR. And in doing so, we would support approval of the IEPR today.

EDF's comments that we submitted in written form did highlight that we think more emphasize could be put on demand response resources. That was clearly summarized in the comments in the presentation today. We'd like to see a Commission commitment to doubling down effort on looking particularly at the demand side DR in the next IEPR, recognizing that would be hard to do for this year's IEPR.

And we also note and highlight the recent staff decision from the recommendation from the CPUC of last week that recommends a move to much more of a use of time

of use rates for residential customers starting in 2018. We think the IEPR needs to plan for that and represent that in its demand forecast.

And I'll just note that our primary concern around the 50/50 codification language in the IEPR is that EDF's understanding of the loading order suggests we should be pushing as hard we can on preferred resources, to ensure the lights stay on.

From our perspective, this means that we -- the onus is really on teeing up preferred resources to the extent they are available, while staying open to continuing to pursue least cost, best fit, cleanest pathways going forward. This means perhaps beginning to plan for some procurement of conventional resources, but staying open to not needing to procure those if preferred resources can reveal themselves as providing the reliability and magnitude that certainly the loading order calls for and our pressing concerns around climate change and other state goals also would call for.

So those are my comments. Thank you very much for hearing them today.

CHAIR WEISENMILLER: Thank you for being here.

Let's go on to Jeremy Smith, Building Resources and Trades.

MR. SMITH: Thank you, Mr. Chair and members of

the Commission and staff.

I'm here to support the recommendation in the IEPR for the 50/50 balance between preferred resources and gas-fired power plant and conventional resources.

I represent the State Building and Construction Trades council. We're a council of unions in California that collectively represent nearly 400,000 construction workers. We do all of the work. We are trained to do both the work on preferred resources and gas-fired power plant work. So in terms of jobs and putting our members to work, we can do it all. However, the level of employment that comes from a gas-fired power plant, both during construction and after for the maintenance and upkeep of the fire plant is a degree of magnitude larger than the preferred resources.

Now, that doesn't mean we don't understand the need to combat climate change and to figure out moving forward into the future how to bring more preferred resources on line. We are just pleased that the IEPR does recommend a 50/50 split and want to ensure that that stays in the final report when it's approved.

And I just wanted to reiterate that there is a good side effect to 50/50 and that's jobs. The construction industry is always the last industry to bounce back whenever there is a depression, or in this

case a recession. And we are still experiencing unemployment levels we haven't seen since the great depression.

That being said, we do support preferred resources. Want to figure out a way to be partners moving forward to combat climate change. But they're happy there is a 50/50 split in the reports because we believe it'd be an uninterrupted power source in the state, and gas powered fire plants are the way to go, we think.

With that, I'll be here for questions. Thank you for your time.

CHAIR WEISENMILLER: Thank you.

Let's go to Sierra Martinez, NRDC.

MR. MARTINEZ: Hello. My name is Sierra Martinez, Legal Director for the California Energy Project at NRDC.

Thank you to the staff and the Commission for all the hard work that went into the IEPR. And thank you for hearing our comments, which will come in four sections: One on the demand forecast; one on procurement issues; third on zero net energy; and last on utility efficiency programs.

With respect to the California energy demand, we commend the Energy Commission and the joint agencies for working together to come to an agreement on a single

statewide managed forecast that use a reasonable low conservative mid-estimate of energy efficiency. This is a significant accomplishment. We would urge the Commission also publish the results in graphical format of this managed forecast next to the unmanaged forecast. We thank the Commission for including tables of the managed forecasts in the final IEPR.

In subsequent IEPRs, we recommend the Energy Commission include All energy efficiency in these demand forecasts, including that of the publicly-owned utilities which do significant work on running efficiency programs and planning for ten-year targets.

On SONGS procurement issues, we recommend that this Commission uphold the State loading order and the statutes passed by the Legislature and remove language that seeks to replace SONGS with a mandatory 50 percent gas-fired generation. The statute passed by the Legislature does not say to procure half of the preferred resources and half gas-fired generation. Rather, it states that we need to procure all cost effective energy efficiency and demand response before procuring conventional generation.

Using a 50 percent gas-fired generation requirement will have significant health impacts on the communities in Southern California. Furthermore, there's

already an existing proceeding going on before the Public Utilities Commission to answer this very question. And the best estimates show that the assumptions used in this preliminary reliability plan are inaccurate and outdated.

Therefore, we recommend that the IEPR should not adopt a procurement recommendation to replace SONGS with the 50 percent gas-fired generation.

And a quick comment to my colleague, the United States Bureau of Labor Statistics do not support the statement the fossil fuel industry is more job intensive in a clean energy economy, but vice versa, it's been shown there are job multiplier effects from investments in the clean energy sector.

On zero net energy buildings, we recommend the Energy Commission modify the language in the ZNE section of the IEPR and show it is consistent with the intended purpose of the codes. On utility efficiency programs, we urge the Energy Commission set statewide goals for all utilities.

It's beyond the due date of November of last year to do so, and we encourage the Commission to do so with all speed. And thank you for considering our comments.

CHAIR WEISENMILLER: Thank you. Thanks for being here. Certainly thanks for your participation in the Joint Access Working Group and all the other

time-intensive forecasting stuff.

Let's go onto NRG. Brian Theaker.

MR. THEAKER: Good morning, Chair Weisenmiller, Commission. I'm Brian Theaker, Director of Regulatory Affairs for NRG Energy West. NRG currently owns and operates about 6800 megawatts of gas fired generation within the CAISO footprint, and we are in the process of acquiring additional generations from Edison Mission Energy which includes CHP. We also have approximately 2,000 megawatts of solar PV, solar thermal resources that are now either operating or in development. And finally, we're also involved in deploying electric vehicle charging infrastructure and distributed solar resources.

We appreciate the IEPR's thoughtful and thorough approach to a myriad of energy issues. In particular, with support the IEPR's balanced approach to maintaining electric system reliability in Southern California after the retirement of SONGS Unit's 2 and 3.

NRG strongly believes that preferred resources have an important role to play in California's energy future, including maintaining reliability in Southern California.

At the same time, NRG strongly believes that any solution to Southern California reliability issues must include modern efficient natural gas-fired generation,

which provides both energy and the reliability services that are necessary to maintain reliability in Southern California. We believe that our thinking aligns with the IEPR's thinking in this regard.

So in conclusion, we command staff for their effort on the IEPR and support its adoption. And I want to thank you for the opportunities to offer those comments.

CHAIR WEISENMILLER: Thanks for being here.

Vote Solar, Jim.

MR. BAAK: Good morning. Jim Baak with Vote Solar.

First, I'd like to thank the staff and the Commission for the thoughtful and extensive approach on doing this integrated resource policy. The one issue that we do take issue with is use of the 50 percent of split between conventional and preferred resources to replace the San Onofre Generating Station. We believe that higher levels of preferred resources are achievable and necessary to meet greenhouse gas reduction goals, the aggressive goals the State has established. We think that decisions that are made to support natural gas are going to be with us for many, many years. And the consequences will be with us for 45, 50 or 60 years. We believe the IEPR shouldn't preclude -- codify, or endorse a 50 percent

renewable or preferred resources 50 percent conventional resources. Instead, we think that it should mention an all -- use of all cost effective preferred resources and not specify a percentage of preferred versus conventional resources.

And we think that the proceeding that's going on at the PUC is going to be a place where this is going to be determined and the demonstration project that Southern California Edison is proposing for preferred resources also help demonstrate the ability of these preferred resources to meet the needs of San Onofre.

So we support the IEPR with the change in the language away from the 50 percent to the use of all cost effective preferred resources. Thank you very much.

CHAIR WEISENMILLER: Thanks. Thanks for being here.

Steven Kelly.

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

I represent the non-utility owned electric generators. And I have the advantage and disadvantage of representing about one of every technology across the whole sphere of the industry you are addressing in this book, including preferred resources as well.

I want to support the adoption of the IEPR and moving forward. I applaud the lead Commissioner and the staff on balancing a whole lot of complex issues against various statutory obligations.

And I particularly want to emphasize the importance of recognizing what I think is a critical role of flexible resources, such as the natural gas facilities, in helping maintain California's good reliability over the planning horizon. This IEPR does that. And I applaud you for that.

There is a balancing tensions between what you call uncommitted resources and the need to maintain grid reliability. And I think this IEPR does a very good job of balancing that tension, and I support you for that.

In this regard, I do want to bring to your attention one issue that I've got related to planning for the next cycle, if you don't mind. I'm filing today at the PUC in the 2014 LTPP a document commenting on the planning assumptions there. And we're particularly concerned about policy makers receiving transparent and clear information about their policy choices on a going forward basis. And I'm concerned that the direction the PUC is taking may undermine this. And let me explain that briefly so you can watch for it in the next cycle.

And the issue is focused primarily on the base

case. My view is that there ought to be a base case that is based on existing resources from which you do a bunch of scenario planning to determine how to get to the preferred outcomes that you have. Right now, we're dealing with a tension between what I call stretch goals in the policy realm and the need to maintain grid reliability. And that comes front and center in the ten-year planning process, trying to combine where you want to be in 2050 with maintaining grid reliability through 2024. That tension I recognize and is important.

But what's going on right now are a number of advocates are trying to imbed in the base case their preferred assumptions about the direction you ought to go in your planning. And I caution you about this. I want all the regulatory agencies to be focused on the issue of making sure that the base case, which in my view is what we know today, is clean so that you can properly evaluate all of the policy options that you want to test going forward, whether it's 100 percent preferred resources, 50 percent preferred resources or zero percent preferred resources. If you don't have a clean base case, it makes that calculation that much more complicated for policy makers. And it makes the transparency in your decision making that much more encumbered.

So I bring this to your attention. And

otherwise, I support adopting and moving forward with this IEPR.

CHAIR WEISENMILLER: Thanks for being here. Barbara Boyle, Sierra Club.

MS. BOYLE: Good morning, Barbara Boyle, Senior Campaign representative for Sierra Club.

I'm here to talk about the comments in the IEPR related to the preliminary reliability plan, which have been addressed by some of the previous speakers. We have a great concern about codifying, if you will, the proposed 50/50 split between preferred resources and conventional generation. This was not subjected to the same kind of intense study and analysis that is going forward in the CPUC process and that is the appropriate venue for that decision to be made. We would not want to see the CEC prejudging what is essentially a decision that needs to be made at the CPUC. And that proceeding is still proceeding.

I would -- I don't want to repeat what other people have said. But I would want to make three specific comments. One is that an immediate result of San Onofre shut down is that greenhouse gasses have gone up in this state pretty significantly. I would agree with the Chairman that climate change is the primary challenge of this generation. And we must move forward as

precipitously as we possibly can.

Secondly, I would want TO address the issue of air quality in Southern California. As we all know, the area basins in Southern California are out of compliance with Clear Air Act standards. And that translates into a lot of suffering, everything from asthma to premature deaths in places like Orange County and San Diego. So those are issues we also need to consider when we make these kinds of decisions.

Finally, nuclear plants are starting to be scheduled to be shut down all across the country. It's certainly a pride for me and I think for many other people that California leads the nation in so many ways in moving us toward an environmentally benign kind of environment.

So I would encourage you to have California lead in this decision on how we replace San Onofre by really emphasizing preferred resources and setting a bar for the rest of the country, because they, too, need to move quickly to preferred resources. Thank you very much.

CHAIR WEISENMILLER: Thank you. Thanks for being here.

Eric Pendergraft of AES Southland.

MR. PENDERGRAFT: Good morning, Chairman Weisenmiller and Commissioners. I'm Eric Pentigraph, Vice President of Business Development for AES Southland.

First of all, we'd like to echo the comments of and others and thank both you and the staff for all the work and effort that went into the IEPR. We certainly support the final draft as it is, and in particular, want to demonstrate our support for the balance that is struck and the recognition that clean flexible and efficient natural gas facilities must be part of our future resource mix.

I think you know it's extremely important that we keep focused on our greenhouse gas reduction goals, but I don't think we can put all of our faith in preferred resources alone. They are certainly extremely important if we're going to meet our environmental goals. But the 50/50 target for conventional and preferred resources, as outlined in the draft IEPR, I think is already an admitted stretch. And we don't know if that is even achievable. So the idea that all our future needs, at least in this planning horizon, can be met entirely with preferred resources I think is potentially dangerous and could have significant consequences if we're wrong.

You know, as it is, just to highlight it, you know, Edison has been authorized to procure a maximum of 1200 megawatts of conventional gas resources and then they've requested authorization for an additional 500 and to replace SONGS. So that's a total -- if their request

is authorized -- of 1700 megawatts of conventional gas-fired resources.

To put that in perspective, that would replace more than 7,000 megawatts of OTC facilities in the L.A. basin if you include SONGS in Huntington Beach three and four. We're already talking about a maximum of 1700 megawatts of conventional gas-fired resources to replace 7,000 megawatts of existing resources. I think that's an extremely aggressive target.

Urge to you continue to keep your focus on the big picture. Preferred resources are certainly an important part of our plan, and we support it. But our priority needs to be on doing what is practical and possible. And that should include clean natural gas-fired resources. Thank you again.

Just to close, we are as actively involved in pursuing natural gas, energy storage, and utility scale solar PV and are deeply committed to helping California meet its environmental and energy goals.

CHAIR WEISENMILLER: Great. Thanks for being here.

Tamara Rasberry.

MS. RASBERRY: Thank you, Commissioners. Good morning. Tamara Rasberry representing the Sempra Energy Utility Companies, SoCal Gas, and San Diego Gas and

Electric.

We would first like to thank the Commission and the staff for all their hours of hard work and dedication and finalizing this IEPR, which we support today. And we appreciate the Commission's attention to the concerns raised by Southern California Gas Company and are pleased with the changes in the errata sheet that were released last night. Specifically, we appreciate the intent language added to the definition of zero net energy, allowing for future discussions with stakeholders.

We did ask that the word "adopt" not be adopted today but we like where this new language is going. And so with that, we do support the adoption today of the IEPR.

I did want to point out that we have a great team at Southern California Gas Company. And they noticed a factual error on page 90 of the IEPR. I don't know which page it is on the errata sheet. But in discussing the proposed pipeline that we're filing at the CPUC, the document states that this new pipeline running approximately from Algotano to Rainbow, and it's actually running from Algotano to Moreno. So we just wanted to make sure that was corrected.

CHAIR WEISENMILLER: Let me ask the staff if they agree with that correction.

MS. RAITT: Yes, we do.

MS. SPIEGEL: Linda Spiegel with the Energy Commission.

And yes, we appreciate you pointing that error out. It's to Moreno. And we have Rainbow, but that's just the name of the corridor. So they're correct.

CHAIR WEISENMILLER: So can we add that to the errata? Staff, would you agree to add it to the errata?

MR. RAITT: Yes.

CHAIR WEISENMILLER: Thank you. Go on.

MS. RASBERRY: That's it with that. I just thank you for all your work and we support the adoption of the IEPR today. Thank you.

CHAIR WEISENMILLER: Thank you.

Ben Davis.

MR. DAVIS: Thank you. I'm Ben Davis from the California Nuclear Initiative.

I don't support the adoption of the IEPR. At the workshop, I brought up the fact that the 2013 IEPR does not reflect the changes in California's reliance on nuclear power that have happened since the 2011 IEPR. At the time Fukushima happened, we assumed after many questions and hearings before this Commission that California relied on nuclear energy to the point that if we turned off our nuclear power plants, we would have

rolling blackouts, costing the states tens of billions of dollars according to Cal ISO's work with the Legislative Analyst's Office. Now we know that was wrong at the time and it certainly wrong now. Now for the first time since it opened, we can close Diabo Canyon and all nuclear power plants in California without dropping below our 15 percent energy surplus requirement.

That's not in here. The fact that it's changed so drastically since Fukushima and that none of the information about how that's changed is in this 2013 IEPR, to me, says that it actually drops the IEPR below legal standards. You have a requirement to report this information to the Legislature, the Governor, and the people. This does not give any of that information to them.

A specific piece of evidence which was a requested by this Commission, you requested the Cal ISO, the PUC, and yourselves work together to find -- study how much reliance we had on nuclear power and end that reliance. You made this recommendation in your 2007 IEPR and again in your 2011 IEPR.

Since that time, Cal ISO finished that study in March and specifically says it's for the 2013 IEPR that you've left it out of the 2013 IEPR. At the time you recommended this study, it was known that you were reliant

on nuclear power, that we would have rolling blackouts potentially if we didn't have San Onofre. At the time they finished the study, the study concluded that we weren't reliant on nuclear power, that we maintained grid stability without it. Yet, you've left it out of the 2013 IEPR, although it was requested for that. Without that, this 2013 IEPR does not meet your legal requirements.

Lastly, I would note I'm the only one in this building with a short sleeved shirt. It's not a good precedent for you to have an Energy Commission meeting dealing with conservation and air condition to the room. In fact, the air conditioner went off about five minutes ago. I noticed.

But in Japan, I was talking with a reporter from Japan yesterday. Regulations prohibit air conditioning in the room to the point where people have to wear suits. Everybody else in this room has a suite but me. I was very uncomfortable until three or four minutes ago when they turned off the heat.

If you explain to me why the California ISO report was left out that was in March, I would appreciate hearing that. If I've overlooked something, I would rescind my suggestion that you do not pass this IEPR without first updating it. Thank you very much.

CHAIR WEISENMILLER: Okay. Thanks for being

here.

Let's go to Rochelle Becker.

MS. BECKER: Good morning to my favorite Commission.

I think it's rather ironic that we began the meeting with a test of earthquake preparedness if Diablo Canyon, a nuclear power plant that doesn't meet its seismic design -- (inaudible) earthquake. And it's the subject before the NRC, before Congress, and before several other agencies. So we appreciate the recommendations that you've put in your IEPR.

We ask that you update it next year and not wait two years. Waiting two years for a nuclear power plant issue has been a problem. Two years ago, we didn't expect San Onofre to not operate. And now it will never operate again.

Diablo Canyon could very well be in the same fix in a short period of time. Once-through cooling issues are coming to a head. They are going to be very expensive and very environmentally damaging if they go for the alternatives. The seismic issues are certainly unresolved and could require expensive retrofits. The waste issue is certainly coming to a head of now knowing that we may have to store this on our coast for several hundred years. So how much more do we want to produce at the plants.

So we thank you for your considered recommendations that you've put in the IEPR this year. We ask that you update it next year because so much is happening and losing 2200 megawatts quickly is a problem. Fortunately, not as much a problem in Northern California as it was in Southern California. But being prepared is always a good idea.

So I look forward to seeing you next year when you do have some updates. And thank you for your recommendations.

CHAIR WEISENMILLER: Thank you. Thanks for being here.

David Weisman.

MR. WEISMAN: Good morning, Commissioners. David Weisman, Alliance for Nuclear Responsibility.

I think perhaps in anticipation of the fact you would be dealing with the Office of Emergency Services this morning, I wore my of the map of San Andreas fault tie, visual description we have lets people see. I'd like to have it modified if anyone knows a particular tailor to we could include the Hosgrifault and the Shoreline fault that are more the direct threats there to San Luis Obispo.

Having said that, we appreciate your recommendation. The seismic interest of course began with your report almost six years ago. Now, we know that the

Regulatory Commission has set 2015 as deadline by which they expect Pacific Gas and Electric to submit their amended and revised seismic updates and in the post-Fukushima requirement environment.

You, yourself, at the latest workshop had a representative from the Nuclear Regulatory Commission here saying they do not expect Diablo low to meet its ground motion design bases for that time. And they would put them into another three years they would be allowed to work those numbers to figure out what the answer is, which means in a sense may not have a real answer on the seismic certainty until as far out ahead as 2018.

What I will recommend to the Committee in addition to the adoption and the recommendation that you have is that you have the ability to pay scrutiny to the ongoing investigation, the seismic -- Senior Seismic Analysis Committee, which is the process by which they will determine this, will be having their third and public and final set of meetings this coming March, we're told, in San Luis Obispo for both the ground motion studies and the seismic source characterization, which will determine those answers.

The observation we have particularly for the ground motion is that the science is challenged, that we're seeing potential conflict of interest between the

parties involved in this proceeding, the fact there are so few specialists in this particular field. And they're serving as both the peer reviewed panelists and proponent experts for the various factures and utilities.

We invite you to continue your participation by keeping an eye out on these upcoming seismic hearings so when the final results are delivered, you have a sense of the degree of the science, the scrutiny, and the oversight that went into arriving at those decisions and that you've been working with those numbers and that information for your future reports.

So thank you very much for your diligence so far. And we hope you'll continue to keep an eye on the seismic development.

CHAIR WEISENMILLER: Thank you.

Valerie Winn.

MS. WINN: Good morning, Commissioners. Valarie Winn for a Pacific Gas and Electric Company.

I, too, also want to add my thanks to the Commission. Our review of the IEPR and our involvement throughout it has been very positive, and we feel that the final IEPR represents a very balanced perspective of the numerous stakeholder perspectives that have been set forth.

We have filed comments on both the draft IEPR and

the final Commission -- lead Commissioners IEPR. And we are very pleased to see a number of our comments incorporated into the text, particularly in the areas of natural gas on nuclear issues and on zero net energy. And we look forward to continuing to work on the zero net energy definition. We think that's going to be very important as we move forward and look forward to continuing that discussion.

Finally, I did want to offer our thanks to the staff, Heather, who's finishing up the IEPR, Susan who started the IEPR, and a whole bunch of other people who have run the workshops and lined up panelists and worked with us too on different issues. So thank you very much and we look forward to continuing to work with you on the 2014 IEPR. Thank you.

CHAIR WEISENMILLER: Thank you.

Marissa Blunschi.

MS. BLUNSCHI: Good morning. Marissa Blunschi from Southern California Edison.

We very much appreciate the opportunity to provide these public comments on the final report for the 2013 IEPR. Edison commends the Energy Commission staff for their tremendous efforts in completing the IEPR final report. And we believe that the IEPR will help to shape key energy and environmental policy issues that will guide

California to a cleaner energy future.

Edison has been coordinating very closely with Energy Commission staff and other stakeholders on a number of energy policy issues, including energy efficiency standards and particularly those related to the zero net energy codes. Edison looks forward to continuing its coordination with the Energy Commission and stakeholders on ZNE efforts as those codes are developed further and refined and implement in supporting achieving California's ZNE goals.

Edison also supports te Energy Commission's efforts to promote preferred resources, which include energy efficiency, demand response, and renewable distributed generations. And we recognize them as a crucial component in leading California to a cleaner energy future. To that end, Edison has been coordinating closely with stakeholders to move forward with its preferred resources pilot, which explores the ability of preferred resources and energy storage to meet local reliability needs in the areas of Edison service territory most effected by the recent SONGS shut down.

Though Edison acknowledges the importance of preferred resources in advancing California's energy and environmental policy goals, Edison also strongly supports a balanced approach for addressing local reliability needs

in Southern California. Edison supports a strategy that includes further development of preferred resources, along with transmission facilities and additional conventional gas-fired generation where necessary to maintain grid stability and reliability.

Edison also believes that efforts to assure reliable service should be consistent with reasonable cost to all rate payers.

Edison has submitted formal written comments on the final IEPR, which articulate our support of the final report and provide greater detail on remaining clarification issues.

Thank you very much. We very much appreciate your efforts and support the final IEPR. Thank you.

CHAIR WEISENMILLER: Thank you. Thanks for being here.

I believe we covered everyone in the room that wants to speak. So let's go on to those on the phone.

Let's start with the San Diego Regional EDC, Mr. Beizer.

MR. BARR: Yes. Good morning. It's actually Sean Barr, Vice President of Economic Development with the San Diego Regional EDC.

Thank you for taking the time this morning. Thank you for the invitation to join you. And we here at

San Diego Regional EDC appreciate the efforts, thoughtful discussion of, and approach to many issues, especially the issue of ensuring Southern California reliability.

Our message here this morning is about maximizing our region's economic prosperity and global competitiveness. That is the mission of the San Diego Regional Economic Development Corporation. And the role energy balance plays in fulfilling our mission and the region's economic prosperity is a critical one.

A big factor in our ability to retain, expand, and attract the businesses, talent, and investment here in San Diego is certainly tied to the energy cost and the cost and the result of the cost of doing business in San Diego and Southern California.

So a good energy mix is something that we concern ourselves with and is certainly something that effects the cost of doing business and energy cost here in our region, and as a result, effects the region's competitiveness.

So we want to thank the Commission for their thought and appreciate the thoughtful discuss around the IEPR. And we would appreciate the Commission keeping this in mind as you move forward. Thank you for your time.

CHAIR WEISENMILLER: Thank you.

Let's go on to the Carlsbad by Chamber of Commerce, Ted Owens.

MS. PADRON: Good morning. This is actually Toni Padron. I apologize Ted had to leave this morning.

I first want to thank all of you for your time and service. My team is Toni Padron. I'm the Chief Operating Officer here at the Chamber.

For over 90 years, the Carlsbad Chamber of Commerce has worked to promote a sustainable business climate for the 1,600 businesses, member businesses, and more than 75,000 employees in and around our city.

This is why we pay close attention to issues in Carlsbad that could impact not only the ability of local businesses to thrive, but also matters that could impact the quality of life in our community.

We have followed developments at the San Onofre plant and continue to be concerned about the closure effecting the reliability of our power supply. We are all dependant on electricity for health, safety and commerce. A few years ago, we were painfully reminded of that fact during the blackout that affected our region.

On behalf of the Carlsbad Chamber of Commerce, I would like to express our strong support for the integrated energy policy report. We are all well aware of the intermittent nature of the renewable power and responsibility of transmission lines to wild fires.

The new efficient and flexible gas-fired

generating units now available will help address the reliability problems that are created by the retirement of San Onofre and truly reliable service to the millions of people living in the region whose livelihood and lifestyle depends on reliable and affordable power. In the Carlsbad San Diego County region, that is a best solution.

Many of you may be aware the Carlsbad City Council last night approved an agreement with NRG and SDG&E on a gas fired peaker project. The Chamber has long supported the proposed Carlsbad Energy Center, and we hope this demonstrates the willingness to do our part to ensure economic health of the region.

Thank you so very much for this opportunity. And again thank you for your time and attention and service.

CHAIR WEISENMILLER: Thank you.

Dean Worter.

MR. MAC LAUGGAN: Good morning, Commissioners. My name is Peter MacLauggan with Poseidon Water, LLC. And I would like to thank you for this opportunity to comment on the 2013 Integrated Energy Policy Report.

Poseidon is constructing a large scale desalination plant in partnership with the San Diego County Water Authority. This plant is located adjacent to the Encino Power Station in Carlsbad. When completed in 2016, the plant will provide 50 millions gallons per day

of potable drinking water. San Diego County Water Authority currently imports about 80 percent of its water supply from the Colorado River in Northern California.

The purpose of the desal project is to provide a local draught resistant supply of water to meet the water supply reliability needs of San Diego County's three million residents and $90 billion plus annual economy. When the plant goes on line in 2016, it will be a critical component the regional water supply portfolio.

Given the loss of the San Onofre Nuclear Generating Station, we're concerned about the reliability of the region's power supply. The desalination plant relies on electricity to produce a continuous supply of drinking water. As is the case with water supply reliability, we believe the solution to a reliable grid is a robust mix of power supplies that includes investment and local generation capabilities.

In a few years, the power plants along the coast will be retired to comply with the once-through cooling regulations. This will expose this region to an unmanageable power supply void in steps are not taken to replace the power currently provided by these units. It's our opinion those steps should include deployment of new technology in smaller, cleaner, more easily managed natural gas-fired generating stations.

We've taken steps to ensure the Carlsbad desalination plant operations will be carbon neutral to investment in demand reduction, on site solar, use of recycled CO2 in the water treatment process and acquisition of carbon offsets through State-approved projects. Water and power are among our most vital of our resource needs, and we support the inclusion of a mix of gas-fired generation and preferred resources in the IEPR to help ensure grid reliability.

Thank you again for the opportunity to comment in and support the Commission's adoption of the 2013 Integrated Energy Policy Report. Thank you.

CHAIR WEISENMILLER: Thank you.

George Nesbitt.

MR. NESBITT: Yes. George Nesbitt, HERS Rater.

Since 1999, when the Energy Commission started regulating HERS raters separate from RESNUT and the rest of the country, you've increasingly relied on us through every code cycle. More and more utility rebate programs have relied on us for verification, and you will continue to rely on us more in the future as we move towards ZNE.

National programs, Energy Star, and Energy Efficient Mortgage have always relied on us. And increasingly, programs like what's now DOE Challenge Homes as well as other green rating programs have also been

relying on HERS raters. Yet, the IEPR has no mention, no mention as part of the AB 758 initiative for existing buildings or otherwise inefficiency or ZNE. Is there any mention of the role, the importance, and the need for HERS Raters? Yet, without us and utility rebate plan checks, code implementation and enforcement would be far worse than it is.

On ZNE in December of 2008, Commissioner Douglas and the other Commissioners at the time adopted the expansion of the HERS program from just a verification role to also energy modeling role. Created a rating system. And that rating system defines a code minimum home as 100 and ZNE home as zero. You adopted a definition of a ZNE home. And reading from the Title 20 regulations, a ZNE home means a home that has met an annual time dependant value energy consumption of zero, accounting for both energy consumption and the use of on-site renewable energy production.

And I suggest we should use that definition. And in the IEPR, the IEPR needs to reiterate the ARB and the CPUC goal of ZNE homes all by 2020, as well as the need that we need to up Title 24 Part 6 towards that goal. But ultimately, that ZNE, whether we regulate it as a code requirement or not, we have a rating system that defines it, people that are certified and trained, to deliver it.

And nationally last year, HERS ratings increased 70 percent and jurisdiction after jurisdiction are requiring HERS rating for new construction and the hers rating system has been written into the 2015 international residential code of being recognized as well as requiring HERS scores of below a code minimum -- better than a code minimum home. And yet all of --

CHAIR WEISENMILLER: Could you wrap up now?

MR. NESBITT: Yeah. I'm done.

CHAIR WEISENMILLER: Okay. Thank you. I believe this as all the callers on the phone. So let's transition now to the Commissioners.

Commissioner McAllister, do you want to start us off?

COMMISSIONER MC ALLISTER: Thank you all for being here. This is the culmination of a long, long process. Obviously, I do have some fairly extensive comments. And I won't read the document into the record obviously, but I'll try to modulate so that you all stay awake.

But there are a lot of people to thank. There is a bit of context I'd like to give and a lot of people to thank here. I hope you'll bear with me and certainly appreciate all of you being here.

As Heather mentioned, the IEPR is quite a long

process that requires extensive collaboration among staff, stakeholders. Very much collaboration within the Commission. And also out there in the world and many of the people in the room have really been stalwarts here.

And the reasons for that and why we frame it the way we do is because we are completely committed to ensuring transparency and a transparent process that fosters inclusively, collaboration, meaningful dialogue on the issues of the day.

Just today in the comments, you heard a lots of different opinions about the same issues. That's part of our democracy. That's how we operate. Hat's a good thing.

For me, personally, I'll just say the CEC tradition of tagging the rookie on the Commission with the lead role in the IEPR provided me with a terrific and hugely interesting induction in public service at this agency. I'm grateful for that, in fact. And I'm particularly want to thank Chair Weisenmiller for partnering with me most of the way. After the departure of our esteemed college, now PUC Commissioner Peterman. And really it was great to work with Chair Weisenmiller, his insight on the process itself and leadership on a number of the issues that we were grappling with in the IEPR was invaluable, I would say. Not the least of those

are the demand forecast, the Southern California reliability issues, which this year directly engaged the leaderships across the energy agency, the ISO, the PUC, and the ARB as well, and the water authority, I mean, the quite extensively across the agencies, as well as the SONGS and nuclear power issues more generally. So his support and engagement on those issues have been very, very worthwhile and invaluable to me. So thank you, Chair Weisenmiller.

So after 29 public workshops, which wasn't a record, but it was getting up there towards the end, extensive stakeholder input, substantive dialogue, among the agencies, which I've mentioned, but also including Natural Resources Agency, Cal Fire, federal agencies, NRC and others, Department of Energy, and a huge breadth of other stakeholders and various iterations of the document, edits from staff and Commissioners based on public comments. We are, I think, proud of -- I particularly can speak for myself, we're proud of the final product.

Also wanted to thank my fellow Commissioners, the rest of the Commission here, for their review and their offices' review and interaction with staff on the document on the draft through Heather and her team.

So we sincerely hope the IEPR will serve the public well and provide meaningful discussion on these

core issues of the day. I believe it will and already has. It happens periodically and each IEPR is a new set of -- new group of issues, but many of them persist. And I think we've heard that many of you would like certain issues to persist. And as they've evolve, they undoubtedly will.

So I'm not one to shy away from challenging topics. And at the same time, respect the process. And this IEPR has been a balance. I think between really being as inconclusive as possible, but getting to the issues. We have a time line. It has to happen in a year. It's really the train is going to leave on time. I think Heather and Susan and the team have really taken seriously our statutory obligations to get it done. It must get done because we have another one to start here pretty soon.

So I want to make a couple of comments on specific issues. You know, from my perspective, being lead Commissioner on energy efficiency and natural gas for much of the year and energy efficiency including demand response, I think those issues really have taken a lot of focus to begin to get through. There are a lot of sub-issues there within energy efficiency. There are many, many challenging topics. But now has been the moment. This year has been a key moment. And the product

is an important step forward.

So specifically on demand response, it really is one of the front and center options for California to maintain reliability electric system for the long term. We've heard there is a diversity of opinions on preferred resources. And demand response really is front and center. It's a demand side and a resource that is under-utilized in the state. And how much can we get, how quickly we can scale it I believe is still an open question. IEPR has provided a nice forum for having those discussions. If you asked me a few years ago if I was going to be front and center pushing the demand response discussion, I would have told you you were crazy. But it's time came with SONGS retirement particularly. But all the other issues we have and we've talked about repeatedly in Southern California, it's number one in the loading order. It's staring us in the face. It's under-utilized. We have to figure out how to make it happen.

It's not a technology problem. It's a markets problem. We have a lot of great technology that can help us scale up. We have to make it worthwhile in the real world. This is really where the rubber hits the road between policy and execution and implementation.

Again, this is an issue that really does stretch

across the agencies. And our goal here, my goal in the IEPR process, has been to create a platform for the relevant agencies the come together and begin to work it out. We're seeing that already. I'm really grateful to the PUC Commissioner Chair Peevey and Commission Florio on this issue for engaging their agency with Steve Berberich and the staff at the ISO for engaging on it as well. They both really pushed forward because we were having this discussion, in part, at least. So I think the IEPR process has been helpful in this way. It's critical we can't stop here. This is the end product for the IEPR, but this process and this discussion on demand response must continue.

So on energy efficiency, this something near and dear to my heart. I've spent a lot of days with my sleeves rolled up on particular issues with energy efficiency. It's a big topic. And California has an august history that I think -- I definitely am very aware of. There are a lot of big shoes to fill in California's history on energy efficiency. We have been such a pioneer, and we absolutely need to continue to be.

We focused on a group of topics, both on new buildings, new construction, and existing buildings. Net zero -- new net energy buildings, number of people commented today and the discussion has been very robust

along the way. A lot of different opinions on that.

And again, it gets to one of these issues where we can provide a platform. We do have authority in some very important ways over code. We own the code. But implementation of zero net energy could happen in a number of scales. So there are regulatory issues that are beyond us. So again, really points to the need for inter-agency collaboration and sort of a cogent regulatory structure that we are going to have to collaborate across agencies to develop going forward. So I think highlighting those issues and the need for it really is a common theme in this IEPR.

In this particular, the AB 758 Action Plan -- on the existing building front, the 758 Comprehensive Energy Efficiency Action Plan for existing buildings will dive much more -- more deeply into possible policies, voluntary and mandatory to advance statewide plan for existing buildings. That's an important effort that's ongoing. It's taking a while because it's a difficult arena, frankly. And again, another place where interagency collaboration is really key. Implementation of the utility programs with the IOUs is at the PUC. How do we, the data issues the benchmarking, the granularity, all of these issues we talked about throughout the year are -- must be brought to bear on the existing building problem.

It's going to have to be done largely within markets supported by policy. So we have to engage with markets in a way that isn't -- doesn't fit the typical regulatory framework, just sort of top down regulatory mandate framework. So these challenges I think are highlighted in the IEPR and are very helpful going forward to frame or discussion and keeping having productive outcomes.

On the demand forecasts, I would very much like to acknowledge again the interagency effort, the CEC the PUC, the CPUC, the California ISO that went into coordinating and arriving at a single forecast. This is -- it may seem small to the uninitiated here, but this is a really big deal. The fact that we have gotten really sustained engagement across the agencies, respecting the need for a common platform for our planning going forward.

And it is not an easy thing to do, and I think we've made a really important step this year. Lots of other -- if you read the document and you read the statement that we're making about the forecast, there's still a few more steps in the future. Again, information understanding, regional approaches, and building the infrastructure to support that decision making at that level. So we have to go forward in a deepening our forecasting here at the CEC and across the agencies analyses that goes into that, particularly in the electric

sector.

I've mentioned data needs. I think many times throughout the year the development of the IEPR served as a reminder of the critical need for good information. And this need expands across issue areas, transportation, energy efficiency, definitely within the forecast. You know, and industry sectors, the IOUs and the POUs have different but complementary issues.

So if we are to perform our duties, really at the level that we expect and the State needs, assessing the key energy issues facing California, properly implement programs, test their effectiveness, understand the marketplace, what's going on there. We really do need to improve our access to various kinds of data. And you know, we can't rely on vested interests necessarily for all of that information. We really have to have an objective, a broad collection of data.

And we have quite a bit of authority to do that at the Energy Commission, and we also want to maintain transparency in the process. So balancing those things going forward is something that I particularly in my office is focused on. Going forward. So again, the IEPR has provided a nice platform for some of these discussions.

So with that, I want to call out the errata.

This is a fairly dense document here with the errata. And I want to just highlight that we have had discussions with stakeholders for the entire year now. And I want to acknowledge staff's diligence and sincere effort to ensure that the process is transparent as it can be. The errata goes into quite a bit of detail and I think demonstrates that commitment. Right up until the last minute last night, we were hacking over a couple different word choices and making sure we were reflecting discussions and where we wanted to come down with all the stakeholder input. So we've worked really hard to be responsive, and I commend Heather and the team for that.

So I will go on to some extensive list of thanks you here. A lot of people worked on this document. And they deserve acknowledgement, and I want to provide that.

So I want to personally thank Suzanne Korosec sitting back there hidden in the back. But she got this train out of the station early in the year and managed it very, very well. Handed off the Heather Raitt, her capable successor who has really shown I think in the last few months here how capable she is on this and taking us through the final development and key stakeholder discussions and adoption today if we vote the approve of the IEPR.

And all of the team, all the IEPR team, Lynette

Green, who is the project manager; Stephanie Bailey, extraordinare and for their many contributions and commitment. I mean, I can't tell you how many late nights they've spent. Also Laura Ernst, IEPR's project secretary. So that core IEPR team has just been fabulous to work with.

The two advisors at the two offices, Pat Saxton and Hazel Miranda. They were just in constant discussions with stakeholders and with the Chair's office where Kevin and Sekita were the two leads. Kevin Barker and Sekita grant. And I think that facilitation really made it a better product.

On energy efficiency, I'd like to thank Christine Collopy, Joy Loyer and also Sylvia Bender's team who is not the efficiency division but who really did matrix work on the efficiency topic within the forecast. That was very helpful.

Demand response, David Hungerford was the lead on that chapter. And really thank him for bearing with us with all of the -- there was a lot of interesting discussions around demand response. And it's a tough nut to crack. And we haven't succeeded in California, and we really I think are creating that opportunity to really have it succeed going forward.

Bioenergy, Garry O'Neill-Mariscal was the

fearless leader on that topic and did a great job.

Electricity, there are various issue areas, a lot of deep knowledge in the Commission. And I just have to say I'm incredibly impressed by the level of commitment and the expertise we have here at the Commission on the various electricity issues. We use a lot of complex tools and juggle an immense amount of information I think with a high level of precision to work through the forecast in the particular, but really all of these issues that I'll mention a few of the key people in. Lots of opinions around and crafting assessments is not just a plug and check thing. It takes deep knowledge. We have it in spades here.

Chris Kavalec in the demand forecast as well as Nick Fugate, they have done a great job on this. Heavy demands on their time and expertise.

Mike Jaske on the infrastructure issue.

Ivin Rhyne on the cost of generation section. We had a couple of great workshops that he managed extraordinarily well.

And again Sylvia Bender, her contribution on EE and interagency coordination on the single managed forecast. I thank Sylvia back there. Thanks for all that.

Again, a lot of little bit -- few tense moments,

but in general, just I think a good first experience and successful experience on getting to yes across the agencies with differing opinions. And I think a lot of very useful education across agencies and bringing each other up to speed with our different cultures. And that really bodes well I think for the future of getting much more granular and better mechanisms for doing the analysis earlier on and really meeting the challenges of the future forecast.

David Vidaver and Angela Tanghetti on the 2030 electric system analysis. We're very, very impressed with that team. Brought up a lot of long-term issues that are going to come up over and over in future forecasts as we even heard today and through the workshops. This is one stop along a pretty long journey for California. And we have to -- we cannot sacrifice reliability and will not. But we also have some needs, requirements, and desires of population and elected officials to get to a cleaner energy future. So we have to do both of those things. And there is a lot of steps that we need to take. And we're going to be gathering a lot of knowledge on the way to make good decisions.

On transmission, Ean O'Neill and Judy Grau and their team did a great job.

Nuclear, Joan Walter was the maven of the topic

and did a great job. Again, a lot of differing opinions and evolving situation.

Natural gas, Linda Spiegel, her first IEPR in that capacity I think did a terrific job. And her staff is -- I think she's really integrated herself well into the team incredibly well in providing leadership as well as Silas Bauer and others on Linda's team.

Bryan Neff on CPH.

Transportation, that chapter could have been much, much larger. In fact, it was for a little while. But that's because there is so much to talk about in transportation. And because our transportation staff is so dedicated and committed and knowledgeable about that area. And I want to just really call out Commissioner Scott directly for her active review with staff of the transportation chapter and also leadership she provided to her staff. In particular, Tim Olson and Jim McKinney really stand out as fantastic resources for the Commission on that, that topic area.

On climate change, Guido Franco and David Stoms are climate change research has really stepped it up. And I command them on their terrific work.

So those are my brief comments. I've really enjoyed working on this. I think it's fantastic to get to the finish line, provides a lot of good assessments that

are policy relevant.

One challenge we may have is communicating this to policy makers outside of this agency, certainly to the public. We need to work hard at that. There is a lot in here and not always intelligible to lay folks because we get imbedded as all of you probably know in this room in jargon and it gets very technical very quick. A lot of rabbit holes to be going down into. So keeping the focus on, you know, we're doing a lot of -- I won't say heroic, but a lot of extremely necessary work to keep the lights on and to plan for California's future and reconcile many conflicting interests. It's great to say we really want -- you know, it's a fantastic aspiration to say we want an entirely clean electricity system or energy system. But at the personal level, that involves making some investments and decisions. It's not just changing out your lightbulbs, but that's a good start.

And so I think linking up and down that chain, that decision chain, making it real for people and making it personal for people and businesses across the state, sort of understanding the implications of policy is something that communication is challenging for. And I think that's one challenge I think we have going forward.

But the product is there, and we have a really good basis for action here. So I'm very pleased to bring

the 2013 IEPR to the full Commission.

CHAIR WEISENMILLER: Great. Thank you.

Let me follow up as sort of the other participant in this. I would note I think the record for the IEPR is Geissman in the first one which had like 50 percent. I think this is my third IEPR, I might be approaching or surpass that number, but it was not in one year.

But it's been a pleasure to work with you on this IEPR. As you said, they're pretty intense activities, pretty time-consuming. We've got all of our schedules to just block out that number of days and to really listen to people because, you know, one of the things that makes this happen, obviously you've done a very good job of covering the staff and thank yous. And I just echo that. I won't try to supplement or whatever. But to say certainly you've hit all the right people. And, you know, we really are appreciative to stakeholder participation to come listen, participate in these is also great.

I think in terms of just talking a little bit about the areas more on point, first, the energy efficiency demand forecast stuff was a heavy lift, you know. I think when the Legislature called out and said we really had to get our act together, we got the three agencies. We knew it was a big lift. And we're not done yet. I think as indicated when we adopted the forecast

the last couple times, forecast is certainly an effort that's going to keep evolving, particularly as we deal more to segregation, as we deal more with any number of new technologies.

And frankly, one of the things I'm hoping as we go forward is that, you know, we have a good chance to go back and really integrate I guess some of the PUC reports that are going to be coming in more in the next year or so. Two-year cycle. Two years from now, we'll be able to do a better job of building in the evaluative performance. And frankly, we need to do a better job here looking at our building standards and supply standards in terms of compliance. And again, over time try to understand how to do better in those areas.

But I think in terms of again saying is it very good staff. It wasn't easy by any means. But again, I think we continued that intellectual leadership the Commissioners had since the '70s really on being state-of-the-art on demand forecasting, particularly in terms of how to integrate energy efficiency and involving technologies into that. So again, certainly great job. Not done yet. Certainly encourage everyone to participate in this process, the demand access working group to really continue those enhancements.

Obviously, a lot of conversation today about the

reliability plan. And I wanted to really talk about that. Again, it's sort of been a phenomenal process in terms of having that hearing where every chair at this dias had a different State agencies's represented. We had President Peevy, we had Mike Florio. We had Mary Nichols. We had Felicia Marcus, Andrew and I. Barry Wallerstein at South Coast. I mean, it was incredible in terms of -- just a breadth of participation.

Because this is one of our big challenges. I mean, obviously we have been -- as has been indicated, we needed a backup plan in case any of the plans go out for a year or more. San Onofre went out for two straight years before it's just gone. So it was really great that coming out we recommended the IEPR. ISO took our recommendation and did the studies, which became part of the ground work for where we are now in terms of the plan.

I think in terms of, you know, bottom line is we should adopt the 50/50 split. And let's talk about why. And what -- first, let's talk about what the plan does is the plan is a living document. We will be together again next summer to revisit these issues. And at that point, we will have in our hands the ISO transmission planning study. We'll have the results of the LTP process. We're certainly going to understand better where our thinking is on contingent planning, Water Board. At that point, it

will be a good opportunity for a public hearing/workshop to really see where we are, see what progress we've made, what the results, and bids. And at that point, we may well make adjustments on stuff.

In terms of 50/50, that's a huge lift. In terms of Commissioners in our process from the PUC, management, they see that as a real stretch goal. I mean, they are -- just about everything in this package in a way is a stretch goal. But I mean, that was one where they certainly weren't prepared. That's a slam drunk. They're certainly going to try to strive to do it. But particularly to do that by targeting specific areas by trying to come up with a portfolio that fits together is a huge challenge.

And obviously, we're talking about contingency plans in back of that. But it's not just for the preferred. An aspect of this is transmission. And anyone who thinks you can build a transmission line in California, even one that's already sort of marching through process is in a timely fashion likely to be full of surprises as we go forward. But Sycamore is really important. Whether it's going to be on time, I don't know. I mean, certainly if we could build other lines to better integrate the L.A. basin and San Diego, that also helps a lot. But I mean, you can't even build a 20 mile

transmission line in California in less in eight years. To build a high voltage DC line through Orange County at anything less than glacial pace. And we have been very lucky with climate the last two years.

There's no -- but we are basically a hostage to the weather. We have no guarantees we're not going to find that we're in back in the 2006, one and 20 type of summer. It's dry. It's very, very dry out there. Every day a report from OES saying high fire hazard throughout the state. So in terms of transmission lines.

The other thing that's now public due to the FBI and the National Security article, we've had the first terrorism incident in California going after our critical infrastructure. So how do we deal with that? How do we deal with the uncertainties?

So certainly I think all of our hearts are in the preferred resources. Certainly, we spent a lot of time on demand response. I was just shocked when we got into the SONGs stuff initially and it was like, you know, we want a portfolio of different time responses. But when the question to SDG&E was how much response could you give us in a half hour? And it was like, well, in 16 hours we can respond. In 24 hours where most of the response is. Obviously for some of these heat wave things, that's probably good enough. But if we lose a transmission line

or lose a power plant, 24 hours is not good particularly if it's at night. What happens at that Sunday night if you lose a critical infrastructure? That's why we need that capacity as we're going forward.

And this is a big shift from even the Board PUC decision prior of saying 1200 gas and 800 of preferred. So again it's a huge step. We're waiting to see what the results are. But we really have to be responsible to our citizens and basically make sure the lights stay on going forward.

Now, we've talked about a couple things, one of them was greenhouse gas emissions. And again, I'm very fashion at on greenhouse gas emissions. I would point out that if you look at the trajectory that was the last implementation plan was adopted, we're within that trajectory, even with the displacement of SONGS. And I understand from the staff about 40 percent of the additional greenhouse gas emissions last year was associated with the dry year. So again, it's another dry year.

But the bottom line is as we go forward towards our goals, there's going to be ups and downs. But we know where -- we do have a coherent vision on where we're going. And we will get there on greenhouse gas goals. That's part of the story is that's why cap and trade is

there. That's why we're doing the update of the Scoping Plan, frankly, is to look at 2030 target. Set it. And then move forward.

Again, I think we made great progress. Anyone who thinks it's easy to move the agencies together I would assure you it's not. The demand forecast was hard to pull off. Certainly moving in this direction.

And I guess I wanted to remind everyone, we have tried to be fairly clear to say this is a plan that fits together, although it will go into the various regulatory proceedings, you know, at the ISO, at the PUC, at the Energy Commission. And based upon the evidentiary records in those proceedings, people will make their decisions.

I mean, that's certainly where we're going. But I mean, again when you look at the study and an under sea cable would be interesting, ISO is going through that process right now to see what other transmission options, if any, we can pursue down there. Certainly Edison is going through the all source bids to see what they can put together. So we're going to have a lot more information next summer. But certainly at this point we want to stay the course.

Going back to the nuclear option for second, that's again -- Joan did a great job in terms of really flagged the important issues we said we were going to flag

in the scoping order in terms of what to do in terms of the spent fuel moving, the dry cast. At this point, obviously timely decommissioning of San Onofre is critical. You know, I think certainly I was shocked the NRC held an officer training where they said yeah, they have 60 years to -- everyone has 60 years to decommission the plants. We want that shorter. Certainly the Marines want it shorter.

In terms of Ben's basic question on the ISOs, these documents are big enough that we don't always repeat what we did the last year in it in the conversation. The power of saying that, the ISO study, if you look at pages 118 to 120, there is a reference back to the ISO study on the -- without the nuclear plants operating. But again, we certainly did not highlight in this. We certainly didn't do a cost benefit analysis of nuclear. We really focused on trying to deal with some of the impacts on our citizens for land use types of decision. We certainly respect the NRC's role in terms of regulating safety and the nuclear elements. But certainly we are pursuing the State role in terms of what this means to our people.

And I also would note and thank Commissioner Florio and his staff really the nuclear chapters is a team effort. Mike was involved in that. Certainly has been involved in sort of that particular chapter. The

recommendations reflect the position of both agencies, for at least the lead Commissioner, myself on nuclear here and they reflect Commissioner Florio, who is on point on San Onofre. And I think that maybe did decommissioning.

So anyway, complicated issues. I mean in terms of Michelle's request about next time, we've done nuclear three years in a row. Obviously, San Onofre going out really moved it up the list. The next IEPR will really be directed by Janea Scott. We expect it to be much more transportation focused, which is great.

And I think on some of these topics it's good to take a break and move forward. But certainly we will go through the process of coming up with a scope for the next IEPR. And we will -- everyone has the opportunity to participate in that and appreciate comments.

I think last I would just say climate change and again that is -- if you look at our key issues, it's the economy and climate change and trying to find ways to have a sustainable reliable power system that provides, you know, allows the California economy to thrive and grow and provide jobs the our citizens.

So anyway, certainly there is more to do in this IEPR. We had a pretty ambitious scope, particularly in the energy efficiency side. We didn't accomplish everything we wanted to. But we will keep working on

those in various forms. So with that other Commissioners?

COMMISSIONER SCOTT: Well, as the current rookie on the team, I do look forward in the same way that Commissioner McAllister did to really digging into the IEPR. And I wanted to echo your sense that the IEPR is incredibly neat. And maybe that's just because all of us are a bunch of energy wonks here. But I really do think it's incredibly neat because it presents this Commission with an extraordinary opportunity to explore cutting edge and highly relevant energy issues.

We've got the ability to convene experts from all around the state, the country, and even the world to give us their very best thoughts. And from -- I also find the IEPR to be noteworthy from the public member perspective. And I just wanted to spend a minute focusing on that, the ability for anyone who's interested in what we're doing to review and comment on the draft, the public engagement that we have at all stages, the discussions that take place throughout the year as you highlighted in your comments as well, the shear number of workshops. And anyone who is interested in this can come and they can listen and learn. They can weigh in. They can be heard. I think it's a pretty cool process for the public to be engaged in an energy policy in that way.

And last I just wanted to say thank you to you,

Commissioner McAllister, and to you, Commissioner Weisenmiller, for your leadership and your vision on this IEPR. Your dedication and thoughtfulness just shined through I think. And also to the staff for such a great job in implementing it and getting the IEPR across the finish line. I think it's a great report and I look forward to supporting it.

COMMISSIONER DOUGLAS: I don't have much to add to that, really what anyone has said. I want to also join my colleagues in thanking Commissioner McAllister and the Chair for taking this on. Commissioner McAllister, it was a Herculean effort on top of other Herculean efforts. So thank you for that.

I appreciate the Chair's comment also that like many other things that we do, but particularly in the case of the IEPR, which really tries to address the policy issues of the day with the information available to us and with the understanding that information gets better and analyses, you know, that there's always another analysis coming. There's always -- you know, if you wait four months, you might learn something new. And that's really always the case. So these are living documents. And we seek to improve our understanding in part through analysis and in part through public dialog. I think the document does a good job of reflecting that effort, and, of course,

as we move forward on really all of the issues that we cover in this IEPR.

Of course, none of it is the last word. It's a very good synopsis though of a very thorough process and reflection of where we are today. In that sense, it's extremely valuable. So thank you again for your work. I also look forward to supporting it.

COMMISSIONER HOCHSCHILD: Great. I also just wanted to again thank Commissioner McAllister. Herculean is the right word. In addition to being the lead Commissioner on the IEPR, Commissioner McAllister also led all the Prop. 39 guideline work creation this year and Title 20 and Title 24 and AB 758 and God knows what's else. It's been an incredible year. And after you made all those reforms, you kicked it to me.

And I also just wanted to thank again Susan Korosic for getting this started. I have now the benefit of her talents as she has come to work with me leading the renewable division, and Heather Raitt as well.

As the Commissioner appointed by the Governor to the environmental seat though, I do want to get into a few issues. I'm very finally attuned to the opposition. This received very considerable opposition throughout the state from the environmental community.

I guess this is our first opportunity as fellow

Commissioners to talk about the SONGS issue. In some ways, the IEPR is a proxy for the SONGS discussion. And I guess, Mr. Chair, this really is a question for you because you were leading the interagency work. A few questions.

I guess one is why the need now to sort of declaretively say 50/50 when there is this process already in place at the PUC through the long-term procurement proceeding where those kind of things would normally be taken would be first. And then did the discussions with the other agencies that you talked about sequencing in what order, you know, doing preferred resources first, or does it all have to be done, you know, simultaneously.

Finally, just what conversations -- because the State's spent a lot of time developing the loading order obviously. How did how did the process deal with complying with the loading order specific? Those are the questions that come to mind.

CHAIR WEISENMILLER: They're good questions. I mean, actually one of the interesting things today is the comment about utilities all cost effective conservation. Those words were first spoken by the late great Lennie Watts in 1977. So we've had a vision. In a way, we're not arguing potential. What we're looking for are megawatts, not mega-awards. So certainly we have -- as I

said, we have really upped the game from the last LTP decision. But one of the issues we're really facing is timing. A lot of the conventional generation -- transmission is very, very long to get, right. Let's face it. As I said, the Governor had hoped for three or four years on permitting. Eight to ten if you're talking about controversial routes and undersea cable. These are controversial routes. Again, it's very tough to do that.

Conventional generation is not fast either. You know, we can go through the spectrum. But again, unless we start pursuing those now, my fear is we get to that period in, say, 2020 or 2018 where suddenly there is this -- we're going to put a bunch of 49 megawatt peakers as we did after the heatstorm because -- and we're going to size them so they don't come before the Energy Commission. And we're going to size them so they go to the ISO queue. We're going to roll them out or do something stupid, like oil barges, you know, or the proverbial we'll run the backup generators in the casinos because they're not covered by our tight air regs.

So when you start thinking about timing, you know, that's when you get to the point of saying we made an historic commitment to 50/50. I mean, that's really more than certainly anyone has ever articulated. At the same time said we need contingent plans for everything.

When you start looking at the time line and one of the reasons we put in the contingency permitting part was so we would have more time for the preferred resources to develop or to get there. So we're certainly all rooting for the preferred resources to get there, but we also have to be prudent. And the prudence is to at least start looking at expanding that commitment to conventional gas.

And certainly, again, the gas resources, we hear a lot about the air impacts and the carbon impacts. Now when I was at the El Segundo dedication, Barry Wallerstein said they are striving to come up with ways of measuring the NOx emissions from that plant. That's beyond current the technology to measure the emissions. So they're very clean. Certainly, air in Southern California is very challenged on the inner side. Unfortunately, a lot of that is the mobile sources. A lot of that if you live near a freeway or live near a refinery, that's where you see a lot of the health impacts. I would encourage people environmental groups to be more active -- NRDC already is -- but to be more active in the 118 investment plan process. Because, again, if we could effect transportation and -- don't effect the refineries, at least not directly. I mean, that's one way to really start dealing with the air quality. But certainly Barry Wallerstein and Mary Nichols are very passionate on the

air quality. And we're certainly part of the group looking at it.

What I'm saying is we really need to start moving. It may be that as we go forward the gas plants don't operate that much. That's not -- a lot of the existing plants were thought they're going to operate at 80. They're now operating at 45. But having that sort of spare tire for contingencies, we felt it was really critical. And given the long lead time, we felt it was important to start moving forward at this stage. But again, it's a living document.

It's sort of ironic in a sense because when the loading order was originally proposed among the agencies coming out of the energy principals group, two of the PUC Commissioners didn't vote for it because they said it did not come out of their processes and did not have a full evidentiary record. Certainly in this sense it's putting out -- because one of our real difficulties, frankly, it's huge, is that we really need all the agencies to work together in the right sequence to really make things happen. And so that's where you need that sort of vision. And you need to plan so that somehow when the PUC, Energy Commission, ISO, Air Board, we're going to be very lucky if we get these things to fall in place when we need them. So you need that sort of vision and at the same time or at

least draft plan. And at the same time, we need to focus on implementation and execution, but it's going to be a -- this thing is going to be revisited every year I'm sure for the next X years until we can finally say this is behind this.

COMMISSIONER HOCHSCHILD: I would just say I think all of us share the same twin goals of keeping the lights on and ensuring reliability. Can you share more how you see the next step of the public process engagement where you mentioned this summer there is going to be a --

CHAIR WEISENMILLER: Last summer, we had a workshop in Los Angeles where we -- it's not just Energy Commission. Actually, that was Energy Commission and PUC sponsored, but Mary Nichols came to that one. Steve Berberich was there. And actually we had a prior one down in Los Angeles a prior IEPR, again just from the SONGS smoke was starting to come out.

So we had an event here I think in September 15th, but anyway, where again we had all the agencies. We had staff presentations. People had a chance to comment on those. And I would anticipate again this current IEPR is not even the -- this one is not adopted, much less the next one set up. But one of the things I'm going to ask Jenea to indulge me in is to have that sort of workshop again to get the progress reports from various agencies so

we can march forward. And certainly that would be a public process.

Again, we've tended to try to do those in Los Angeles. And again, I'm not going to -- at this point, it would be premature to say this is where it's going to be in the timing and everything else. But I think next summer it would be something again in that area.

COMMISSIONER HOCHSCHILD: Thank you.

COMMISSIONER MC ALLISTER: I wanted to just highlight some of the -- there is interplay between the forecast, which has to be rigorous, has to be pretty rigorous. So it's based on data that has to be well vetted. You know, this year at the end of the -- towards the end of the process, we had some issues with Edison territory. There's quite a bit of back and forth about that.

But you know, the other day, several people have brought up Edison itself and several of the commentors brought up the formerly known as living pilots, now I think prefer to be source pilots. Hope that doesn't mean they're wilted. But you know, those have to produce results. I think we're all really at the edge of our seats to make sure to see that they achieve results. If they do, it's going to bode really well for being able to do more preferred resources and you know really figuring

out the key to unlocking the various sectors of demand side and other preferred resources.

I personally am incredibly interested in that. I don't think we should all go into a hole and wait six months and see if Edison comes up with the goods. I think we need to pay attention and make sure everybody knows we're paying attention. I think that future is unknown. But I think we are all dependant on its success in that case in the Southern California region.

But you know, none of us have a crystal ball to see, okay, well, what's the percentage split, you know. And we could certainly adopt an aspiration goal. But I think we've done that particularly in the energy efficiency realm, we have aspirational goals we're not meeting because it turns out the rubber on the road is hard to make move. So I think we're -- that's why I think we need a more granular detailed and kind of dive into these issues to make sure that the policy prescriptions that we adopt actually are going to be the work in the ground and interact with the marketplace in ways they're going to work. So I think, yeah, we're all basically on the same page, but we just need to push. We need to learn how to push most effectively going forward.

Okay. I will then move the Resolution for Item 4, including the changes identified in today's business

meeting. I think there was just the one, and the errata. So Item 4.

CHAIR WEISENMILLER: I'll second.

All those in favor?

(Ayes)

CHAIR WEISENMILLER: Item passes, five to zero. Thank you all for your participation today and get ready for the next IEPR.

We'll go off the record for about a minute while we confer on people's schedules.

(Off record)

CHAIR WEISENMILLER: We're going to take a ten-minute break and come back and go through the rest of the agenda.

(Off record)

CHAIR WEISENMILLER: Let's go on to Item 5, possible adoption of OII proceeding. Heather Raitt.

MS. RAITT: So as Commissioner McAllister mentioned, the IEPR training continues. So staff is asking for the Commission's approval of an order instituting informational proceeding to gather and assess information needed for preparing the 2014 and 2014 IEPR update and the 2015 IEPR.

The Commission is required and the Public Resources Code 25302 to prepare an IEPR every two years

with an update in the intervening years that assesses California's electricity and natural gas and transportation fuel sectors.

The IEPR team is working with Commissioner Scott, who is the lead Commissioner for the 2014 update, to develop a scoping order for identifying the topics for the 2014 report. When that scoping order is released in probably the late January or early February, there will be an opportunity for public comment at that time on the scope of the report. The adoption of this order will ensure that the lead Commissioner can collect information related to the topics that will be addressed in the 2014 IEPR update and the 2015 IEPR. That's all.

COMMISSIONER MC ALLISTER: It's my great pleasure to move Item 5.

COMMISSIONER SCOTT: I'll second.

CHAIR WEISENMILLER: All those in favor?

(Ayes)

CHAIR WEISENMILLER: This Resolution passes five to zero. Congratulations.

Let's go on the Item 6. Analyzing British Columbia Run-Of-River Facilities. Brian McCollough, please.

MR. MC COLLOUGH: Good day, Chair Weisenmiller and Commissioners. I'm Brian McCollough with the

Renewable Energy Division.

Under the guidance of Commissioner lead Commissioner for renewable, I'm presenting the lead Commissioners draft report analyzing British Columbia Run-of-River facilities for the California renewables portfolio standard.

This report contains the results of a legislatively-mandated study regarding run-of-river hydroelectric facilities in British Columbia and the renewables portfolio standard, RPS.

The California Renewable Energy Resources Act, otherwise known as SB 1X2, raised the State's RPS goal to 33 percent by 2020 and directed the Energy Commission to study and after a public workshop and opportunity for public comment to provide a report to the Legislature that analyzes run-of-river hydroelectric generating facilities at British Columbia and whether these facilities are or should be included as eligible for California's RPS.

The term run-of-river does not have any statutory meaning in relationship to California's RPS requirements. And hydroelectric projects characterized as run-of-river would be evaluated by the same standards applied to all other hydroelectric projects.

Run-of-river projects are often depicted as having low environmental impacts, as the term run-of-river

implies no impalement of the flow of river takes place in contrast to the obvious changes brought by a typical damn and reservoir system. However, in British Columbia, run-of-river projects are allowed to impound the flow of the river for up to 48 hours and may divert up to 95 percent of the river's flow from the original bed.

Existing statutes and the RPS eligibility guidebook specify that in order to be eligible for California's RPS, a hydroelectric facility must have a nameplate capacity of 30 megawatts or less and either have been under contract to or owned by California retail seller or local POU as of December 31st, 2005, or be a new or repowered facility that has commenced commercial operations after January 1st, 2006. And that meets strict requirements. These RPS eligibility requirements state that a new hydroelectric facility cannot cause an adverse impact on in-stream beneficial uses or cause a change in the volume or timing of stream flow.

In addition to these eligibility restrictions specific to hydroelectric projects, facilities located outside of the United States seeking eligibility for California's RPS must show it was developed and operated in a manner that is as protective of the environment as a similar facility in California.

The environmental review process in British

Columbia does have areas such as consultation with first nations and Native Americans where British Columbia's process is equal to or perhaps even more rigorous than California's. But there are also several areas where British Columbia requires fewer environmental protections. For example, British Columbia does not have a provential endangered species law.

Staff believes that since California's existing statutes provide a very narrow path for these hydroelectric resources to be RPS eligible, it would be overreaching our authority to conclude that no hydroresources can meet RPS requirements. However, existing statutory restrictions on the RPS eligibility of small hydroelectric projects combined with the restrictions on facilities located outside the United States make it extremely unlikely that hydroelectric projects located in British Columbia could qualify to become California's renewable portfolio standard.

In accordance with the statutory direction, staff and the technical support contractor, Aspen Environmental, held two workshops and published a consultants draft and staff draft report. Comments during workshops in addition to the twelve sets of written comments on draft reports were evaluated and used to refine the draft report before

you today.

Public input from clean energy stakeholders, environmentalists, concerned citizens combined with additional research outreach consultation and interviews with Canadian entities and environmental organizations also in form the development of this report.

The lead Commissioner draft does contain in Appendix A the consultant's reports which includes, as required by statute, an analysis of the effects of inclusion of run-of-river hydroelectric resources in the RPS would have on a suite of environmental considerations, including emissions of greenhouse gases, air pollutants, water quality, recreation, and fisheries.

The analysis of the effects of inclusion in the RPS of these hydroelectric resources on these environmental areas does not show a clear environmental benefit that would justify a change to California's existing statutes. The lead Commissioner's draft before you for acceptance does not recommend a change to California's existing statutes.

We offer this report to the Commission for consideration, and I'd be happy to answer any questions.

CHAIR WEISENMILLER: Thank you. I have some public comment. Let's start with Keith from the California Hydropower Reform Coalition.

MR. NAKATANI: Good afternoon. Keith Nakatani, California Hydropower Reform Coalition.

My Steering Committee members include and I represent organizations like Friends of the River, American Rivers, California Trout, Trout Unlimited, American White Water and others. We're a statewide coalition whose mission is to protect and restore rivers that are impacted by hydropower.

Before commenting on the lead Commissioner's report, I'd just like to take a few moments just to describe a little bit of the back story, because I think it's helpful in understanding this issue.

Part of this back story is that in addition to the points that you'll hear in a second how British Columbia weakened already weak environmental protection laws to facilitate the development and the hope for export of hydro to California and how BC also changed their laws to make only private developers able to develop power projects instead of BC Hydro, their crown corporation. And then when the export plan failed, how rate payers were forced to pay exorbitant rates to make up the difference. The good news is that California is not going along with those designs.

Regarding the BC report, I have three overall points. The first and the most important point is that

the CEC got it right in the lead Commissioner's report with its conclusions that hydro from DC is not eligible for California RPS and that California environmental laws are much stronger than BCs and also in recommending that no changes be made to the existing RPS standards.

The second point is that California's RPS regulations should not be changed because the purpose in doing so was to make it easier for PG&E to reach the 33 percent requirement and also so that private power developers in BC could make lots of money.

Another reason for not changing the existing statute is, as you know, the PUC has concluded that we're on track to reach 33 percent. And another reason for not changing the regulations is that, had we done so, then there would have been irreparable harm to many rivers and watersheds in BC.

In essence, California would have been importing hydropower and exporting environmental impacts, which of course would have undermined our deserved reputation for environmental protection.

The proponents of hydro from BC will try to tell you their projects are benign. But as you just heard in the staff summary, up to 95 percent of stream flow can be and oftentimes is diverted for these projects, which is a tremendous impact. For these reasons, the Legislature

rejected the proposal to weaken our RPS standards. And with this report, the CEC agrees.

The third point I'd like to make today is that although we support the conclusions in the lead Commissioner's report, we're troubled by the consultant's report which is Appendix A because there are significant inaccuracies in the consultant's report which contradict the lead Commissioner's report. We request that these inaccuracies are corrected.

For example, the consultant's report says that the environmental laws in BC and California are comparable. But as the lead Commissioner report accurately says, "there are substantial differences between the levels of environmental protection required in BC and California."

The consultant's report inaccurately says the CEC is considering a different stream flow standard than that which is currently required. There are also other inaccuracies in the report, but I won't go into those. And again, we request that those inaccuracies be corrected so that the consultant's report is consistent with the lead Commissioner's report. Thank you.

CHAIR WEISENMILLER: Thank you. We have a gentleman on the phone. Actually. Excuse me. Gwen Barley.

MS. BARLEY: Yes. Hello. Good afternoon. My name is Gwen Barley. I'm the Policy Director with the Wilderness Committee, which is a 30,000 member environmental organization based in British Columbia. And I'm just going to take you very briefly through a short PowerPoint. I'm reiterating why run-of-river facilities in BC shouldn't be considered for the RPS standard.

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MS. BARLEY: If you go to slide one, you'll see that projects must be developed outside of the U.S. must be developed and operated in a manner is that protective of the environment as a similar facility located in California. And furthermore, hydrofacilities are not RPS eligible in California if it will cause an adverse impact on in-stream beneficial use or cause a change in the flow, in the volume, or timing many stream follow.

Slide two is a typical river diversion. It's the Ashlu Project, a 49 megawatt projects, which means it falls just one megawatt below the BC biological assessment process. You can see the impact that this would have on stream flow. And as was mentioned earlier up to 95 percent of the river could be diverted into a pipe, in some cases, up to 98 percent of the river.

If you go to slide three, this is the Upper Toba Power Project. Again, you can see the very considerable

impacts these projects have. They can have hundreds of kilometers of transmission lines and kilometers of pipes where the river is diverted and that can be fragmenting and impact wilderness.

As was mentioned earlier, British Columbia has no endangered species legislation. We have 1900 species at risk. And the environment has been cut 50 percent in the last ten years. We also had very severe cuts to the Fisheries Act and Canadia Environmental Assessment Act in 2012.

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MS. BARLEY: So slide four shows the 1,140 percent increase in water power licenses applications in British Columbia. And that was in anticipation of being able to sell power to California. And then the final slide is --

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MS. BARLEY: An article from the Vancouver Sun, which is British Columbia's daily newspaper. It says, "BC's run-of-river sector in regulatory disarray, document suggests." And that was from a freedom of information request that the Wilderness Committee got that showed there was 749 instances of non-compliance at 16 operating river diversion projects in 2010 alone. So we've had a very serious issue with low, low environmental standards,

a lack of compliance, and not having enough staff on the ground to ensure compliance. Thank you.

CHAIR WEISENMILLER: Thank you. I think we've done with public comment. Let's turn to the Commissioners.

COMMISSIONER HOCHSCHILD: Thank you.

Let me thank our staff Brian McCollough for completing this report. I'm basically happy where it landed. And this is actually kind of a cap stone on a very productive year from the renewables team. We got the verification report, and the new solar homes program revisions done and the station power workshop and many others. So this is a nice way to wrap it up.

I particularly wanted to express my gratitude to Mr. Nakatani for the very informative briefing about a month ago with your colleagues. And I hear your comment today. However, I'm actually comfortable with where this is and would like to move the item as it is. I moved the item.

COMMISSIONER DOUGLAS: Second.

CHAIR WEISENMILLER: All those in favor?

(Ayes)

CHAIR WEISENMILLER: This resolution passes unanimously five to zero.

Let's go on to Item 7.

MR. NUFFER: Good afternoon, Mr. Chair, Commissioners. My name is John Nuffer. With me is Peter Strait from the Appliance Energy Efficiency Program.

We're here today to seek your approval for an agreement with the Benningfield Group in the amount of $259,000 for them to conduct an appliance market survey of 20 different appliance types that are regulated by California's appliance efficiency regulation.

The purpose of this survey is to assess -- to help us assess compliance with those appliance efficiency standards. The agreement will last about a year and a half. The consultant, the contractor will look into cataloguing internet sales, retailers, and wholesalers throughout the state.

The Benningfield Group was the lowest qualified bidder of the three bidders. And with your approval, this would be the fourth such market survey. And given our potential -- our potential new enforcement program taking effect, which may take effect at the end of this year or early next, this kind of information derived from this survey will be very helpful.

So with that, Peter and I can answer any questions you might have.

CHAIR WEISENMILLER: Great. Thank you. Commissioners, questions or comments?

COMMISSIONER SCOTT: You said the lowest qualified?

MR. NUFFER: Lowest cost.

COMMISSIONER SCOTT: Oh, got it. I wanted to clarify.

COMMISSIONER MC ALLISTER: I just want to say thanks. I guess certainly your context of SB 454 is well taken. And compliance comes up as an important issue on a number of fronts, definitely appliances and building standards. We know to know more about the levels of compliance, what's the base line, what's actually going on. And this study will help us determine that. And then also just understand the marketplace better and identify who the actors are with more specificity and make the procurement decisions and allow us to educate the marketplace going forward. It's not always a willful lack of compliance. Sometimes it's just lack of knowledge. Part of our responsibility is to make sure that when regulations come down, all the right people know about them so they can in good faith comply. It's a multi-faceted endeavor. And this is really creating a foundation for us to do our jobs better each tim we can. So I'm very supportive of this effort and contract.

COMMISSIONER HOCHSCHILD: Commissioner McAllister, could I ask a question? I'm not sure who

might know the answer. Maybe nobody knows. But I'm just curious. Of the 27 appliances that are regulated under Title 20, of all the energy that's consumed by appliances in the state, what fraction does this 27 represent? Is this a majority of --

MR. NUFFER: I can't answer that question.

COMMISSIONER HOCHSCHILD: Or just even a ballpark.

MR. STRAIT: The 27 appliances in question isn't the full of portfolio of appliances regulated by the California Energy Commission through our appliance efficiency regulations. The appliance efficiency regulations cover nearly all of the end point uses in total.

So I say over the regulations, probably at least 80 percent of all power consumed is consumed by appliances covered somewhere in those regulations. I don't have a list of the 27 we are focusing on this survey here.

But what we do with these surveys is try to alternate which appliances we look at so that if you look at something in our previous report we'll choose a different set for the next report and revisit those appliances again in the following report. So in the context of this being the fourth we conducted, this is just one step in maintaining observations of the

California marketplace and ultimately looking at all of the appliances.

COMMISSIONER HOCHSCHILD: Sorry. I misunderstood the 27. What is the actual total number of appliances?

MR. STRAIT: Roughly 60.

COMMISSIONER MC ALLISTER: Some of those are going to be federal regulations that we've adopted as California regulations and some of them will be specific to California because federal regulations doesn't exist and we can do that.

So, but overall, I mean in the residential sector, I would say, I mean, just standby load there's somewhere between maybe six and twelve percent of electricity consumption in residential sector is standby load. The appliances would be probably three or four times that overall. You're talking about a third of energy consumption is end use of some sort along those lines.

MR. STRAIT: These 27 in particular are focused on the California regulated appliances, those appliances are not also subject to federal regulation.

COMMISSIONER MC ALLISTER: Any other comments on the dias? So I will move Item 7.

COMMISSIONER DOUGLAS: Second.

CHAIR WEISENMILLER: All those in favor?

(Ayes)

CHAIR WEISENMILLER: The Resolution for Item 7 passes five to zero.

Let's go on to Item 8. Thank you. This is the Regents of University of California Irvine. This is $100,000. This is pure natural gas funding. And Marla Mueller.

MS. MUELLER: Good afternoon.

CHAIR WEISENMILLER: Hold on one second.

COMMISSIONER MC ALLISTER: I wanted to jump in here. I missed my cue by a couple seconds.

So I wanted to disclose that my wife is a professor at King Hall, the law school at U.C. Davis. So by virtue of the fact she has some income from the U.C. system, I wanted to disclose. I'm not conflicted out of this particular vote, so I will stay in.

COMMISSIONER DOUGLAS: I will also disclose I'm teaching a law class at King Hall, U.C. Davis. This is a disclosure. There is -- I'm not recusing myself. I'm participate in this action. But we have the first class on Monday.

CHAIR WEISENMILLER: Go ahead.

MS. MUELLER: Good afternoon. I'm Marla Mueller from the Research Division.

I'm here asking for approval of this contract

with U.C. Irvine. As the spectrum of biofuels available in California widens, it is important to understand the impacts of these fuels will have on these existing combustion equipment within the state.

Benefits of the biofuels will be offset if these fuels result in reduced combustion system efficiency, increased maintenance costs, or degraded air quality. This proposed project builds on three earlier projects.

In the gas fuel energy criteria project Phase I, U.C. Irvine in collaboration with the University of Washington and Georgia Tech developed simulation methodology that are able to predict transit emission as a function of fuel composition and predict fuel stability. This was demonstrated on a few burners.

The simulation methodology appears promising. However, the ability to correctly predict behavior in burners in general has not been fully evaluated. Modeling results need to be evaluated against actual burner test results.

More work is needed to explore how modifying the burner configuration might help reduce emissions of nitrogen oxides and additional consideration of other fuels and burner configuration is needed such that a broader spectrum of biofuels and current and improving combustion systems can be encompassed by this work. Use

of this work to validate the U.C. methodology was identified when the Phase I project was approved.

The purpose of the proposed project is to further test and verify that U.C. Irvine simulation methodology and to estimate the impact of fuel composition on air pollutant emissions from and stability of combustion systems with a focus on biogas resources. In this project, if approved, the methodology will be first will first be applied to burners that have been tested in the laboratory for in-field studies on a variety of fuels. This part of the project will use results from the previous research, such as the peer funded project done by Gas Technology Institute and Lawrence Berkeley National Lab looking at the implications of using high heating value gases and combustion systems.

The modeling methodology will be modified as needed based on these tests and then applied to selected burner configurations to provide detailed information regarding how fuel combustion impacts, air pollutant emissions, and combustion systems stability. Additional simulations will be run to evaluate biofuels in a broader range of burners.

The Advisory Committee from Phase I will continue to provide guidance for this phase of the project. The Committee includes Air Resources Board, Air Districts, gas

utility, and OEM staff and combustion experts.

Further testing and validation of the simulation methodology will lead to an estimation in terms of trends of the overall impact of fuel composition on emissions of nitrogen oxides, carbon monoxide, and volatile organic compounds on operability and on safety from the use of biogas.

The results from this project in conjunction with the inventory of burners within the state can be used to estimate how adoption of biofuels will impact emissions. The resulting data can be used to inform policy makers on the air quality and safety implications of biogas. They can also provide insights into needed improvements in burner configuration. Thank you.

CHAIR WEISENMILLER: Thank you.

Commissioner, any questions or comments?

Just following up on the last question. U.C. Irvine is aware there is a lot of research on plug loads on the appliance area. If you -- (inaudible) if you want to get with them.

COMMISSIONER MC ALLISTER: I'll move Item 8.

COMMISSIONER SCOTT: Second.

COMMISSIONER HOCHSCHILD: Second.

CHAIR WEISENMILLER: All those in favor of this Resolution?

(Ayes)

CHAIR WEISENMILLER: This resolution passes five to zero.

Let's go to Item 9, Kenneth B. Medlock III. This is an agreement $100,000, and this is ERPA funding. Linda.

MS. SPIEGEL: Good afternoon. Linda Spiegel.

This is a request. It's for a two-year contract for $100,000 with Dr. Medlock, who is with the University Baker Institute. Dr. Medlock is the architect of the model the natural gas model that's called North America market gas trade model that staff uses to do its assessments to determine future natural gas prices, supply, and demand in the generation sector. These assessments are done biannually to support the IEPR.

And the purpose of this particular contract is to allow Dr. Medlock to make some structural changes and improvements to the model and to provide training. The structural changes would be, for example, to allow it to do monthly assessments in addition to the annual ones it does now. And this will allow staff to be more responsive to periodic seasonal events, like right now we have a very dry year and the implications for increased demand for natural gas-fired units in absence of hydro.

They'll also be training so we can continue our

work to have staff become more proficient in running this model in house and provide the expertise we need to move forward in the next assessment.

COMMISSIONER MC ALLISTER: I'll just comment that, you know, the course of the IEPR and the natural gas work that I have been doing and just leading the natural gas policy area, the gas model is a key resource for us. And I think the long term plan that we're in the middle of executing and really getting our staff up to speed is critical. And I know Dr. Medlock has been quite flexible to work with and good responsive to us, which is good. We can't always say that about our consultants, no matter how about they are. I think having that interaction and having that market expertise and academic expertise just applied abilities really important. So I'm supportive.

COMMISSIONER SCOTT: I'll move Item 9.

COMMISSIONER MC ALLISTER: I'll second.

CHAIR WEISENMILLER: All those in favor?

(Ayes)

CHAIR WEISENMILLER: This resolution passes five to zero. Thank you.

Let's go on to Oceanside Unified School District. Possible adoption of Resolution ARV 13-006. This is $299,157. This is ARFVTF funding.

MS. LOPEZ: Good afternoon. My name is Thanh

Lopez from the Emerging Fuels and Technologies Office of the Fuels and Transportation Division. I'm presenting for possible approval an agreement with Oceanside Unified School District to upgrade their existing compressed natural gas, or CNG, fueling station.

Oceanside Unified School District applied for funding under the Emerging Fuel and Technology Offices natural gas fueling infrastructure grant solicitation, the purpose of which is to support the installation of new infrastructure as well as upgrades to existing natural gas fueling infrastructure.

The original CNG station at Oceanside Unified School District was installed more than ten years ago and has become unreliable and in need of an upgrade. Without the station, the current bus fleet would have to travel to Carlsbad, about a ten mile round trip, to obtain CNG for their bus fleet which would entail significant additionals costs associated with labor, vehicle depreciation and fueling charges.

This grant will allow the district to upgrade their existing natural gas dryer and 27 fuel dispensers for the fueling station. Upon completion, the upgraded station will continue to support the district's existing fleet of 29 CNG school buses, allowing the district to confidently provide consistent and reliable transportation

for students of the school district.

The station's increased capacity will reduce greenhouse gas and criteria pollutant emissions by increasing the displacement of petroleum-derived fuels with natural gas. This throughput will displace over 66,000 gallons of diesel fuel annually and reduce greenhouse gas emissions by 180 metric tons per year.

If approved, the Energy Commission will provide $299,157 in alternative and renewable fuel and vehicle technology program funds.

Staff is requesting the Commission support an approval of this proposed grant award. I'll be happy to answer any questions. Thank you for your consideration.

CHAIR WEISENMILLER: Thank you.

Commission, any questions or comments?

COMMISSIONER SCOTT: I'll move Item 10.

COMMISSIONER HOCHSCHILD: Second.

CHAIR WEISENMILLER: All those in favor?

(Ayes)

CHAIR WEISENMILLER: Resolution for Item 10 has been approved five to zero. Thank you.

Let's go on to Item 11, City of Waterford. This is loan agreement 004-13-ECD for $1.3 million. This is ECAA funding.

MR. CHAUDHRY: Good afternoon, Mr. Chair and

Commissioners.

I'm Shahid Chaudhry with the Energy Efficiency Division. And I'm here today for your approval of ECAA funding $1.3 million at one percent to the city of Waterford for renewable energy and energy efficiency projects at the city facilities.

The total cost of the project is $1.86 million. The city will use this loan to install 297 kilowatt of PV panels at the wastewater treatment facility, city hall, and the community center, will efficiently upgrade wastewater treatment facilities operations and replace high pressure sodium street lights to LED lights.

On completion, this project will save over 900,000 kilowatt hours annually and will correspond with $102,000 a year. These projects will also mitigate about 313 tons of carbon dioxide greenhouse gas emissions. The payback period on $1.3 million loan is approximately 12.8 years.

I'm here to answer any questions you may have.

CHAIR WEISENMILLER: Thank you. Commissioners any questions or comments?

COMMISSIONER DOUGLAS: No questions. Looks like a very good project --

COMMISSIONER HOCHSCHILD: Sorry. Did you say 1.28 or 12.8?

MR. CHAUDHRY: 12.8 years simple pay back.

COMMISSIONER HOCHSCHILD: Right. Right.

COMMISSIONER MC ALLISTER: I'll just point out it was a nice mix of PV and energy efficiency. That's the kind of project that we really -- just a good thing all around. And knowing staff evaluating these projects is very capable of looking at the benefits and quantifying the sort of attractiveness, I fully support the project. So I'll move Item 11.

COMMISSIONER HOCHSCHILD: Second.

CHAIR WEISENMILLER: All those in favor of this Resolution?

(Ayes)

CHAIR WEISENMILLER: This Resolution passes five to zero.

Thank you. Let's go on to Item 13, city of Clovis. This is another one agreement 001-13-ECA for $149,706. This is ECAA funding. And Cheng Moua.

MR. MOUA: Thank you. Good afternoon. I'm Cheng Moua with the Energy Efficiency Division Local Assistance and Financing Office.

This item is in request for approval of an ECAA loan with an amount of $149,706 for the city of Clovis. The city of Clovis has requested this loan to fund a street light retrofit project, which includes retrofitting

374 street lights from high pressure sodium to LED technology.

The project is estimated to reduce the city's annual energy use by 144,000 kilowatt hours. This results in an annual cost savings of over 19,000 for the city.

The total cost for the project is approximately $178,281. City of Clovis anticipates receiving approximately 28,000 from utility rebates. The remaining project funding is expected from the approval of this loan.

The simple pay back for this project is 7.7 years based on the loan amount and the interest rate is one percent. Staff has determined that this loan request complies with all program requirements, and I'm here to seek your approval. Thank you.

CHAIR WEISENMILLER: Thank you.

Commissioner, any questions or comments?

COMMISSIONER HOCHSCHILD: Are you mostly replacing high pressure sodium?

MR. MOUA: Yes. For instance, the city of Clovis, their current technology is HPS.

COMMISSIONER HOCHSCHILD: What is the energy consumption basis? Like a 70 percent reduction or 50 percent reduction?

MR. MOUA: I would have to look at the exact

numbers again. But it depends. It's usually going from anywhere from let's say 150 down to, like, 70 or something like that for LED.

COMMISSIONER HOCHSCHILD: Good. 50 percent. Okay. Thanks.

I would move the item.

COMMISSIONER MC ALLISTER: I'll second.

CHAIR WEISENMILLER: All those in favor?

(Ayes)

CHAIR WEISENMILLER: This Resolution passes five to zero.

Let's go on to Item 13, City of Berkeley, possible adoption of Resolution approving loan 005-13-ECD. This is for $3 million. And Cheng Moua, please. And this is ECAA funding again.

MR. MOUA: Yes. This item is a request for ECAA loan with the amount of three million dollars from the city of Berkeley. The city of Berkeley is also doing a street light retrofit project, which includes retrofitting over 7600 street lights to LED technology.

The current lighting consists of high pressure sodium. The project is estimated to reduce the city's energy use by over 2.9 million kilowatt hours. This results in an energy cost savings estimated at $368,00 for the city.

The city of Berkeley will also apply for a utility rebate for approximately $843,000. The simple pay back for this project is eight years based on the loan amount. The interest rate is one percent. Staff has determined the loan request complies with the program requirement. I'm here today to seek your approval.

CHAIR WEISENMILLER: Thank you.

Commissioners, any questions or comments?

COMMISSIONER MC ALLISTER: Looks like a good project. LEDs are really coming to the marketplace. They're a good thing.

I think also, you know, the maintenance -- a lot of advantages just the lifetime and maintenance reduction and that will kind of thing are really good for public entities cities and counties that own these lights. So there is a lot of benefits here.

COMMISSIONER HOCHSCHILD: I would just point out the innovation continues, and of course the great work of Phillips and GE and many others. It's still evolving.

CHAIR WEISENMILLER: I think they were like 17,000 LED street lights out. It was a big push in that direction. And it's interesting when you look at the Navy Marines, they just leap forward from CFL straight to LED. As you go through the bases, we see LEDs now.

COMMISSIONER MC ALLISTER: I'll move Item 13.

COMMISSIONER DOUGLAS: Second.

CHAIR WEISENMILLER: Okay. All those in favor?

(Ayes)

CHAIR WEISENMILLER: This Resolution also passes five to zero.

Let's go on to Item 14, which is the minutes from the December 19th.

COMMISSIONER SCOTT: I'll move the minutes.

COMMISSIONER DOUGLAS: Second.

CHAIR WEISENMILLER: All those in favor?

(Ayes)

CHAIR WEISENMILLER: The minutes have been approved again five to zero.

Let's go on to lead Commissioner or Presiding Member Commission. Ms. Scott.

COMMISSIONER SCOTT: All right. I just have a couple of things that I will highlight for you. Commissioner Hochschild and I got to go out and visited Beal Air Force Base last week. That was a very eye-opening trip. I didn't realize what their mission was up there and a lot of their mission is to help protect our soldiers while they are overseas. It's because they've got these set of aircraft, and they're one of the only air forces I think in the world that has this type of air contract. It can go up to 15 miles high and look down and

see. And so they are able to look out ahead of where troops may be moving or if troops are sleeping someplace, they can keep an aye out around it. They communicate with someone directly at Beal Air Force base. The person at Beal is talking with a person over an incredibly robust wireless network of who's actually there. They're telling them what they're able to see. And that was really neat.

One of the things they wanted to highlight for Commissioner Hochschild and me is the aging infrastructure. So that if their power goes out and the are liability, right, if the power goes out all of a sudden they no longer have the ability for the guy who's getting the information to hear at Beal. Just put a really fine point on a lot of the energy issues that we discuss. I don't know if you want to add anything to that.

And then I had a chance to go tour to Clean World Fruit Ridge Facility, which is a waste to energy plant. And it's something that the alternative and renewable fuel vehicle technologies program helped to fund. It's great. It's just here in Sacramento. They take about 25 tons of food waste and turn it into methane.

What's really great about that is that it's a little machine and it kind of spins -- so you put like an empty yogurt container and it pokes holes in it so the

food waste comes out, but they can recycle the plastic or the can or whatever. And then they offered us a chance to kind of look into, but stuff was flying around. And we said, well, thank you. And they take that food waste and they put it in the anaerobic digesters and there is three different ones. It takes 45 days for it to get through the whole process. That's what makes the fuel.

What's great this is going into transportation fuel. So they have a little natural gas station right there, and it fuels up the trucks that are going out to pick up the food waste and then bring it back to the facility. And they're getting ready to expand from 25 tons a day to 100 tons a day. So that's what they're working on right now. So we had an opportunity to see a little bit of the construction work that was going on. That was a neat visit of one of the great projects we had an opportunity to fund here at the Commission.

I'll give you a staffing update. Rhetta deMesa was here. She's not any longer. Leslie had her baby and is now on maternity leave. It's a little girl. Healthy. Everyone is super happy and excited. And so (inaudible) from the PIER team, they've been kind enough to lend their resources. She is going to serve at my advisor while Leslie is out on maturity leave.

COMMISSIONER MC ALLISTER: I'll be very brief. I

already talked too much today about the IEPR.

I will just sort of leverage those comments to say I'm really -- well, first of all, you guys are having way more fun than I am out there doing stuff. I did have a nice holiday with my family. Seems like in the blink of an eye, we went from the December business meeting to the January business meeting. But a lot of just great stuff on tap challenging and interesting and necessary stuff on tap for 2014, certainly in the energy efficiency realm with pushing forward on the fronts that we've talked about. Really executing on the Prop. 39 work that staff is so ably doing and really getting that out there to the local educational authorities and school districts so they can take advantage of those funds by the summer. Do construction while the kids are not in school. And pushing forward on the various standards fronts is obviously something that we'll be doing this year.

And then, yeah, I think I'll just leave it at that. But I just want to -- 2014 is looking like it's going to be a good year with a lot of good stuff going on, certainly my office and across the Commission.

CHAIR WEISENMILLER: Yeah I think it's been a quiet time for certainly for many of us.

I don't remember if it was last business meeting or not, but we had a really fascinating meeting between

PIER folks and ARPA-E folks. We have an MOU. It's so far the only MOU ARPA-E has within the states. One of Secretary's signature initiatives was RPE. Pretty impressive group. We're trying to tie -- basically have our programs really complement each other. And so that was a fun meeting just in terms of the types of things they're doing in some areas. Obviously, they're much more shooting for the home run transformational. And a lot of our PIER stuff is more inch by inch. We get some funds, but it's not like here it is you have three years, do it. Get a transformation and go back. This is much more incremental. So that was fun.

I would follow up on your comments about planes in the air. When we had the outage down in San Diego -- from just the things that went wrong there, they had drones in the air. And things were blacked out in the Navy Marine bases. It was certainly whenever I'm meeting with people from that base or back in the Pentagon, there is the question about reliability of power in San Diego. Because they pivot. They've got this -- Obama has this pivot towards the Pacific. So shifting a lot of the military resources more into California, at least on the west coast. So trying to make sure we don't spook anyone on that issue.

COMMISSIONER DOUGLAS: I have no reports about

the last two weeks, although I will also say that I'm looking forward to 2014. We've got a lot on our plates. I think 2014 is going to be a good year for us.

COMMISSIONER HOCHSCHILD: First, I just want to thank the Chair for his direction to Commissioner Scott and engaging with the military. That was a really productive visit at Beal Air Force Base, and we're going to be visiting bases from all the services this year. China Lake I think is on the list.

The only other thing I would update our Chair, I had discussed with the Chair the PACE program and digging into that. Because as you remember, the Governor's office took $10 million I believe out of ERPA money into this special fund essentially to provide the back stop security to allow PACE to roll out.

Essentially, what I found out is PACE is really functioning very well in western Riverside and somewhat well in Sonoma. In Western Riverside, they've done 6,000 homes now through the PACE program, have had very, very few defaults. So it's excellent in terms of default rate. And the average project size is $18,000. So people are doing significant upgrades.

And that gives me great hope because if this thing -- I believe the regs are supposed to be completed this month. I'm told in that case all of California, you

know, has potential to launch a PACE program of that scale. I'm told it could be between two and four billion dollars of projects. That is from the PACE folks. So I'm still educating myself, but it sounds promising.

COMMISSIONER MC ALLISTER: I wanted to make a comment on that. In a previous incarnation, I was very involved in the PACE stuff at the local level. And Riverside and some of the other efforts have really I think been a nice crucible for what's going to work and what's going to be more difficult, and local governments vary a lot. But they are really critical to the PACE effort.

And it's hard to -- I think one lesson from Riverside, it's the more process heavy you make a program, the less participation you're going to get. And you know, I think smart people differ on what a good program looks like. And you're probably hearing a lot of that. But you know, the effort to develop and refine and implement PACE really has been going on a long time and it's proven to be a pretty rough road. And we're getting to the point where we're getting enough experience to have a whole array of programs and policies and kind of be able to tease out what's really going to work and provide some direction at the state level for the local governments who fundamentally they need a JPA and that JPA can be

statewide. But fundamentally, they have to make the curtailment mitigation to opt in and utilize their property tax rolls, open them up to a PACE approach.

And so I was really excited, you know -- what was it? Five or six years ago when PACE came up and it was a very heavy time. And a big bucket of cold water from the Fed and I believe a lawsuit from the State is still active to against FHFA. But in the mean time, a lot of people really put their nose to the ground and made local efforts work. So I think now we're going o reap the benefits of that. I'm glad you're taking that on.

COMMISSIONER HOCHSCHILD: One thing I would add is that a week ago, FHFA got a new director, who was just confirmed and sworn in. Literally, a week ago. It is an opportunity to get nationwide, although there is still strong opposition.

CHAIR WEISENMILLER: I was going to encourage both of you, if you go to China Lake to think about having -- well, I guess should put this better.

I went to China Lake Jackie Pfannenstiel and I did the dedication -- ground braking of Sun Power. I was there -- got in the night before. I had dinner down in L.A. scheduled the following day. They're going, oh, well, you know, if you were here longer, we could take the helicopter tour of the base and you get a better sense of

the geography. You want to see the China Lake geothermal, that's really far away. If we had more time, we could take you there, but you don't. We have world class petrographs here. But you don't enough time to get there.

So anyway, take some time is what I'm saying. It's a long way. But once you get there, make sure you have enough time to cover the things I want to cover. They had a fascinating biofuels activity too there. So anyway, a lot of it's really a great place to visit. Like I said, definitely leave yourself time to -- think through the agenda beforehand so you can cover the pieces you want to cover.

Chief Counsel's report.

CHIEF COUNSEL LEVY: Nothing today.

CHAIR WEISENMILLER: Executive Director's report?

EXECUTIVE DIRECTOR OGLESBY: Nothing to add today.

CHAIR WEISENMILLER: Public Advisor report.

PUBLIC ADVISOR: Nothing to add.

CHAIR WEISENMILLER: Public comment?

This meeting is adjourned.

(Whereupon the meeting adjourned at 1:29 PM)

CERTIFICATE OF REPORTER

I, TIFFANY C. KRAFT, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing hearing was reported in shorthand by me, Tiffany C. Kraft, a Certified Shorthand Reporter of the State of California, and thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing nor in any way interested in the outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 29th day of January, 2014.

_____

TIFFANY C. KRAFT, CSR, RPR
Certified Shorthand Reporter
License No. 12277