California Energy Commission
DOCKETED
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JUN 26 2013

BUSINESS MEETING

BEFORE THE

CALIFORNIA ENERGY COMMISSION

In the Matter of:)
)
Business Meeting)
_____)

CALIFORNIA ENERGY COMMISSION

HEARING ROOM A

1516 NINTH STREET

SACRAMENTO, CALIFORNIA

WEDNESDAY, JUNE 12, 2013

9:00 A.M.

Reported by:
Kent Odell

Commissioners Present

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

Staff Present:

Rob Oglesby, Executive Director
Michael Levy, Chief Counsel
Laurie ten Hope, Deputy Director, R&D Division
Blake Roberts, Public Advisor
Harriet Kallemeyn, Secretariat
Gabe Herrera
Kate Zocchetti
Pierre Martinez
Kevin Bell
Jacquelyn Leyva Record
Alana Matthews
Pippin Brehler, Senior Staff Counsel

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Also Present (* Via WebEx and phone)

*Cheryl Martin, ARPA-E
Neil Millar, California Independent System Operation (ISO)
Robert Emmert, California Independent System Operation (ISO)
Ben Davis, California Nuclear Initiative
Mike Webster, Los Angeles Department of Water and Power (LADWP)
Reiko Kerr, City of Riverside
Anthony Andreoni, CA Municipal Utilities Association (CMUA)
James Hendry, San Francisco Public Utilities Commission (SFPUC)
Valerie Winn, Pacific Gas & Electric Company (PG&E)
Susie Berlin, Northern California Power Agency (NCPA)
Rachel Gold, Large Scale Solar Association
Laurie Wisland, Union of Concerned Scientists
*Oscar Herrera, Southern California Public
Power Authority (SCPPA)
*Steve Zuretti, Solar Energy Industries Association (SEIA)
Greg Wheatland, Esq., Ellison Schneider & Harris
Paul Shepard, Diamond Generating Corporation
John McKinsey, Esq., Locke Lord
George L. Piantka, El Segundo Energy Center, LLC
Douglas Robertson, City of Victorville
Janelle Davidson, City of Victorville
Tom Garcia, California Building Officials Organization
Tom Enslow, Adams Broadwell Joseph & Cardozo, on
behalf of Testing, Adjusting and Balancing
Bureau (TAB) and on behalf of California
Advanced Lighting Controls Training Program (CALCTP)
Bob Raymer, California Building Industry Association
Patrick Splitt, APP-TECH
*Dr. Cameron Gorduinpour, Department of Defense
*Michael Gensel, Concurrent Technologies Corporation
Lesley Garland, Western Propane Gas Association
Eric Bates, ROUSH CleanTech
Erik White, Air Resources Board
Bonnie Holmes-Gen, American Lung Association
Simon Mui, Natural Resources Defense Council (NRDC)
Matt Forrest, Mercedes Benz, R&D North America
Gil Castillo, Hyundai Motor America
Matt McClory, Toyota Motor Manufacturing and
Engineering, NA
*Bob Oesterrich, Air Liquide
*Robert Bienenfield, American Honda Motor Company
*Dan Poppe, Hydrogen Frontier
*Angela Das, PowerTech Labs
*Steve Eckhardt, Linde North America
*Steve Jones, ITM Power
Ed Heydorn, Air Products

Also Present (* Via WebEx and phone)

*Geoffrey Budd, ITM Power, U.S.
Matt Miyasato, South Coast Air Quality Management District
Dipankar Sarkar, South Coast Air Quality Management District
*Kirk Honor, FirstCNG LLC
*Chip Works, Waste Management
*Charles Botsford, AeroVironment
Wayne Bishop, Harvest Power Tulare, LLC
Brandon Tianov, View, Inc.
Maryanne Tiette, Lawrence Berkeley National Lab
Blake Roberts

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P R O C E E D I N G S

JUNE 12, 2013 9:05 a.m.

CHAIRMAN WEISENMILLER: Good morning. Let's start the Business Meeting with the Pledge of Allegiance.

(Whereupon, the Pledge of Allegiance was recited in unison.)

CHAIRMAN WEISENMILLER: Good morning. We have a pretty large agenda today. So with that in mind, I would point out to people the note that we do not anticipate -- well, we will not take up items 12 through 31 before 1:00 p.m. today.

And, in fact, in terms of the other sort of just general guidance, so in terms of Item 2, it will not come up today and, in addition, Items 10C and D are also off the agenda. And finally, I'm going to shift the order when we come back, so Item 22 will come before Item 12. Item 22 is an effort we're doing with the Department of Defense and they would like to call in, and so in recognition of the time change, I wanted to give them some relative certainty and also somewhat earlier than would be the natural flow of things.

In terms of -- I'm saying not before

1:00, when we get to our lunch break we will determine whether we're back exactly at 1:00, or slightly later than that.

And the other thing I wanted to -- in terms of general announcements -- point out one of the great things of this job is you can actually see the alchemy of changing visions into reality, and so I would point out that we will be having outside today some Fuel Cell Vehicles and certainly encourage people to take the opportunity to kick the tires, look under the hood certainly at lunch and, for those of you who are leaving earlier in the day, I would certainly again encourage you to swing by and see those.

With that, let's start with the Consent Calendar.

COMMISSIONER DOUGLAS: So, Chair Weisenmiller, before we take up the Consent Calendar, I'd like to make a disclosure, and I have to admit that I can't locate my list of which items this pertains to, but there are a number of items on the Consent Calendar --

CHAIRMAN WEISENMILLER: Hang on one second.

COMMISSIONER DOUGLAS: -- in which the

University of California is involved as a party to contract with the Energy Commission. Thank you. So those items are, let's see, Consent Calendar Items 1(h), 1(i), and 1(n), and Agenda Items -- oh, just do Consent Calendar. And so I wanted to disclose that I am an Adjunct Professor at the King Hall at U.C. Davis and I teach a Renewable Energy Law class. My co-teacher in that effort, Mike Levy, is our Chief Counsel, so this disclosure relates to him, as well. King Hall is a department that is not involved in any of these contracts. So, thank you.

COMMISSIONER MCALLISTER: I will take Commissioner Douglas's lead here. I have a bit of a new development in my personal life that actually affects what we're doing here. My wife has recently been appointed as a tenured faculty at U.C. Davis Law School, King Hall, and so that will -- I will regularly be -- well, whenever there's something with the U.C. system, I will be disclosing it, but in general only recusing if there's particular business with King Hall. So the same items actually apply in my case. I will point out right now that my wife, Leslie, does not start actually until July 1st, so I'm doing

this as sort of a proactive measure this time, and after July 1st then she will be a faculty at U.C. Davis, King Hall. So no recusal is required, but I want to disclose that.

MR. LEVY: Commissioners, if you just mention items 24(d) and (f), that will obviate the need for another disclosure when those items come up because those are also U.C. related.

CHAIRMAN WEISENMILLER: Thank you. So is there a motion?

COMMISSIONER DOUGLAS: Move approval of the Consent Calendar.

COMMISSIONER MCALLISTER: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) Consent Calendar passes unanimously.

CHAIRMAN WEISENMILLER: As I indicated, we have held Item 2. So let's go on to Item 3. Memorandum of Understanding between the Advanced Research Program Agency Energy, ARPA-E, and the California Energy Commission. Grant.

MR. MACK: Thank you, Chair Weisenmiller. Good morning, Commissioners. My name is Grant Mack from Chair Weisenmiller's

office. The item before you this morning is a Memorandum of Understanding between the United States Department of Energy Advanced Research Projects Agency Energy, known as ARPA-E, and the California Energy Commission.

ARPA-E was officially created in 2007 under the America Competes Act and appropriated funding for its first projects under the American Reinvestment and Recovery Act in 2009. Since then, ARPA-E has funded over 285 potentially transformational energy technology projects in 33 states.

The MOU before you conceptualizes both of the agencies' intent to proactively coordinate our energy research and development programs in order to maximize and leverage public research and development funding here in California. I would like to highlight that this is the first agreement ARPA-E has ever signed with a State agency.

Both of the agencies recognize that significant investment is needed in energy innovation and technology to achieve California and the nation's social, economic, environmental and energy goals. Over the last eight months,

ARPA-E and the Energy Commission has engaged in ongoing conversation and identified areas of mutual interest that we believe will better integrate our mission to advance energy science and technology developments.

Specific areas of energy research and development and coordination may include the following: the development of coordinated solicitation funding and solicitation project review, technical information sharing and participation, and relevant technology development workshops and meetings, energy technology support for projects that impact California, and aligning solicitation processes for mutual benefit. With that, I would ask for your approval for this item and I would be happy to answer any questions. But before I do that, I would like to defer to Laurie ten Hope, Deputy Director of the Energy Commission's R&D Division, to say a few words.

MS. TEN HOPE: Good morning. Laurie ten Hope, Deputy Director for Energy Research here at the Commission. And I just want to underscore what Grant has stated so far. This partnership with ARPA-E has already been a productive

collaboration and I think this MOU will solidify the relationship that we have fostered so far.

We've had some very productive meetings with ARPA-E to better learn what their focus areas are in technology. We have the same overall mission in terms of funding and getting innovative clean energy technologies to market, but our niches are synergistic and not completely overlapping, and so this partnership will help in terms of sharing knowledge on where ARPA-E is focusing on innovation, and particularly the companies that they're funding in California, and then what potential follow-on activities might be appropriate within the research programs here in California.

Thus far, we have benefitted from ARPA-E's participation in our workshops, both in terms of the technologies they're funding, but also their methodology in innovating and stimulating more cutting edge breakthrough technologies. They participated in our EPIC workshops; they've also graciously come out and met with our staff.

We have also supported ARPA-E in terms of making their solicitation opportunities known to California entities. We have also provided

some funding opportunities for match funding for Federal solicitations and, in some cases, made solicitations available in California to help bring some of the funding opportunities to California.

So that gives you a sense of the relationship thus far, and I think the MOU will solidify and provide structure for a deeper level of collaboration going forward.

CHAIRMAN WEISENMILLER: Thank you. I'd also like to now ask Cheryl Martin, the head of ARPA-E, to speak.

MS. MARTIN: Yes. Thank you, Chair Weisenmiller and Commissioners. Glad that I could join into the meeting today. The MOU, I think, is really wonderful. Collaborating with states like California that, you know, foster innovation and support breakthrough technologies is really critical in developing the energy innovation for the future of America. We really look forward to continuing our work with various aspects of CEC and working closely to encourage innovative research and development to help move technologies to their next step in their demonstration and ultimately help to grow the

local state and national innovation and energy communities by doing all of those things, the innovation of the technologies, the next step deployment, and creating these broader communities. I think we all go a long way to advancing what's very very important to the nation for energy. Thank you.

CHAIRMAN WEISENMILLER: Well, thank you for being here today. I'd like to say that, as the scientist on the Commission and lead of Research and Development, I'm sort of -- when I started, one of the refrains in Legislature was the concern on how well we were coordinating with the Federal Government in research and development, and I think this is a clear message that we have a very strong partnership and I've had an opportunity a couple times, you know, to visit with ARPA-E and, as we talk there, it was pretty clear that our visions for the need for innovation in these technologies was very very complimentary, and so we really wanted to take the next steps. Over the last year, we've had a lot of conversations to coordinate and now with this MOU, we are moving forward in a more formal relationship to coordinate. So, again, I think

this is an exciting day for California.

COMMISSIONER MCALLISTER: So I would just support this strongly. I think -- thanks, Grant and Laurie for your background there. I was just actually last week in D.C. for a few days and noted -- part of what I was doing was a Congressional briefing on what states are doing and how important State and Federal collaboration actually is, and it was, I think, a little bit novel for them to have somebody from California in the room, in D.C., you know, on the Capitol talking about the scale of things we're doing, the types of things we're doing, and it highlighted to me the kind of thirst across the land for better coordination across the states and also by the major states with the Federal Government. And I also noted that the larger states, kind of ironically, the larger states are the ones that really are under probably more pressure to do things that benefit themselves, and it's a little tough to sort of engage at the Federal level. And I think New York has the same kind of issues that we have where we're really focused on being efficient and effective, and doing things to benefit us as a state directly.

And I think this is a clear example where it's sort of the best of all worlds, where you have the Federal Government and the State working together for a mutual benefit. And the spillover effects, I think, of this kind of a collaboration could be very large, and we don't know what direction exactly they're going to go in, but I think just keeping each other engaged in leveraging what the other is doing is just a fantastic thing to be doing. And my experience with ARPA-E has been that there are a lot of very smart people thinking about important topics and really effectively looking for solutions to those topics and I'm excited to have that collaboration. So, thanks.

COMMISSIONER DOUGLAS: So with that, I'd like to move approval of this item.

COMMISSIONER MCALLISTER: I'll second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) This item passes unanimously. Again, thanks, Cheryl Martin.

MS. MARTIN: Thanks so much.

CHAIRMAN WEISENMILLER: Thank you. Let's go on to Item 4, which is Summer 2013

Assessment. Mark Pryor.

MR. PRYOR: Good morning, Commissioners. I am Mark Pryor, Supervisor in the Electricity Analysis Office. With us today is Robert Emmert, Manager at California Independent System Operator. Mr. Emmert will be giving a short presentation of the ISO's current summer assessment and after his presentation I will present information about this summer's statewide reserve margins and staff's direction in the future as it pertains to tracking and reporting on the statewide electricity supply. Mr. Emmert.

MR. EMMERT: Thank you. Good morning, Commissioners. I'm Bob Emmert with the California ISO and I'll be going through the ISO's 2013 Summer Loads and Resources Assessment just to kind of talk about our coordination in the past, the ISO and the CEC has gotten together when we both did our respective summer outlook type of work and compared those numbers, and made sure that our results were consistent with each other and, if we found anything that looked a little bit off, we would dig into it and figure out and make sure that we could explain those differences. So in giving this presentation, it

is our commitment to continue to work with the CEC to discuss our Summer Assessment results.

So the 2013 Summer Assessment looks at a number of things and we do a forecast of ISO's system and zonal information in a number of areas, and the zones are made up of NP26, which means north of Path 26, and SP26, which is south of Path 26. And we do forecasts for peak demand generation resources, imports, and Demand Response for each of those areas.

And this year we also include a discussion related to local reliability concerns that gets really into local areas, beyond just the zonal information, and this is related to the SONGS retirement.

We develop a number of information on planning reserves and operating reserves for the system and zonal levels, and we also do some operating reserves based on a number of different scenarios based on one and two probabilities for demand, as well as for generator outages, and also we developed an extreme scenario, which is based on one in 10 demands, as well as one in 10 generator outages, and low imports. And then finally, we do an assessment to determine what

are the probabilities of load shedding in the zonal and system-level basis.

So this table looks at the planning reserve margins and you can see that they're pretty robust for this year. The CPUC already requirement for planning reserves are in the 15-17 percent range, and we've always been well above that range, but this is even higher than typical.

So we can see that we've got some retirements in here which includes the SONGS retirement and some high probability additions, so we do have some new generation come on line. We also have had a significant amount of renewables come on line. So we are pretty good in the generation area. But again, this is based on planning reserve margins for the ISO system and the north and south zones.

Looking at some of the key findings, again, the system is zonal, reserves are adequate, but we do have concerns for the local reliability areas. So on the system zonal, we have adequate reserves and a probability of load shedding is very low, it's approximately one percent this year. However, local reliability

concerns exist in the Southern Orange County and in San Diego County with the SONGS retirement.

SONGS has in the past provided voltage support for flows into San Diego, as well as electric supply in the LA area, so without SONGS we will miss the energy production, but even more so we will miss that voltage support that that unit provides.

So this year, we're dealing with basically the same issues that we did last year with SONGS being out, and so the reliability risk this year is marginally more challenging than last year. Last year we saw weather that was pretty much in line with 1-in-2 conditions, so we weren't really ever pushed last summer, even though this year forecasts for the summer show that there's a higher probability that temperatures will be above normal.

Under extreme conditions, supply limits in South Orange and San Diego Counties could be reached, so these limits are necessary to avoid the risk of voltage instability.

So knowing this was coming last year, and this year as well, we've been over the last year working on mitigation plans to see what we

can do to help bolster the system in those areas, and this year we are working to reconfigure the Barre-Ellis line, it's 220 kV lines, and we are reconfiguring that from two circuits to four circuits, and that's expected to be done today. We're in the process of converting the Huntington Beach Units 3 and 4 into synchronous condensers, those units were retired, they're once-through cooled units, and those units have been retired and they're in the process of being converted to synchronous condensers.

And Edison is also working on installed 80 MVAR capacitors at the Santiago and Johanna Substations and two 80 MVAR capacitors at Viejo, and that installation is complete.

New resources that are in the local areas that will help somewhat this year are El Segundo is expected to be fully available at the end of June, and Sentinel and Walnut Creek are both fully available now. So while they're not located as close to SONGS as to help as much as we'd really like, they do provide some help, so those units will be on line for the summer.

The Flex Alerts have been fully funded. We've been telling market participants that we

plan to fully utilize Demand Response as needed throughout the summer, and we've been working with the generation community to make sure that all of their units are well maintained and available, and should be operational no matter what the conditions are this summer -- that's our hope anyway.

So this table then moves from a planning reserve margin to operating reserve margins, and the net on-peak generation here includes the high probability additions, as well. We have the hydro derates associated with this. These hydro derates were developed back in March and looks like the conditions could be more extreme than this, so in late summer we could see even higher derates in these numbers for hydro; however, the hydro conditions really don't contribute to the local issues in Southern California, so we're not really too concerned about it. I mean, impact will be that we'll be running thermal units more than typical with the lesser energy coming from the hydro units.

So looking at the operating reserve margins here, again, they are above the 15 percent requirement for RA and so, again, we're

in pretty good shape based on this normal operating reserve scenario. This chart depicts the information out of the previous table on the left under the normal scenario, as well as the extreme scenario, whereas again it's 1-in-10 demands, 1-in-10 outages for generation, as well as low imports. So this is a very low probability scenario. But the reason we look at it is so that we can really give our operators an understanding of, when we are in a scenario that really challenges a system, how much reserves do they have? Are they actually in a deficit where they have to be prepared to shut load? Or exactly what situation are they going to be in? And in this one, it shows that in SP26, the more challenging area, that we are below the Stage 1 and Stage 2 conditions, which are seven percent operating reserves and five percent operating reserves, but we are above what we call our Stage 3 emergency condition, which is a three percent operating reserve point. So in this particular scenario, we have a little bit of cushion, and if we hit it exactly like this, we would not typically be shedding firm load in this case. Again, this is on a system in a zonal basis; if

we saw this extreme scenario occur, it would be much more challenging in Southern California and local areas in San Diego and South Orange County, depending on where that 1-in-10 outage has occurred. If they were in the local areas, we very well may find ourselves in load shedding conditions in the south, in those local zones.

So we have given this presentation today, we're pretty much done with our summer operation preparedness activities that we go through every year, we go through a process and we present the results of the Summer Assessment to the operating community, we coordinate with WECC, CAL FIRE, the gas companies, neighboring balancing authorities, and relevant State agencies. And we also, based on some of the information that comes out of the Summer Assessment, we train our Grid operators for system events and we actually develop system events for them to train on, based on what each summer looks like it might have as a possibility for an extreme event. And we continue to work with them on operating procedures and utility best practices. And then, as I said earlier, this concludes our work with the CEC to work and

coordinate the information that we both put together, based on the upcoming summer. With that, that concludes my presentation. Are there any questions?

CHAIRMAN WEISENMILLER: No, this is good. Appreciate you coming here. Obviously we have a very good working relationship with the ISO, the PUC, and the Governor's Office, and I think this is, as you indicated, sort of our second summer of working together. We have always had the assumption that, on a contingency basis, we had to plan as if San Onofre was not going to be back this summer and next summer, actually. And also, at the same time, we've started the planning exercise on, you know, looking at replacement issues. I was going to suggest as part of the outreach -- and I know, again, we're going the outreach in a very coordinated fashion, but you could do reach-out to the Department of Defense, you know, from my visits there, they're very concerned, you know, major facilities in California, particularly in San Diego, and they're very concerned on the reliability of power there, and when the outage occurred in September a couple years ago, they

had drones in the air, so it was not a good situation.

MR. EMMERT: Yeah. I can look into that. I'd be surprised if we hadn't already done that, but I can confirm that.

CHAIRMAN WEISENMILLER: That would be good. When I was back in D.C., I gave a very similar presentation like this to FERC, Department of Energy, two Senators, and at a lunch for the House Representatives for California. And we did a briefing for the Legislature, myself and Berberich, and Commissioner Ferron about a week ago. Okay, Mark.

MR. PRYOR: Mr. Chairman, I would like to acknowledge that Mr. Neil Millar from the ISO is also in attendance.

As with Mr. Emmert's presentation, our statewide reserve margin projection does not include SONGS. At 32 percent, this year's statewide reserve margin for normal weather conditions in the month of August is once again well above the target of 15 to 17 percent. It is 23 percent hotter than normal conditions.

Mr. Emmert presented the CAISO's

planning and operational assessments. The difference is the planning assessment is a deterministic assessment, it does not include the probabilistic estimations of outages and hydro derates. Our estimates are also deterministic planning estimate projections and, for the California ISO balancing area, are very close to their planning assessment values. When we adjust ours back to June, our estimates are within one percent of CAISO's under both normal and hotter than normal conditions. The major differences between the two planning projections are due to slightly different demand forecasts and values for expected capacities of new generation resources. Because these are high reserve margins, the differences are trivial.

Energy Commission staff has issued summer projections of electricity system reserve margins since the energy crisis of the early 2000's. At that time, our projections were the only public projections of reserve margins under both planning and operational modes for all of the State's balancing areas.

In recent years, the scope of our summer outlook has diminished, becoming only a

deterministic planning projection at the statewide level. Successful programs such as the State's Resource Adequacy Requirements Program have alleviated the once urgent issue of low reserve margins. In addition, work by the State's balancing areas, in particular by the ISO, has rendered our operational projections redundant and our planning projections moot. Quite frankly, issuing summer outlook planning projections in April or May for the coming summer does not provide the medium term projections that a planning perspective should provide. Of more importance, what the state is facing now and in the next decade or so are issues of meeting demands in local areas such as the LA Basin and San Diego; therefore, staff will no longer issue summer outlook reports as in the past; rather, we will direct our work toward longer term perspectives.

In addition, California's needs are changing and the longer term planning projection focusing solely on the summer fails to meet those needs. Our changing resource mixture and demands on that mixture requires another approach. For instance, staff expects that the ever increasing

use of renewable generation resources will increase wintertime generation needs. Extending our projections into other seasons is a natural expansion of our current work.

Staff is considering multi-year projections using a three-, four-, or five-year horizon. We will issue reports as needed, rather than on a set schedule. This will allow us to alert decision makers about possible issues early enough so they may implement well reasoned responses. We are looking forward to working with the electricity Lead Commissioner and the other energy agencies as we refine our plans and adjust our work to meet future needs.

CHAIRMAN WEISENMILLER: Okay. Thanks, Mark; that was good. If Commissioners -- not this year, but last year Steve Berberich and I did a joint press conference and we talked about our studies and their studies and, as Mark said, we obviously were more statewide than what we're looking at, so balancing authority -- our focus is more planning and theirs is much more operational, looking at all the nuts and bolts of that. But Steve and I were trying to, a) reassure the public and try to explain why we

were like a percent or two off, and so that led to real questions in my mind, and had a conversation with staff on what was the real value going forward on that, so I think it's good for us to really shift focus now and to move forward, certainly it is consistent with the Governor's directive to look at ways of consolidating the reporting. But, again, I think it just is a better service to the public at this stage. So, again, I think we have one public comment on the line. Oh, okay. So with that, any questions or comments?

COMMISSIONER MCALLISTER: I would just say it seems very appropriate to me. I mean, we are moving into a future that's different from the past, right? And we're kind of a proactive management of the grid, and more of an orchestration of much wider variety of resources and issues throughout the year as kind of the new reality. And I think in a world of not infinite resources, we need to focus our priorities on the reality that's coming and learning how to deal with it, developing the systems that enable us to deal with it, and sort of a time specific summer outlook does seem like an activity that sort of

takes some resources a little bit outdated and really sort of refreshing that to work within the new reality is probably -- I'm confident that that's actually the direction we ought to be going. So I really commend staff and the Chair's office for recognizing that and moving forward and adjusting to the current and future needs of our planning work. So I'm supportive of this change.

MR. PRYOR: Thank you, Commissioners.

CHAIRMAN WEISENMILLER: And again, I certainly want to thank the ISO, particularly Neil for coming, and for the presentation. Please -- so I thought Ben Davis was on the line, but, Ben, if you're in the room, it's a good time to speak. Sure, come forward and someone can try to grab the -- our technical people, they left.

MR. DAVIS: Should I wait until they come back? Would you like me to wait until the technical people come back?

CHAIRMAN WEISENMILLER: Why don't you start? You have three minutes.

MR. DAVIS: Okay, thank you. I'm Ben Davis, Jr. with the California Nuclear Initiative. And I was unclear -- I think I may

be clear, but I'd like to address this question to the staff. If I understood correctly, we are above our reserve margin for the year and potentially for the 1-in-10 if I understood what they were saying, and above 15 to 17, we may be as high as 23 this summer. I wonder, they didn't really discuss, given that we're going to be without SONGS this summer and forever now, the potential of outages at Diablo Canyon. Now, I don't know if there are planned outages this summer with Diablo Canyon, but we certainly have to consider the potential of unplanned outages at Diablo Canyon and at any other plant at any time. The most current statistics I'm aware of from the Commission suggest that the two nuclear power plants provided between 11 and 15 percent of California's in-state generation, and about equally so. So Diablo Canyon, if I have it correct, is somewhere between five and a half and seven and a half percent. So if I'm understanding this presentation correctly, even without Diablo Canyon, we would be well above our state's reserve margins for this summer and in the 1-in-10. But I didn't hear it analyzed, they didn't mention Diablo Canyon and weren't that

specific. So I wondered if I could have that cleared up and find out if I was correct in these assumptions.

CHAIRMAN WEISENMILLER: Well, I can clarify it -- and Mark is back -- based upon the Energy Commission IEPR, my first one, as you recall, we asked the CAISO to do an analysis of what our situation would be without San Onofre and also without Diablo Canyon as a contingency plan. And our rationale was, if you look around the country, if you look at the 104 reactors we have, it's not unusual to have a plant out for a year. And the ISO published a draft of that study in December, I think it's been finalized, it's gone before the Board, so it includes not only the San Onofre longer term analysis that we now need, but also it lays out the implications of Diablo Canyon.

MR. DAVIS: Yeah, next week, as I recall.

CHAIRMAN WEISENMILLER: Well, and we're certainly going to workshop next week on the nuclear issues, but, again, the CAISO has a report out that looks at the implications for California if Diablo Canyon were not available.

MR. DAVIS: Uh-huh.

CHAIRMAN WEISENMILLER: That's a public document.

MR. DAVIS: Yes, in fact, I have it. But what they said today was a little more updated information, the 23 percent reserve margin. Do the two things that I'm asking and the document you're referring to support my assumption that, without Diablo Canyon, we would still be above the 15 percent? Or do you just want me to look at that final answer?

CHAIRMAN WEISENMILLER: Well, I was going to ask Mark, otherwise we'll sort of refer you back to the --

MR. DAVIS: And I can always ask next week, I suppose.

CHAIRMAN WEISENMILLER: Sure.

MR. DAVIS: Thank you.

MR. PRYOR: The gentleman's question, I believe, is not so much of a statewide impact, it is more of a question that should be directed to the ISO, and I would defer to them. So I don't know if Neil Millar wants to say anything or -- you can come up to the --

CHAIRMAN WEISENMILLER: And Neil, for

our Court Reporter, would you make sure at the end they get your name and all?

MR. MILLAR: Sorry?

CHAIRMAN WEISENMILLER: Just for the Court Reporter, at the end if you could give them your card that would be great. So for Neil, before you leave, if you can give our Reporter -- the Court Reporter -- your business card, that would be great.

MR. MILLAR: Oh, yes, of course, sir. Yes, in regards to the Diablo Canyon generation, as you've mentioned, the system implications for that generator are set out on the local issues that that would generate, are set out in our Transmission Plan where we did an analysis of the implications of one or both nuclear power plants being out of service. And that was focusing on did the loss of Diablo Canyon trigger any system local concerns of the same nature as San Onofre generates. So for that, I would point you to the Transmission Plan that was approved by our Board of Governors in March, and I believe you mentioned you have a copy of that.

MR. DAVIS: Thanks.

MR. MILLAR: In terms of the operating

reserve margins, that I'm afraid would be looking at more the data that you have here to consider the loss of generation compared to the base assumptions that the rest of the generation is in service, except for some assumed outage levels. So within an approximation, you could look at the impacts by doing the math of losing that amount of generation on a zonal or system-wide basis. And just to reiterate what Mr. Emmert had said earlier was that the reserve margins overall are relatively healthy. Our major concern with the loss of San Onofre is the local support that it provided to the area.

MR. DAVIS: Great. Thank you very much. And thank you for allowing me to speak.

CHAIRMAN WEISENMILLER: Oh, sure. Thank you for coming. And I guess we look forward to seeing you next week.

Let's go on to Item 5, which is Enforcement Procedures for Renewables Portfolio Standard for Local Publicly Owned Electric Utilities. Angie.

MS. GOULD: Yes. Good morning, Chair Weisenmiller. Good morning, Commissioners. My name is Angie Gould and I work in the Renewable

Energy Office, and I'm joined here by Gabe Herrera from our Legal Office, and Kate Zocchetti also from the Renewable Energy Office.

I'm here to request your approval of the Proposed Regulations for the enforcement procedures for the Renewables Portfolio Standard for Local Publicly Owned Electric Utilities posted May 22nd, and approval of the Proposed Negative Declaration for these Proposed Regulations posted April 5th.

In drafting the Proposed Regulations, staff has worked closely with stakeholders and with our sister agencies. We've hosted four public workshops and three webinars, in addition to regular one-on-one meetings with stakeholders, as requested. There have been seven rounds of written comment solicitation, and we also hold regular ongoing meetings with CPU staff and we worked closely with ARB staff to draft pre-rulemaking language, and have consulted them on changes.

The formal rulemaking was initiated March 1st, 2013, when the Office of Administrative Law (OAL) published the Notice of Proposed Action (NOPA) and the California

Regulatory Notice Registry.

The workshop on the 45-day language was held March 15, 2013, and comments on this language were received April 16th. The first 15-day language was posted April 19th. Comments on this language were received May 6th. The second 15-day language was posted May 22nd, and comments on this language were received June 6th.

During the formal Administrative Procedure Act, or APA rulemaking phase, all oral and written comments are recorded and will be included in the final rulemaking package. Once completed, the final rulemaking package will be submitted to OAL for approval. This package includes the final Statement of Reasons, which provides rationale for all changes from 45-day language, and responses to all comments received since rulemaking began March 1, 2013.

These Proposed Regulations complement the RPS eligibility Guidebook, the 7th Edition of which was adopted at the April 30, 2013 Business Meeting. We also prepared a brief presentation to provide more detail on the content of the Proposed Regulations and the changes made in the first 15-day language posted April 19th and the

second 15-day language posted May 22nd.

This first slide provides more information on the documents posted March 1, 2013, the first day of the formal rulemaking under the APA. On March 1st, the Energy Commission posted the NOPA, the 45-day language of the Proposed Regulations, the Initial Statement of Reasons, and the supporting materials for the Economic and Fiscal Impact Statement and Assessment, which estimated a total cost of just over $2 million annually to the POUs. This estimated cost was based on POU reporting and administrative costs to comply with the enforcement regulations.

The next few slides provide an overview of what is covered in the proposed regulations, starting with the rules of the POUs, the Energy Commission, and the Air Resources Board. POUs adopted their own RPS Programs.

The Energy Commission determines RPS compliance based on information reported by the POUs and verified by the Energy Commission. Notices of Violation are forwarded to the Air Resources Board, which determines any necessary penalties.

There are three initial multi-year compliance periods, 2011 to 2013, 2014 to 2016, and 2017 to 2020. After 2020, there are annual compliance periods.

The RPS procurement targets are an average of 20 percent for the first compliance period, 25 percent by the end of the second compliance period, 33 percent by the end of the third compliance period, and at least 33 percent annually thereafter.

Procurement on or after June 1st, 2010, will be classified into one of three Portfolio Content Categories, or PCCs, also referred to as "Buckets." PCC1 is for bundled electricity products associated with resources located within a California Balancing Authority (CBA), or distribution facilities used to serve end users within a CBA, scheduled into a CBA or dynamically transferred into a CBA. There are five CBAs, the California Independent System Operator, the Balancing Authority of Northern California, Turlock Irrigation District, Imperial Irrigation District, and Los Angeles Department of Water and Power.

PCC2 is for bundled, firmed and shaped

electricity products providing incremental electricity and scheduled into a CBA within the same calendar year the electricity product is generated. Requiring scheduling within the same calendar year is consistent with the requirements of firmed and shaped products prior to SBX12 and is consistent with the definition of PCC2 established by the CPUC for retailer sellers.

In addition, both the renewable and incremental resources must be located outside of CBA. This requirement is consistent with both the firmed and shaped requirements prior to SBX12 and the definition of PCC2 established by the CPUC for retail sellers.

Incremental resources located outside of CBA are also more likely to be truly incremental and procure for the purposes of firming and shaping the renewable electricity product. PCC3 is for all unbundled RECs and any other electricity products that don't meet the criteria of PCC1 or PCC2.

Bundled products are required for PCC1 and PCC2 because PCC3 in statute is defined to include unbundled RECs, so the first two PCCs must exclude unbundled RECs to remain distinct

categories and avoid a situation in which direct could be classified in more than one PCC.

The POUs are also required to meet set portfolio balance requirements, also called PPR, for each compliance period. Minimum targets are set for PCC1 and these increase over time. There are also maximum levels set for PCC3 and these levels decrease over time. There is no minimum or maximum requirement for PCC2.

In addition, there are five different measures that POUs may adopt called Optional Compliance Measures. The first two of these measures, Cost Limitations and Delay of Timely Compliance, allow a POU not to be found in violation under certain conditions, even if that POU does not meet one or more of its RPS procurement requirements.

The last three of these measures, Excess Procurement, Portfolio Balance Requirement Reduction, and Historic Carryover, could allow a POU to more easily meet its RPS procurement requirements if it meets the specified criteria. The Energy Commission won't consider the application of any optional compliance measures that it determines do not comply with statute or

the regulations. The Energy Commission must ensure that rules adopted are consistent with statutory language and Public Utilities Code Section 399.30(D) if the POU intends to use those rules to satisfy or delay its procurement requirements.

In addition to its RPS procurement requirements, a POU must meet certain requirements regarding its plans and reports. POUs must adopt, publicly notice, and report their procurement plans and enforcement programs to the Energy Commission. POUs must also submit timely and complete annual and compliance period reports to the Energy Commission, as well as Historic Carryover Reports for those POUs that are claiming Historic Carryover.

The next several slides provide more detail on changes to the 45-day language as proposed in the first 15-day language posted April 19th and the second 15-day language posted May 22nd. The 45-day language stated that RECs may not be retired to meet the RPS procurement requirements of a compliance period that pre-dates the date the associated electricity was generated. So, for example, a February 2014 REC

could not be retired toward the 2011 to 2013 compliance period. But it did not also explicitly state that a REC could not be retired to meet the RPS requirements of a compliance period that predates the date that the electricity product was procured by the POU as was intended. Staff revised the 45-day language to include this restriction. So, for example, a POU cannot procure a December 2013 REC in March 2014 and retire that REC to meet its 2011 to 2013 RPS procurement requirements.

Public Utilities Code Section 399.30(c)(2) specifies that procurement for the second and third compliance periods must be sufficient to ensure that the procurement of electricity products from eligible renewable energy resources achieves 25 percent of retail sales by December 31, 2016, and 33 percent of retail sales by December 31, 2020. This implies that procurement must occur prior to the end of a compliance period to count toward the RPS procurement requirements of that compliance period. And although it does not explicitly state it for the first compliance period, it stands to reason that the Legislature intended

this procurement restriction to apply to all compliance periods, and not only to the second and third.

The 45-day language set a target equal to the sum of 25 percent of 2017 retail sales, 25 percent of 2018 retail sales, 25 percent of 2019 retail sales, and 33 percent of 2020 retail sales. This is referred to as a "stair-step" target and is set by the PUC for retail sellers. Several stakeholders argue that this target should be increased, referencing Public Utilities Code Section 399.30(c)(2), which states: "The quantities of eligible renewable energy resources to be procured for all other compliance periods reflect reasonable progress in each of the intervening years sufficient to ensure that the procurement of electricity products from renewable energy resources achieves 25 percent of retail sales by December 31, 2016, and 33 percent of retail sales by December 31, 2020." By specifying that the targets must reflect reasonable progress in each of the intervening years, the statute implies that the RPS procurement target calculation should include steadily increasing percentages of retail sales

in each year of the compliance period.

Staff increased the target for the 2017 to 2020 compliance period to equal the sum of 27 percent of 2017 retail sales, 29 percent of 2018 retail sales, 31 percent of 2019 retail sales, and 33 percent of 2020 retail sales. This is referred to as a linear target and is equivalent to that set by the CPUC for retail sellers. However, because of this late date, it would be difficult for POUs to procure additional electricity products to comply with a higher target in the second compliance, especially because POUs often own their eligible renewable energy resources, staff kept the stair-step target for the second compliance period of 2014 to 2016.

The 45-day language did not include an exemption for the portfolio balanced requirements for POUs that are successors to electrical corporations that met the criteria of Public Utilities Code Section 399.18. A commenter pointed out that Kirkwood Meadows Public Utility District, which is a successor to Mountain Utilities, does meet the criteria in 399.18 because it is the successor to an electrical

corporation that, as of January 1, 2010, had 1,000 or fewer customer accounts in California and was not connected to any transmission system or to the California ISO. Staff added the statutory exemption in the 15-day language to Changes to the Proposed Regulations, and we have received no comments opposing this change.

There are two types of electricity products that are classified into PCCs, the first type are those associated with contracts or ownership agreements executed on or after June 1, 2010. These electricity products are covered in Section 3202(A)(1) of the Proposed Regulations and are subject to the portfolio balance requirements. The second type are those associated with contracts or ownership agreements executed before June 1, 2010, that do not meet the RPS Eligibility Rules that were in place at that time, but do meet current eligibility rules. They would include, for example, 30 to 40 megawatt hydro facilities that were made eligible under SBX12. These electricity products are covered in Section 3201(A)(3) of the Proposed Regulations and are not subject to the portfolio balance requirements.

The Excess Procurement Rules include two restrictions on the use of PCC3 electricity products, but no distinction was made in the 45-day language regarding which restriction applied to which type of PCC3 electricity product.

In Response to Comments, staff has specified which restrictions apply to which type of PCC3 product. And we have received no comments opposing this change.

The 45-day language required both the procurement classified as Historic Carryover and the procurement applied toward the POUs 2004 to 2010 Annual Procurement Targets to have met both the RPS Eligibility Rules in place at the time for retail sellers and to be associated with contracts or ownership agreements executed before June 1, 2010. In Response to Comments, this requirement was changed so that procurement applied to the annual procurement target no longer must be associated with contracts or ownership agreements executed before June 1, 2010. We have received no comments opposing this change.

The 45-day language of the Proposed Regulations required POUs to retire Historic

Carryover RECs within 36 months of the date of generation, consistent with the requirements for RECs associated with January 1, 2011, and later generation. However, several POUs commented that because POUs were not previously required to retire their RECs per Energy Commission rules, and due to the late date of adoption of these Regulations, such a rule would make ineligible many historic carryover RECs that would otherwise qualify for the RPS. In response, staff changed the language to require all Historic Carryover RECs to be retired and reported within 90 days of the effective date of the Regulations. And we have received no comments opposing this change.

Staff prepared a CEQA initial study and Proposed Negative Declaration, which was filed with the State Clearinghouse and posted for public comment April 5, 2013. We received no comments. The Proposed Negative Declaration finds that there is no evidence that the project may have a significant effect on the environment, and that the project will result in no significant adverse impact. For more information on the CEQA Negative Declaration, I will now turn it over to Pierre Martinez, the principal author.

MR. MARTINEZ: Thank you. Good morning, Commissioners, Chairman Weisenmiller. My name is Pierre Martinez, I'm a Project Manager with the Siting Office. And our office was asked to conduct and prepare an environmental document on the Proposed Regulation changes. You know, basically in conducting the initial study, we're assessing the project potential effects on the environment consistent with the California Environmental Quality Act (CEQA), and the conclusions are basically that this project won't result in any adverse physical impacts to the environment. So the initial study and the Negative Declaration are included in your materials.

I really have nothing else to add, unless you have any questions specific to the environmental document prepared.

CHAIRMAN WEISENMILLER: Commissioners, any questions or comments on this document? Okay, thank you.

MR. MARTINEZ: Thank you.

MS. GOULD: Thank you. Okay, so that concludes my presentation and we're happy to answer any questions that you have.

CHAIRMAN WEISENMILLER: Great. We're going to turn to comments first from people in the room, and then people on the phone, and then I'll turn to the Commissioners generally for questions, which there may well be some for you at that time. Okay, so let's start with Mike Webster from LADWP.

MR. WEBSTER: Good morning. My name is Mike Webster with Los Angeles Department of Water and Power. I am Assistant Director of our Power System Planning and Development, and we have made tremendous progress on the Regulations and I would like to comment just on two items.

But first a little bit of background on LADWP, is we are going through a historic transformation of our utility system. Over the next 17 years, we will be replacing 70 percent of our utility infrastructure specifically related to generation. Now, the funds to do all this is going to cost billions of dollars, and it's not necessarily just related to renewables, it's also the once-through cooling, greenhouse gas emissions, eliminating coal-fired generation, our Feed-in Tariff Programs, and this represents a tremendous economic and engineering challenge for

LADWP.

All of these programs are worthwhile, and we are very very supportive of them, but we need to do it in the most cost-effective and economic way. Now, Compliance Period 3, LADWP disagrees with this last minute change that looks at 2017, at 17, 19, 27, 19 and up to 33 percent. This change alone will cost the Ratepayers and the City of Los Angeles over $100 million to comply with. SB21X is a bill that LADWP supported with the City of Los Angeles, but it was very very clear that it requires the Governing Boards to implement procurement plans that it achieve 20, 25, and 33 percent in those compliance periods.

SB21X Section 39915(B)(2)(b) only requires the POUs to reflect reasonable progress for resources in those intervening years, and reasonable progress can be demonstrated in a multitude of ways, through investments, through actual construction activities, building renewable generation, building transmission, permitting, procuring land and, yes, increased renewable percentages are one way to show progress, it's not the only way. So not only

does 39915(B)(2)(c) state that retail sellers are not required to demonstrate a specific quantity of procurement on any of the intervening years, and the law specifically addressed for POUs in 399.30(K) states that POUs shall retain discretion over both the mix of renewable resources to ensure resource adequacy and reliability, but also reasonable costs incurred by the utility. And so we believe this last minute change conflicts with the law as applied to POUs is arbitrary and capricious, and will result in short term wholesale transactions which really does not further the goal that we all want; we all want real renewable steel in the ground and to create jobs, and to siphon off $100 million for these intervening years doesn't help us progress towards long term renewables.

So the RPS procurement is very different for POUs and IOUs. So forcing POUs in the same IOU model is no more appropriate than forcing IOUs to build, own and operate their own generation. So, like I like to tell my Boy Scouts, two wrongs do not make a right. So we do not believe that this modification should be adopted.

My second point is I'd like to continue to work with staff on the grandfathering language, is that currently the grandfathering language in this section says that everything prior to June 1, 2010 shall be certified, but neither the regulations nor the guidebooks really fully implement this grandfathering. The guidebook does offer limited certification, however, it only grandfathers pre-2010 as related to the Bucket requirements or the PCC requirements. Consequently, POU renewable resources legally adopted by Section 387 of the Resources Code, and adopted during that public process, are now retroactively subject to the conditions of old versions of the CEC Guidebook. So we believe that the rules in place at the time were the POUs' rules in place at the time when their Boards and City Councils approved that. So thank you for your serious and deliberate consideration.

CHAIRMAN WEISENMILLER: Thank you. Thank you for coming today. Let's go to Reiko Kerr from the City of Riverside.

MS. KERR: Good morning. I'm Reiko Kerr from the City of Riverside. I'm the Assistant

General Manager of Resources. We are a vertically integrated utility, a medium size serving about 106,000 customers. I appreciate the opportunity to come and speak before the Commission, it is my first time, so excuse my nervousness. I would like to express support for comments provided by both CMUA and SCPPA on this issue.

Riverside fully supports SBX12 and its goals. As way of background, in 2001, Riverside had zero renewable energy. We were an early adopter. Our Board set a goal in 2002 to get 25 megawatts. Now, our peak is 610, so we are a smaller size, and when you scale that down, we did that, at the time we bought 25 megawatts of RECs, or what were known as green tags at the time, spent $65,000; today that cost would be just south of about $4 million. So that was a onetime thing as we began to ramp up long term contracts to begin adding renewable generation to our portfolio.

Our Board and City Council adopted its first Renewable Portfolio Standard in 2003 and it has been since reviewed in 2006, and further revised in 2008, where it stands today at 20

percent by 2010, 25 percent by 2015, and 33 percent by 2020. We met the 2010 target, we are on goal, we are on target for meeting both the 2015 and the 2020 goals.

Further demonstrating our commitment is Item 1B on your Consent Calendar today for a 25-year Power Purchase Agreement with Cal Energy for geothermal that steps up to ultimately 86 megawatts through 2039.

We support the Historic Carryover. Riverside, as I say, has a long history and commitment to supporting renewable energy and sustainable policies, this recognizes that early adoption and doesn't penalize you for those early decisions, and it also supports the local control of the governing bodies for a Publicly Owned Utility to make those right decisions, as Riverside has done.

Riverside does have a concern over the uncertainty of the Regulations by continuing to drag this on, and not having certainty that the actions that we are taking will not penalize our Ratepayers in the future. Locking down the Regulations today will encourage and allow Riverside to go past our 33 percent and look for

those opportunities to bring in additional renewables into our portfolio and not be retroactively penalized. Thank you very much.

CHAIRMAN WEISENMILLER: Thank you. Thanks for coming. Let's go to CMUA.

MR. ANDREONI: Good morning, Commissioners. My name is Anthony Andreoni. I'm with CMUA, I'm the Director of Regulatory Affairs. And I have a few general comments I'll focus on and maybe one or two specifics.

But just as background, CMUA includes more than 40 Publicly Owned Utilities or POUs, which provide electricity to one-fourth of all Californians, as well as represent a number of water agencies. And overall, POUs are local government entities which have no profit motive. Our members are very committed, as you've heard from LA and Riverside, and you may hear from a few others, to the local economic development and job creation, and have an excellent track record in providing reliable energy at low rates, and have demonstrated leadership in environmental issues such as climate change, renewable energy, and energy efficiency.

CMUA supports RPS and many of our

members set out targets early on to make sure that they were going to be able to comply with the requirements. And we certainly want to recognize and appreciate the fact that CEC has been working on this, we want to identify the staff, Angie, Gabe, Kate, and others that we've worked with over this roughly almost two-year period in coming up with the version that's in front of you today.

And so we did supply written comments in the 15-day period, the second 15-day language changes, and I wanted to focus just briefly on a couple of the items that we highlighted, one being the second Compliance Period 2. We support where the Energy Commission is today in keeping it as a stair-step approach. We also support the changes recently made to the Historic Carryover provision. CMUA supports all the flexibility that will allow our members to meet the requirements and the timeframe without providing undue pressure on its customers.

We do still have concerns, though, on the current Compliance Period 3, which was already discussed, which is providing more of a linear approach. We agreed with the original

staff proposal that was in the staff report, and we would like to continue to talk with CEC on looking at the impacts that may occur from going to a linear approach, especially some of the cost impacts that may occur that are unwanted.

We also at this point want to continue to work with CEC in the implementation phase, provide documents to our members, making sure that reports and information are available to make sure that all of our members, which are very diverse, have a very different geographic area they have to cover and that the information is made available to them, so they can easier have a better chance of complying and keeping up with all of the reporting efforts that are required under the rule. And we look forward to working with staff and maybe assembling some of those documents, whether they be FAQs or other types of documents that will help members comply with the requirements. And as of today, some of the documents I was looking for on the Web are somewhat missing, so we'll look forward to helping CEC staff put that together and helping our members to comply. But I want to thank the Commission. Thank you.

CHAIRMAN WEISENMILLER: Yeah, that's great. Certainly if you could provide to us a list of what you think are the missing documents, that will help. Let's go to James Hendry from the S.F. PUC.

MR. HENDRY: Good morning. I'm James Hendry with the San Francisco Public Utilities Commission. I think it's kind of fortuitous I'm going after Tony because basically we have much the same comments. We just wanted to thank staff for their tenacious efforts over the last couple of years to get the rules out. I think, as Tony noted, there are certain areas of the rules which turned out differently, but we'll hope that the Energy Commission will continue to look at those rules on a going forward basis, and we just plan to continue working with the Energy Commission as the rules get implemented. Thank you.

CHAIRMAN WEISENMILLER: Thank you. And I only go with public agencies first, and I'll make one exception here, is I'll let Valerie Winn go next and give Susie a chance to respond.

MS. WINN: Good morning, Commissioners. I'm Valerie Winn with PG&E, and I expect my POU colleagues are feeling like it's Groundhog Day

today because I'll make the same comments that I've made at numerous workshops on this topic.

PG&E is largely in support of the Draft Regulation as it's been presented today to apply the 33 percent RPS requirements to the Publicly Owned Utilities. We think it's very important that many of the market rules and requirements are the same for both POUs and IOUs that will help everyone who is participating in the marketplace better understand the rules, and that's very important.

There are really three minor issues, as we look at it, that we have really continued to advocate for some changes, and those of course, the big one was making sure that the trajectory for everyone to reach the 2020 target is the same for everyone participating in the marketplace. And we felt that that's very important because that ensures that all Californians are contributing equally to achieving the state's clean energy goals. Right now, with the different trajectories, IOU customers are going to be paying a little bit more than what POU customers are, and ideally gathering more greenhouse gas emission reductions than POUs will

be in the same time period. So we'd like to see, of course, a little bit more equity there and everyone trying to reach the same goals.

The second piece is really, as the POUs submit their compliance filings, we have continued to advocate for a public process in the same way as utilities' compliance filings at the Public Utility Commission are made publicly available, we would like to see some sort of process for the POUs' compliance filings to be made publicly available, as well.

And lastly, we are concerned about some of the language that's applicable to the City and County of San Francisco. We recognize that there are special provisions for them in the statute as to how they comply with the 33 percent requirement; however, we do not read that statutory language as exempting them from having to comply with, as we call them, the "Bucket Requirements." So those were the three areas where we have continued to focus our comments. But, as I said, it's been a long and very -- a great effort by the CEC staff, and we are really supportive of adoption of the Guidebook. Thank you.

CHAIRMAN WEISENMILLER: Okay, thank you. Susie Berlin.

MS. BERLIN: Good morning, Chair, Commissioners. Thank you for letting me follow Valerie, as I will make one small comment and respond to what she had to say. But I want to begin by thanking the staff for their accessibility and for working with the stakeholders, both the IOU and POU and public stakeholders throughout this process, it has been a long process.

We believe that the Proposed Regulations should be adopted, but we urge the Commission to make a few final revisions, most importantly, or one of the most important issues is to recognize the autonomy invested in the local governing boards by the Legislature in SBX12. We believe that, despite the fact that the staff has acknowledged, and even in the presentation that is the POUs that are responsible for adopting their procurement programs and implementing them, believe that we also have vested by the statute itself a lot more autonomy in how those programs are carried out, and that there are certain provisions of the Regulation that are more

proscriptive than they need to be in that regard.

We also want to be certain that the Commission recognizes the cost limitation provisions for renewable expenditures are going to be based on a myriad of factors that have to do with ratemaking and specific impacts of each local community, and so a one-size-fits-all approach is not appropriate, and neither is requiring the POUs to comply with provisions of the Public Utilities Code that are called out specifically for retail sellers and not for the POUs. So we would also ask that the requirements associated with Section 39915(D) are stricken from the provisions of 3206(A)(3).

And we ask that the Commission recognize the local authorities and the programs that they adopt with regard to the optional compliance measures when we look at the Section 3206(D) regarding the Commission's approval to a certain extent of the optional compliance measures that have been adopted by any POU.

And finally, we would ask that the Commission strike the incremental procurement targets that are established for the third compliance period. We do not believe that the

statute requires them, we believe the rationale that was originally set forth in the initial Statement of Reasons clearly articulated why, and we think that the notion that reasonable progress needs to be measured by a specific quantitative value is incorrect. There are a number of issues that play a part in demonstrating a reasonable progress, what I call Procurement Planning Practices, in general, and LADWP also outlined a number of items that can be used to measure reasonable progress. And that reasonable progress is going to be achieved in order to achieve the end goal, and we do not agree that the POU customers will be paying less than the IOU customers simply because the trajectories are set up differently. Overall, at the end of the day, we're all supposed to get to the same place, and the manner in which we get there needs to recognize the utility at issue and the Legislators specifically acknowledged the unique nature of the bifurcated IOU versus POU structures.

So we believe that moving forward the implementation process is going to be very important and we think that adoption of the

regulation is not really the end point, but rather the beginning point -- don't cringe -- rather the beginning point, our first milestone in implementing the State's renewable goals. You have to understand that the POUs, like the IOUs, have been working on implementing the provisions of SBX12 since it was first passed, so now we're more than three-fifths, or four-fifths of the way through the first compliance period, we've been doing a lot already in adopting it, so implementing the Regulations themselves is going to be a very important next step in this process, and we're looking forward to working with the Commission, with Commissioner Hochschild's office, with staff on those matters regarding maybe some refinements to the Regulations as they stand now, potential amendments to the RPS Eligibility Guidebook that may be necessary to reconcile, some of the implementation matters, especially with regard to compliance reporting and PCC verification. Thank you for your time.

CHAIRMAN WEISENMILLER: Thank you. Let's go to Steve Zuretti. Actually, sorry, I had gotten a blue card for him, so I was making the assumption he was in the room. Let's stay with

people in the room for right now. So let's go to Rachel -- I'm going to butcher your name, I'm sure -- Gobel (ph) from Large Scale Solar Association.

MS. GOLD: Good morning. I'm Rachel Gold from the Large Scale Solar Association, sorry about my handwriting on my blue card. I wanted to first thank you for the opportunity to comment on the adoption of the RPS POU Regulations.

LSSA commends the Commission and the staff for their very hard work on the Regulations and encourages the Commission to adopt the Regulations today. We wanted to make sure that we expressed our support for both the restrictions on the banking of short term contracts and the linear targets for the third compliance period. These two elements represent significant improvements to the Regulations and compliance with the requirements of the statute.

I did want to mention that we remain concerned that the Regulations do not include linear targets in the second compliance period, nor do they ensure that POUs cannot take advantage of excess banking based on those lower

requirements from the second to the third compliance period. This approach, we feel, is not only contrary to the statutory requirements of reasonable progress, it is inconsistent with the requirements for retail sellers.

In general, LSSA encourages the Commission its implementation of the Regulations to remain mindful of these concerns, and exercise prudence in approving rules for carryover of excess procurement. We look forward to working with staff and Commissioner Hochschild's office on implementation issues going forward, and thank you again for the opportunity to speak this morning.

CHAIRMAN WEISENMILLER: Thank you. Laurie Wisland.

MS. WISLAND: Good morning, Commissioners. I'm Laura Wisland with the Union of Concerned Scientists. And I wanted to first off take the opportunity to say thank you very much to you and to your staff for all the work that has gone into developing these rules. As we all know, California has one of the largest renewable energy programs in the country and, by our estimates, by the end of 2020 this state is

going to be responsible for delivering over a quarter of all the renewable energy generated in the country, so getting these rules really matters, it's going to have an impact that goes far beyond the boundaries of our state.

I especially want to thank the Commission for its revision to the RPS procurement requirement for the third period, which now we believe appropriately reflects legislative intent, statutory language, and actually the history of what the POUs have generally been doing since the beginning of the first RPS program in 2002 with the 20 percent requirement, which actually wasn't a requirement for the POUs, it was just a goal at the time.

This third compliance period now appropriately mirrors RPS obligation for the retail sellers over the same timeframe, and the Legislature's original intent which was for the POUs to make reasonable progress in the form of increased procurement throughout a three or four-year compliance period. This obligation to procure a cumulative amount of electricity in a compliance period does not conflict with the POUs' ability to retain discretion over its

renewables mix, and it also does not conflict with the statutory rule that specifically says that a POU shall not be held responsible for a specific number in a specific year between compliance years. It's not inconsistent with that.

And just getting back to my comment on this generally mirrors what the POUs have been doing in the past, we conducted our own analysis last year looking at procurement of the POUs, the top 10 largest which were responsible for generating over 80 percent of the electricity that all the POUs deliver in the state and found that, generally speaking, the linear procurement trend was consistent with what the POUs were doing anyway. And, in fact, this was a huge success story. From 2003 to 2010, the 10 largest POUs were responsible for developing more new renewable energy projects in the form of long term contracts than their IOU counterparts.

So getting to that point, we also strongly support the Commission's revision to the banking rules which have restored the prohibition on carrying forward short term contracts from one compliance period to another. Again, these rules

appropriately mirror the retail seller's obligations and reflects the principal reason for only allowing certain types of contracts to be banked forward, which is to encourage the procurement of long term contracts of 10 years or more because they most directly promote the development of new clean energy resources, one of the central reasons for having the RPS to begin with. We believe that this statutory restriction on backing short term contracts is very clear and, again, is consistent with the POUs' behavior in the past.

So in conclusion, we strongly support the rule as it is drafted today and urge the Commission to adopt it. Thank you.

CHAIRMAN WEISENMILLER: Okay, thank you. So let's -- I don't think there's anyone else in the room who wants to speak, so let's go to the lines. Actually, let's start with Oscar Herrera of SCPPA.

MR. HERRERA: Hello. Can you hear me?

CHAIRMAN WEISENMILLER: Yes.

MR. HERRERA: Okay, excellent. Good morning. My name is Oscar Herrera. I am the Interim Director of Regulatory Affairs here at

the Southern California Public Power Authority, also known as SCPPA.

SCPPA is the SoCal Joint Powers Authority consisting of 11 Municipal Utilities and one Irrigation District. We would like to thank CEC staff for their work on the Regulation and for this opportunity to comment on this item.

We support comments provided earlier today by LADWP, the City of Riverside, and CMUA. SCPPA understands that these regulations are on an expedited process for adoption in order to move forward with the RPS and for the CEC to satisfy its requirement in PUC Section 399.30(L), which essentially directs the CEC to adopt procedures for the enforcement of the RPS. These Regulations are also important given the fact that we're in the last year of the first compliance period.

However, SCPPA still has several outstanding concerns with the Regulations that really cannot be addressed today, or in the additional 15-day comment period. So in order to remain on record, SCPPA provided written comments on June 6, 2013, and provides these verbal comments, as well.

SCPPA remains opposed to the lack of a change to compliance period 3, which is a significant change introduced in the 15-day packet. The only firm requirement provided in SBX12 is that a POU meet the 25 and 32 percent targets by the end of each compliance period, and for the POU governing boards to implement procurement plans to meet such targets. SCPPA also believes that the interpretation of reasonable progress as expressed by LADWP earlier today is correct.

Further, SBX12 does not state that the POUs and IOUs will need to be facsimiles of each other. Actually, SCPPA still believes that the interpretation of compliance period 3 made by the CEC prior to the first 15-day packet was accurate and aligned with SBX12's reasonable progress language.

Another item of concern to SCPPA members is grandfathering. SCPPA has provided comments on the grandfathering provision stating that we do not agree with the CEC's current interpretation of the statute. The CEC's interpretation retroactively penalizes early adopters of RPS by applying the old Guidebooks to

historic procurement decisions, which were under the guidance of the POU government boards. We do not believe that this approach is appropriate.

We would also like to echo CMUA's recommendation to develop documentation to help POUs comply with the RPS.

Again, SCPPA would like to thank the CEC staff for their hard work on these regulations and thank you for your time and consideration of these oral comments.

CHAIRMAN WEISENMILLER: Thank you. Let's go to Steve Zuretti now.

MR. ZURETTI: Hi, yes. Good morning, Commissioners. Steve Zuretti with Solar Energy Industries Association. First, my apologies, I was in attendance this morning and had to leave for a conflict before I could offer my comment in person, but do appreciate the opportunity to comment over the phone, as well.

I wanted to first thank the Commission for its hard work to date on developing these Regulations. SEIA was particularly pleased that the Commission has retained the linear targets for the third compliance period and has also reinstated restrictions on the backing of short

term contracts.

I also did want to be sure to highlight on the record that we do have some concerns with authorizing a stair-step approach for the second compliance period, as we don't believe this achieves reasonable progress as intended.

We also remain concerned with the lack of limitation on backing excess procurement from the second compliance period for using the third compliance period.

But with that said, and our concerns noted, we do appreciate the Commission's efforts to address the industry's concerns up to this point and we would support adoption today. So thanks very much.

CHAIRMAN WEISENMILLER: Okay, thank you. Before I turn to the Commission, I was going to ask the staff if they want to make any responsive comments.

MS. GOULD: I don't think we have any responses at this time.

MR. HERRERA: We can. A number of comments have been made and they were reflected in the written comments that we've received, so it may be important just to touch on a couple of

those.

With respect to the comments LADWP has made, and they were supported by comments by Oscar Herrera from SCPPA, in terms of the grandfathering provisions, Energy Commission staff has kind of struggled with that language. We listened to the POU comments, but we think we're bound by the limitations in the statute. LA, for example, was utilizing hydro that was larger than 30 megawatts to qualify for their program; SB1X2, when that was enacted in 2011, made that an eligible renewable resource, but it didn't go back in time and direct the Energy Commission to certify as RPS eligible that generation that was utilized by LADWP before SB1X2. That's an issue where we think we're kind of hamstrung by the statute.

Concerning comments by Susie Berlin of NCPA, the POU Regs do not identify the POUs' authority, but certainly staff has recognized that the POU has this independent authority in the statute, and certainly a Final Statement of Reason can recognize that as well, so it may be helpful in that document for the Energy Commission staff to acknowledge and recognize the

POUs' independent authority.

Also, concerning the cost limitations, the Regulations reference the provisions and apply the provisions in a consistent manner that applied to retail sellers under Public Utility Code Section 39915(C). When we evaluated this particular issue, we looked for comments that indicated that POUs needed to be treated differently given the language in the statute, and we did not feel like we had the support to make a distinction, which is why the Regulations currently identify the provisions in 39915(C) and (D).

And I think that's the only points I want to make that kind of jump out.

CHAIRMAN WEISENMILLER: Okay. Thank you. So, Commissioners, any questions or comments?

COMMISSIONER DOUGLAS: Well, it's interesting when you hear the comment from the parties that it really just causes me to have multiple flashbacks on so many conversations and so many moments with stakeholders, or with staff, where we really struggled over some of these very same issues; you know, we had some differences in

interpretation of the statute, some of which I think we've managed to work through, and some of which, like the LADWP comment, we still just differ on -- we had to put a lot of thought -- I know that I personally put a lot of thought into the dynamic and challenges on the compliance side, given that we're a State body, a State commission, with this enforcement role really over another branch of government with locally elected boards that set policy and set rates, and so the intergovernmental relationship involved in this, and the amount of, I think, proactive work that we at the Energy Commission are going to need to do in order to really work with the Public Utilities, I think I've heard some things today that also make me optimistic, and these are things I've heard before, I've heard a lot of commitment in the room to meet the 33 percent RPS and to make this law work, and that's really what I'm looking for, I think that's really what we're looking for, in particular, is a joint commitment to overcome the obstacles that might be there and get to the 33 percent goal, and build a really strong foundation for getting to that goal and achieving the jobs benefits and the energy

benefits, and so on, that come along with it.

If we got into the details of every issue that we spent time on, I think we'd be here all day. I frankly appreciate the speakers focusing their comments on the two or three items that were still of high importance to them, thank you for doing that. Gabe addressed some of those in his comments. I don't have any that I particularly feel the need to speak to right now, except that I do want to say I appreciate NCPA's offer to work with us on just helping make compliance as easy as it can be; if there are forms missing, if there are forums needed, if there's outreach needed, those are the sorts of things we'd really like to work with the POUs proactively to achieve and to make work. And, you know, beyond that I'll just say it's a complex law, it's a complex balancing act, I didn't see very many people stand up and jump up and down and say, "Energy Commission, you've got everything right." In fact, I don't recall at the moment if I heard anybody say quite that. But I think that I heard enough in the room to certainly make me feel like we did reasonably well under the circumstances to achieve a

workable balance in how we would propose to proceed to implement our part of this law, or our responsibilities under this law. So I certainly am prepared to support this package. I'd just wait and see what other comments or questions other Commissioners have.

CHAIRMAN WEISENMILLER: Yeah, I was going to ask people for comments or questions and I was going to, as the Presiding Member and Chair, do a wrap-up and then reserve time after the vote.

COMMISSIONER HOCHSCHILD: So let me first thank Chairman Weisenmiller and Commissioner Douglas for shepherding through this very very complex and comprehensive package we have to vote on today, and also to the staff, Kate Zocchetti, Angie Gould, and Gabe Herrera and others who have been working on this, and to all the stakeholders -- this is the binder of all the comments, I've read them all, and I've met with many of you individually, and I actually in particular appreciate the hospitality of a number of the Munis who hosted me; I'll be doing many more meetings on-site with Munis around the state in the next year, we really want to support all

of you in succeeding, the stakes are very very high for California to meet our renewable energy goals and the Governor's objectives, and we want to partner with you in making this a success.

I will just say I see this issue through sort of multiple hats. I served myself as a Municipal Utility Commissioner at the San Francisco Public Utilities Commission, which is a mid-sized Muni and about 400 megawatt dim, two million customers, and I completely get the perspective of what I'm hearing from the Munis; at the same time, we've also heard voluminous amounts from colleagues in the environmental community and the Ratepayer community, and PG&E, as well, and so I actually think -- one thing I would just ask of all the stakeholders here is to just understand we have to hear everything and then forge a middle path, and forge the right path, and I actually think this package does listen to all the perspectives and forges a path that I'll be supporting today. So with that said, I just want to thank everyone for commenting and being here.

COMMISSIONER MCALLISTER: So I want to echo Commissioner Hochschild's comments, that I

met with many of the POUs, I'm not the Policy Lead, but I have had extensive discussions about the RPS issue and really thank Kate and Angie and Gabe, as well, for over an extended period of time bringing me up to speed on these issues. There are many many issues that actually require multiple deep dives to really understand because not only are they relatively just complex on the face, but they also have a lot of historical context that's needed to understand where we started, what the various positions have been through time as an evolution here. And I have definitely -- I have worked in the Public Power sector, well, in the Cooperative sector for a big chunk of my career, there's some DNA shared between the Coops and the Munis and I do understand and very much sympathize with the local perspectives. At the same time, you know, we are a State agency, there is a law, there are, it turns out, differing interpretations of that law, and we have to figure out how to implement one path and not multiple paths, and that's reflected in the Regs here before us today.

I definitely understand where the POUs are coming from as far as wanting to maintain

local autonomy. At the same time, I find myself with a lot of faith that working with us, with staff, and between themselves and through their industry, or through their organizations, SCPPA, NCPA, CMUA, that they will be able to get it done in a way that demonstrates -- clearly demonstrates compliance with the intent of the law and, you know, even when intent is a little bit depending on -- even if we don't agree exactly on what the intent was, I think the POUs are fully capable of implementing and achieving the goals, and so I look forward to being perhaps peripherally, but involved in that discussion going forward and appreciate everybody's being here today, I think it's been, again, another step towards a goal that it really is important for the state to get right, so thanks everybody for being here.

COMMISSIONER SCOTT: I just wanted to also echo a few of the things that I heard today and highlight and stress the importance of achieving the 33 percent Renewable Portfolio Standard. I think that I would echo what Commissioner Douglas said about hearing the comments that we've heard today, that what we

have before us is a workable balance, and that I also agree that it was good to hear that everyone is willing to sort of roll up their sleeves and work together with us, and has been working with our staff to figure out just the best ways to do that, so those were just a couple things I wanted to echo that I heard today and from my fellow Commissioners.

CHAIRMAN WEISENMILLER: Okay, thanks. I'd like to sort of address the comments and, as I said, I'll reserve some time after the vote to supplement these comments. But I think it's important, you know, as we go to OAL, we will respond to any written comments we've gotten and state our rationale, but I thought it was important to set the broad context and talk about a couple of the issues.

I mean, first I'm thinking about a couple of things that I've gone through in the last couple weeks, one is we had in the IEPR a workshop on Climate Change, and we had the scientists talking about things are changing, and they're changing in ways that are not good, they're changing fast, the scientific evidence is very compelling, and in fact I should applaud

SMUD and LAWP for what they're doing to try to respond to this and be prepared for these changes. So, I mean, that's a fact of life we have to deal with, and that climate change is part of what motivates us in the area of mitigation, and renewables is a key part of that mitigation. And again, certainly I think everyone has heard the Governor say repeatedly that the statute is -- the 33 percent is a floor, it's not a ceiling, we're not trying to just squeak by to that point, but to really move forward.

And I went to a Chadbourne & Park conference last week and part of the message, which I think we're hearing from a lot of sources is there's a real fundamental change and energy in terms of renewables, in terms of the cost of renewables, in terms of the availability, I mean, I think certainly I don't know how much dollars we can talk about what the PG&E is seeing, but my understanding is we're talking 20, 30 times the bids, and obviously some of these are multiple bids into a single utility, or multiple bids to different utilities, but again, you know, it's a very very vibrant competitive market and so, in

terms of -- and it's only going to get more vibrant and competitive as we go forward.

So in terms of the major issues that people have flagged, one is what are changes on the compliance periods, you know, the whole linear stair-step question and, you know, I must say, that was my decision to change that and I thought, again, looking at where we are, looking at the challenge, looking at the opportunities, you know, it's certainly legal to do what we did, and it's certainly a reasonable decision, but I think certainly when you look at climate change, if you look at the renewable industry, you know, there's a compelling reason to do that, frankly. And similarly, we struggled all the way -- and part of the other thing I was really trying to balance is consistency with the PUC -- we need a statewide market in a lot of these things, and statewide definitions on a lot of these things, but at the same time I appreciate that, you know, that we do have local entities, that we do respect that decision making, and so trying to find that balance in these rules between consistency, striving for even more efficient market on the one hand, and also respecting your

autonomy on the other hand, so trying to find that balance is what we strove for. I'm pretty comfortable we found that, you know, we realized not everyone is comfortable, but I think, again, you have to look at the general balance and then realize, as you eloquently put, this is not the end, this is the beginning of this process, that as we work forward on compliance, it's going to be -- you know, as we actually try to implement these, it's going to be a whole new day for all of us at the Commission, and certainly in terms of all the stakeholders. And I really appreciate CMUA's offer to work with us, to get the information out, you know, as I said, I'm happy to be stepping back from this particular one and more, frankly, with San Onofre, I suspect, than I had anticipated, but as Commissioner Hochschild pointed out, he was an official in a POU, and so certainly understands that tension between autonomy and basically respecting the State, the Governor, the Legislature's vision on where we're going. And we realize that, again, it's going to be a new day, you know, I wouldn't be surprised if after the first compliance period, we've gone through all that, that we're looking at another

set of regulations and adjusting some of these in various fashions so that they can operate more smoothly and effectively, but we both talked about having basically meetings in Northern and Southern California with POUs to try and work on stuff, coming up with FAQs, certainly reaching out through CMUA and NCPA to some of the smaller entities that may find these regulations more challenging. And, again, we all realize this is a new day, it's going to be a new relationship, it's a new era, but again, if you look at the challenges and opportunities of renewables that we're facing, I think it's an exciting day for all of us. So, again, I think it's a wonderful opportunity to move forward in this area, realizing there will be certainly some bumps in the road. So with that, do we have a motion?

COMMISSIONER DOUGLAS: I will move approval of this Reg package.

COMMISSIONER HOCHSCHILD: Second.

CHAIRMAN WEISENMILLER: Okay, all those in favor?

(Ayes.)

CHAIRMAN WEISENMILLER: It passes unanimously. Again, thanks.

I wanted to just say a few words in terms of, first, I really want to thank -- this has been a long process, a complicated process, so I want to start out by first thanking the staff for coming up with the best Regulations we can at this time, and also they've worked very strongly with the PUC so we can get that consistency with the IOUs and at the same time listening to the POUs on where there are real differences. So, again, I want to start by thanking key staff and the legal team, obviously Angie Gould, Emily Chisholm, Gabe, God bless Gabe again for really getting us here, certainly the long hours, and certainly the Management Team, Kate Zocchetti, Tony Goncalves, Dave Ashuckian, certainly we really appreciate everyone's efforts getting us here. And obviously Rob Oglesby, you know, again, and changing over, shifting over, this is a good segue in that, you know, Carla Peterman and Saul Gomez really did a great job of setting this up, I actually wish they'd stayed a little bit longer to get it over the finish line, but that didn't happen, but one of the things that happened was that Commissioner Douglas and her Advisor, Galen Lamei, and Rob stepped forward

on the compliance part of it, you know. We have a very unusual relationship with ARB, and it took a lot of time and effort to make sure that we didn't do a recommendation, and the ARB then re-litigate everything, so we needed to make sure that our processes were going to fit into their processes in a way for a smooth transition, and that was definitely not easy. So certainly a lot of work in a very short period of time had to happen in order to make those fit together, and we certainly appreciate the Air Board working with us for that consistency. As I said, I certainly want to thank Commissioner Ferron, Sarah Kammins and others at the PUC for their help with us on striving towards the consistency, and they certainly read thoroughly everything we were doing in trying to think through the consistency questions. So, again, it really took that cooperation between the agencies to get, I think, as solid a document as we have. And I certainly want to thank everyone who has been in the stakeholder process, the POUs, all the stakeholders, the environmentalists, and everyone spent a lot of time and energy pouring through a fairly complex set of Regulations, but again

giving us comments which led to a much stronger final product today than certainly what we started with.

COMMISSIONER HOCHSCHILD: One more thing. So going forward, now that the baton has been passed on this, I will be doing two regional meetings with stakeholders on Muni compliance with the RPS in the fall, one in Northern California, tentatively to be hosted by SMUD, and one in Southern California, and I don't have the location for that yet, I'm going to be spending a week with LADWP and I may ask them if they could host it, or we could find another location, but the point person for my office, if you could just stand up, is Kelly Foley, who is my Advisor and has been a tremendous resource to me, 12 years with Sempra and PG&E, and then a few years with Vote Solar before she joined here. So she is the lead on this, so for those of you in the Municipal Utility community have not met her yet, she's going to be the main point of contact. And I will be doing, as I said, individual site visits to Munis, so if you are interested in having me come to your headquarters, I want to do that, I want to hear what you have to say, and

work together to make this a successful program.

MS. GOULD: Thank you.

CHAIRMAN WEISENMILLER: Thank you. Let's go to Item 6. Mariposa Energy Project, 09-AFC-3C. Craig Hoffman. And again, look at the cars outside.

MR. HOFFMAN: Good morning, Chair Weisenmiller, members of the Commission. The item before you, again, is the Mariposa Energy Project. I'm Craig Hoffman and I'm your Compliance Project Manager for this project. With me is Kevin Bell, Senior Staff Counsel, and Jacquelyn Leyva Record, our Air Resources Engineer.

Staff is requesting that the Energy Commission adopt an Order approving the Petition to Modify the Mariposa Energy Project and adopt the Proposed Revised Conditions of Certification.

A little bit about this project. This Petition is brought about because, during extreme heat during July and August, modifications need to be made so that the power plant can operate at its maximum and provide the full range of 200 megawatts for the project.

On February 19, 2013, Mariposa Energy

filed a Petition with the Energy Commission and the modifications proposed in the Petition would change the maximum allowable hourly and daily fuel throughput rate for the Mariposa combustion turbines and increase the project output by one megawatt per turbine, for a total of four megawatts.

Mariposa Energy is a 200 megawatt simple cycle generating facility consisting of four General Electric LM 6000 natural gas-fired combustion turbine generators and associated equipment located in Northeastern Alameda County. The project was certified by the Energy Commission on May 18, 2011 and began commercial operation October 1, 2012.

The modifications proposed in the petition would change the maximum allowable hourly and daily fuel throughput rate for the combustion turbines. The maximum allowable hourly throughput rate would increase the fuel throughput from 481 million metric British thermal units per hour, per turbine, to 500 thermal units per hour, per turbine. The maximum allowable daily throughput would increase fuel input from 11,544 thermal units per day, per

turbine, to 12,000 thermal units per day, per turbine and, again, increase the output of the plant by four megawatts.

The allowable annual fuel throughput would remain unchanged and the project Applicant is not requesting any changes to hourly, daily, or annual emission limits despite the increase in heat inputs.

For staff analysis, the maximum allowable heat input limit identified in the original Application For Certification was based on preliminary and engineering design for the combustion turbines and the turbine inlet chiller systems. As constructed, at higher ambient temperatures typical of summertime periods of peak electricity demand, the power turbines need to burn approximately four percent more fuel to reach their rated capacity of 50 megawatts per turbine. The turbines will be able to operate at their maximum rated power capacity at all operating conditions without exceeding any permit limits. The proposed modifications would not result in exceeding emission limits and only change Conditions of Certification AQ12 and AQ13 in regard to heat rate. If the requested

throughput increases are approved, the project would continue to comply with all applicable Bay Area Air Quality Management District rules and regulations. The limit of 4.4 pounds of NO_x per hour would not be exceeded with this modification for PM10 and there are no hourly limits in the Conditions of Certification. There were no changes to the annual heat input and the limits of 45.6 tons of NO_x per year and 18.6 tons of PM10 per year would not be exceeded with this modification.

On May 4, 2013, a Notice of Receipt was docketed, mailed and posted to the Web. On May 18, 2013, the staff analysis was mailed to interested parties, docketed, and posted to the CEC website for a 30-day comment period.

The end of comment period was June 7th last week, and no comments have been received, but staff understands that the California Pilots Association is concerned about exhaust velocities from the turbine stacks and impacts to pilots. And I think Andy Wilson was either going to show up or give a call in. At this point in time, I'd like to turn over the mic to our Air Resources Engineer who can explain a little bit more about

the changes to velocities coming out of the stacks and how that may impact pilots in the area.

MS. LEYVA RECORD: Good morning. My name is Jacquelyn Leyva Record and I performed the staff analysis on the amendment and concluded the proposed increase to allowable maximum heat throughput would not cause any air quality permit limits to be approached or exceeded in the Conditions of Certification that were approved by both the local Air District and the Energy Commission.

With regards to plume velocity increase, I was able to replicate the original vertical plume modeling done by CEC consultant, Will Walters.

In their original Commission Decision, a vertical velocity of 4.3 meters per second was determined as the critical velocity of concern to light aircraft. This was estimated to occur at heights up to 1,230 feet above ground level. With an increase of four percent in heat throughput, the exit velocity would be equal to 4.3 meters per second at heights up to 1,277 feet above ground level, a difference of 47 feet.

Currently, Condition of Certification Trans 8 advises against direct overflight below 1,500 feet above ground level of the Mariposa Energy Project site.

MR. HOFFMAN: And currently the project complies with all Conditions of Certification. Staff is available to answer any questions that the public or Commissioners may have. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Applicant?

MR. WHEATLAND: Good morning. I'm Greg Wheatland. I'm the attorney for the project owner, and with me this morning is Mr. Paul Shepard with Diamond Generating, and we're here to answer any questions that you may have. We would like to thank the staff for its thorough and thoughtful analysis of this amendment and, if you have any questions we would be pleased to respond.

CHAIRMAN WEISENMILLER: Great. Thank you. Any --

COMMISSIONER DOUGLAS: If there's no other comment on this item, I just wanted to say that I've looked at this closely, I was also the presiding member on this case, so I'm very

familiar with the project. And I support moving forward with this amendment. So I will move approval of Item 6.

CHAIRMAN WEISENMILLER: Okay, I just want to double-check first. Is there anyone in the room with public comment, or anyone on the phone? Okay.

COMMISSIONER HOCHSCHILD: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) This item passes unanimously. Thank you.

CHAIRMAN WEISENMILLER: Let's go on to Item 7, El Segundo Energy Center, 00-AFC-14C.

MR. HOFFMAN: Good morning, Commissioners. I'm your Compliance Project Manager for the El Segundo Energy Center Amendment and with me this morning is Alana Matthews, Senior Staff Counsel.

Staff is requesting that the Energy Commission assign a Siting Committee to oversee the El Segundo Amendment Proceeding. On April 23, 2013, El Segundo Energy Center LLC filed a Petition with the Energy Commission requesting to replace Utility Boiler Units 3 and 4 with one new

combined cycle generator unit identified as Unit 9, one steam turbine generator, Unit 10, and two simple cycle gas turbines, which would be Units 11 and 12, for the Energy Center totaling 449 megawatts.

The current Amendment proposes the demolition of Units 3 and 4 to be replaced with these four units and dry cooling technology. The site is located at the south most city limit of the City of El Segundo on the Coast of the Pacific Ocean. A Notice of Receipt was docketed and posted to the Web and mailed on May 14, 2013. A supplemental mailing to an updated mail list took place on May 29, 2013.

A little history on the project. Originally built in the 1950's, the El Segundo Energy Center was a 1,052 megawatt power plant consisting of four natural gas-fired utility boiler generating units. In 2000, the project owner applied for the Energy Commission to demolish and replace Units 1 and 2 with combined cycle Units 5, 6 and 7, and continued the use of once-through cooling. The project was certified by the Energy Commission on February 3, 2005.

In 2007, the owner petitioned to amend

the 2005 Decision to install smaller rapid start combined cycle units using dry cooling technology and designated the units as 5, 6, 7 and 8. The Commission approved this Decision on June 30, 2010. NRG started construction on Units 5 through 8 in June 2011, and the project is approximately 83 to 85 percent complete and is expected to start commercial operation in August 2013.

The El Segundo Amendment will need to be processed as a formal amendment and must ultimately be approved by the full Commission at a noticed Business Meeting or hearing because Conditions of Certification are changing. Due to the complexity of the project and the amount of public interest, staff recommends that a Siting Committee provide oversight of the Proposed Amendment. Staff is available to respond to any questions the Commission may have at this point in time. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Applicant?

MR. MCKINSAY: Good morning, Commissioners. My name is John McKinsey with Locke Lord, counsel for the project owner which

is El Segundo Energy LLC, it's a subsidiary of NRG Energy. With me is Mr. George Piantka, he is the Project Manager for all aspects at El Segundo, both the existing facility being constructed, as well as this change, and we're certainly able to answer any questions you may have. And I think Mr. Piantka wanted to say a couple words about this project.

MR. PIANTKA: Good morning, Chair and Commissioners. First, I'd like to thank the staff and the Commission in advance for considering this project. It is a further modernization of the El Segundo Power facility. As noted, we're looking to replace those steam boilers 3 and 4, Unit 3 will come off line soon here in July, and then Unit 4 has a once-through cooling compliance deadline of December 31, 2015. So we look forward to working with all parties. Thank you.

CHAIRMAN WEISENMILLER: Okay. Does anyone either in the room or on the phone wish to speak? Okay. Commissioners, I think it's time to move forward with a committee. The committee will be Commissioner Douglas as the presiding member and Commissioner Scott as the second

member. A motion?

COMMISSIONER DOUGLAS: Move approval.

COMMISSIONER SCOTT: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) This also passes unanimously.

COMMISSIONER DOUGLAS: Chairman Weisenmiller, before we continue I just wanted to make a note that the committee, now that it exists, is looking into holding a site visit and informational hearing in the afternoon or evening -- afternoon and evening, most likely -- of August 6th. We don't have specific times or location nailed down yet, so once that is nailed down, the public notice will follow.

CHAIRMAN WEISENMILLER: That's very good. I think obviously one of the implications of the San Onofre Decision is that we need to be looking for ways to increase supply or decrease demand in the LA Basin, and certainly to the extent that we can have in terms of pending siting cases in that basin move in a -- actually not move expedited, but to move in a timely fashion -- making sure that we have full opportunity for public participation, and that we

come up with strong mitigation plans for those.

COMMISSIONER DOUGLAS: Thank you, that's absolutely right and that's why I just wanted to make a note that, you know, we certainly do intend to have an informational hearing, a site visit, you know, we're already looking at dates, August 6th looks good to us right now, and I want to make sure that the public knows that we will have the process that includes these opportunities for engagement beginning with the August 6th event.

CHAIRMAN WEISENMILLER: Anyway, thanks. Let's go on to Item 8, which is Victorville 2 Hybrid Power Project, 07-AFC-1C. Mary Dyas, please.

MS. DYAS: Good morning, Commissioners. My name is Mary Dyas. I'm the Compliance Project Manager for the Victorville 2 Hybrid Power Project. And with me this morning is Kevin Bell, Senior Staff Counsel.

The 563 megawatt Victorville 2 Hybrid Power Project was certified by the Energy Commission on July 16, 2008. The Hybrid facility will be designed to use solar trough technology to generate up to 50 megawatts of the project's

output. The facility will be located in the City of Victorville, San Bernardino County. Construction has not begun on the approved project.

On March 29, 2013, the City of Victorville filed a petition with the Energy Commission requesting a five-year extension to the deadline to commence construction of the Victorville 2 Hybrid Power Project from July 16, 2013 to July 16, 2018.

A Notice of Receipt for the Petition to Extend was mailed to the Victorville 2 Post-Certification Mail List, docketed, and posted to the Web on April 15, 2013. Staff's analysis of the Petition to Extend was docketed on May 6, 2013, and posted to the Web on May 13, 2013.

On May 22, 2013, staff received a letter from Robert Landwehr, a landowner, requesting that the public hearing for the extension request be postponed until issues he has with the City have been resolved. On May 31, 2013, staff received a copy of the City's response to Mr. Landwehr's letter.

On June 6, 2013, staff received another submittal by Mr. Landwehr pertaining to an SEC

filing. The public comment period ended on June 11, 2013, and no other comments have been received. Staff concludes Mr. Landwehr's issues with the City are unrelated to the Energy Commission's proceeding and therefore there is no justification to postpone action by the Commission to consider the petition to extend the deadline to commence construction.

In late 2008, staff received numerous pre-construction compliance filings for this project. The project owner will be required to resubmit most, if not all of these documents, since it has been nearly five years and the surveys and other information submitted will need to be updated. All preconstruction submittals required per the Conditions of Certification will need to be submitted and approved prior to approval to begin construction.

Staff has concluded that extending the start of construction deadline is consistent with the Energy Commission's general interest in the development of facilities it licenses. Staff therefore supports the instant petition to extend the deadline to commence construction.

CHAIRMAN WEISENMILLER: Applicant?

MR. ROBERTSON: Thank you, Chair Weisenmiller and Commissioners. My name is Douglas Robertson. I'm the City Manager for the City of Victorville. With me today is our Senior Analyst in our Municipal Utility, Janelle Davidson.

I would first like to thank your staff, specifically Mary Dyas. Earlier this year, our City Council, brand new since originally filing for this, directed staff to attempt to get this extension and to do so using City staff, rather than using consultants we previously used. This was done for both cost reasons and also for control reasons. Victorville, as you know, is uniquely positioned to be part of Southern California's future energy needs. Major transmission lines from both Edison and LADWP actually cross about a half mile from my house in Western Victorville. When my schedule allows and I can ride my mountain bike to work, I actually ride right underneath that site. So we're well aware of our ability to be part of Southern California's solution as we go into the future.

To supplement the staff report, since the draft was published we've now received

unanimous resolutions of support from all five cities in the high desert, representing directly over 350,000 residents right there in the Victor Valley in the High Desert.

As I said, Victorville stands ready to be part of the solution as we encounter new economic growth, and especially with the closure of San Onofre. Happy to answer any questions the Commission may have.

CHAIRMAN WEISENMILLER: Thank you. Commissioners, any questions or comments? Well, first, we do appreciate both of you coming today, certainly.

COMMISSIONER MCALLISTER: Just quickly, I guess I'm wondering sort of where -- so the original project now as conceived, I definitely really appreciate the City's initiative here to be part of the solution and it's really to be commended. I'm wondering a little bit if there's an aspect of the technology events sort of making the project need to adapt and shift given that the market is changing and I'm wondering sort of what your plan going forward is if the extension is granted, as to sort of revisit some of the -- really look at the market and do an assessment of

what project actually would be the best project at this moment.

MR. ROBERTSON: Thank you for your question, Commissioner McAllister. It's actually very timely. One of the changes that the City Council has made with the pursuit of this project, I will say previously the City Council had attempted to define the market, or predict the market and get out in front of it with its planning. And the City Council that currently sits is more conservative in that regard, and our intention is to allow the market to define the exact needs of the project.

I think if you step back all the way to the early 2000's when this project was first conceived, the idea, although it didn't quite meet the demands of the Renewable Portfolio Standards, I think the desire of those early City Council discussions was to create a project that could be essentially a one stop shop for both baseload power, as well as meeting renewable standards. As the technology grows and advances, obviously there will be some changes to the project; we considered taking a stab at estimating what those would be right now, but

there really wasn't reason to do that, especially given the sort of pendulum swing between the hyperbolic trough, solar versus PV solar. Ultimately, at some point in the next five years, that will be defined mostly by the market and what the market will bear.

COMMISSIONER MCALLISTER: Thank you. I really appreciate that. And in your estimation, would there be a need to come back and sort of -- does the current permit for this project enable you that flexibility to determine the best technology and what do you anticipate that project looking like, briefly?

MR. ROBERTSON: Ultimately, the permit would need to be modified. Even the turbines, the gas turbines, are no longer in production; there are other similar models, obviously. We've been in nearly constant negotiations with one or more potential future owners of the facility. The City would very much still like to be an owner of the facility, but we're not financially able to likely be the 100 percent owner. In those discussions, there's been talks about probably shifting to more of a rapid start technology and with the very recent announcement

by Edison regarding San Onofre, you know, perhaps we need to revisit that and look at more of a baseload rather than supplemental power, which would be our preference for a lot of different reasons. But ultimately, as I mentioned in the last question, we're ready to respond to the market rather than trying to define it.

COMMISSIONER MCALLISTER: Great. Thanks very much for being here.

CHAIRMAN WEISENMILLER: Yeah, that's good. Again, even without SONGS, rapid response is going to be the wave of the future, you know, if you look at the utility RFOs they're calling for over 300 starts a year, three times a day, which is certainly where the future is heading with renewable integration. So, anyway, we would certainly discourage a shift towards baseload. But, again, the market will determine. But anyway, with that, do we have any motion?

COMMISSIONER MCALLISTER: I will --

CHAIRMAN WEISENMILLER: This is Item 8.

COMMISSIONER MCALLISTER: Okay, great. I will move Item 8.

COMMISSIONER DOUGLAS: Second.

CHAIRMAN WEISENMILLER: All those in

favor?

(Ayes.) Item 8 passes unanimously. Thank you. Thanks for being here.

CHAIRMAN WEISENMILLER: Let's go to Item 9. 2013 Building Energy Efficiency Standards Compliance Manuals. Mazier.

MR. SHIRAKH: Good morning, Commissioners. I'm Mazi Shirakh, Senior Mechanical Engineer and the Core Project Manager for the 2013 Building Standards, along with my colleague, Martha Brook, who is present here.

There are several Building Standards-related items before you on the Business Meeting Agenda today. I'm here to present Items 9A and 9B, the Residential and Nonresidential Compliance Manuals. Items 10A and 10B, the Residential and Nonresidential ACM Reference Manuals will be presented by Martha Brook. Sam Lerman will present Items 10A (*sic*) and 10B (*sic*), the Residential and Nonresidential Building Energy Science Technical Support Contracts to support the 2013 and 2016 Building Standards, as well as the Energy Efficiency Programs for Existing Buildings.

I'm here today to ask for approval of

the 2013 Update of the Residential and Nonresidential Compliance Manuals. The Warren-Alquist Act requires the Commission to approve the Building Standards, supporting documents which include the Compliance Manuals, and the ACM Reference Manuals, six months ahead of the effective date of the Standards, which is set for January 1, 2014.

The Residential and Nonresidential Compliance Manuals explain the Standards requirement in plain English, along with illustrations, examples, and questions and answers. The audience for these documents include the enforcement agencies, energy consultants, builders, educators, or anyone else who is involved in complying with the Building Standards.

This Commission adopted the 2000 Building Standards on May 31st of 2012 and the Acceptance Testing was adopted by this Commission on October 12, 2012. The Standards were subsequently approved by the California Building Standards Commission on January 23, 2013. Since the adoption of the Standards just about a year ago, the staff and the Utility Teams have been

updating these Compliance Manuals, including a major revamp of the Compliance forms. The technical chapters were updated to reflect the 2013 Standards Updates, new chapters have been added to cover newly regulated loads, which include but are not limited to the parking garages, laboratory hoods, commercial kitchens, compressed air, and the solar ready zones.

Both the Residential and Nonresidential forms have been substantially revamped to facilitate the transition from the paper form to electronic forms, which will be retained by data registries.

Over the past 12 months, staff has worked closely with many stakeholders, including CALBO, representing the Building Departments, CVIA representing the building industry, KBACK representing the energy consultants, equipment manufacturers, installing contractors, HERS providers and raters, engineers, architects, and others.

During this period, two drafts of each manual were posted for public viewing to solicit comments from the stakeholders. As a result, our team received and responded to more than 1,000

questions and comments from all stakeholders, many of which have been incorporated into these Manuals.

The California Utilities provided substantial assistance for this update of the Manuals, as well as the support for transition to the electronic forms, both with funds and consultant time. Major support has been provided from the PG&E, Southern California Edison, SDG&E, Southern California Gas Company, as well as SMUD.

So with that, I encourage you to approve the Residential and Nonresidential Compliance Manuals, and I'm happy to answer any questions.

CHAIRMAN WEISENMILLER: Thank you. We have -- let's start with public comment. And so on Item 9, Tom Garcia, CALBO.

MR. GARCIA: Good morning, Commissioner Weisenmiller and Commissioners. I represent California Building Officials Organization and I'd like to speak on this topic, I can just do it at one time, and also Item 10. It's a general comment that California Building Officials Organization has. I chair their CEC Advisory Committee and also report to the Board from time to time, so I've worked with the President and

cleared this conversation with him, that CALBO feels one of the most important things is that the Energy Efficiency Standards come on line January 1st, along with all the other Standards. We support the efforts that the staff has been doing to make this happen. In past years where we've had Standards coming on track at different times, it makes the Energy Efficiency Standards sort of an outlier, a stepchild, if you will. And in our opinion, it's important that the Standards be adopted at the same time so that the Building Departments are aware of the Standards changes that contractors are aware that they can update their plans one time, January 1st, and not have to worry that there will be changes to another specific document later on in the process. So there has been some concern and I guess hearsay that the Standards may be pushed out, and CALBO would like to see that not happen and would like to see them adopted at the same time as other standards. Thank you.

CHAIRMAN WEISENMILLER: Okay. Tom Enslow.

MR. ENSLOW: Good morning, Commissioners. Tom Enslow with the law firm,

Adams Broadwell Joseph & Cardozo. I'm here today on behalf of the Testing, Adjusting and Balancing Bureau, TAB, and on behalf of the California Advanced Lighting Controls Training Program, CALCTP.

Both TAB and CALCTP are entities that are conditionally approved to provide acceptance test certification to technicians for performing acceptance testing and acceptance test forums that are addressed in these documents and the Compliance Manuals and the forums.

First off, they'd really like to commend staff for their hard work they've done in putting together these Compliance Manuals. Both these entities have provided extensive comments during the earlier draft periods and, for the most part, all these comments have been addressed and they know it's taken a lot of hard work to get to where they are.

I would like to note that yesterday CALCTP sent in an email to staff just setting forth a few, I guess, typos and incorrect references and some missing language that they've noted in the final draft. We think they're all minor omissions that can be addressed as errata,

post-approval. I'm not sure, staff may have already addressed them at this point or not, but I just wanted to let you know that there's some minor stuff that can be addressed along the way.

And then, in addition, TAB is doing a final comprehensive review of the mechanical portions and so far they've seen their issues addressed, but as they come up with stuff, they'll share any additional errors they find with staff. And then finally, as both these entities are putting together their acceptance test curriculum and training programs during the summer, it's possible that perhaps some substantive issues may come up that should be added to the compliance manuals or the forums, and if that's the case they'll try to identify those as early as possible, so if any revisions need to be made, you know, as early as possible in this process, that can occur. But we support the approval of these forums and we appreciate the hard work that has been done. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Staff, would you like to respond to their comments?

MR. SHIRAKH: Yes. We did receive the

comments, we looked at them, unfortunately they came yesterday, so we didn't have the time to incorporate them. I do agree, most of them are minor problems with references and incorrect references within the forms. We can correct those. In the past, what we've done is, after certification of the manuals, we posted one or two quarterly updates to the manuals. Once these documents are out there, people are using them, they'll report these problems to us, and then we correct them, we put them in there, and then we'll update it on our website. So we fully plan to do that.

Some of just kind of the corrections, we can do it. If there are substantive changes, there's a likelihood that we have to come back to the Commission for recertification of the manuals, but we need to look at the type of comments and talk to our counsel and decide whether this is something we can do on our own, or come back to the Commission.

CHAIRMAN WEISEMILLER: Well, certainly while he is still here in Sacramento, I was going to suggest your counsel and you sit down with him and try to walk through the things and see if

there are any issues.

MR. BREHLER: And Commissioners, this is Pippin Brehler, staff counsel. For the public's record, a couple of revisions that staff had finalized just in the last couple days were posted this morning, and the resolution that's before you today for both this site and Items 10B also directs or authorizes the Executive Director to make those kinds of non-substantive changes, and to bring any substantive changes back to the Commission for consideration.

CHAIRMAN WEISENMILLER: Great, thanks.

MR. BREHLER: Thank you.

CHAIRMAN WEISENMILLER: Okay, Commissioners, any questions or comments?

COMMISSIONER MCALLISTER: So I want to just thank -- well, make a few thanks here, actually. You know, this is a long process, we're in the middle of it today, we're hopefully taking an important step, but really this is very much ongoing activity and, in particular, you know, we adopted the Standards and they were adopted by the Building Standards Commission a while ago now, and this is a significant post-adoption effort that is really a mutation of the

Standards, and so I think probably the broad group of some of those stakeholders understand what that process looks like at implementation, but I think it's not that well understood how big of an effort this is to take the standards and translate them into practice so that they can actually go out in the world and be applied. And I want to commend staff, Mazi and Martha, Pippin, I'm not going to try to name everybody because I know it's a big effort, but particularly Martha for spearheading a lot of this stuff, and Dave Ashuckian for shepherding it at that higher level. And we're in the middle of that and I think that the details will continue to change as the marketplace changes and as we identify these sort of how best to do it. I also wanted to thank the Investor Owned Utilities for supporting this effort in the near term. We're now finally getting some of our own resources marshaled to continue that and get it to the finish line, but we've in the interim basis really been relying on those utility resources, and that's very helpful, as well as use of some contractors that had utility support.

And then the stakeholders generally, I

think, Tom Garcia, Tom Enslow, there are many others, CALBO, generally, many stakeholders who have chimed in on this process, and I think we really appreciate that and also expect them to be and hope that they remain engaged on this because, really, that's where the rubber hits the road. So I think, you know, adopting the standards happened and now we have to develop the supporting tools, and then implementation. Even after January 1st when it's out there, it will need care and feeding, and so I think that's a natural part of the process, and then here pretty soon we'll start the same process over again for 2016, it's sort of a permanent revolution. I know staff is already looking at that.

And I also wanted to point out just as a supporting set of activities, you know, we're also at the same time this is going on, we're developing a plan for Assembly Bill 758 and that is trying to get existing buildings upgraded because this is for new buildings we're talking about, but there are a lot of moving parts in this whole -- across the industry here. And Title 24 is really a key tool. So one thing in AB 758 that will have an impact, hopefully, if we

can get it accomplished, it will have an impact here, too, is bringing some resources from somewhere to help in that outreach and education, and working with the marketplace very proactively as the Codes are updated. So it's parallel, it's not directly related to this item, but I think I wanted to point that out very much needed.

I want to just state for the record that it's the Commission's goal, intent, to get the Standards in place on January 1st, there's no discussion of postponing that, so if there are some rumors out there that that's going to happen, those are not true. It's a big lift, like I think many people will acknowledge here, it's a big lift, you know, every three years we go through this, and it's a lot of resources, and in this case, I think particularly with the ACM with the Alternative Calculation Method, I mean, we're creating something relatively new, and so it's an even bigger lift than may be normal. But I believe staff is up to it and I think that with the marketplace aligned on that, we're going to get it done. And so I have every confidence that that will happen.

CHAIRMAN WEISENMILLER: I would make one

comment, too, on the timing question. Given San Onofre and my earlier remark about trying to increase supply, reduce demand, frankly about the only thing I'd be interested in is trying to figure out a way to speed this up, although I know it's not possible, so, yeah, don't expect a delay.

COMMISSIONER MCALLISTER: Well, we don't want to give Martha a heart attack.

MR. BREHLER: And Commissioners, if I could just make one more additional response to Mr. Garcia? As Mazi mentioned, we're already starting on the 2016 Standards and henceforth all of our Standards are going to be on the same cycle as the rest of the Building Code, so there won't be these two different start dates for different aspects of California's Building Code going forward, we're on the same track as the Building Standards Commission and we'll stay that way.

MR. RAYMER: Thank you, Mr. Chairman and Commissioners. I'm Bob Raymer representing California Building Industry Association. I'm sorry I didn't get a blue card submitted, but I showed up late. I would -- CBI would like to

sort of endorse the comments that were made by Tom Garcia of CALBO, why we recognize the software isn't done and that's perhaps an issue that I could speak to during the next item. We strongly support keeping the effective date of January 1, 2014. As Tom indicated, CBI and CALBO have for well over a decade done everything we can to try to get everything that the Building Standards Commission approves or adopts into the same type of triennial cycle, and this is very important for a variety of reasons, as Tom mentioned.

So with that, we're very supportive of the certification, we're also very pleased that electronic copies exist because this whopper is now about four to five pounds if you chose to print it out. So with that, once again, we support certification today. Thank you.

COMMISSIONER MCALLISTER: So I wanted to just make clear that this is Item 9 we're talking about, which is the Res and the Nonres Compliance Manuals, and Item 10 is the Alternative Calculation Method, and those are different items, they're obviously very much related, and maybe if Mazi or Martha, you want to sort of make

clear what Item 9 entails.

MR. SHIRAKH: Again, Item 9 as indicated in the Agenda is the -- we're asking for certification of the Residential and Nonresidential Compliance Manuals. Item 10 hasn't been presented, Martha will present that, and that one is the ACMS Reference Manuals. So at this moment in time, we're just talking about the Compliance Manuals.

COMMISSIONER MCALLISTER: And I guess for those of us in the bubble here, that was a perfectly accurate description, but I'm not sure that everybody, the lay people, would necessarily understand the distinction. So I guess I'm -- if Commissioners have questions, you know, feel free to ask.

MR. SHIRACK: The difference between the two manuals is the Compliance Manuals describe or explain the requirement in the Standards document. The Standards document is written in legalistic language, which Pippin understands very good, but the rest of us may not. So this is an attempt to explain the requirements of the Standards in plain English so people know how to proscriptively comply with the Standards

requirements. The ACM Manuals that Martha will be presenting will explain the requirements for the performance path. There are two ways to comply with the Standards, proscriptively or the performance path. So the Compliance Manuals explain the proscriptive requirements, and the ACM Manuals explain the requirements for certification and approval of the performance software. Is that correct? Martha says it's correct, then it's correct.

COMMISSIONER MCALLISTER: Yeah, great. So we're not talking about software in Item 9, right, so Martha will talk about the software. So I just wanted to make that clear. So I will move Item 9.

COMMISSIONER SCOTT: Second.

CHAIRMAN WEISENMILLER: Okay, all those in favor?

(Ayes.) This item passes 4-0.

CHAIRMAN WEISENMILLER: Let's go on to Item 10. 2013 Building Energy Efficiency Standards Residential and Nonresidential Alternative Calculation Method (ACM). Martha.

MS. BROOK: Hi. I'm Martha Brook with the Standards Development Office and Co-Manager

with Mazi of the 2013 Building Energy Efficiency Standards.

First I'd like to briefly explain why we withdrew sub items 10(C) and 10(D) from this agenda and then seek your approval for sub items 10(A) and 10(B).

The Energy Commission is required by the Public Resources Code to provide public domain software that enables compliance with the performance approach for any residential or nonresidential building project subject to the Building Energy Efficiency Standards, including providing the documentation that explains the modeling rules used in the software that are consistent with these standards. This documentation is included in the Alternative Calculation Method Reference Manuals we are seeking your approval on today.

This Alternative Calculation Method, or ACM, is defined in the Standards as a method in the form of computer software developed by private vendors for demonstrating that a building design complies with the Standards. These ACMs are subject to Commission approval. The public domain's compliance software is the subject of

the Agenda item elements we have withdrawn from your consideration. We withdrew the requests for you to conditionally approve the compliance software, Item 10(C), because we believe it is better to wait until the software is ready for your full approval by the Commissioners at a future Business Meeting. While we intended our request for your direction to the Executive Director to authorize his future approvals of the software, Items 10(C) and 10(D), to streamline the steps needed to get these software tools out to the building industry for their use, we understand that it is important for the full Commission to grant such approval, at least for the first time the software is approved as needed for each new Standards update.

We fully intend to release the software for public review in July, however, the software released in July will not produce the detailed compliance forms needed for permitting with Building Departments. So we decided it was better to come back to you in September with two complete software products, one for residential compliance, and the other for nonresidential compliance, and request full Commission approval

then.

So the versions of the public domain software that we've publicly released in July will not be formally approved by the Commission since this software will not yet be capable of being used to generate compliance documentation needed for building permitting. We will be testing the software before the July release to ensure the Commission staff is confident that the software is correctly implementing the modeling and rules documented in the ACM Reference Manuals. And we can include the results of this testing when we provide the software to the public.

And now for items 10(A) and 10B). The 2013 Building Energy Efficiency Standards refer to the residential and nonresidential ACM Reference Manuals. Both of these documents were significantly rewritten for the 2013 Standards Update to more clearly describe the rules to be used by compliance software to model the energy use of a proposed building project, and to compare that building's energy use to that of a standard design energy budget for the building. The standard design is that same building modeled

to just meet the proscriptive requirements of the standards. A building project is deemed to pass the performance compliance approach if its estimated energy use is less than or equal to the estimated energy budget established for the Standard design. These manuals also include references to detailed explanations of how the underlying Building Energy Simulation Programs used in the Energy Commission's compliance software work. The modeling methods and assumptions used to calculate the hourly energy use of any building described, using the compliance software.

This level of detailed documentation ensures that the Energy Commission is as transparent as possible in the methods used to implement the performance compliance approach for the 2013 Standards. These documented methods for calculating the energy used in buildings also establish the reference methods that all private vendor software is then compared to in the review process used by the Energy Commission when certifying third party compliance software programs. These ACM Reference Manuals also describe the software test regime that will be

used by the Energy Commission to review all compliance software tools submitted for certification by private software vendors. The Commission will also ensure its public domain software passes these same tests.

I would like to acknowledge two CEC staff members who are critical in getting these Reference Manuals completed and ready for your certification today, Sabaratham Thamilseran has stewarded the revisions to the Nonresidential ACM Reference Manual over the last year, and Dee Anne Ross, who just returned to the Commission after 15 years as a Title 24 Consultant, has been instrumental in completing the Residential ACM Reference Manual over the last two months. This concludes my summary of this agenda item and I am available to answer any questions that you have.

CHAIRMAN WEISENMILLER: Let's start with -- we have public comment. I was just going to say, Bob, do you want to go first?

MR. RAYMER: Thank you, Mr. Chairman and Commissioners. Once again, I'm Bob Raymer representing the California Building Industry Association. And as a user of the ECM, the manuals that you just certified, we do clearly

understand the differences between Items 9 and 10, we also support your certification today of the two ACMs. And having said that, and also having said we appreciate keeping the effective date of January 1, 2014, I would like to take the opportunity to make a few comments on the availability of the software if that would be appropriate at this time?

CHAIRMAN WEISENMILLER: Please, sure.

MR. RAYMER: Thank you. While we're very supportive of the certification of all these documents, the fact that the computer software is not fully available right now is problematic. We understand that there's a great deal of work, very technical work that goes into the development of each of these evolutions that we've seen over the years, but in reality this is the third time in a row we're going to see a hiccup in implementing the new Standards. And that's unfortunate. I also recognize that staff is taking direct efforts to try to make sure that that's not the case when we get into the 2016 Standards. So with that, if I could explain to you a few of the problems that we've had.

In terms of a policy position, CBIA and

I'm sure other industry groups would like to see these certified programs available at least six months in advance of the effective date. Our preference is to have access to certified software nine to 12 months in advance of the Regs, and that's because the units that are going to get built in 2014 are pretty much already designed. If you look back in 2010, those Standards, the Micropass version that was so heavily used by 90 -- I would say the performance method is used by 98 percent of all housing in California, that was approved two weeks before the Standards took effect in January of 2011. The reason why you didn't see much of an impact is that the housing economy was in a complete freefall, we are now changing; and so in January 2014, we're not going to see the same set of circumstances that kept us from having a logjam. Having said that, because of the lack of availability of a certified program now and over the coming months, it's highly likely you're going to see a serious spike in permit applications submitted prior to January 2014. That's because the Building Standards that are in effect on the day you submit your permit

application are the ones that you build to. And probably at the request of the energy consultants involved, as you will probably hear from in a minute, you're probably going to see a serious spike in the fourth quarter of 2013. I know that's not the staff's intention, but once again, we've got to be able to build in advance and the one way that we are trying to get early adopters is to just tell them take the existing 2010 Standards and plug in a 30 percent increase, and you should be well within the margins of minimum compliance with the next set of Regs. But that's easier said than done. So with that, we'll continue to work with staff and hopefully by the time we get to the 2016 Regs, this won't be a problem. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Okay, Patrick Splitt.

MR. SPLITT: Good morning, Commissioners. I'm Pat Splitt, President of APP-TECH. I'm one of those energy consultants that's going to be real busy for a month. I have a couple of comments, 1) just technical, for this item that we're referring to the Warren-Alquist Act Section 25402.1(E), and actually these

manuals are required in Section 25402.1(B), so I don't know if that's a big deal, but it's a technicality, it's the law, and we have to be correct.

MS. BROOK: Right, duly noted. Thank you, Pat.

MR. SPLITT: Okay. And what wasn't mentioned is that the ACM process has been changed from previous years, they've actually split things up into two manuals, and that wasn't explained at all, but I think it's very critical because I'm also on the AB 2339 Working Group that Commissioner McAllister is concerned with, the ground source heat pump people who it appears are going to be proposing some sort of change to the ACM to better handle ground source heat pumps. And with this change, that I'm sure you'll explain, we won't have to then go back and do a rulemaking, it will be a much more streamlined process.

MS. BROOK: Do you want me to explain that now or --

MR. SPLITT: Well, it's germane to what I'm going to say next.

MS. BROOK: Okay. So just as

background, we did change the process in the 2013 Building Standards. During the rulemaking, we approved the ACM Approval Manual, which basically explains the process steps that private vendors need to take to get their software certified, and we referenced the ACM Reference Manual in that document that basically said all the details about the modeling assumptions and the modeling rules will be in the Reference Manual, but the processes that you go through to certify and decertify software is in the approval manual, and that was part of the rulemaking. We did deliberately pull out the Reference Manual from the rulemaking process so that we would have the ability in between major Code updates to make advancements in the modeling of rules and assumptions for new technologies that otherwise would have to wait for three years until the next standards update. So what Pat is referring to is directly relevant to that change in our processes for 2013.

COMMISSIONER MCALLISTER: And that's appropriate because, as the marketplace evolves, three years is a long time, and we need that flexibility to be able to keep our Reference

Manual fully up to date.

MR. BROOK: And then the other thing, just to be completely transparent, there's always things that happen in the software that are unintended, so there's mistakes, there's bugs, they have to get fixed, and without having the ability to change that in the middle of the Code cycle, building designs will just be incorrect for this next three years because there's no ability to make the changes in the software if it's part of the rulemaking. And so we deliberately added some more flexibility for ourselves and the industry in that regard.

MR. SPLITT: Good, thank you. So then I actually was at that meeting at May 31st of last year, and the actual agenda item basically stated that it was a possible adoption following publication of the proposed changes and 15-day language, comment period of proposed 2013 Update to the Building Energy Efficiency Standards for Residential and Nonresidential Buildings in the California Code of Regulations Title 24 Part 6, Associated Administrative Regulations in Part 1, and that's where some of these Regulations are, and then Alternative Calculation Method Approval

Manuals and portions of the Green Building Code Part 11, also known as CalGreen. That was the agenda item, however, the vote that was taken did not refer to the agenda item. The vote that was taken actually after a suggestion by Mr. Levy was to move to adopt the Proposed Order adopting the Proposed Regulations, and that is what happened. So that was, in fact, this, the Proposed 15-day Language, Order Adopting Proposed Regulations and Negative Declaration, the 15-day language, you know, is an official document. Also along with that was what then became the Final Statement of Reasons, and there was also a list of all the documents in the 15-day language that included all kinds of things, Joint Appendix Final, Non-ACM Final, Non-Res Appendix Final, R ACM Final, Reference Appendices J and R combined, Standards Final, but no ACM Approval. So there was never a motion made to approve the ACM Approval Manuals, they weren't included in the 15-day language, it was not voted on, you have not adopted the Approval Manual, period. And that's sort of important that you do that, and since that rulemaking is over, I think you have to initiate another rulemaking.

CHAIRMAN WEISENMILLER: Okay, we'll ask Pippin and Chief Counsel to discuss your suggestion, and to the extent Bob wants to. Go ahead.

COMMISSIONER MCALLISTER: Is there an ask here or is there -- I guess is there an ask to us or a final point?

MR. SPLITT: Well, I had suggested in my comment that we delay the adoption of the Standards until July of next year, and that was assuming that, as far as I could see, the earliest you'd be able to actually approve the software is in your January meeting. Now, if there's somehow you can do this quicker than this, but I've never seen you guys do a rulemaking in six months. Can you do that?

CHAIRMAN WEISENMILLER: Well, again, we have a -- we're talking about San Onofre, we're talking about the public overriding the needs of the State, I guess in terms of first your legal "Petition," that returns to where our attorneys chime in, and I understand Bob Raymer may want to speak on this question, too. So, thank you.

MR. SPLITT: Well, I have more.

CHAIRMAN WEISENMILLER: Well, you have

three minutes, so if you can summarize, that's good.

MR. SPLITT: Well, I'll probably have responses in writing --

CHAIRMAN WEISENMILLER: If you have stuff in writing, you don't need to re-summarize it, but certainly encourage you for the magnitude of this change --

MR. SPLITT: I would point out that what's said today is meaningless without this other document.

CHAIRMAN WEISENMILLER: Well, but for the magnitude of your change, basically that certainly merits a written comment. So, thank you. Bob Raymer, do you want to say anything more with our attorney's discretion?

MR. RAYMER: Thank you. Mr. Chairman, Commissioners, Bob Raymer with the California Building Industry Association. And I think I've got a fair understanding of what Pat is requesting, and part of my education and degrees in licensing is in Engineering, I'm not an attorney. I have been sort of a regulatory nerd for the last three decades.

COMMISSIONER MCALLISTER: And we thank

you for that, Bob.

MR. RAYMER: Administratively speaking, I've been affiliated with the last 10 updates of the Energy Standards and the related documents and programs and everything else that are triggered by those adoptions. And I don't recall a proceeding where we've actually seen a simultaneous adoption of the standards, which is effectively the skeletal framework of the Regulations that we're talking about, at the same time that we see the adoption of the ECM and the ACMs, because the adoption of the Standards obviously trigger any number of activities by which the CEC must then go about developing new programs, etc. etc., and that's why the statute formerly designates sort of a time period by which you need to adopt the Energy Conservation Manual, etc., etc., after the adoption of the Standards, but prior to the effective date. And so that's always worked out very well. Obviously we'd like to see certain things approved well in advance of the effective date, but the fact here is you've had workshops on the ECMs, you've had workshops and hearings on the ACMs, all of this in public review, tons of comments have been

taken, those comments have been absorbed and dealt with by the staff and their contractors, and now before you today is the certification of the ECMs and now the ACMs in Item 10. So we would have to agree that, in terms of administrative legalities that everything seems to be proceeding quite well, albeit our own personal preference is that it would proceed quicker for all intents and purposes. I don't think you have to start a new rulemaking for this. So I think you've done everything well within administrative boundaries, but maybe your legal counsel would have another thing to say. Thank you.

CHAIRMAN WEISENMILLER: Okay, thank you. Actually, I was going to say I don't know if legal counsel is ready to opine; Valerie, to the extent you also asked to speak, why don't you step forward and then we'll swing back to this issue?

MS. WINN: Hi, Valerie Winn with PG&E. And I have to say, I'm not a regulatory nerd on this issue, so I have nothing really to offer there.

CHAIRMAN WEISENMILLER: Just on this

issue, though.

MS. WINN: Okay, I'll accept that, okay. I did want to indicate PG&E's support for adoption of the Compliance Manuals today. We do see that as a critical first step actually in moving forward with the implementation of the new Building Codes and Standards, which we have a long history of working with the CEC on those, and so we're happy to see things moving forward. As Mr. Raymer did note, we do look forward to continuing to work with the staff to develop the software that's needed for the performance approach in these programs, that is really an area where we see most of the implementation happening, and so the sooner we can move forward with that software, that would be beneficial to everyone. But, thank you.

CHAIRMAN WEISENMILLER: Thank you. Ready, Michael, Pippin? Anything you want to say?

MR. LEVY: Commissioners, this is a little bit irregular for Mr. Splitt to hit us with this on the fly, we don't have the materials here from the record, or the transcript, or the Order, we'd have to go upstairs to get them. It

was clearly the intent, though, from the transcript that the Commission adopted everything that it needed to adopt at the time. We could certainly parse through the language in the Order to take a look at that, and we could take a recess and go check, but I'm pretty sure there is infirmity here.

MR. BREHLER: One thing I would add, Commissioners, is that, at least with the document Mr. Splitt presented, that shows the expressed terms, finals, that does include the Alternative Calculation Method Approval Manual and the provisions of CalGreen.

MR. LEVY: If you'd like us -- if you'd like to postpone until right after lunch, we can dig up all the materials for you.

CHAIRMAN WEISENMILLER: Okay, we'll hold this item and we'll go to Item 11. And you will get back to us first thing after lunch.

MR. LERMAN: Good morning, Commissioners. My name is Sam Lerman from the Energy Efficiency Division. In March 2013, the Energy Commission released Requests for Qualifications No. 12-401 and 12-402 to solicit technical support contractors to provide

assistance for the development of the 2016 Building Energy Efficiency Standards, the development of compliance tools for the 2013 and 2016 Standards, and development and implementation of the AB 758 Comprehensive Energy Efficiency Program for existing buildings. As a result of these solicitations, the Energy Commission received a winning response from a team of contractors, and we'll invite Bruce Wilcox, to support residential aspects of standards and AB 758 development, and a winning response from a team of contractors led by Architectural Energy Corporation to support Nonresidential aspects of standards in AB 758 development. Rates were negotiated with each contract team based on a market survey of rates from firms providing similar services, but not participating on either contract.

Today, I am requesting approval of the technical support contracts with each of the winning teams. Contract No. 400-12-002 with Bruce Wilcox will be funded for $4,493,879, and Contract 400-12-003 with Architectural Energy Corporation will be funded for $3,993,879. Each contract will expire in March of 2016.

The specific activities in each contract include updating standards analysis software for determining if new energy efficiency technologies should be included in the 2016 Standards Update, making recommendations to Energy Commission staff on whether to adopt recent updates to ASHRAE Ventilation Standards in the 2016 Building Standards Update, developing a simplified Compliance Tool for projects with limited scope, for instance, projects that affect building envelope only, and supporting Energy Commission staff in implementing various portions of the AB 758 Action Plan. I therefore request approval of this item and welcome any questions you may have.

CHAIRMAN WEISENMILLER: Commissioners, any questions or comments on this item?

COMMISSIONER MCALLISTER: So I'll just point out, these are the resources that I was referring to before where we're bringing much needed resources on to really continue those Standards development going forward from implementation of 2013 and support of that, all the way through to 2016 development and, you know, supporting us on that process. So significant resources for a big lift and, again,

you know, it's worth pointing out that we are aiming forthrightly to having zero net energy construction in Residential by 2020 and Nonresidential by 2030, particularly in Residential the lift -- the significant gains need to be made at each step, definitely in the 2016 timeframe, to get that final goal on the horizon, and chart the path halfway there, basically. So the team on this has got, I think, a very clear goal and a lot of work ahead of them to make this happen, and so these resources, I think, are some of the few in the state that are actually qualified, or that have the depth of knowledge to be able to help us do that, so they are certainly quality resources. And there is also a question about how we can make development compliance more streamlined and sort of less complex in any way we can, really, because I think the left for the industry that we're asking is actually going to change practices also, to get there it's really going to have to be a handshake in the middle with industry, the Commission, and all the supporting stakeholders in there. So this is really a broad team effort by the Commission staff and by our contractors,

and by the marketplace, and we really need that involvement across the board, and so these contracts, I think, are really a critical element to keep that moving forward and keep the inertia, keep the forward movement. So, thanks. I'm supportive, obviously. So I will move Item 11.

COMMISSIONER SCOTT: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) Item 11 is approved unanimously.

CHAIRMAN WEISENMILLER: So we are now going to take a break. We need to be back at 1:00. I again encourage everyone to visit the Fuel Cell Vehicles and, again, we're going to start out returning back to Item 10, and then we'll move on to Item 22 before we get back to the regular flow of the agenda.

(Break at 12:01 p.m.)

(Reconvene at 1:05 p.m.)

CHAIRMAN WEISENMILLER: We will first deal with Item 10, and then we will pick up Item 22, and then we will start at 12. So in terms of -- Mr. Levy, do you have a report for us?

MR. BREHLER: I do, Commissioners. I

apologize for the delay with this.

I would say that the Alternative Calculation Methods and Part 11 Green Standards were clearly and unequivocally adopted by the Commission last May. On May 15, 2012, the Commission publicly noticed what it called the 15-day language for the 2013 Energy Efficiency Standards, and that notice described the Regulations as being changes to Part 1 and Part 6 and Part 11, and that notice also provided web links to where the underlying documents could be found. And those links listed as part of the rulemaking package explicitly the Alternative Calculation Method Approval Manuals, as well as Part 11 and the Codified language that appears in Parts 1 and Part 6.

When the rulemaking initially commenced sometime prior to that, the Notice of Proposed Action described the Alternative Calculation Method Approval Manuals as being part of the Regulations. The Regulations themselves in Section 10-102 defined the Alternative Calculation Method Approval Manuals and the Regulations in Part 6, Section 10-109, explicitly referred to the Approval Manuals as being part of

the necessary elements to get an ACM approved.

The Business Meeting Agenda and Minutes from May 31, 2012, Item 5, explicitly list the Alternative Calculation Method Approval Manuals, and Part 11, the Final Statement of Reasons that was prepared after adoption of the Regulations, explicitly discusses the Alternative Calculation Method Approval Manuals as being incorporated by reference to button up any ambiguity there. Commissioner Douglas in her remarks at the hearing on page 137 of the transcript explicitly mentioned that she wanted to formulate a motion that captured everything, so it was clearly the Commission's intent to adopt these along with everything else that had been posted as part of the Standards. And frankly, we find that a year later it's a bit unseemly to now raise a challenge to the procedural steps on whether something was possibly not adopted because it wasn't explicitly bulleted out from a very long list.

You know, the reason that we posted links to the web pages is because there are so many moving parts and so many pieces to these, and it made sense to have those listed on the web

page. I also wanted to note in response to Mr. Splitt's other comment that the resolutions before you do properly refer to Section 25402.1(B) of the Warren-Alquist Act for calculation methods and compliance options in reference to the ACM Reference Manuals, and Section 25402.1(E) in reference to the Compliance Manuals under Item 9.

CHAIRMAN WEISENMILLER: Thank you for that thorough legal analysis.

COMMISSIONER MCALLISTER: Very much appreciate that and just also, I would point out that logic supports us on this because this is kind of inherently a serial process to decide what we're going to do, and then do it and make the appropriate adoptions at the moment they're really ready for prime time. And so our process is really the right process, I would just point that out, just from a pragmatic standpoint I think we've taken the right steps and it's good to hear that that's firmly supported by the legal analysis. So I would move Item 10.

COMMISSIONER DOUGLAS: Second.

CHAIRMAN WEISENMILLER: Okay, all those in favor?

(Ayes.) This item passes unanimously. Thank you.

CHAIRMAN WEISENMILLER: Let's go on to Item 22. Department of Defense.

MS. DEMESA: Good morning, Chairman and Commissioners. First, I would like to thank you for being accommodating to our schedule and letting us present a little bit out of order here. With that, my name is Rhetta deMesa with the Energy Generation Research Office, and I'm going to be presenting for your approval today a $2 million contract to Concurrent Technologies Corporation for a Vehicle to Grid Demonstration Project with the Department of Defense.

Last year, the Department of Defense began a demonstration project at L.A. Air Force Base, and has since announced that it would be expanded to an additional five bases, making it the largest Vehicle to Grid demonstration nationwide. Included in the expanded demonstration is a second California Base Naval Air Weapons Station, China Lake.

As the result of a competitive solicitation, the Department of Defense selected CTC to implement the Vehicle to Grid

Demonstration and, under this particular agreement, the Energy Commission shall be supporting efforts of the two California bases. As part of the demonstration, the Department of Defense will convert a portion of their non-tactical fleet to electric vehicles, which will then actively bid into the California ISO ancillary services market, and be used as a grid resource to manage base grid during times of peak demand. This will contribute to grid stability while generating additional revenue for the bases.

Once the Vehicle to Grid Demonstration is completed, CTC will work with a California utility to test the batteries for second-use applications, and their ability to service storage for the grid. This demonstration will be used to prove the technical and economic viability of Vehicle to Grid technologies and lessons learned will be applied to future military base installations, as well as inform future Energy Commission funding for Vehicle to Grid technologies. That concludes my presentation, but we also have on the line with us Dr. Cameron Gorduinpour of the Department of

Defense, who would like to speak on behalf of this project, as well as Mr. Michael Gensel of CTC in the room with us.

CHAIRMAN WEISENMILLER: Okay, let's start with the gentleman from the Department of Defense.

DR. GORDUINPOUR: Hi, how do you do? Can everyone hear me okay?

CHAIRMAN WEISENMILLER: Yes.

DR. GORDUINPOUR: Okay, great. How do you do? My name is Cameron Gorduinpour. I run the Department of Defense Plug-In Electric Vehicle Program. I'm just calling in today to express my support for this effort with the Energy Commission, but also to express my appreciation and gratitude for all the hard work of the CEC staff working with Concurrent Technologies to frame this contract in a way that we think will be very supportive of our currently effort, but will also help guide us as we move forward and look to additional bases in California and beyond. So we think the support that the CEC has already provided has been great and in addition to prior efforts, we think really advances us in the right direction. So I mostly

just wanted to thank you for your consideration and the time of your staff, and I'm available to answer questions, of course, if there are any.

CHAIRMAN WEISENMILLER: We certainly thank you for the opportunity to partner with the Department of Defense on this. Certainly, having been to China Lake, I'm certainly excited about the opportunities there in this area, and again certainly look forward to these projects and sort of continuing to grow this effort. I don't know if any other Commissioners have any questions or comments for this gentleman?

COMMISSIONER SCOTT: I was just going to add, kind of what you said here, in terms of it's really good to work in partnership with the Department of Defense to demonstrate and pilot this type of technology, and what's great about the Vehicle to Grid is it also has the potential for Demand Response, which we've been talking kind of a theme for the day, it's going to be important upcoming, so it's going to be neat to see what the results of this are.

DR. GORDUINPOUR: Appreciate that. Let me just add that the degree of support throughout the California State Government has just been

tremendous and some of you may know that the California Public Utilities Commission has a resolution that they've drafted and are hopefully going to pass in some form next month that will actually improve the regulatory environment and tariff structure for us to conduct these for the first time, so with the CEC and CPUC, CAISO, Governor's Office, it has just been a tremendous amount of support in getting this all together. I should also give a shout out to Southern California Edison for their hard work, as well.

COMMISSIONER HOCHSCHILD: I would just say one more thing, this is David Hochschild. I think the Navy has really distinguished itself actually in renewables and this goal of 50 percent renewables by 2020, and all the pieces of that, I was very impressed when I met with Admiral Smith down in San Diego last week, or two weeks ago, and I just -- I hope the other Services will all continue to push ahead on this. As I'm getting up to speed on what the Military is doing, it's just been really impressive in this whole arena.

DR. GORDUINPOUR: Yeah, as an Air Force employee, although I do represent all DOD on

Electric Vehicles, I can say from the Air Force's perspective, we are also very interested in expanding our Renewable Portfolio and a similar target that we're working towards, so….

CHAIRMAN WEISENMILLER: Okay, great. I was going to ask the gentleman from Concurrent Technologies Corp, do you want to say --

MR. GENSEL: Hi, I'm Michael Gensel, Senior Technology Director for Power Energy for Concurrent Technologies Corporation. Concurrent Technologies Corporation is a nonprofit 501(C)(3) organization. We are the prime contractor with the Department of Defense driving their Vehicle to Grid Program, as mentioned by Dr. Gorduinpour. I have no specific comments, but make myself available to questions.

CHAIRMAN WEISENMILLER: Thank you. Thank you for being here. Commissioners, any questions or comments?

COMMISSIONER MCALLISTER: I think this is awesome from a Demand Response point of view and it's going to improve all sorts of things that we need out there, and so we can learn from it, and really commend the military for making it happen, not just Vehicle to Grid, but in any

number of ways that are relevant for the Demand Response conversation, which is very much ongoing and very active. So I hope you can participate in that process and bring lessons learned to the various fore that are going to be there. But I'm happy to make the motion on Item 22.

COMMISSIONER HOCHSCHILD: Second.

CHAIRMAN WEISENMILLER: All in favor?

(Ayes.) Item 22 passes unanimously.

MS. DEMESA: Thank you.

CHAIRMAN WEISENMILLER: So then now let's go to Item 12, which is the Alternative and Renewable Fuel and Vehicle Technology Program Investment Plan Update. And the contact is Jim McKinney, do you want to discuss things? And I believe Commissioner McAllister has a statement.

COMMISSIONER MCALLISTER: I am going to recues myself on the two upcoming items, Items 12 and 13, as my immediate past employer before I came onto the Commission was the California Center for Sustainable Energy, and we have a role in both of the items that you will be -- oh, sorry -- they have a role in both of the items that are coming before the Commission, so I will recues myself and step out of the room. Thank

you.

CHAIRMAN WEISENMILLER: Jim.

MR. MCKINNEY: Good afternoon, Chairman and Commissioners. My name is Jim McKinney, I'm Program Manager for the Alternative and Renewable Fuel and Vehicle Technology Program. This is the first of two related actions proposed by staff to facilitate a potential transfer of funds to the Air Resources Board. AB 118 created two complimentary incentive funding programs to reduce carbon and criteria emissions in the transportation sector. One resides here at the Commission, while the other is administered by the Air Resources Board.

Our part of the program is the Alternative and Renewable Fuel and Vehicle Technology Program. We provide up to $100 million annually for commercial and pre-commercial alternative fueling infrastructure, fuel production, advanced technology vehicle development, and workforce training.

The Air Resources Board part of the program is called the Air Quality Improvement Program, and it has two subprograms, the Clean Vehicle Rebate Program, or CVRP, allocates

incentive vouchers for commercially available light-duty, electric, and Fuel Cell Vehicles. The Hybrid and Zero Emission Truck and Bus Voucher Program, or HVIP, allocates incentive vouchers for commercially available medium- and heavy-duty advanced technology trucks. Their combined funding level is about $30 million.

The Energy Commission has been providing supplemental funding to ARB from the ARFVTP Fund to support the Air Quality Improvement Program. We transferred $2 million in 2011, another $4.5 million was transferred from the Fiscal Year 2013 Investment Plan, and at our recent May Business Meeting, the Commission approved an additional $5 million transfer from the '13-'14 Investment Plan. This totals $11.5 million to date in support to CVRP.

The Clean Vehicle Rebate Program is experiencing a tremendous surge in voucher demand for the new series of light-duty battery electric and plug-in electric vehicles currently available in California. AQIP voucher demand tripled from March 2012 to March 2013 from about 750 vouchers per month to over 2,200 per month. They have now issued over 22,000 vouchers to the AQIP Program.

We currently have 35,000 light-duty electric and plug-in electric cars in California, and while this is great news for us in transitioning from petroleum-based modes of transportation to Zero Emission Vehicle technologies, it is drawing down the AQIP fund far faster than can be replenished through their revenue base and other fund transfers.

The Governor's Zero Emission Vehicle Executive Order and the ZEV Action Plan set an ambitious series of goals for ZEV technology cars and trucks in California. We are to accommodate up to one million ZEV vehicles by 2020 and 1.5 million by 2025. To support continuing progress towards these goals, Commission staff seek Commission approval to reallocate $8 million from the FY 2012-2013 Investment Plan to allow for an additional transfer of funds to AQIP, to support the expanding demand and market for light-duty electric vehicles.

Staff proposes reallocating the funding categories from the 2013 Investment Plan as shown on the slide. And can we post that slide, please? Okay, thank you. The yellow categories on the slide denote areas from which staff

proposes to reallocate money, while the green part of the slide is where the money would go.

The first $1 million increment will come from the Propane Vehicle Buy-Down Program. The Commission is zeroing out propane funding in the 2013-2014 Investment Plan due to slow demand for the propane vehicle vouchers and the low carbon reduction benefits that range about 10 percent.

The next increment is $2 million in funding from the Emerging Technologies Fund. This money is from the canceled small grant program that was to be administered by our PIER colleagues. An additional $4 million is available in the Emerging Technologies category in the 2013-2014 Investment Plan.

The next increment, $3.38 million, is from a canceled project from the Manufacturing solicitation. The Vantage Company canceled its grant because it was unable to raise the 50 percent capital match requirement. There will be an additional $5 million in the Manufacturing category in the 2013-2014 Investment Plan.

The next increment, $1.07 million, comes from the Workforce Training category. One of our primary Grantees is the Employment Training

Panel, they report they will not be able to pass through the entire $2.25 million in this fiscal year. We have an additional $2 million allocated for them in the 2013-2014 Investment Plan.

The final increment of $600,000 comes from the Regional Readiness Planning category. This category is intended to buttress the work of the PEV Regional Readiness Councils working to support ZEV Vehicle and Charger Deployment at the local and regional levels. Based on feedback from the Grantees, the full $2.7 million allocated in '12-'13 may not be needed this year. There is another $3.5 million scheduled in the 2013-2014 Plan for this category.

Over $5 million of these proposed reallocations are from canceled projects. Staff believes that these are relatively minor adjustments to the 2012-2013 Investment Plan that will not adversely affect the Commission's ability to continue the investment of public ARFVTP funds into the Alternative Fuels and Vehicle Technology categories, companies, and markets needed to transition the state's vehicle fleet away from petroleum fuels to low carbon, low emission alternative fuels. Dr. Alberto

Ayala, Chief Deputy Officer from Mobile Sources at the Air Resources Board, is available for questions, and I think we have other speakers as well.

But first I suggest we hear the next Agenda item (13) from my colleague, Jennifer Masterson, before hearing from Dr. Ayala and the other speakers.

CHAIRMAN WEISENMILLER: Okay, please. Come forward.

MS. MASTERSON: Good afternoon, Commissioners, Chairman. My name is Jennifer Masterson and I work in the Fuels and Transportation Division. The Proposed Amendment I'm bringing before you this afternoon is to augment the agreement with the California Air Resources Board by $13 million for a total amount of $17.5 million.

The additional $13 million consists of $8 million from the item just presented by Jim McKinney, and $5 million from 2013-2014 Investment Plan, which was adopted at the May 8th Business Meeting. These funds will be used for the Clean Vehicle Rebate Project, also known as CVRP. The CVRP provides rebates for the purchase

of qualified electric drive vehicles in California. With the depletion of ARB's original funds, these additional Energy Commission funds will allow the program to continue.

These ARFVTP funds will be used to augment ARB's program, which will provide additional rebates for Zero Emission Vehicles and Plug-In Hybrid Electric Vehicles. Both must be capable of freeway operation and certified for four passengers or more, and for subcontractor administrative and outreach costs. Overall, this project provides a benefit by encouraging and accelerating Zero Emission Vehicle deployment in California, and supports Governor Brown's ZEV Action Plan, and I urge you to approve this amendment.

Now I'd like to invite Dr. Alberto Ayala to speak briefly about the CVRP and, if you have any questions afterwards, we'll be happy to answer them. Thank you.

DR. AYALA: Thank you. Good afternoon. As mentioned, my name is Alberto Ayala, I'm the Deputy Executive Officer over at the Air Resources Board overseeing the Mobile Source Program. And first of all, I want to thank you

and thank CEC staff for the very close working relationship that we've established on these very important programs.

What I wanted to do today is simply do two things, express our appreciation and thank you on behalf of the Air Resources Board for the additional support that you are providing to our program. And the other thing, if I may, I just wanted to make a couple of important points to put in perspective why we think this is necessary, and to highlight for you basically that we are victims of our own success; the deployment of advanced technology is taking off and we feel very -- we feel compelled to continue to support that deployment with the additional fundings that we had requested.

So as I said, we want to thank you for the support and obviously encourage you to approve the staff proposal. The additional $8 million is going to help us provide rebates to about 4,000 additional vehicles. This support is a critical bridge in a funding gap that we've experienced in the program, it's not only going to allow us to send a very clear signal of certainty to the market, but it's also going to

allow us to support the continuity of providing consumers and their rebates for advanced technology vehicles.

The goal is simple, we're trying to transform the on-road fleet, and get to zero emission vehicles which are going to be extremely critical for us to meet our air quality and climate goals. And frankly, CVRP is turning out to be one of the most critical and important programs that we collectively as a state system are trying to support. It continues to grow since launched in March 2010, we've provided rebates in over 50 million and supported more than 20,000 Zero Emission Vehicles that are going into the California market. And as I mentioned, we're victims of our own success: the current demand is on the order of $1 million for rebates per week. And what is notable is we've actually conducted surveys to try to assess the benefit of the rebate, and over 95 percent of respondents tell us that the rebate does matter when it comes to purchasing decisions.

So all the indication we have is that we need to continue and right now is not the time to falter. The rebate project, your own investments

in charging and fueling infrastructure, as well as other regional and Federal programs are transforming the transportation sector, and again that is becoming a critical strategy for us to meet climate and air quality goals, and as your staff mentioned, the Governor's Zero Emission Vehicle Action Plan.

We recognize that consumer demand is going to continue to increase and we are fully aware that we need to examine the program to see to what extent changes are needed to make it more sustainable because, frankly, we don't want to come back here every year asking you for more help.

So we look forward to undertaking an examination of the program and obviously your staff, as well as many other stakeholders are going to be invited to participate with us in this program examination. The goal is the same: we want to make sure that we make changes so that we can make this program a continued success because we are certainly not where we need to be in terms of the number of vehicles that we need on the road.

So again, my purpose today is to be here

on behalf of the Air Resources Board and express our thanks and appreciation and to support the staff proposal, answer any questions you may have, and look forward to continuing working with the CEC. Thank you.

CHAIRMAN WEISENMILLER: Thank you. We have a couple of blue cards. Let's start with Leslie Garland.

MS. GARLAND: Good afternoon. My name is Leslie Garland, I'm the President and CEO of the Western Propane Gas Association, and I'm here to speak on the million dollar reduction to the Propane line item.

I'm proud that over the past few years I've been a member of the AB 118 Advisory Committee and been a small part in the success in helping grow the Alternative Fuel market in California. While I appreciate the difficult choices that must be made with the limited funding through the program, I'm concerned that the million dollar reduction to the Propane Vehicle Incentive Program is not in line with some of the overall goals of the program.

In reading the explanation for the Propane incentive reduction, there were two

reasons listed, first it cited the modest air quality improvements in greenhouse gas emissions of propane vehicles compared to conventional gasoline and diesel vehicles. In the interest of fairness, if vehicle emissions are going to be used to judge funding opportunities, it needs to be applied across the board to both Propane and Natural Gas Vehicles, draw the line and set a metric for the vehicles that you want to meet. Is it SULEV, is it a specific metric on the ARB Engine Certification? Just let us know.

Currently, while there are Propane Vehicles that are certified only to meet the gasoline and diesel standard, there are others that are SULEV or, in the case of the school buses, far exceed the current gasoline and diesel standard. But due to the cost and time required to achieve the ARB certification standards, many companies that are developing Propane and Natural Gas Vehicles, make a strategic decision only to certify to the gasoline and diesel standard, instead of going for the lower standards, which typically require more time and testing and money.

If the Commission sets an emission

standard for vehicles, it will incentivize, then engine manufacturers can take that into consideration when they're making certification decisions in the future.

Second, there was a comment about how the incentive program may have inhibited sales. Since last October, Propane industry representatives met with CEC staff requesting administrative changes to the program in an effort to utilize funding in a more efficient manner. The funding limits on the manufacturers and classes made it difficult for fleets to make large vehicle purchases all at once, so fleets would break up the purchases over a series of months; in other words, people who wanted to buy 100 vehicles at a time would basically break the purchases up into 10 or 20 to meet the funding. Yes, some fleets did choose to delay sales because, let's be honest, if your company could get incentive funding, wouldn't you wait and play by the rules?

I will point out that last month administrative changes were made on the school bus side and we see what happened, a significant amount of funding was exhausted quickly.

I'm grateful for the Commission including the Propane industry in this program. Our vehicles are a valuable part of the equation to move fleets away from gasoline and diesel. I urge the Commission in future Investment Plans, as they are developed, to again include Propane, and we look forward to working with you in the future. Thank you.

CHAIRMAN WEISENMILLER: Okay, thank you. Eric Bates.

MR. BATES: Good afternoon. Thank you for the opportunity to be here. I want to reiterate what Leslie just said. I represent Ralph's CleanTech. We produce dedicated OEM CARB certified propane system on the Ford platform. We appreciate the CEC support over the last couple years.

We're here to oppose taking that amount of money away from Propane, as well. You know, if you look at the graph, there's a lot of money up there and we would hope that we could find it somewhere else other than from the Propane pool. I think part of it is timing, if there's been any perceived lack of demand on the Propane side, I think it's timing more than anything, to be

honest with you. By October this year, we'll have vehicles up to the 33,000 Jeep W class and more OEM level vehicles available on Propane than any other alternative fuel.

We need the CEC money. We're targeting a little over 800 vehicles to put into California this year, 2013, not a huge number, but if we did an emissions savings calculator on those 800 plus vehicles, you're looking at over 50 million pounds of CO_2 reductions, so the emissions benefit is significant with Propane, as well.

And obviously we oppose discontinuing funding for Propane altogether in the 2013-2014 Program.

We've got a lot of vehicles, the demand is surging, you know, we talked about that at the last meeting, I think you look at the agenda item later today and you can see there's a lot of demand for Propane. So we'd like to see that funding come from somewhere else other than Propane. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Commissioners, any questions or comments?

COMMISSIONER SCOTT: I'd like to make a couple comments. I think I'd like to thank Jim

and Jennifer for their great presentations, they were succinct and I think hit all the high points for you. I think the Commission's ability to be flexible and to adjust to changing circumstances is a really important one here, especially in a place where we might have this sort of, perhaps unanticipated, adoption of the electric vehicles that caused the surge that Jim mentioned in the Vehicle Rebate Program, and I think the momentum that's there is important for us to help continue.

I think the choices here, I mean, there are no easy choices, it's a little bit painful, but they follow the trends that go with the 2013-2014 Investment Plan that we adopted last month, and I think that's pretty much it. I just also wanted to thank the Air Resources Board for your invitation to join you as you examine your program, and we really look forward to working with you on this in the future, so thanks for that invitation.

CHAIRMAN WEISENMILLER: A motion?

COMMISSIONER SCOTT: I'll move to approve.

COMMISSIONER HOCHSCHILD: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) This passes 4-0. If someone would get Commissioner McAllister?

CHAIRMAN WEISENMILLER: We will now move on to 14, which is Hydrogen Fuel Infrastructure, PON-12-6006. And Tobias Muench, please.

MR. MUENCH: Good afternoon, Chairman; good afternoon, Commissioners; good afternoon, everybody. I am Tobias Muench, ARFVTP staff. This is the Alternative and Renewable Fuel and Vehicle Technology Program. This presentation is about California's hydrogen fueling infrastructure.

Hydrogen fuel infrastructure is essential to the Hydrogen Fuel Cell Vehicle, FCV market. The Governor's 2013 ZEV Action Plan, that's the Zero Emission Vehicle Action Plan, calls for 1.5 million Zero Emission Vehicles, ZEVs, by 2025. It also calls for 68 hydrogen fueling stations by 2017, and ultimately 100 hydrogen fueling stations for full commercial launch.

Benefits of Hydrogen Fuel Cell Vehicles, they are zero tailpipe emissions vehicles, they

have extended vehicle ranges, comparable with gasoline and diesel vehicles. There is the ability to produce and dispense renewable hydrogen and this provides public health and environmental benefits, very important. The FCV is an alternative zero emission vehicle to meet the goals of the ZEV Action Plan.

The Hydrogen Fuel Infrastructure Solicitation, PON-12-606, continues the development of hydrogen transportation fueling infrastructure for California as part of the Alternative and Renewable Fuels and Vehicle Technology Program funding, the ARFVTP. The goals of this solicitation are to expand the network of publicly accessible hydrogen fueling stations, to serve existing and expected Fuel Cell Vehicle population, and to boost innovation in hydrogen fueling. This includes items like, for example, high capacity scalability of fueling stations through modular design, different technologies for renewable hydrogen feedstocks, for example, biogas; and production, for example, advanced fuel cell membranes and electrolyzers, the latest composite reinforced high pressure hydrogen storage tanks, and latest point of sale

hydrogen dispenser technology.

More about goals of the solicitation, very important -- protection of public health. This technology and fuel eliminates tailpipe emissions. Fuel Cell Vehicles have zero tailpipe emissions. Also, hydrogen production, storage, and dispensing emissions are lower than those of fuels it displaces. Protection of the environment also, hydrogen as transportation fuel and Fuel Cell Vehicle technology has lower greenhouse gas emissions, particularly with renewable hydrogen. High vehicle efficiencies and high miles per gallon equivalence ensure highly effective energy use for transportation.

When we were planning on developing this solicitation, four public workshops were held in 2012 on June 22nd, June 29th, July 10th, and December 7th. A draft solicitation was issued for public comment on September 7, 2012, and consideration was given to docketed stakeholder comments. Major solicitation elements considered were: station location, station performance, renewable hydrogen requirements, operation and maintenance costs, CEQA compliance, funding levels and match share requirements, market

diversity, and the operational date of the stations.

The selection process was an open, transparent, and competitive process. Proposals were screened for eligibility in accordance with the solicitation, proposals were scored by a team in accordance with published scoring criteria. Proposals achieving at least a minimum technical score were then recommended for funding.

Now, about the results. A total of nine proposals were received, two were disqualified in accordance with the screening criteria. Of the remaining seven, proposals achieved an above minimum technical score and were thus recommended for funding.

We are today presenting to the Commission for possible approval of funding the following four projects. The first project is by Linde, a grant amount of $4.5 million to build three stations, three hydrogen stations, one in Mountain View, one in Cupertino, and one in Foster City. Linde will contribute approximately $3.1 million in match funding.

The second is by Air Products and Chemicals for a grant amount of just under $3

million, $2,999,172, to build two stations, one in Woodland Hills and one in Mission Viejo. This includes funding for an essential fill facility in Wilmington. Air Products will contribute approximately $1.6 million in match funding.

The third project is by Hydrogen Frontier for a grant amount of $3 million. They will build one station in Chino if approved. This station would dispense 100 percent renewable hydrogen and it is co-located with a non-road hydrogen station. Hydrogen Frontier will contribute approximately $1.6 million in match funding.

The fourth and last project is by Air Liquide Industrial, U.S. for a grant amount of $1.5 million. If approved, they will build one station at Anaheim and contribute about $900,000 in match funding.

With these current recommended awards, the Energy Commission is doubling the number of market participants in this emerging hydrogen fueling market from two to four. We plan to continue working to identify more station developers so that we can create a functional and competitive hydrogen fueling market in

California.

With these seven station recommended awards, the Energy Commission has now provided funding for a total of 17 retail fueling stations and one fuel cell bus station. When combined with the eight operational retail stations currently available to the public, this brings our running total to 25 stations as we continue progress toward the 68 stations needed to facilitate commercial launch of Fuel Cell Vehicles in the 2015 to 2017 timeframe.

Highlights about the recommended awards. All seven stations will dispense at least 33 percent renewable hydrogen, which amounts to a total of approximately 108,000 kilograms of hydrogen transportation fuel per year. One of the stations will dispense 100 percent renewable hydrogen, however, costs for that station are nearly double. This expands the hydrogen fueling network in Northern and Southern California. Stations are expected to be operational by October 30, 2014. Thank you.

CHAIRMAN WEISENMILLER: Okay, thank you. Commissioners, what we'll do is take comments and then turn it open for questions for either the

commenters or the staff.

So let's start with Erik White from the ARB.

MR. WHITE: Good afternoon, Chairman and Commissioners. My name is Erik White, I'm the Division Chief of the Mobile Source Operations Division at the Air Resources Board. And let me say it's a pleasure to be here today to express our strong support for the allocation of these stations. We think that this is a very important next step in the deployment of hydrogen fueling infrastructure here in California. And I'll be able to keep my remarks fairly brief today because many of the things I was going to cover, your staff already covered for me in terms of the important health benefits that these stations will provide, the innovation and the technologies that these projects will bring to the marketplace, and the new market participants that will be coming to California in responses. We think those are all very important steps as we look to round out the hydrogen infrastructure here in California to support the market-scale deployment of Fuel Cell Vehicles here in the 2015 and beyond timeframe.

So one thing I did want to emphasize is we certainly appreciate the public process that your staff went through. We've worked very closely with them and we've seen many of the stakeholders in this process, worked closely with them to develop proposals that we think are models for moving forward on developing, identifying and granting for hydrogen stations moving forward. So we certainly would encourage you and the staff to continue to build on that model so that the stations that do come in are stations that are going to be here for a very long time to support the vehicles that are coming.

And while I'm up here, if I could just take an opportunity to also comment on the next agenda item, which is the funding for the South Coast Air Quality Management District, as well, and express our strong support for that funding, too, to ensure that existing hydrogen stations in Southern California can continue in operation and be operated to support the full roll-out of the stations, the hydrogen stations that we are looking for in support of the vehicle deployments that are coming. So thank you very much.

CHAIRMAN WEISENMILLER: Thank you. Let's go next to Bonnie Holmes-Gen.

MS. HOLMES-GEN: Good afternoon, Chairman Weisenmiller and members of the Commission. I'm Bonnie Holmes-Gen with the American Lung Association in California and I'm very pleased to be here. The American Lung Association, as you know, I hope, has been a very strong supporter of the AB 118 program, and of course we are strongly supporting moving forward on this Investment Plan this year and we are strongly supportive because of the critical importance of transforming our vehicles and fuels in California. We have our focus, very strong, on the need to get clean air in California, to improve health of people across the state, especially those with asthma and other lunch diseases that are suffering. And we believe that this transformation of our fuels and vehicle technologies in California is critical to clean air.

So we are supporting you moving forward with this group of solicitations. We are pleased to see these proposals and that there is a focus on renewable hydrogen, at least one of these

stations is 100 percent renewable, I think that's a great step forward. We are very focused on the goal of trying to get hydrogen stations on line in California so we can support the thousands of vehicles that are coming on line, we know, in the next couple of years. And our goal, again, as the ARB stated, we want to get to zero emissions as quickly as possible, and we believe that this hydrogen pathway is critical to moving toward the clean low carbon alternative fuels that are going to help us meet our air quality and climate goals.

I just wanted to also express appreciation for your action just now to make additional CVRP funds available, we are definitely very supportive of that, with those consumer incentives, they're certainly important as Commissioner Scott said in terms of continuing this momentum forward on Plug-In Vehicles in California, getting consumers excited, and we also wanted to express support for the South Coast Air District Hydrogen Fueling Station solicitation. Thanks for the time.

CHAIRMAN WEISENMILLER: Great. Thanks a lot for coming. Simon.

MR. MUI: Good afternoon, Commissioners. Thank you for the opportunity to testify. I'm Simon Mui with the Natural Resources Defense Council. I help direct our California Vehicles and Fuels Program. I wanted to come here to support CEC's AB 118 investments, particularly around expanding Californians' consumer choices for fueling.

You know, if I came to you just five years ago, I would be talking about there being about 10 clean vehicles on the market that got over 30 miles per gallon; today there are over 60 different models offered to consumers that are clean, that get over 30 miles per gallon, and many of those alternatives fuels, thanks to investments by many of the automakers here today, thanks to our State GHG emissions standards, as well as national fuel economy standards that have driven this.

But let's take a snapshot of the alternative fuels market today about our fueling choices. We now are expanding our vehicle choices, but what about our fueling choices? Statewide, there are about 10,000 stations that provide gasoline and diesel, probably over 80,000

gasoline and diesel pumps throughout the state, yet let's take a guess at how many hydrogen fueling stations or alternative fuel stations there are in the state. Anyone take a guess? It's probably on CEC's fun facts almanac. There are probably about 26 public and private hydrogen fueling stations currently. That's a very limited quantity if we want to move to a mass market that programs like the CVRP, our state policies are taking us.

So we know that we have clean fuel choices coming down the road, we have a lot of clean vehicle choices, as well, but we do need to keep up the investments in this direction to start breaking through that petroleum dependency. And, you know, we'll talk a little bit -- Bonnie talked a little bit about the environmental benefits, I think others have, as well, some of these stations providing things like renewable feedstocks for hydrogen production, they will virtually eliminate lifecycle emissions from the vehicle going forward, and that's a wonderful thing in order to meet our GHG reduction goals, and it's a wonderful thing in terms of meeting our air quality attainment goals. So NRDC fully

supports CEC going forward with AB 118 funding requests. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Thank you for being here. Matt Forrest.

MR. FORREST: Hello, I'm Matt Forrest and I'm with Mercedes Benz, Research & Development, North America. First, let me begin by thanking the Commission for their support in establishing the initial hydrogen network in California. Your commitment to the network is crucial to preparing the market for Fuel Cell Vehicles and retail hydrogen stations, and we appreciate having you as a partner.

We believe that the funds that are being invested in the seven awarded stations in this latest PON are being invested wisely. These stations will add significant coverage to the existing hydrogen station network and add tremendous value to our customers, especially those in the San Francisco Bay Area.

As you know, we announced our first Fuel Cell Vehicle will be coming to the market in 2017. The purchase decision of the customers buying these vehicles will be heavily influenced by the work that my company, the CEC, and other

stakeholders do between now and that time. We hope that the CEC will continue to show its leadership and commitment to the hydrogen infrastructure development process, and make every effort to support our early market Fuel Cell Vehicle customers. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Gil Castillo.

MR. CASTILLO: Good afternoon. Thank you for having me. My name is Gil Castillo and I represent Hyundai Motor America. I serve as the Senior Group Manager for our Alternative Vehicle Strategy Department. Hyundai Motor America is the sales arm of Hyundai Motors and we have our U.S. headquarters down in Southern California in Fountain Valley.

I'm here to briefly thank the CEC for the work that it is doing to promote and help establish the hydrogen refueling network and to reinforce how important this network is to companies such as Hyundai to be able to bring Fuel Cell Vehicles to California and consumers.

For those who may not be aware, Hyundai considers fuel cell technology to be one of our key components for our long term CO_2 reduction

strategy. Hyundai strongly believes that Fuel Cell Vehicles are one of the best options for reducing tailpipe emissions by providing consumers a no compromise experience in terms of real world driving range and performance, quick refueling time, and vehicle size scalability.

To reinforce our commitment in Fuel Cell technology and our confidence in our Fuel Cell design and capability, Hyundai recently started small scale production of the Hyundai Tucson Fuel Cell Vehicle in Korea earlier this year, with the ability to manufacture 1,000 vehicles through 2015. Up to now, the focus has been to deliver these vehicles to Korea and Europe, where long term refueling infrastructure plans are in place and stations are being developed.

In the U.S. and obviously specifically in California, the passage of AB 8 and SB 11, as well as the continued focus on AB 118, will go a long way to promote or provide the infrastructure certainty that our executives are looking for to be able to bring Fuel Cell Vehicles sooner, rather than later. In addition, by working with the various stakeholders, the CEC is helping assure that the time it takes to bring stations

on line is constantly improved and that stations are deployed in a matter that best promotes customer demand. So thank you once again and here at Hyundai we look forward to continue to work with the CEC.

CHAIRMAN WEISENMILLER: Thank you for being here. Matt McClory.

MR. MCCLORY: Good afternoon. My name is Matt McClory with Toyota Motor, Toyota Motor Manufacturing and Engineering, North America, I'm based in Los Angeles. And I appreciate the opportunity to speak here, so thank you, Commissioners and Chair Weisenmiller.

On behalf of Toyota, we sincerely appreciate the significant effort of staff and the Commissioners to produce the recent solicitation and the numbers of proposed award under the hydrogen fueling infrastructure. And in addition, if you can indulge me also on Agenda Item 15 also, we strongly support the funding proposal to the South Coast Air Quality Management District to upgrade and maintain existing fueling stations towards build-out of an expansive and robust network.

At Toyota, we feel that Hydrogen Fuel

Cell Vehicles is the best pathway forward into the future to replace convention vehicle performance while providing zero emissions at the tailpipe, allowing a reduction in the carbon intensity of the transportation fuel and then allowing an opportunity to build out a sustainable renewable fueling infrastructure for the future.

We have already begun construction of our Fuel Cell Vehicle production line and related facilities in Japan, and volume agreements with our supply chain partners, and this is towards our plan for a global market launch in the 2015 timeframe. In addition to that, our staff and the Southern California region of offices, both engineers and sales and planning members, are working right now towards that date, as well. So towards this, we will continue to work with Government and industry stakeholders here in California and in the countries where fueling infrastructure is planned in order to support our vehicle launch planning. And we feel that California is one of the most important markets for Fuel Cell Vehicles and the progress to build this market here may become a reference globally.

For this Notice of Proposed Award, we strongly support the balanced approach for the selection of new market station sites for new station sites and net markets in the San Francisco Bay Area, in addition to expanding the network within Southern California. In addition, we support that the station technology selected provides a combination of the lowest cost to the customer from a fuel cost standpoint, or a fuel price standpoint, as well as to the retailer and the hardware provider for that equipment. And in addition, this combination allows for an opportunity for a larger station network and key environmental benefits. And I'd like to underscore also that the retail sales and fleet sales are going to be driven by that expansive network.

In conclusion, we look forward to support the CEC towards assuring that the station network buildout is consistent with our expectation for sales market and provides the best possible experience for the customer. Thank you.

CHAIRMAN WEISENMILLER: Thank you. We're now going to transition to people on the

phone. Bob Oesterrich from Air Liquide.

MR. OESTERRICH: Good afternoon. -- Director of Hydrogen Energy. I'd like to thank the Commissioners and Chairman for the opportunity and considering Air Liquide and our hydrogen station in Anaheim. We really appreciate the opportunity to be part of the clean California Alternative Fuel and Technology Program. And Air Liquide looks forward to developing its own hydrogen fueling network within the state, this will allow us to further expand our footprint throughout the world, and we look forward to this project in helping the state meet its zero emission vehicle goals. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Let's go to Robert Bienenfield, Honda.

MR. BIENENFIELD: Hi. Thank you very much, Mr. Chairman and Commissioners. I'm Robert Bienenfield, Assistant Vice President of American Honda Motor Company. I'm also Vice Chair of the California Fuel Cell Partnership and I represent the partnership on the Energy Commission's AB 118 Advisory Panel.

First, thank you for allowing me to participate by phone here, I'm sorry I couldn't

be there. And I hope some of you had a chance to see and drive some of the Fuel Cell Vehicles on display there today.

The State of California has set ambitious goals to reduce carbon emissions dramatically by 2050 and has set regulations based on these policies, and the Zero Emission Vehicle Regulation by the State of California has inspired the creation of the California Fuel Cell Partnership and the collaboration of its members to bring Fuel Cell Vehicles to market. Towards that end, the Partnership, working with automakers and fuel providers and other interested parties, and the CEC, developed and published its roadmap document on what infrastructure is necessary to bring Fuel Cell Vehicles to market. This roadmap has been consulted and referenced by the Governor in its ZEV Executive Order and by Energy Commission staff in the development of this PON.

Automakers around the world are looking to reduce their carbon footprint and we're working on a number of fronts. Conventional vehicles are getting more efficient every year, as Simon mentioned, we're introducing more and

more hybrid and plug-in hybrid and electric vehicles every year. But fuel cells have the potential to dramatically reduce CO_2 emissions and reach a broader market than other technology solutions.

Automakers are planning to bring FCVs to market in significant volumes beginning in the next few years, and the infrastructure must be in place before these plans can be solidified. Honda, Daimler, Toyota, and Hyundai have all announced plans to bring vehicles to the market in the 2015 to 2017 timeframe. But in our previous pre-commercial efforts, meaning from 2008 through 2012, even this year, some vehicles have languished in the parking lot waiting for infrastructure. So as we move forward to the larger volumes anticipated in the future timeframes, it is essential that hydrogen infrastructure commitments be undertaken.

As a California Fuel Cell Partnership representation on the AB 118 Advisory Committee, I'm in support of this PON and I believe that all of the automakers in the Partnership are, as well. I'd also like to add that American Honda supports this investment and both Agenda Items 14

and 15, the agreement to work with South Coast to upgrade existing stations. Thank you very much.

CHAIRMAN WEISENMILLER: Thank you. Let's go to Angela Das of PowerTech. Okay, let's try Hydrogen Frontier?

MR. POPPE: Can you hear me?

CHAIRMAN WEISENMILLER: Yes.

MR. POPPE: Hi. My name is Dan Poppe. I'm with Hydrogen Frontier. First, I'd like to thank the staff at CEC, ARB, and South Coast Air Quality Management District for this important hydrogen infrastructure program. I'm happy to be a participant in this exciting development of hydrogen fueling infrastructure and be a part of the ability to promote California as a lead in this technology.

As a current operator of a Burbank hydrogen station with an up time of 99 percent for the year 2012, I look forward to the opportunity and the challenge of a 100 percent renewable hydrogen fueling facility. Thank you.

CHAIRMAN WEISENMILLER: Great. Let's go on to Steve Eckhardt of Linde.

MR. ECKHARDT: Good afternoon. This is Steve Eckhardt, Program Manager for Hydrogen

Fueling for Linde North America. First off, I'd like to extend on behalf of Linde our appreciation for the Energy Commission recognizing the proposals we submitted for the three hydrogen fueling stations in Silicon Valley, South Bay. We believe these stations are critical to extending the footprint in the Bay Area, where there is one station now, and providing the Bay Area with more fueling stations.

I'd also like to recognize and commend the very hard work by the staff of the CEC, staff and management of CEC, the public sessions that were held last year were outstanding, I think they generated a lot of great debate, and certainly gave everybody an opportunity to provide their insight and input into the process.

And finally, I'd like to just comment on and extend commendation, I think, really to the CEC all the way from the Commissioners on down to the staff for the vision you're taking in supporting and funding the hydrogen fueling stations. Vision is needed to get up these stations, the current ones, as well as continuing the vision in deploying a sufficient number of

stations in the future so we can reach the critical mass in enabling consumers to confidently buy vehicles knowing that there is sufficient fueling infrastructure available. Linde is excited about progressing with these stations and adding to the three public fueling stations that we already have or are in the process of building, and I'm excited to be a part of the program. Thank you.

CHAIRMAN WEISENMILLER: Okay, thank you. Steve Jones.

MR. JONES: Hi. This is Steve Jones, Business Development Manager at ITM Power. First of all, I'd like to reiterate the other speakers' thanks to the CEC and the Commission for their support of the hydrogen program. I represent a company that is involved in Hydrogen Frontier's bid for a 100 percent renewable station, so I'd just like to extend thanks to the CEC for supporting a diverse range of hydrogen production and looking at rolling out 100 percent renewable hydrogen stations as a stepping stone to where we all need to be, which is not only having the vehicles as zero carbon emitting, but also where the hydrogen actually comes from. So I think

it's a step in the right direction and I'm very thankful for the CEC for recognizing that. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Let me try one more time for Angela Das, PowerTech.

MS. DAS: Hi. I represent PowerTech Labs. We're happy to be working with Hydrogen Frontier on this 100 percent renewable hydrogen fueling station, and we'd like to thank CEC for their support. Thank you.

CHAIRMAN WEISENMILLER: Thank you. We have one more person in the room. Ed Heydorn from Air Products.

MR. HEYDORN: Good afternoon, Mr. Chairman and Commissioners. I'm Ed Heydorn, Business Development Manager with Air Products.

I wanted to thank you and your staff for the ongoing support for the development of hydrogen fueling infrastructure in California. Without a program like AB 118, the type of infrastructure that we're developing and others are trying to place in the marketplace would not happen. We're trying to provide a pathway for the development of stations that would meet the requirements for customers for automakers to

allow for the successful launch of Hydrogen Fuel Cell Vehicles in the marketplace, beginning in the 2015 timeframe. Air Products is continuing innovation in this area and, in particular, we announced yesterday the development of a fully integrated hydrogen dispenser system for use in the retail marketplace with a gasoline pump manufacturer, so it's another one of the developments that we're trying to bring to the marketplace to allow for consumer acceptance of the entire fuel cell experience with vehicles, not just the car, but the fueling infrastructure. So, again, thank you and to your staff for your ongoing support.

CHAIRMAN WEISENMILLER: Certainly thank you for being here. I think with that, Commissioners, do people have questions or comments? I believe we've had all the public comments. I spoke too soon. Mr. Budd?

MR. BUDD: Good afternoon. Can you hear me?

CHAIRMAN WEISENMILLER: Yes, we can.

MR. BUDD: Thank you. So my name is Geoff Budd. I am the representative of ITM Power in the United States.

I would just like to extend my thanks and appreciation to the CEC staff for the support they have provided in terms of the award of the funding, the proposed award of the funding for the stations involved. I reiterate my colleagues' statements, namely Steven Jones, in terms of moving forward with the opportunity of providing a 100 percent renewable option for the installation of a hydrogen dispenser unit in California. Thank you.

CHAIRMAN WEISENMILLER: Thank you. So with that --

COMMISSIONER SCOTT: Hi. With your indulgence, I would like to make a few overarching comments just because there's -- okay, terrific. Items 12 through 16 and 18 through 22 are all about the Commission's Alternative and Renewable Fuel and Vehicle Technology Program, and so I just wanted to make a few overarching comments to tie all of these agenda items together. I know as you, my fellow Commissioners know and folks around the room that this program invests up to $100 million and that we have an Investment Plan that explains how the money will be spent. As far as I know, no other

state has a program like this, and so it's really exciting. We have the opportunity here before us -- this is all about transforming our transportation sector, and that's really important in terms of meeting our climate goals and our clean air goals because, as you all know, transportation is one of the single largest sources of greenhouse gas emissions in the state and also in smog forming pollutants in the state. So this program to me is about fostering innovation, advancing technologies, and keeping California where we're used to being which is on the leading edge of all of this type of clean car technology.

And so the projects and the grants that we've talked about, and that we will continue to hear about through the afternoon, span across nearly every category that we've highlighted in our Investment Plan, and whether it's supporting infrastructure for the hydrogen fueling, which is a very important component, or natural gas fueling, or additional charging stations, whether it's helping us speed the transition to cleaner fueled vehicles, you know, incentivizing the early adopters of electric vehicles, or replacing

the older higher polluting school buses, or other vehicles with cleaner technologies, and just continuing to invest in alternative fuels technologies and manufacturing, or whether it's things like to demonstrate innovative projects like the Vehicle to Grid project that we talked about before. So I just wanted to put all of this into a slightly broader context for all of us, and that's what's kind of coming up throughout the afternoon. And since I have the mic for a minute, I just wanted to thank our Transportation team for all of their great work in shepherding the projects that we have talked about and will continue to talk about this afternoon through our Business Meeting today, and I know that there's been some nights and weekends in getting that done, and I appreciate all of the hard work. There's a lot of work and thought and care and detail that goes into each of these that we may end up going through relatively quickly, but I just wanted to make sure that we acknowledged that.

CHAIRMAN WEISENMILLER: -- the cars outside.

COMMISSIONER SCOTT: Oh, thank you for

the reminder. And thank you so much for bringing those cars for the outside -- I hope folks around the audience had a chance to ride and drive those, I know many of us did, as well, and they were great fun and it's good to see the vehicles here, you know, they're here today, these are real. And so we appreciate you bringing them by and enjoyed the opportunity to ride and drive them.

CHAIRMAN WEISENMILLER: Commissioners, any other questions or comments?

COMMISSIONER DOUGLAS: Well, just as a brief comment, I wanted to say that I am reminded yet again of how great it is to have Commissioner Scott on board and fully focused on some of the transportation and AB 118 implementation issues that we've been working on for years. I've had the opportunity from time to time, my first two years on the Commission, and briefly in sort of an interim capacity with the Chair more recently, to dive into these issues and that has given me enough experience to know just how complex and challenging and critically important they are, and also to clearly have a perspective on how much work goes into the Investment Plan and the

specific solicitations and the grants that come out of the solicitations. So I definitely join you in all of your comments.

COMMISSIONER SCOTT: I'll move to approve.

COMMISSIONER MCALLISTER: I'll second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) This passes unanimously. Thanks.

CHAIRMAN WEISENMILLER: Let's go on to the next item, which will be Item 15. South Coast Air Quality Management District. This is an agreement -- Phil Cazel.

MR. CAZEL: Good afternoon. My name is Phil Cazel from the Emerging Fuels and Technologies Office. The contract I'm presenting for approval today, along with the following two items, are projects that will be carried out by the South Coast Air Quality Management District.

Matt Miyasato, Deputy Executive Officer for Science and Technology Advancement, and Dipankar Sarkar, the Technology Demonstration Manager, are here today representing the Air District. This District covers all of Orange

County and the highly populated urban portions of Los Angeles, Riverside, and San Bernardino Counties, and includes 16.8 million people, almost half the population of the State of California.

The Air District is responsible for controlling emissions and enforcing standards for mobile sources established by State or Federal agencies such as the California Air Resources Board and the U.S. Environmental Protection Agency. They are tasked with protecting public health from air pollution through the implementation of numerous comprehensive programs that include planning, regulation, and technology advancement, while receiving less than nine percent of their yearly budget from State or Federal grants.

The next three projects presented for approval today will support California's Zero Emissions Vehicle Program and the Low Carbon Fuel Standard by funding the development and demonstration of heavy-duty electric trucks used for goods movement in dense urban areas, the development of advanced natural gas engines for heavy-duty vehicles, and the assessment and

potential upgrade of public hydrogen fueling stations.

Item 15 is a request for possible approval of Contract No. 600-12-018 for the South Coast Air Quality Management District to assess, refurbish, and upgrade existing publicly accessible hydrogen fueling stations in California. If approved, the Energy Commission will provide $6,690,828 in Alternative and Renewable Fuel and Vehicle Technology Program funds.

This contract will direct the South Coast Air Quality Management District to conduct an assessment of the existing public hydrogen fueling stations describing each station's functionality and performance, as well as a reasonable prediction of each station's life expectancy, both before and after proposed upgrades are performed. The results of this assessment will be published in a public report. The Air District will then develop, release, and manage a competitive solicitation to fund equipment upgrades at existing public stations and seek competitive bids from companies that will provide the refurbishment and upgrade work.

Testing and evaluation of the upgraded hydrogen fueling and dispensing equipment will then be coordinated by the Air District in order to ensure that the upgrades meet the minimum acceptable standards. The upgraded stations will include state-of-the-art meters capable of dispensing hydrogen by the kilogram, and will allow customers to purchase hydrogen fuel by using a point of sale credit card reader.

Each station will be able to dispense hydrogen at acceptable standards and performance levels based on the needs, rates, and volumes required for that station to meet its market demand.

Finally, this contract will require the Air District to develop three public best practice documents based on the experience gleaned from the efforts carried out through this contract. The publications will individually address the differing technologies and systems used by hydrogen fueling stations and include hydrogen fuel electrolyzer technology, hydrogen fuel steam methane reforming technology, and hydrogen fuel generated offsite and delivered by tube trailer.

This contract will strengthen the state's hydrogen fueling infrastructure network by allowing existing stations to remain open and functional to ensure a reliable supply of hydrogen fuel in areas of planned Fuel Cell Vehicle deployment.

Staff is requesting the Commission's support and approval of this proposed contract.

CHAIRMAN WEISENMILLER: I was going to ask the gentlemen from the South Coast, Matt? Please step forward.

MR. MIYASATO: Thank you, Chairman, Commissioners. For the record, Matt Miyasato, the Deputy Executive Officer for Science and Technology Advancement of the South Coast AQMD, Air Quality Management District. I'm very pleased to be here, I'm happy to be working with your staff. I also want to thank Phil for granting us mobile source authority because that's something we've been trying to get for a long time -- that's a joke. We don't actually have any regulatory authority over mobile sources, only stationary sources, but that is the prime reason we have such an aggressive research and development, demonstration and early

deployment plan such as hydrogen infrastructure.

I'm here on behalf of our Executive Officer, Dr. Barry Wallerstein, and our Governing Board to thank the Commission for your leadership, in particular in this area along with your AB 118 program. Your leadership in providing these technologies shows that you can garner co-benefits with these technologies, not just for reducing greenhouse gas emissions and petroleum displacement, which is really the core of your program, but to reduce -- which is our major focus -- criteria pollutants and toxics, as well. And so we think our continued partnership really shows that co-benefits are possible.

We have a long history of working with the Energy Commission, you may or may not know this, but back in the mid-2000's you co-funded our Five Cities Program, our five hydrogen station programs where we converted Priuses to run on hydrogen. And then more recently, we helped co-fund your early first round of grants for AB 118 Hydrogen Infrastructure. And our station at the AQMD headquarters in Diamond Bar will be one of the first benefactors of that grant where we're upgrading our station to the

higher pressure for Fuel Cell Vehicles.

So that being said, we have a long history of working with you. We recognize it's not always easy to support hydrogen, and so we do applaud your leadership and these are the types of technologies and leadership and policy decisions that need to be made if we're going to evolve and transform our transportation sector, as Alberto Ayala had mentioned, and other speakers.

So in closing, let me just applaud the Commission for your leadership and, frankly, your trust in the South Coast to implement your vision. We are willing partners and we are certainly going to work hand in hand with your staff to make sure that we do this in the most efficient and beneficial way for both of our agencies. I think the program is a model for how the State Government can work with Regional Governments and we urge you to approve the staff recommendation to award these funds not only on this, but in the subsequent items on your agenda. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Commissioners, questions or comments?

COMMISSIONER MCALLISTER: I wanted to just follow-up quickly on those comments. I really appreciate your calling out that State Regional cooperation because -- and we're talking about transportation right now, but with energy efficiency and other types of programs that have an energy component, but that also have some emissions associated with them, I think there are a lot of potential opportunities there and would really just commend South Coast for being truly innovative because, as you've suggested, the sort of limits of your formal jurisdiction aren't going to really get you all the way there to the final goal, and as transportation and mobile sources are a bigger piece of the problem and there are other problems out there we're trying to address as a state, I think there is no other pass than a really tight collaboration in sharing vision and leveraging where we all are heading in the same direction. So I wanted to just thank you for those comments and reiterate them.

COMMISSIONER SCOTT: I'll move Item 15.

COMMISSIONER DOUGLAS: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) Item 15 passes unanimously.

CHAIRMAN WEISENMILLER: Let's go on to Item 16. South Coast Air Quality Management District. This is another agreement. Isaiah Larsen, please.

MR. LARSEN: You can just go to the second slide on the second item. Thank you. Good afternoon, Chairman and Commissioners. My name is Isaiah Larsen and I'm with the Emerging Fuels and Technologies Office. Staff requests your approval for Agreement 600-12-11 which is a $1,600,000 contract with the South Coast Air Quality Management District using funding from the Alternative and Renewable Fuel and Vehicle Technology Program under AB 118.

Despite major advances in emissions performance, heavy-duty diesel trucks operating in dense urban areas continue to face pressure to achieve lower emission operation. The South Coast Air Quality Management District has identified the development and deployment of zero emission goods movement transportation systems as one of the agency's top priorities in order to attain Federal air quality standards.

Zero emission transportation and goods

movement technologies are also being proposed in the Southern California Association of Governments 2012 Goods Movement Appendix to the Regional Transportation Plan, as well as the Joint CARB, South Coast, and San Joaquin Valley Air Pollution Control District "Vision for Clean Air: A Framework for Air Quality and Climate Planning."

Zero emission truck lanes are being considered for the I-710 Freeway expansion, which is an approximately 20-mile north to south trade corridor. The proposed heavy-duty electric truck pantograph retrofit project will provide five Class 8 trucks with the Siemens Pantograph System technology. When entering road corridors with overhead catenary lines, the pantograph system will verify the proximity of the catenary contact lines and allow the driver to raise the pantograph from within the cab of the truck at the appropriate time. Upon leaving the catenary lane, the pantograph will automatically retract, allowing the truck to switch seamlessly from overhead electrical power to onboard power at on-road speeds. And that's a picture of the system on a test track in Germany.

This project will design vehicle electrical systems, manufacture electrical and electronic modules, and components for the integration of the pantographs into a variety of hybrid and electric vehicle architectures. The purpose of the project is to develop and test the pantograph systems in the laboratory and to facilitate the eventual connection to a catenary system on a test track. The project will also facilitate the eventual demonstration of vehicles and pantograph systems in real world drayage operations on a catenary system.

I respectfully ask for your approval of this contract agreement and would be glad to answer any questions that you have. Thank you.

COMMISSIONER SCOTT: Isaiah, will you tell us a little bit more about the actual pantograph piece? You guys gave me a briefing, but it might be helpful for the fellow Commissioners and folks around to understand exactly which part that is.

MR. LARSEN: So the pantograph itself is a proprietary Siemens technology that basically anchors onto the top of the cab of the truck, and I'm not an expert on the technology, it is a

proprietary -- it is Siemens' technology that no one else in the world has really been developed. Unlike the light rail pantographs that you see, you know, out here in the downtown area, these are just for movement with the trucks, so not only can they raise and lower, but as the truck moves side to side, they can adjust for that lateral movement and continue to draw power from the catenary line, which is also connected to various power sources at dedicated integrals throughout the system. So the pantograph is essentially an interface between the overhead power lines and the electrical components within the vehicles, themselves. So that's the general gist of it, yeah.

CHAIRMAN WEISENMILLER: Okay, South Coast?

MR. MIYASATO: Thank you again, Chairman Weisenmiller and Commissioners. So, again, Matt Miyasato, the Deputy Executive Officer for Science and Technology Advancement at the South Coast AQMD. As you know, goods movement and especially heavy-duty diesel trucks are the number one NO_x contributor to our air quality problem in the basin. If we have any hope of

meeting the Federal standard by 2015, we have to reduce NO_x emissions across the board by 60 percent; in 2023, that number rises to 80 percent. So we have to take all essential combustion sources and reduce those emissions, goods movement being the primary bad actor that we're tackling first. This project actually helps us do that by providing the potential for goods movement with zero emission miles. So there's two ways you can reduce emissions, you can get it to what we call PDC, or Pretty Darn Close to zero, or you can go to zero emission miles where you have zero emissions along corridors, especially in communities that are highest impacted by these types of technologies, and that's what this project will help us do. So the intent is to have this project, demonstrate the technology, we're developing a test track that is near the ports, the second phase of that would be to develop the full route from the marine terminals to the railhead, and that's about a five-mile jaunt, this is only for the first part to develop the technology, do one-mile test track, and we're doing five different trucks, three different architectures. So we

certainly appreciate your help in transforming the goods movement sector to be very clean and zero emissions. So with that, we urge you to approve the staff recommendation for this project. Thank you.

CHAIRMAN WEISENMMILLER: Thank you. Commissioners, any questions or comments? I would note in the South Coast that 18 percent of the economy is goods movement.

COMMISSIONER SCOTT: And I would just add, given what the Chair said and what our colleague Matt from the South Coast Air Quality Management District just said, I can't sort of understate more -- I can't understate the importance of demonstrating technologies like this pantograph system, I think, in terms of helping us get to ways to reduce emissions.

COMMISSIONER HOCHSCHILD: This is the first time I've seen anything like this, but I think in many ways it's similar to light rail systems in many cities, including my home town, San Francisco. But the question I had, just at scale, what is the cost per mile for the infrastructure, the pulls and the wires? What would you guess looking ahead?

MR. LARSEN: We do have a -- did you want to -- I think we do have a preliminary budget that lays out some of those costs and for the demonstration, I don't have those numbers in front of me, I could provide those to you, and we could separate out the infrastructure components.

COMMISSIONER HOCHSCHILD: Just ballpark.

MR. LARSEN: I mean, I know for the demonstration there's the sort of complementary project that will produce the entire demonstration project. The total project cost, I believe -- this includes the vehicle costs, as well, though, it's on the order of $13 million, so it's probably at least -- would you say like a million dollars a mile or something?

MR. MIYASATO: We've heard estimates from Siemens it's one to two million dollars per mile, but because it's a new technology, the cost that Isaiah is quoting are kind of the non-recurring engineering costs and it's going to be higher. As you go to scale, it should come down and then they're using all the same light rail components as you mentioned, Commissioner, it's the same technology, it's just the fact that they can go on and off at will. So that's the

interesting flexibility that it offers.

COMMISSIONER HOCHSCHILD: Right. Okay, well, it's exciting to see. I will tell you it works. I went to school on the Muni Metro and that is exactly that shape, so it's exciting to see this. Congratulations.

COMMISSIONER MCALLISTER: You answered, actually, most of the questions I was going to ask preemptively, which I appreciate. But I guess, as this moves forward it would be nice to sort of -- and maybe you've got this planned already -- but, you know, the buildout and the phases, and obviously this is capital intensive and you'd want to peel off, as you said, the corridors with the most traffic and sort of that were most in and around the ports and stuff, I would imagine staging it in that way and then sort of proving feasibility and cost, and getting costs down, and sort of doing it in many stages presumably, but I'm just presuming that, and it would be nice to sort of get a little flesh on those bones.

MR. MIYASATO: You're absolutely right. So the first phase is one mile to test it out, and the trucks are just going kind of in a

circular route, they just keep going on the catenary. The second phase is the five-mile buildout between the marine terminals to the ICTF, which is the UP Rail Yard. The third phase is potentially the I-710 corridor, a 20-mile jaunt that goes from the Ports up to the middle of our Basin. The subsequent phases are the east-west corridors, and so we're looking for opportunities to, again, have zero emission miles, not necessarily always zero emission technologies.

COMMISSIONER MCALLISTER: So I would just say, look, you know, collect the data and share it with the other AQMDs and all the other, you know, SANDAG and the others around the state who are really worried about their various vehicle miles and, you know, inform that discussion, help the state advance this discussion and figure out what the best route forward is on this stuff because I think this is a technology that is a significant commitment of state funds for a really important demonstration. So I just want to make sure we're making the most out of it, but I appreciate your leadership on that.

COMMISSIONER SCOTT: I will move this item.

COMMISSIONER HOCHSCHILD: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) This item passes unanimously. Thanks.

CHAIRMAN WEISENMILLER: Let's go on to Item 17. South Coast Air Quality Management District again. And Pilar Magana.

MS. MAGANA: Good afternoon, Chairman and Commissioners. I'm Pilar Magana with the Energy Research and Development Division, and I am presenting to you for approval an agreement for $2 million with the South Coast Air Quality Management District to develop and manage a solicitation for the development and demonstration of natural gas engines suitable for heavy-duty vehicles that have a 90 percent reduction in NO_x levels compared to the 2010 Emissions Standards. The low NO_x emission target of .02 grams per brake horsepower hour can be achieved by optimizing engine technologies. This can include after-treatment technology designs, after-treatment configurations, engine tuning,

and engine management practices for engines suitable for various heavy-duty vehicle applications.

The objective is to obtain the maximum NO_x reductions possible while continuing to meet or exceed all applicable standards for hydrocarbons, non-methane hydrocarbons, carbon monoxide and particulate matter, and without incurring a fuel economy penalty. Low NO_x emission engine technology can be developed and deployed in the near term and as a cost-effective solution to mitigate health and environmental issues in areas such as the South Coast Air Basin and the San Joaquin Valley Air Basin.

This solicitation was jointly developed with our funding partners, including the South Coast AQMD, Southern California Gas Company, and additional potential funding partners include the San Joaquin Valley Air Pollution Control District and the Department of Energy. The solicitation has already been released, it was released on May 5th, and proposals are due at the end of July, and funding will be awarded at the end of September with projects expected to start in December. And with that, I would be happy to

answer any questions.

CHAIRMAN WEISENMILLER: Great. Matt, do you want to talk about this one?

MR. MIYASATO: Happy to. Thank you, Chairman and Commissioners. Again, it's Matt Miyasato from the South Coast. As I mentioned previously, we're looking at zero emission models, but we're also looking at what we call PDC or Pretty Darn Close to zero, and that's what this engine technology does, it gets you to essentially power plant equivalent emissions, so therefore it is like an electric vehicle, if you look far enough upstream, and so this is -- again, it harkens back to the days when the South Coast, the Energy Commission released Joint RFPs together, this was back in the Methanol days, and we certainly appreciate your leadership and, again, your trust in working with us to do this for original deployment. And this is slightly different from the one the ARB is releasing, they're doing essentially bench-scale testing of these heavy-duty engines. What we're partnering with you, SoCalGas and perhaps San Joaquin Valley, is to actually develop the engines and then the goal is to commercialize these at 10

times lower NO_x emissions that are currently available for these heavy-duty engines. So with that, we thank you and we urge your approval of this item.

CHAIRMAN WEISENMILLER: Thank you. Commissioners, questions or comments?

COMMISSIONER SCOTT: I'll move Item 17.

COMMISSIONER DOUGLAS: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) Item 17 passes unanimously.

CHAIRMAN WEISENMILLER: Let's go on to Item 18. Alternative Infrastructure: Electric, Natural Gas, Propane, E85, and Diesel Substitute Terminals. Lindsee Tanimoto.

MR. TANIMOTO: Yes. Good afternoon, Chair and Commissioners. My name is Lindsee Tanimoto. I am with the Emerging Fuels and Technology Office in the Fuels and Transportation Division. I will present for your approval today Agenda Items 18A through E, Agenda Item F will be presented to you by Darren Nguyen after my presentation is over.

The five projects were awarded in solicitation PON-11-602. This solicitation

provides funding for the deployment of natural gas and electric charging stations.

Agenda Item 18(a) is with FirstCNG LLC to grant Agreement ARV-12-058 for $300,000. This project will provide the CNG fueling station near the John Wayne Airport to supply 200-300 vehicles. The station will consist of one fuel dispenser and two pumps. FirstCNG will provide $945,000 in match year funding towards the project. Kirk Honor of FirstCNG is available by telephone to answer any questions after my presentation.

Agenda Item 18(b) is with the South Coast Air Quality Management District through Grant Agreement ARV-12-053 for $300,000. This project will demonstrate 20 fast charging stations in both urban and transportation corridors and will accommodate the growing number of Plug-In Electric Vehicles in the region. The fast chargers will provide 24-hour a day service, unlimited to the public at both Ralph and Albertson's Grocery Stores. The average shopper spends over 30 minutes in the store, which is enough time to charge the battery to back up the 80 percent of capacity. South Coast AQMD and its

partners will provide $600,000 in match year funding. I have Dipankar Sarkar from South Coast, who would like to speak at the end of my presentation.

Agenda Item 18(c) is with Waste Management of California through Grant Agreement ARV-12-060 for $300,000. Waste Management currently maintains a fleet of 89 trash hauling trucks. This project will build a CNG station in Oceanside to fuel their existing and expanding CNG powered fleet of trucks. The fueling station will consist of 56 slow fill dispensers. Waste Management plans to replace its entire diesel powered fleet to CNG over the next 10 or 15 years.

Staff has reviewed the local permitting agency's Mitigated Negative Declaration and we have no information to dispute its findings. Staff found the City of Oceanside's proposed mitigation measures are feasible and sufficient to mitigate the project's potential environmental impacts. Staff recommends your approval of this project with consideration and concurrence of these findings, which is to be reflected in the resolution.

Waste Management will provide $1.7 million in match year funding. Chip Works from Waste Management will be available on the telephone to answer questions.

Agenda Item 18(d) is with the Bonita Unified School District through Grant Agreement ARV-12-042 for $300,000. The project will design and construct a new compressed natural gas fueling station at an existing maintenance yard that will supply 11 school buses. Fueling on-site is expected to reduce the number of miles traveled by nearly 16,000 miles annually. The Bonita Unified School District will provide $210,962 in match shared funding.

Agenda Item 18(e) is augmentation to an existing agreement with AeroVironment under Grant Agreement ARV-12-023 for their Cal Electric Residential EVSE Deployment Program. This agreement amendment will add $1,707,847, increasing the total grant agreement to $3,707,847, and extend the term of the agreement by 12 months to March 28, 2015. This additional funding will increase the number of Level 2 charge points installed under the agreement from 770 to 1,425 in both single-family and multi-unit

dwellings throughout California. This project expands the network of charge points throughout the state which supports consumer adoption of PEVs. I'll have Charles Botsford of AeroVironment who will be available on the phone to answer any questions.

This concludes my presentation. Staff requests your approval of Agenda Items 18(a) through (f). We will be glad to answer any questions you may have regarding these projects and I believe Dipankar would like to say a few statements.

MR. SARKAR: Good afternoon, Commissioners. My name is Dipankar Sarkar. I'm the Technology Demonstration Manager at the South Coast Air Quality Management District. I want to make some comments in favor of this item, Item 18(b). We would like you to consider this project for an award to install 20 DC fast chargers in the South Coast Air Basin. These chargers will support EVs in South Coast and, as Dr. Miyasato was saying, such zero emission technologies are necessary for South Coast to attain its air quality goals. The sites have been selected and we'll release an RFP in

September for a network provider, and we will work closely and expeditiously with CEC staff on this project, and also on other projects. Thank you very much.

CHAIRMAN WEISENMILLER: Thank you. Let's walk through the different parties on the phone.

MR. TANIMOTO: Yeah, I think Charles Botsford is on the phone, but I believe he's just here to answer any questions, he has no statement to make.

CHAIRMAN WEISENMILLER: Okay. So, Commissioners, questions or comments?

COMMISSIONER DOUGLAS: No questions. It sounds like a really good project. I'll move approval.

COMMISSIONER SCOTT: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) This item passes unanimously. Thank you.

CHAIRMAN WEISENMILLER: Let's go on to Items 18(f) and 19.

MR. NGUYEN: Good afternoon, everyone. My name is Darren Nguyen. I'm from the Emerging

Fuels and Technologies Office. Before I present the two items, 18(f) and 19 for approval, I would like to read for the record the CEQA review for both projects. We just received confirmation yesterday from the lead agency on the finalized EIR.

This is the California Environmental Quality Act review of Grant Agreements ARV-12-063 and ARV-12-064 with Harvest Power Tulare, LLC. Energy Commission staff recommends providing $300,000 to Harvest Power Tulare to build, own and operate a compressed natural gas fueling station, as well as $4,787,694 to build, own and operate a biofuels facility. Energy Commission staff have considered the Final EIR prepared by the lead agency and the environmental effects of the project, and believe that the EIR is adequate. On behalf of the Energy Commission as the responsible agency under the California Environmental Quality Act, CEQA, and California Code of Regulations Title 14, Sections 15096, staff hereby summarizes and makes recommendations on the environmental review of this product conducted under CEQA.

The lead agency for this project under

CEQA is the County of Tulare, Resource Management Agency, RMA. In March 2013, RMA prepared a comprehensive Draft EIR, evaluating the potential impacts associated with the proposed natural gas fueling station, as well as the proposed biofuels facility. The Draft EIR was made available for public review and comment for a period of 30 days, from March 7, 2013 through April 7, 2013.

On April 24, 2013, RMA prepared a comprehensive Final EIR report for the Harvest Power Project. On May 8, 2013, RMA adopted the Final EIR and approved the project. On June 11, 2013, the Tulare County Board of Supervisors affirmed as modified RMA's decision, as well as the project. The Board of Supervisors determined that the project will have a significant adverse impact on the environment, that an EIR was prepared pursuant to CEQA, the mitigation measures would be a condition of the approval of the project, and that a Statement of Overriding Considerations was adopted for the project. A Notice of Determination was subsequently filed on June 12, 2013.

The lead agency determined that there is only one significant and unavoidable impact under

this mandatory finding of significance for substantial adverse effects involving the cumulative impact of odors on human beings indirectly through accumulation with odors associated with other existing adjacent land uses, including dairies.

The EIR also identifies several impacts that with mitigation will be reduced to less than significant levels. Staff has determined that the mitigation measures adopted by the County are within its jurisdiction and concurs that they would reduce the remaining identified impacts to less than significant levels. As demonstrated in the EIR, the project will have the following economic, legal, environmental, technological, social, and other benefits.

For the economic benefits, it spurs development in an area that has been designated as economically distressed and has been identified as a recovery area characterized by significant poverty, unemployment, home foreclosure, or general distress. It would help bolster the State economy through purchase of California feedstock and the sales of Renewable Natural Gas and co-products, including compost.

It generates up to over $500 million in additional salaries and wages, it would generate up to over $1.3 billion in additional goods and services, and it would generate up to over $679 million in additional sales.

For the legal benefit, it helps the State meet its climate change goals under the Global Warming Solutions Act of 2006, AB 32, and the Low Carbon Fuel Standard. It would also help the State meet the goals of the Federal Renewable Fuel Standard.

For the environmental benefits, compared to conventional diesel fuels, Renewable Natural Gas produced from the project will result in significant reductions in greenhouse gas and criteria pollutant emissions from both stationary and mobile sources. It also substitutes 660,000 gallons of conventional diesel for Renewable Natural Gas each year.

The technological benefits is that it would develop a two-stage batch high solids anaerobic digestion system and it validates one of the first technological viability of deploying a commercial-scale digester pump in North America.

And for the social benefit, it reduces waste in Tulare County area landfills.

Energy Commission staff has considered the comprehensive environmental documents prepared by RMA and considered the environmental effects of the project. After reviewing these documents, as well as the grant application submitted by Harvest Power, the Energy Commission's Fuels and Transportation Division staff, after consultation with the Chief Counsel's Office, recommend that the Commission make the following findings under CEQA: RMA as lead agency prepared and certified a comprehensive Draft EIR under CEQA on March 7, 2013 for Harvest Power to build, own and operate a Biofuels facility, as well as a CNG fueling station. RMA, as the lead agency, prepared and certified a comprehensive Final EIR under CEQA on April 24, 2013, for the above project.

The mitigation measures incorporated into the EIR will mitigate most environmental impacts to less than significant levels. The mitigation measures adopted are within the jurisdiction of the lead agency. There will be a single significant unmitigated impact as follows:

Cumulative odor impacts from this facility plus odors from other sources, such as an adjacent dairy, are cumulatively unavoidable, despite implementation of an Odor Impact Mitigation Plan, as required by CalRecycle at the facility. There are no feasible mitigation measures within the Energy Commission's jurisdiction, or the jurisdiction of the lead agency to mitigate the cumulative odor impacts to less than significant levels. The project has significant economic, legal, social, psychological, and environmental benefits. The benefits of this project outweigh any significant direct, indirect, or cumulative impacts which may result from the construction or operation of this project.

And with that, I would like to present Item 18(f) for your approval. This is the first of two grants for Harvest Power Tulare to build, own and operate a compressed natural gas fueling station. The total funding amount for this project is $300,000, the match fund amount is $1,027,590. The CNG station will be supplied primarily by the biomethane generated from an on-site anaerobic digester. This fuel will have a near zero carbon intensity and will be one of the

first commercial-scale digester to pump stations in the U.S.

This project will reduce 5,800 metric tons of CO_2 equivalents per year.

Thank you for your consideration of this grant. I have here Wayne Bishop who would like to make a comment and answer any questions you may have.

MR. BISHOP: Hi. Wayne Bishop with Harvest Power, Senior Project Developer. First, I'd like to say thank you very much for us being considered for this AB 118 grant. We've worked extensively hard with the CEC to get here today. We're glad to finally be here, it's been a long road and we're just really grateful to be able to produce one of the lowest carbon fuels in the marketplace. So I just would like to say thank you to staff and the CEC and for being considered for this.

CHAIRMAN WEISENMILLER: Thank you for being here. Commissioners, any questions or comments?

COMMISSIONER SCOTT: I'll move Item 18(f) and 19.

CHAIRMAN WEISENMILLER: I think we have

to make sure we also include the resolution explicitly, the finding on the mitigation.

MR. LEVY: That's correct. The motion should be to adopt the CEQA findings as recited by staff, including the Statement of Overriding Considerations, and then to approve the items.

COMMISSIONER SCOTT: So adopt -- adopt the CEQA findings as --

MR. LEVY: As recited by staff. That's good enough. And including the Statement of Overriding Considerations for the odor impacts.

MR. NGUYEN: Commissioner Scott, I haven't presented 19 yet.

COMMISSIONER SCOTT: Oh, I'm sorry.

CHAIRMAN WEISENMILLER: Okay, so just 18.

COMMISSIONER SCOTT: So I will move Item 18(f) including the resolution to adopt the CEQA findings as recited by staff, including the Statement of Overriding Considerations.

COMMISSIONER DOUGLAS: Second.

MR. LEVY: And approve the item.

COMMISSIONER SCOTT: And approve the item.

COMMISSIONER DOUGLAS: Still second.

CHAIRMAN WEISENMILLER: Okay. All those in favor of the Amended Resolution?

(Ayes.) This has been adopted unanimously. Let's go on to Item 19.

MR. NGUYEN: This is the second grant for Harvest Power Tulare to build, own and operate a Biofuels facility that will convert organic waste to biomethane, a renewable transportation fuel via anaerobic digestion.

The two grants are essentially one big project that we will be funding from two different solicitations. This biofuels facility project will process the feedstock, convert it to biomethane, and the CNG station project will dispense the natural gas on-site. The biomethane will be cleaned, compressed, and used on-site. This fuel will have a near zero carbon intensity and will be one of the first commercial-scale digester to pump stations in California.

The total funding amount for this project is $4,787,694, and the match amount is $8,958,143. The proposed facility will process 40,000 tons per year of mixed organic waste feedstock, displacement of 660,000 gallons of gasoline, it reduces the GHG emissions by 5,800

metric tons of CO_2 equivalents per year.

Thank you for your consideration of this grant.

CHAIRMAN WEISENMILLER: Thank you. Commissioners, questions or comments? I assume in this resolution we have to repeat the CEQA findings?

MR. LEVY: I don't think you need to repeat them verbatim, you can just reference that they still apply for this item, and I think that's fine.

CHAIRMAN WEISENMILLER: Okay. Got it. So who wants to take a stab.

COMMISSIONER SCOTT: So I move approval of Item 19, including the CEQA findings that we made on Item 18(f).

MR. LEVY: And the Statement of Overriding Considerations.

COMMISSIONER SCOTT: And the Statement of Overriding Considerations.

CHAIRMAN WEISENMILLER: Great. Second?

COMMISSIONER MCALLISTER: I'll second.

CHAIRMAN WEISENMILLER: Okay, all those in favor?

(Ayes.) This item also passes

unanimously. Thank you. Thanks for being here. Good luck on the project.

CHAIRMAN WEISENMILLER: Let's go on to Item 20. Natural Gas Fueling Infrastructure. Isaiah Larsen again.

MR. LARSEN: Good afternoon, Commissioners. My name is Isaiah Larsen. I'm a staff member with the Emerging Fuels and Technologies Office. Today we'll be presenting for your approval Items 20(a) through 20(d), which are agreements resulting from the recent natural gas fueling infrastructure solicitation funded through the Energy Commission's Alternative and Renewable Fuel and Vehicle Technology Program.

The intent of the solicitation was to assist in the development of a network of natural gas stations throughout California. The lack of natural gas fueling infrastructure in certain regions in California is a major barrier that prevents companies from switching over to environmentally and economically beneficial Natural Gas Vehicles.

These projects will help support the deployment of Natural Gas Vehicles which have

significant greenhouse gas and air pollution benefits.

This competitive solicitation was open to the installation of new infrastructure, as well as upgrades of existing infrastructure. Preferences were given to school districts through a lower match share funding requirement, and all projects were scored on the additional fuel through-put and associated environmental benefits that would be accrued, as well as the express need for additional infrastructure, the cost-effectiveness of the projects, and the necessity for public funding to complete the project with additional points provided to entities that planned on using a renewable source natural gas.

Now I will briefly go through the list of projects and take any questions you may have about the individual projects.

Item 20(a) is an agreement with the Lodi Unified School District to install a publically accessible CNG station that will enable on-site refueling for their expanding fleet of CNG buses and will also provide the opportunity for the District to replace an additional 27 diesel buses

with CNG versions in the near future. The station will have fast fill capability for public usage and will serve as a back-up fueling station for nearby public entities.

Item 20(b) is an agreement with Garden City Sanitation, who will receive funding for the installation of time fill CNG fueling equipment that will support their expanding fleets of CNG refuse trucks. Garden City Sanitation expects to expand their heavy-duty CNG fleet by repowering 45 recently purchased diesel vehicles.

Item 20(c) is an agreement with Alameda County Industries, who will install time fill CNG infrastructure for on-site fueling of their existing fleet of 18 CNG refuse trucks and allow them to replace an additional 22 diesel trucks.

Item 20(d) is an agreement with California Clean Fuels to upgrade an existing CNG facility which will allow an increased number of vehicles to use this 24/7 publicly accessible station. The upgraded fueling station will improve the site's ability to service an increasing number of heavy-duty vehicles and provide faster service for existing CNG fleets.

I would like to thank you for your

consideration of these items, and I am available for any questions that you may have. Thank you.

CHAIRMAN WEISENMILLER: Thank you. Commissioners, any questions or comments?

COMMISSIONER SCOTT: I will move Item 20.

COMMISSIONER DOUGLAS: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) This item is adopted unanimously. We're going to take a 15-minute break.

(Break at 3:00 p.m.)

(Reconvene at 3:20 p.m.)

CHAIRMAN WEISENMILLER: Hi, we're back on the record. Let's start with Item 21.

MR. FREEMAN: Good afternoon, Commissioners. My name is Andre Freeman from the Fuels and Transportation Division. Today I'm seeking your approval of Incentive Reservations for Natural Gas and Propane Vehicles funded through the Alternative and Renewable Fuel and Vehicle Technology Program.

As you know, the Energy Commission's Natural Gas and Propane Vehicle Buydown Program

is designed to promote the purchase of alternative fuel vehicles to replace the aging gasoline and diesel fleets. This program provides incentives for consumers to adopt technologies which will help improve air quality, reduce petroleum usage, and help boost California's economy.

These reservations will provide incentives for the purchase of 135 Natural Gas Vehicles, 250 Propane Vehicles, including 97 school buses. These vehicles will operate within California at least 95 percent of the time.

With that, I'd like to thank you for your consideration of these items and I'm available for any questions you may have.

CHAIRMAN WEISENMILLER: Great. Commissioners, any questions or comments?

COMMISSIONER SCOTT: I move Item 21.

COMMISSIONER MCALLISTER: I will just comment -- no, I'm going to second -- you know, there is a lot coming across in this Business Meeting and Commissioner Scott said it at the outset here across all these items, but I think it's just worth reiterating, now that we're more than half-way through with all the various

incentives, you know, all of these are really continuations of programs that we know are being successful and are helping transform the marketplace, and that are clearly the result of a lot of effort on the part of staff with the rigorous process and, you know, these awards are based on the merits. So the fact that it is kind of galloping through here and approving these things is kind of hiding the fact the huge amount of effort that really got us to this point in the first place. So each of the fuel sources that we've been going through today obviously have their niche and we're in the midst of an ongoing investment, and so this is a part of that whole process. So I just wanted to kind of remind people of that.

COMMISSIONER SCOTT: Thank you very much for that reminder, it has been a little while since I made the overarching comments, but you know, again, all of this is a part of our Alternative and Renewable Fuel and Vehicle Technology Program, again, it's up to $100 million that we have to invest in transforming the transportation sector, and so again this set of grants and awards that Andre has just

presented for us fits right in with that. And you know, this whole set of projects and grants I think, again, are important in terms of supporting the infrastructure, in speeding our transition to the cleaner fueled vehicles, and to demonstrating that innovative projects like the Vehicle to Grid, so I will take a minute to remind us all of how that all fits in together and, again, thank the staff for all their terrific work. I know we've gone through a lot of projects that took a lot of work for folks to put together and they kind of got grouped together, and we talk about them very quickly, but each one has a lot of details with it and are each important in their own right.

CHAIRMAN WEISENMILLER: That's great. OF course, with the footnote that the propane stuff is still at the bottom of our loading order, not at the top.

COMMISSIONER MCALLISTER: And this actually includes natural gas and propane, a long list of various awards, so I don't want to minimize any one of them, but I will second Item 21.

CHAIRMAN WEISENMILLER: Okay, great.

All those in favor?

(Ayes.) This item also passes unanimously. Thank you, Andre.

CHAIRMAN WEISENMILLER: Okay, now a reminder, we've covered 22, so now we're at 23. And that is the Harper Construction Company, Inc. Prab Sethi.

MR. SETHI: Good afternoon, Commissioners and Chairman. My name is Prab Sethi. I'm with the Energy Generation Research Office. Harper Construction Company is an awardee for the Community Scale Renewable Energy Development Deployment and Integration Competitive Grant Solicitation, PON-12-502. Recommended PIER funding is $1,722,890. The match funding is more than $1.1 million, and the length of the agreement is 21 months.

The de facto Grid demonstration project is based on fractal architecture that is larger components of the Grid system, comprised of multiple microgrids that have a similar design. This project will assure that critical demands can be met if one or more microgrids are not available.

The goal of this agreement is to

demonstrate four intelligent microgrids that use community scale renewable energy resources such as 300 kilowatt photovoltaic system, 186 kilowatt concentrated PV, traditional generation assets and energy storage within an existing utility grid at Camp Pendleton.

This project will demonstrate individual capabilities and interactions between the microgrids by shedding loads to support critical marine-based functions and provide long term energy security. Camp Pendleton is a large marine base with dispersed loads and generation. The energy generation and demand will be optimized by installation of the power controllers, distribution and isolation switches, and local energy storage, and analysis of critical mission requirements.

This project will identify project constraints and priorities to reduce energy and peak demand by 10 percent while meeting base priorities with locally available renewables.

The microgrid system includes a dynamic solar forecasting and plug-in electric vehicles for grid storage system.

The project team is a public and private

partnership and includes Harper Construction Company, specializes in energy solutions, natural information system, and Camp Pendleton Public Works. I request approval of funding for this project. Thank you.

CHAIRMAN WEISENMILLER: I was going to say, I think all of us are excited by our partnership with the Military in California, we talked about the Vehicle to Grid, also an area we've done a lot of work historically as microgrids, but generally the notion has been that they can be a test bed for the innovative technology we develop through PIER and EPIC, and certainly in that partnership. And at the same time, they're a key part of the California economy, you know, that for a number of years they were investing like $2.5 billion a year in Southern California, and if you think about the Southern California economy, which is pretty bad, that without that $2.5, it would have been staggering. So we're looking at it and this is need in a sense of, you know, they're really looking at an overall microgrid down there, but in terms of particularly large based, where basically this has a pattern where it's not just

one microgrid, but as he said, it's a combination of a series of microgrids. So, again, this is really dealing with the Military needs. So as we can take microgrids on sort of that sort of scale, base-wide scale, across a number of bases, that again -- I think that's going to help on the reliability picture with them, and at the same time as a way of developing technology which will certainly have applications throughout the world. So, again, I think it's a pretty exciting project. I don't know if anyone else has any questions or comments. You were at Pendleton, right, yesterday?

COMMISSIONER SCOTT: I was at Pendleton. We didn't talk about this particular project.

CHAIRMAN WEISENMILLER: But you saw their energy facilities?

COMMISSIONER SCOTT: I went and spoke with them about the Desert Renewable Energy Conservation Plan and California's overarching energy goals, and only got to see the inside of the conference room that we were in.

COMMISSIONER DOUGLAS: I think that probably means you'll have to go back.

COMMISSIONER SCOTT: Indeed. Were there

other questions?

COMMISSIONER MCALLISTER: Well, I guess I'll just point out that part of -- we saw the Eagle to Grid, we're seeing microgrids, you know, we have a few other microgrids in the state and there are some interesting ones in other parts of the nation, as well, and I think just together this is starting really to add up to something, and the technology deployment is incredible -- it's central to making this work and getting the real experience, getting everybody's feet wet with this, comparing and contrasting, figuring out strategies, and the more experience we have and the closer attention we pay to it, I think, the quicker it's going to add up to something that we can use on scale. And in the Demand Response, in the broader context of flexible resources, demand side and supply side, and how to orchestrate this whole multi-piece band that we've got going is really -- I think we're making a lot of progress and it's really exciting to support a project like this within that context.

CHAIRMAN WEISENMILLER: Yeah, we have -- our first microgrid was with SMUD. So if anyone is around who wants to see that -- you know, U.C.

San Diego, obviously the Alameda County Jail, we also have one with UCLA, and the original military microgrid was one with GE at Twentynine Palms. So, again, it's actually -- it would be interesting to map sort of where it is now and where it's going to be in five years in terms of microgrids in California.

COMMISSIONER MCALLISTER: So I'll move Item 23.

COMMISSIONER SCOTT: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) Item 23 passes unanimously. Thank you.

CHAIRMAN WEISENMILLER: Let's go on to Item 24. Building Energy Efficiency Research and Technology Grant Program. Brad Meister.

MR. MEISTER: So good afternoon, Commissioners. I'm Bradley Meister. I'm here today to request approval of 10 projects totaling $14,038,377 with a match amount of $3,975,090. This competitive solicitation sought research development and demonstration projects to help achieve the State's energy efficiency policy goals in a cost-effective manner in two areas,

technology and innovations, Codes and Standards Advancement, and cross-cutting demonstrations. On November 1, 2012, the California Energy Commission's Public Interest Energy Research Program released a Program Opportunity Notice entitled "Building Energy Efficiency Research and Technology Grant Program." The purpose of the solicitation was to seek proposals, both electricity and natural gas energy efficiency projects, which affect residential and commercial buildings and communities. The proposals are screened, reviewed, evaluated, and scored using criteria proscribed in the solicitation.

The NOPA was released on March 15, 2013. Based on review team scores and suggested funding levels, staff requests approval of the following projects: Chromasun, Inc. The project will demonstrate an innovative system and includes the use of 75 micro concentrators or collectors to create both chilled water and domestic hot water. The project will be demonstrated at a 300-room hotel in Southern California. The benefits are reduced natural gas by 45,000 therms and electricity by 152,000 kilowatt hours per year.

View, Inc. The project will demonstrate

the integration of a package of advanced and emerging technologies in the 30,000 square foot existing commercial building to result in a zero net energy building in a cost-effective manner. The benefits are that it is a potential game changer by altering the future of sustainable construction practices to make zero net energy construction compelling.

EPRI. The project will demonstrate cost-effective packages of energy efficiency measures, deep energy efficiency retrofits of low income multifamily properties. There would be a variety of projects installed, including high efficiency HVAC, economizers, smart thermostats, phase change materials, duct sealing, and window upgrades. The benefits are reduced energy consumption by approximately 40 percent.

CIEE with U.C. Berkeley. This project will develop, evaluate and demonstrate three innovative strategies to improve energy efficiency and occupant comfort in buildings, low energy personal comfort system that provides direct local heating and cooling to building occupants, controlled improvement to air handling systems to allow for minimum diffuser air flow

rates and temperature reset strategies, and then we use an open source software for implementation with building management systems. Benefits are potentially 62 million per year in cost savings.

University of California at Davis. This project will conduct detailed field studies to document and verify actual performance, energy savings and cost characteristics for advanced and emerging technologies, items for future Codes and Standards activities. There would be a variety of projects, including residential LED luminaires, daylighting controls, energy efficient clothes washers, fault detection and diagnostics, and to heat swimming pools with air conditioner waste heat. And the results will be a Program Manual to serve as a guide for demonstration needed to meet Codes and Standards requirements. Benefits demonstrate the viability of technologies and document performance to support future Codes and Standards.

UCLA. The project will conduct research to develop new phase change materials that can be embedded in lightweight cement based composites for building envelope. A second phase of the project involves integrating the temperature

sensors into the smart envelope to communicate with the HVAC system to optimize energy use. The benefits, if used in one percent of new construction, about $250,000 a year in savings initially.

Levy Partnership. This project will conduct research in the development of new and innovative methods for building roof and wall systems that will reduce energy use in factory-built homes, and to transition the market to these new methods. There's about 10,000 of these type of buildings that are built every year, and they're currently not subject to Title 24 Standards, so we have the potential to reduce annual energy use in each home by about 1,500 kilowatt hours per year and 140 therms, which is about $400 per year, and to low income families that would be a lot of money.

Enovative Group. The project will conduct research to improve the energy efficiency of domestic hot water distribution systems and their components. It will focus on the issues of crossover of hot and cold water system and proper balancing of systems to avoid crossover. It will determine the best types of fixtures to eliminate

crossover and determine the best types of balancing valves to maintain proper flow and temperature balance. The benefits are eliminating crossover and unbalanced recirculation in the multifamily sector would save 134 million therms per year in California.

Altex Technologies. The project will develop and demonstrate a low cost waste heat recovery system that can generate cooling and/or hot water from the waste heat. The system consists of a very simple jet pump cooling system and uses multiple advanced performance and low cost heat exchangers. The demonstration will use full scale commercial boiler to generate the waste heat and it could be adapted to use solar thermal collectors. The benefit is, at least initially, a 7.5 percent reduction in natural gas use.

And lastly, LBNL. This project will develop and demonstrate an innovative web-based tool for small and medium businesses to determine building energy performance, identify operational improvements using conventional advanced energy efficiency technologies, and assess impacts of these improvements on indoor environmental

quality. The benefits are, of course, reduced energy in small and medium-sized businesses throughout the state.

I would ask for your approval and I'm happy to answer any questions.

CHAIRMAN WEISENMILLER: Great. I think we have a couple of folks on the phone who at least I think wanted to comment. Let's start with the gentleman from View.

MR. TIANOV: Good afternoon. I don't have any comments, but I was prepared to answer any questions about the project specifics itself.

CHAIRMAN WEISENMILLER: Okay, great. Just hang on for a second and I think -- Maryanne?

MS. TIETTE: I am the same. I am available if there are any questions about the Lawrence Berkeley National Lab project.

CHAIRMAN WEISENMILLER: Okay. Now, with that context, folks do we have any questions or comments for staff or for the folks on the phone? Well, let's start out with my comment in terms of lead on R&D. Obviously when we've done R&D, one of our -- we always look at it based on the loading order, so at the top of our priorities in

R&D is always energy efficiency, and we really try to have the energy efficiency part help us develop the pipeline for things which will go from the Lab, hopefully into incentive programs for the utilities, at PUC, and then move from that into the Standards, and that sort of flow. And one of the things looking forward to 2016 or 2020, then, for the Building Standards, and of course Appliance Standards have a lot of trajectory there, we need to be building up that inventory of stuff in the pipeline that we can move forward the frontiers of energy efficiency with. So I think these are a good variety of interesting projects, and hopefully leading in that direction towards additional savings, you know, Standards.

COMMISSIONER MCALLISTER: Yeah. I looked through this list, I mean, I'm an energy efficiency guy, so as lead on Energy Efficiency, this particular list throughout the whole agenda, it jumps out at me and I get really excited. I'm not sure if everybody is in the same boat here, but maybe your eyes are glazing over, but I get really excited.

COMMISSIONER HOCHSCHILD: Energy floats

your boat.

COMMISSIONER MCALLISTER: Yeah, exactly. But I mean, this is a really great portfolio of projects covering hotel, hospitality, commercial, both large and small, factory, housing, mass produced housing, basically for lesser income folks, and really multifamily. So I think just sector-wise, it's got really broad coverage and is attacking issues that have emerged in our real experience in other arenas, and I think that feedback loop back to the R&D using our knowledge from the implementation side of the world, from the programs, the energy efficiency programs, and from our knowledge on staff and what our stakeholders bring to us, and actually proactively going out and identifying what needs to be done, designing the RFPs to capture those kinds of ideas, and then picking the best ones that cover a broad range of these topics, I think, it works quite well and I really commend staff on that.

I'm particularly excited to see behavior issues coming increasingly to the fore because those issues, for example personal comfort systems and field studies to see how technologies

actually look, how their uptake looks in the real world, I think is really key to understanding what is most effective, and what's most cost-effective, so that that can move over to the program environment and then the successes there, those measures when they truly become pervasively cost-effective, then we can move them into standards. And so, as the Chair said, this is all part of a market transformation effort that takes some time, and some deliberate effort that I think we have a real good track record of promoting and executing on. So I am very excited to support this group of projects.

COMMISSIONER DOUGLAS: Commissioner McAllister, I'll just join you in saying that I also, with my fairly recent experience leading energy efficiency and with the 2013 Building Standards, I also look at a list of agenda items like this with great anticipation and happiness, so I think that this kind of research is really valuable, it's valuable to the market, it's valuable to builders who are really trying to build cutting edge, really efficient buildings. It helps push technology and ultimately all of that feeds back to the energy efficiency savings

that we're able to achieve, including in the Standards, but also including out in the marketplace. So I'm really -- I enjoy very much seeing these items come before us and I'm strongly in support of them.

COMMISSIONER MCALLISTER: So I will move Item 24.

COMMISSIONER DOUGLAS: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) Item 24 passes unanimously. Thank you.

CHAIRMAN WEISENMILLER: So let's go to Item 25. Renewable Energy and Conservation Planning Grants. And Eli Harland, please.

MR. HARLAND: Good afternoon, Commissioners and the public. My name is Eli Harland. I work in the Renewable Energy Office in the Efficiency and Renewable Energy Division. I'm here seeking your approval of five grant awards with five counties, totaling $3,341,000. These grant awards are the result of Program Opportunity Notice 12-403, otherwise known as the Renewable Energy and Conservation Planning Grants.

I do want to note that updated CEC 270s were made available this morning on the Energy Commission's website and they're also available by the front door to the entrance of the hearing room.

In 2011, AB X113 became law and authorized the Energy Commission to develop this grant program. In the 2012 Budget Act, the Legislature appropriated $7 million from the Renewable Resources Trust Fund to implement this program. The Legislature directed the Energy Commission to award up to $7 million in grants to 15 qualified counties to develop a revised Rules and Policies to facilitate the development or of eligible energy resources, their associated transmission facilities, and the processing and permits for eligible renewable energy resources.

The Legislature specified that the Energy Commission may award grant funds to qualified Counties in the Desert Renewable Energy Conservation Plan Area, only if those counties are plan participants, or enter into a Memorandum of Understanding with the Energy Commission in which a County agrees to participate in the development of the DRECP for the purpose of

ensuring that the DRECEP can achieve the goals set forth in the planning agreement, in a manner consistent with a applicable County policies.

At the December 9, 2012 Energy Commission Business Meeting, the Commission approved a model MOU for this purpose and four of the seven counties that would land in the planning area of the DRECP have executed the MOU with the Energy Commission. All four of the Counties with an MOU in place have applied for a grant and are being proposed to you for approval of a grant award today.

In December 2012, Energy Commission staff engaged the qualified counties and other stakeholders through a request for comments on specific questions about the design and implementation of the grant program. Staff used these responses to inform the development of the solicitation and, between March 11, 2013 and April 10, 2013, the Energy Commission invited qualified Counties to apply to the solicitation and received six responses, one of which was disqualified upon receipt because the Applicant was not a qualified County.

The Scoring Committee made up of staff

from the State and Federal Wildlife agencies, the Governor's Office of Planning and Research, as well as staff from the Energy Commission's Renewable Energy Office and Siting Division, evaluated and ranked applications, and posted a Notice of Proposed Awards on April 25, 2013.

I'm excited to present these very important grant awards. The work that each recipient County will undertake represents important steps towards achieving California's long term energy and natural resource conservation goals, including the successful completion and implementation of the DRECP, as well as achieving the Renewable Portfolio Standard Goals. Counties in the DRECP planning area receiving grant funds will coordinate with State and Federal partners to assist in the development of the DRECP in a manner consistent with County rules and policies. Once enacted, the rules and policies in these counties will help shape the market for developing eligible renewable energy resources on land governed by those Counties.

Further, this work marks an opportunity to learn from each of these laboratory counties

so that we can share new institutional knowledge with other California counties and land use managers. Counties will begin work within the next month and complete their work at the end of March 2015.

I'm asking for your approval of five grant awards. The first is with the County of San Luis Obispo. The County will develop a Renewable Energy Combining Designation in the County's General Plan that will identify areas in the County where certain types of renewable energy resources -- solar, wind, and possibly geothermal -- will be considered priority land uses. The County will streamline permitting from renewable energy technologies, especially in areas with the combining designation. The designation of combining areas will be informed by creating maps using geographic information system data, with mapping layers for renewable energy resources, current land uses such as open space agriculture, and even urban areas, and utility transmission and distribution systems. The County will prepare and certify an Environmental Impact Report for the combining designations that will minimize environmental

review for individual projects. The amount of the grant award is $638,152.

The second grant is with the County of San Bernardino. The County will develop an entirely new Renewable Energy and Conservation Element as part of the County's Comprehensive General Plan Update. The new General Plan Element will establish the County's vision for future renewable energy development and conservation in the County by establishing the goals, policies and objectives that will guide development and conservation.

The County will also modernize its regulatory system to ensure efficient governance of renewable energy and conservation. The amount of the grant award is $700,000.

The County of Los Angeles will create a Renewable Energy Ordinance and corresponding Programmatic Environmental Impact Report. The Ordinance will be consistent with the goals, policies and objectives of the County General Plan and Antelope Valley Plan. The County anticipates that the Renewable Energy Ordinance will set clear expectations and reduce uncertainty for renewable energy developers,

stakeholders, and county residents. The Programmatic EIR will assess broad development issues like cumulative impacts, and provide a mechanism for renewable energy developers to tier their individual written environmental reviews off of. The amount of the grant award is $603,000.

The County of Inyo will update and adopt a Renewable Energy General Plan Amendment, as well as prepare and certify an Environmental Impact Report. The Renewable Energy and General Plan Amendment include a General Plan Land Use Designation Overlay for Wind and Solar Resources. The overlays will identify areas in the County in which solar and wind technologies are allowable land uses, subject to the County's permitting procedures and the County's Renewable Energy Ordinance. The amount of the grant award is $700,000.

The last award is with the County of Imperial. The County will undertake a comprehensive update to the County General Plan, including a significant Update to the Geothermal Alternative Energy and Transmission element, as well as prepare and certify a Programmatic

Environmental Impact Report. The County will assess multiple eligible renewable energy resources, solar, wind, geothermal, and bioenergy, for development as well as inventory critical natural resources, habitat species and agriculture. To ensure coordinated energy infrastructure investments, the County will work with the Imperial Irrigation District and other electric utility system managers to assess electric system infrastructure. The amount of the grant award is $700,000. Thank you.

CHAIRMAN WEISENMILLER: Anyone on the phone? Commissioners, any questions or comments?

COMMISSIONER DOUGLAS: Well, Chairman, I'll make either a brief comment or a long comment, I could talk about this topic for quite a while, but I'll try to --

CHAIRMAN WEISENMILLER: You assured Commissioner McAllister that you were excited about this item.

COMMISSIONER DOUGLAS: I am. You talk about planning for renewable energy and I immediately perk up. These grants are a really important step in the coordination and planning work that really began and had its genesis when

the Energy Commission and other Federal and State agencies and local agencies were suddenly facing a fairly large influx of renewable energy projects, both of the smaller distributed nature and of the large scale nature, and had to make some fairly tight timelines in permitting them, and were generally successful in permitting projects. And at the same time, we quickly learned from that experience that permitting, particularly in the California desert, is not as easy as it would seem. To people who are not from the desert, one might have an image of vast open spaces and lots of room to build renewable energy projects and do various other activities or land uses, but really you quickly learn that every inch of the desert serves a purpose to somebody and maybe to many somebodies from Federal agencies like the Bureau of Land Management with jurisdiction over large areas of desert, to National Parks and State Parks and Off-Highway Vehicle users and recreational users, and Agriculture, and Species Conservation, and of course our partners at Department of Defense who have some of their major training and testing bases in the California desert. The numbers of

land users and people who are interested in what happens with land in the desert are very very high. And the conservation issues, given the potential impacts of climate change and given the relatively -- well, extraordinarily rich biologically and ecologically and relatively fragile by comparison to other types of ecosystems in their natural environment, it really calls for a coordinated look at what we're doing at the state, the national and the local level, and how we make these policies pull together in order to achieve our development and our conservation goals and provide a voice and a forum, and input and meet the needs of residents in desert communities, as well.

So these grants with the Counties that have signed MOUs, the DRECP Counties, the Desert Counties that have signed MOUs with the Energy Commission, and with San Luis Obispo County, really represent the next step in this work because of course the Counties have land use authority within their Counties, and they have siting jurisdiction over photovoltaic and wind projects that are fairly frequently the technologies that are being utilized, not

exclusively, but frequently. And most of their General Plans and ordinances and policies were not developed when renewable energy was really a major land use in the desert, and so even in areas where fairly substantial numbers of projects have been permitted, for example, including by local governments, the policies are not really fully reflective of either the need for renewable energy or the need for conservation to balance those impacts and also to achieve broader conservation goals across the desert. And one of the most exciting things, opportunities that this really opens up, is the opportunity to look across jurisdictionally and across both private and public land, and across the borders of different jurisdictions, what really makes the most sense for the energy system and for the environment.

So that's some of the context behinds these grants. I think they're important and I also think that they are coming along just about right on time in terms of the Counties having a lot of interest right now and engaging in this kind of planning. So I don't know if there are any other questions or comments?

COMMISSIONER SCOTT: I would just add to that. When you take this really important landscape level look like Commissioner Douglas just described with the County participation and the Counties having the ability to update their plans so that they do take into account renewable energy and also the conservation goals of the Desert Renewable Energy Conservation Plan, it's just invaluable. So that's all I would add.

COMMISSIONER DOUGLAS: With that, I'll move approval of this item.

COMMISSIONER SCOTT: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) This item is also approved unanimously. Thank you.

CHAIRMAN WEISENMILLER: Let's go on to Item 26, Minutes.

COMMISSIONER MCALLISTER: I will move Item 26.

COMMISSIONER HOCHSCHILD: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.) The Minutes pass unanimously.

CHAIRMAN WEISENMILLER: Let's go on to

Lead Commissioner and Presiding Members Reports. Janea.

COMMISSIONER SCOTT: So just a few things that I wanted to highlight for you all since this is a great opportunity for all five of us to talk together. Since our last Business Meeting, I had an opportunity to go down to Stockton where the San Joaquin Regional Transit District was putting in place the very first buses, all electric buses in Northern California. And that was due in part to a grant that we made under our program in AB 118, and it was pretty exciting, I mean, they had put a challenge out to the folks who work at the RTD to decorate the bus so that you would be able to tell which buses were the electric vehicles, and the winner got to sign the bus because it's just this really great red and purple electric bus, and it's got the Energy Commission logo on the back, which I think is terrific because we did help fund the program with our partners. And so that was just really great to see. This is a grant that the Commission made probably about two years ago or so, and to see sort of the tangible results of that was, I thought, really exciting. And I went

from there over to EVI which is where they're making some all electric delivery vans, and those were great to see, too. And they are really working on some breakthrough types of technologies and innovations that they're hoping they might be able to put into additional trucks, but it gives the truck a lot more pick-up and go, which is not how the engineers would describe it, but that's how I describe it. And, you know, they were saying that the folks who drive those vans when they're going over the hills on the way between like here and the Bay Area, they can actually zip right by folks in the other vans because they actually do have that much more get up and go, so that's terrific.

I think the other thing that they are working on innovating is, when you're driving and you put your foot on the brakes, that's usually what puts some of the energy back into the system, but they set up a system where, when you take your foot off of the accelerator, it starts to put the energy back into the system. And it was just really neat to see those types of innovations and, again, those are things that were made possible by Energy Commission grants.

So it was terrific to get to go see those, get to drive one of those electric -- it was a UPS truck, you know, and so then you've got UPS putting in orders for trucks like that, so those will be on the road -- in fact, you've probably seen some around Sacramento, so that's pretty exciting.

Another event that I went to that I would like to highlight for you all is I went down to San Leandro and it was IBEW Local 595 in NECA, and they opened up the very first zero net energy building, it's a retrofit of a building, it's about 46,000 square feet, so it's one of the largest commercial buildings that's done this, it's a retrofit in an existing building. And one of the things that was really neat about that, I mean, they had solar panels on the roof, they had some wind turbine out front, all types of efficiency measures, although they didn't double-pane the glass, but they could still meet the standards that they were trying to meet with the different energy efficiency pieces that they put in place. And the Governor was there, he gave a terrific speech. And one of the things I really enjoyed about being at this event was kind of the

symmetry, or just the really nice story about, you know, IBEW workers who do the lighting and the energy efficiency in all of those parts of a building are going to be trained at this building, where they have this sort of state-of-the-art example of the types of things that they will then get to go out and put in place in other buildings. So I thought that was really neat to see.

And then the Chair mentioned that I was at Camp Pendleton yesterday, and so I thought I would tell you all a little bit about that. It was a Marine Corps meeting and they were mostly talking about encroachment, which was pretty interesting. And so one of their top concerns is renewable energy development near their bases. But we all sort of appreciate the opportunity for us to think through and work closely in partnership how best we can work together early and often, so that if issues come up there's an opportunity to flag them in advance and really talk through are their solutions to these, how can we continue to work forward.

They're also interested in just the energy overall, sort of the goals of the state

and where the state might be headed, and so I talked about some of the Governor's programs, for example, on the Zero Emission Vehicles, and energy efficiency, and I highlighted a lot of that and I also flagged for them some of the things that we talked about today in terms of working on Vehicle to Grid projects, working together on microgrid projects, and so there's actually a lot of places where, when we work together in partnership, there other aspects of energy that we can all work on together so it's not all renewable energy encroaching on their various installations. And so that's a quick summary of a few things I've been up to.

CHAIRMAN WEISENMILLER: Yeah, I was going to ask you which car you drove today.

COMMISSIONER SCOTT: I drove the Honda and then I rode with you in the Hyundai.

CHAIRMAN WEISENMILLER: Right. Actually, on the encroachment, one of the interesting things which actually was more in the lush fiscal years of the Davis Administration, what the state was trying to do was buy property around Military bases to deal with the encroachment. As you have more and more

development, that tends to drive the endangered species close to the bases, and then start threatening their overall mission. Obviously, we don't have those days, but certainly any way we can try and focus mitigation land purchases as buffers around the bases would again help secure their longevity.

COMMISSIONER SCOTT: Yeah.

COMMISSIONER MCALLISTER: Great. I really appreciate your carrying the flag for energy efficiency along with all the other things. You know, at the end of the day they're all related. So, really, I just wanted to highlight a couple of things. First of all, I did spend last week, most of last week, in Washington, D.C. The first couple days were for a Clean Energy States Alliance meeting, we are members of the Clean Energy States Alliance, and so a good group that covers much of the country. And the second day on Tuesday last week, we did a Congressional briefing focused largely on renewable generation and the overall message to committee staff and stakeholders, and it was an overflowing capacity in the room, probably a couple hundred people at least there and it was

webcast, and it was very well done, very well organized, the overarching message is the states are doing wonderful things, each has their own kind of approach in some ways, they draw from each other and work together, but the Federal Government is a key partner in much of what happens. And I think all of us had different ways -- it was Alaska, Vermont, Massachusetts, Maryland, a couple other states, that all had sort of different versions of that message, highlighting a project or two that they had going in their states. And I think it was notable that California's scale, which is far and away beyond obviously Maryland or Vermont, but just the fact that we were I think proactively talking about a lot of these issues in an unfettered way, without sort of political, you know, landmines to be stepping on, I think, was just a reminder that people were happy to have California in the room, that there is scale somewhere and it's still, you know, in the renewables space it's still a percent or two, it's not where it needs to be, but we are scaling relatively rapidly and the market conditions are improving, and we have a lot of skin in the game in a big state, and that

was my message to them and I think it was refreshing to hear that in the D.C. context.

I want to thank Chair Weisenmiller for holding down the fort on the IEPR Climate Change Workshop, so hopefully we'll hear a little bit about that in a little bit, but I was sorry to miss that, but duty called out east.

And then I had a bunch of interesting meetings with the various folks in the Federal Government and also in the sort of nonprofit community and energy efficiency and related areas. In particular, I think with DOE the Energy Efficiency Renewables Program there and the White House Office of Science and Technology Policy, Council on Environmental Quality, FERC, I think there are a lot of people looking at California and it was really nice to kind of plug into that environment and make sure that they were asking us the right questions and that we were sort of helping them with what they're doing. I think there's a lot of benefit to California for developing and maintaining these relationships.

And then finally, I met with some members of our California delegation out there

and also with NASEO, I want to highlight them as an organization, the National Association of State Energy Offices. So the CEC is California's version of a State Energy Office, and we are pretty unique in that we're a large State Energy Office. Most places you go in the State Energy Offices is a suite in a building and it's got a few people, or maybe a dozen people in it, and that's what a State Energy Office kind of is thought of in Washington. But the Energy Commission is our version of that and obviously doing a lot more than most of the State Energy Offices. I think the only other comparable one would be probably New York in scale. And so definitely they would like us to participate more, and I think there are some benefits to us to helping them develop messaging that is in line with what California wants to do. So I think, to the extent that our involvement brings California benefits, we really want to push that.

So the D.C. trip, I think, was very productive and hopefully will lead to, you know, in the context of funding that becomes available potentially from DOE, we can provide a lot of ways to learn from the funding that comes from

DOE if we can probably target it and get it.

The other thing I wanted to highlight was the Title 20 Appliance Efficiency Standards Workshops and just give everybody kind of a status update on those. We have a whole suite of 15 product categories that are moving forward in this round and it covers consumer electronics, there's some water using devices, there's some sort of miscellaneous devices in there, but there are a lot of potential energy savings in there and the process is really geared towards figuring out which of those are harvestable in a cost-effective way by adopting standards. And we've designed the process really to be as accessible to stakeholders as possible this time, really amping up the outreach and the encouragement to participate to all the stakeholders that could participate, and that's folks based in D.C. and that work Federally, and it's also State, and it's manufacturers, and everybody who really has information and insight to the various categories of the devices. So staff put together some really excellent workshops over the course of I believe four days, three and a half days, something like that during the course in early

June -- or, I'm sorry, in the last week of May, I believe. And they were just run incredibly professionally and I want to give Dave Ashuckian and his team, the Appliance team, some kudos for that because I think it went really well, all the feedback -- I was able to attend part, but not all, and all the feedback I got was that it really went well. And this new process we have to break it up into a few more steps, be very explicit, encourage participation, and be very transparent about where we're heading, I think, is the right approach. The devices tend to be more specialized categories now, you know, we're not talking about dishwashers and refrigerators, we're talking about consumer electronics and more specific categories that have more sort of technical detail to them, and so working it out this way is very productive. So I wanted to just highlight that evolution of our process, you know, Appliance Standards and Buildings Standards, Title 20, Title 24, respectively, are really bread and butter issues for the Commission and they've gotten us multiple billions -- all told, more than $100 billion of benefit over the last 35-40 years, and I think it's that important

to the state and provides that social benefit, so it's an evolution that's appropriate at this time to keep that history of success going forward, so I really give kudos to staff for evolving the process in a very positive way.

CHAIRMAN WEISENMILLER: That's great. Let's start with the IEPR Workshop, which Commissioner Douglas and I were there, so I'll let her put in her two cents on it. It was a very good workshop. I think, again, Laurie and Guido, particularly Guido, did a good job of organizing that and, you know, first in terms of setting one metric as opposed to like your hearings, in that case every single speaker got a round of applause afterwards, and so it was such a polite, professional group of scientists that was certainly out of our norm.

Having said that, the basic stuff was pretty stark, you know, in terms of conclusions, and certainly alarming. You know, again, the basic science is clear, we are now experiencing climate change and that the projections are that it's going to become more and more obvious. And we had sessions on things like what's the impact on the PG&E hydro system, which, I mean, that is

our -- if you're trying to figure out how we balance the system now, it's really the PG&E hydro system, so as you start changing its characteristics, it's going to get worse. And similarly in terms of climate, we talked today about 1-in-10, I don't know if 1-in-10 today is really still 1-in-10 of what we have historically thought of it; it could be more like what we would have said was 1-in-20. Well, certainly, that's one of the things we're trying to investigate in the IEPR, but to the extent that one of the early signs of climate change is extreme events, and so that sort of heat spell, and when you start saying, again, where is it going to be and the locations, again, there are sort of strong effects there that will affect both on supply and demand. You know, with a thermal power plant, often people say "gas plant," well, in fact any solar thermal plant, any nuclear plant, that is you start affecting -- things get hotter, the delta T is really what's going to drive it, and in effect it drops off in efficiency. And there are things you can do to try to respond to that, but again -- and two of the more interesting presentations were by LADWP

and SMUD on what they're doing to try to deal with adaptation. And, again, some areas we mumble about their lack of progressiveness, but they're really trying to confront the issues head on and deal with them. I'm not sure what your other takeaways were from that.

COMMISSIONER DOUGLAS: Well, I agree, it was both a really fascinating workshop and it was nice to see just the speakers applauding each other and asking clarifying questions and really engaging in dialogue about the research that they had done and the significance of it. I agree that, as fascinating and interesting as it was, it was also again profoundly disconcerting and it really underscores to me how, as we both deal with the impacts of climate change and also muster the resources and the policies and the programs to reduce greenhouse gas emissions and really try to reduce the extent of climate change, we're going to be encountering multiple interrelated problems and challenges, and some of these studies can really help us see where those challenges are likely to occur, how they're likely to manifest, and from that perspective it helps us start to get a handle on what we might

need to do or think about as a state and as the Energy Commission to put the state in the best possible position to deal with some of these challenges as they arise. And just as one small example that's close to my world, but there were many examples that came out of this, the PG&E hydro system that Bob mentioned is obviously going to be impacted and changed by climate change, and one of those impacts is that the system may not work as well to meet the needs that we are currently using it to satisfy, particularly in terms of when we're able to generate electricity from the system and the degree to which early releases have to be made for flood control that reduce our generation capability later, and that sort of thing. But climate change also impacts species, and within that same system and other systems. So endangered species constraints may very easily also operate, in fact, likely will also operate as yet another constraint on how that system operates, or how renewable energy is developed in other systems, in other regions. And so we're looking at a number of challenges that are really going to take all of our abilities to work our

way through, and it's really helpful to have some preview from some of these analyses.

CHAIRMAN WEISENMILLER: Yeah, I think the other thing which -- there is a *Scientific American* article in the last year that talks about the notion that our rain comes in very concentrated, rivers of rain, that really hit -- these enormous hydro events, and part of the question is how the jet stream and everything is shifting, and there are some interesting studies talking about the relationship between that and the ocean temperatures, you know, in terms of rainfall when you see that sort of variability. But again, a lot more variability which is not good.

COMMISSIONER MCALLISTER: So it's great that you were both there. I guess, I mean, having the Chair and the past Chair, that's -- obviously this is an important issue within the IEPR and broadly for California, and I really thank you guys for driving that discussion. I wanted to just point out that, you know, California has really many of the preeminent climate scientists in the world right here in our state and we're lucky to be able to get them in

the room, you know, Dan Cayan, I think, was one of the presenters there, I mean, the Scripps Institute down in San Diego, they in many ways were in on the ground floor on much of this fundamental research, and they really know what they're talking about, and it's very clear, and it's very continuous over the last three generations, really, and they're carrying on that tradition with very rigorous, well -- incredibly deep datasets, and the continuity there is just painfully obvious to anybody who is really paying attention and interested in facts. And so it enables California to really drive this discussion and kind of dispatch some of the misconceptions about climate change and really get to the hard business of fixing things.

CHAIRMAN WEISENMILLER: Yeah. The other thing I did is I went out to Ivanpah and NRG was having an event to really sort of, a) to raise people's conscience, but really it's an NRG Google project, we normally think of it as BrightSource who is a partner in it, but they're not one of the major owners of it at this stage, but it was really, again, having been here in my first year, Karen could say how we struggled with

Ivanpah to just get that out, you know, I mean, that was like a 34 or 36-month siting process, it was really past embarrassment, but anyway, it was interesting to actually see it now physically alive. I mean, here was the stop at the heliostats and you could see those. Here was the stop at the factory with robotics where, again, they're pumping out 500 of those a day. Here is the control room, you know. And then also here you are on the third unit looking across at the first unit, which is glowing at this point, and 2) hasn't really started through that startup, and 3) still has a lot of blank space around it where the heliostats will come in. So anyway, it was -- and I guess at this point they're already getting a number of movie companies approaching them about wanting to do movies around there.

And along with that, when I was in that area I went to see the Carpenters Training Program which they have a pretty extensive program there to, again, train their workers on a variety of disciplines, actually, to be more precise, the trainers of the trainers. So as with many Unions, you have very extensive apprenticeship programs and that's where people

come and you get there and here's the thing that they train people on how to work on steam turbines, or gas turbines, or various types of technique, how to put those together and what to watch out for. So that again was this whole thing of reemphasizing how energy is really jobs, too, which obviously is important for all of us at this stage.

Also, obviously, I think everyone has heard about San Onofre, you know, that Ted Craver called the Governor Thursday night, indicated that -- and I talked to Litzinger, we did a pretty coordinated Press strategy on Friday, Litzinger called me Friday morning to say basically that they had I guess the two things -- basically Edison had certainly been telling me privately, and Peevey, for at least the last six months that, unless things got approved they were going to pull the plug, and they had even announced in their earnings report that unless they had gotten NRC approval to restart by the end of the year, they would pull the plug, so here it is early in June and they pulled the plug, and the thing that led to that decision was in their technical analysis they thought the

highest economic value of restart would be if they could do it by January, and after January the value would drop off. And then you look at the Atomic Safety and Licensing Board Decision and they realized it was more or less inevitable that that was going to add a year to the confirmatory Action Letter of Decision and that, even with that, there was a number of opportunities for legal challenge of the decision. So they just basically saw it as something that was going to be a year plus, and at that point they decided that was it. It was interesting because the Chair of the NRC was going to come out yesterday, had Rob lined up to go to that, and tell us what she was going to do on the procedural side. When I talked to her, she had said that it was like a spider web of more and more procedural options every time she turned around, so I would have been curious to find out what she had decided as a strategy, but, as I said, that never happened. So anyway, at this stage, as the Governor's press release has indicated, he's directed us to come up with a plan. By "we," that's the Energy Commission, PUC, CAISO, certainly working with the South

Coast, and we're also working with the Water Board -- 90 days indicated. So certainly one of the implications of that is we're trying to somehow get concurrence among the three agencies on energy efficiency demand response by the end of the summer; if we can notch that up to the middle of the summer, that certainly is more consistent with the 90-day schedule, although, as anything, my impression is it's probably been sliding a little bit back in time on when people thought they would get their act together on a difficult issue, but anyway, we have to do some degree of crunching there.

Other things, I was going to indicate that a lot of it with Rob and Mike Levy's assistance, we're going to be moving some of our partnership stuff, the PV Collaborative, Fuel Cell Partnership, to a more public process, you know, more transparent public process, which I think is very good, it's certainly not going to happen on a dime, but it's good that we now have that concurrence of decision makers to move in that direction.

Also a footnote, I've signed a secure Memorandum of Understanding between us and a

number of agencies related to DRECP, and I signed it in part to emphasize how important DRECP is to us, I mean, it's actually on the scale of things a relatively minor MOU that allows the sharing of the drafts for DRECP among the agencies, with keeping them confidential on the drafts, so it's pretty minor, but at the same time I thought it was important to emphasize how important that is to us.

And I also went to the Chadbourne & Park event. It was interesting just in terms of getting more of a national or global perspective on energy changes, and the one thing that I found fascinating, oh, actually there were a lot of fascinating things there, but was that in much of -- we think a lot about California specific stuff, but certainly if you look at a lot of other parts of the world, you're looking at either diesel or PV now, and suddenly, you know, if you're in the Caribbean, if you're in Chile, if you're in South Africa, you know, PV is just the cheapest thing you can buy, and so for Chadbourne, which has always vetted future and renewables and at times has gotten nervous, you know, when you have the calls coming in from

Chile, scattered throughout the world in their main offices on what they're doing on renewable projects at this stage, and in fact there's still a lot of emphasis on some of the overseas development, on not just photovoltaics, but also solar thermal, you know, that if you're looking at someone like Solar Reserve, which obviously has the RICE project which we keep hoping gets developed, and they have a project, but at the same time, you know, they're in construction in other countries. So it was good to see that sort of diversity, but it's a real boom time, I mean, Saudi Arabia said they're going to put $100 billion into renewables, to go from less than a percent to 20 percent in a very short period. They want to save oil for, well, you know, basically to sell it, so to basically shift over. So it's a real sweep. I guess Puerto Rico is trying to say you have to couple solar with storage, or, again, if you're trying to sell to a Chilean mine photovoltaics, you need something to make it 24 by 7. So, again, it sort of emphasizes the revolution that's occurring in the fundamentals in many respects.

COMMISSIONER DOUGLAS: The only thing

I'll add is that I had an opportunity to go to Stanford and participate in a discussion of a number of articles looking at climate change in an international context and, Bob, your recent comments really struck a chord with that because, of course, at a global scale, global emissions of greenhouse gases are increasing, they're increasing at a pretty stable kind of consistent rate, and that trend does not show at the current time any sign of slowing, let alone reversing, and so we have a lot of work to do to translate the impact of our work in California and to see that realized and reflected in the scale of global action and global efforts to adopt alternative clean technologies and reduce greenhouse gas emissions. And I really walked away from that with the view that we can do a lot at the policy level and certainly here in California we need to, but really what we need to see is the fundamentals change in a major way in terms of the price point for PV and other clean energy technologies, and the widespread dissemination of relatively low cost alternatives to technologies that currently are driving emissions upwards in the transportation sphere

and the generation sphere, and so on. And so that's certainly added something to the perspective that I've been bringing to this and, of course, we are seeing some of that change in the fundamentals, but it needs to happen faster. So maybe, David, some of your colleagues in the industry can -- no doubt, they're hard at work trying to figure out how to make it happen faster and I wish them the best at it.

COMMISSIONER HOCHSCHILD: So I've been now in the job three and a half months and I just now feel like I'm getting my sea legs and I want to just again express my gratitude to the Chairman and to Commissioner Douglas, in particular, for helping me get oriented and showing me the ropes. And I also want to call out Rob and Drew, in particular, as well, because I've asked both of you literally north of 300 or 400 questions, and asked your help on various projects, and both of you have been so responsive and proactive and imaginative and creative. It really gets me excited for what we can all do working together as we approach the 40th anniversary. When I describe the Energy Commission to stakeholders in meetings, I really

describe it as we are turning over a new leaf and we have 20 percent of our staff is new, the majority of Commissioners, myself included, are new in the last 18 months, and it's just exciting to think about what we can do together going forward.

I've been doing a lot of meetings with stakeholders and a lot of site visits every single week, and so a few of the highlights, I did speak at the dedication of the First Solar Project, the 130 megawatt project down in Imperial County. It's interesting to note, by the way, one benefit we're seeing now with PV which I had not actually expected, but most of these utility scale PV projects are not using water at all to wash the modules, so it's basic -- in the case of thin film, they're fixed tilt -- I mean, literally, no moving parts, that's not most of the PV that's going in is single axis horizontal trackers, but it was news to me that nobody is using water. And so that's a nice benefit.

I spoke yesterday at U.C. Davis, I was there with Laurie ten Hope and her team at the Offshore Wind Conference, and I'll just share a

little bit with you about that. So this is -- I kind of see renewables as a family and you kind of, you know, each kid needs different levels of education to kind of graduate from college, and there's some that are going to take a little bit longer, so offshore wind is in that category, it's not going to happen quickly, but it is worth noting there is actually 75 gigawatts of capacity in California, so either wind speeds are higher, the capacity factor is higher, the coincidences with peak is much better, the wind turbine size is much larger, so we're talking about 6 megawatt turbines compared to one and a half or two megawatt turbines, and the proximity to load is better. So in the United States today, there's only one system that's installed that is in Maine, it's very small, it's a pilot, but they're moving ahead with cape wind and, you know, Laurie and her team have been working just on the sort of R&D and permitting exploration. I see it as a long term potential, but it's just worth keeping an eye on as we go forward.

A few other highlights, at the suggestion of the Chair I went to visit the Lodi Power Plant, which is, depending on how you

measure it, it is either the first or the second most efficient gas plant in the state, very close by -- in fact, I think the Chairman spoke at the dedication. This is fascinating to see because it's actually a quick start technology, so it's a combined-cycle plant that starts up in an hour, and so it kind of combines the benefits of both peakers and combined-cycle Seimens technology, very exciting to see that, and I think that actually has an important role to play as we are looking at more flexibility in the system, and I think there will be more of that to come. And it's competitive, cost-wise.

The other highlight, I went to the Lighting Center at Davis and, you know, I have been sort of ignorant, but well meaning with respect to lighting, and it was just great to see the color rendition right now for LEDs, so it's 90, in some cases 95, and they have a display, and for those who haven't seen it, I really would encourage everybody to go there, they have a display, a mock-up of a department store and you can compare the lighting and, really, the lighting is every bit as good for LEDs. And my Adviser, Gabe Taylor, who has got a lot of

expertise in efficiency, I asked him to just get the numbers for us on if LEDs were deployed in every possible application where they could be in California, what's the net effect on California's total load, and it's a five percent reduction, the switch is very significant. We have been told something like 60 percent of fixtures in the state are still incandescent, they told us that at the Lighting Center, I hadn't realized it was that high, but that's exciting going forward as costs come down because LEDs, I think, are following a similar trajectory to PV.

And then finally, Commissioner Scott and I went to visit the Santa Rita Jail, fortunately not as inmates, but we were there on a tour and this is really just a remarkable facility for anyone who has not had a chance to see it yet, but they have deployed, I think it's fair to say, more innovative clean energy and storage technologies than any other public facility I've ever seen. They have a 4 megawatt hour battery bank, a fuel cell tracking solar thermal on the roof, multiple types of tracking ground mounted PV, rooftop PV, and all kinds of efficiency measures, and Smart Grid, and it's just a real

creative thing. But actually, the most exciting thing to me was they collaborated along with 20 other municipalities to do aggregate procurement for renewables, and they achieved through that a 15 percent cost reduction. And I'm just saying, if you were to go to NREL or to the PIER Program and offer a way to reduce the cost of renewables by 15 percent that could be deployed in three months, you know, you would win a prize. And so this is actually another example of, I would call it procurement innovation. And I'm actually, quite frankly, I'm curious to dig into that with respect to supporting the Munis in compliance with the RPS, I want to explore how much of that could be replicated. But anyway, it's been a great education so far. So thanks.

COMMISSIONER SCOTT: I would just add to that, that was pretty amazing how they had aggregated that and got that level of efficiency, so that was, I thought, pretty interesting to see, and I would agree that it was incredible to see the number and different types of technologies that they were willing to pilot there at the jail. And one of the funny things that our tour guide -- maybe "funny" is not the

right word -- but was saying was that it's a big deal if the power goes down at a jail, so when they're experimenting with all of these different power sources, it tends to be of concern to the folks that live around there. One of the other things that was really neat that they were piloting there was they had a little robot that could go around on this system and it actually hooked up to each one of the solar panels and every 40 minutes it would turn it so that it was facing the sun, and then it would keep going and it would turn to the next one so that it was facing the sun, and so it was just a different type of tracker, and it really was pretty incredible to see all the different things that they were piloting and --

COMMISSIONER HOCHSCHILD: The R2D2 Tracker.

COMMISSIONER MCALLISTER: Wasn't that a technology developed by the SunShot Initiative?

COMMISSIONER HOCHSCHILD: It may have been.

COMMISSIONER SCOTT: It might have been. The other thing I'd just -- between listening to everything that everyone mentioned, I think it

was pretty terrific that Commissioner Hochschild and Commissioner Weisenmiller were at the ribbon cuttings for solar sites in the same week, I think it was exactly the same day, as well. So it's really neat to see some of these things like Commissioner Douglas mentioned, you know, it took a while to get some of them through the permitting, but five or six years ago we didn't have any, and now we've got all these or multiples to go to groundbreakings and see, so it's coming together.

CHAIRMAN WEISENMILLER: Now, I think the ISO system last week hit 2,000 megawatts.

COMMISSIONER SCOTT: Wow.

CHAIRMAN WEISENMILLER: So, wow. Yeah. Chief Counsel's Report.

MR. LEVY: Good afternoon, Commissioners. I'm delighted to report I have nothing to report.

CHAIRMAN WEISENMILLER: Good. Executive Director's Report.

MR. OGLESBY: Well, I guess I'll observe that this was the last regular Business Meeting of the Fiscal Year, and so you've moved through 83 action items, not including the informational

items, so congratulations for moving through a long agenda very very very well and not having to go to midnight or anything like that. So we've got a lot of business done during the course of this year and this marks the end of that.

I will also highlight that I wish I could give you an update on the budget, but we're very close to having a budget ironed out and it will be one of the things that I will provide to you at the next business meeting after the budget is signed, an update on how the Energy Commission's budget has resolved.

COMMISSIONER HOCHSCHILD: So, Rob, I had a hold on my account, I think we all do, for June 27th. Are we not going to --

MR. OGLESBY: I would ask you to continue to hold that. We would use that date as a special meeting if needed, particularly for maybe a siting matter that has to be brought up in that time. As far as the business of the Commission that is subject to the deadline of a Fiscal Year, we've resolved all those issues, so the only thing that would come up in the remaining on that date would be something that has to be dealt with, that is not connected with

the Fiscal Year like a siting issue or something like that.

CHAIRMAN WEISENMILLER: I think actually on that date, at this point, you, I and Janea have been invited to a Toyota event. So --

MR. OGLESBY: It would depend on how important that item might be. I also, I guess, for your benefit and for the benefit of the public, we have a regular Business Meeting scheduled on the calendar for July 10th, I would flag to watch that date, we have a legislative hearing that compels the Chair and some others to perhaps work around that date, but we will have to see how that develops. We're looking at ways to make it work, nevertheless, but I wanted to at least highlight it as something where there might be a conflict for the Commission that relates to legislative work.

CHAIRMAN WEISENMILLER: Public Advisory Report.

MR. ROBERTS: Good afternoon. I have nothing to report.

CHAIRMAN WEISENMILLER: Okay. So now we're at the public comment phase and we have I believe one person in the room who wants public

comment. I would note that public comment is not to address any matter that was addressed prior on the agenda.

MR. SPLITT: Good afternoon, now. It's Pat Splitt from APP-TECH. Well, we could characterize this however we want. I talked to the legal people earlier, Mr. Brehler, and we got a lot of stuff sort of ironed out, and he's going to be working with me, I hope, and maybe somebody else in the Legal Department to see where we can go on that, so I promised that I wouldn't talk about anything except one item and that's --

CHAIRMAN WEISENMILLER: And, again, you know, I will indulge you, but I may cut you off. Go ahead. I'm just saying under the rules of the Commission, certainly I would prefer to have public -- we love public comment, but if you go too far, you know, we'll just close the hearing. So go ahead.

MR. SPLITT: Well, that's a great way to start, thanks a lot.

CHAIRMAN WEISENMILLER: I just want to make sure the ground rules were clear.

MR. SPLITT: Well, they are now. You know, I have a bad temper and I try real hard to

not get mad, and you're not helping me.

CHAIRMAN WEISENMILLER: Well, again, talk about what you want to talk about. But it has been a long day.

MR. SPLITT: I can't talk now. I was going to -- people complained before because I didn't let you know what I was up to, I was going to try to tip you off on what I might be saying, so next time you have a hearing, but if you don't want to hear it, fine.

CHAIRMAN WEISENMILLER: Well, I'm perfectly happy to have you say, "This is what I'm going to cover," and at that point we can decide whether or not we can --

MR. SPLITT: Okay, well, I promised I -- I'm not going to go where I was going -- okay, so I have calmed down again. I'm not going to talk about anything except the definition of public domain. That's all. It had to do with the items that were pulled from the agenda, we didn't discuss it today. And the problem with the original agenda was that the items were called Public Domain Residential ACM, which is a contradiction in terms, it's either a public domain program, or it's an ACM, but especially

under the new requirements on Part I of Title 24, you make a clear distinction that ACMs are programs that are not public domain, so it's absolutely impossible to have a public domain ACM. But it's been explained to me that, in this deferred hearing when you're going to present the computer program again, it's just going to be called a public domain computer program, and it was also explained to me that it probably wouldn't be adopted under either the current Part I administrative requirements for the Commission for adopting public domain programs, or the new Part I, but rather that it would be adopted directly under the requirements of the Warren-Alquist Act. Is that correct? It's a distinction that is very important for us to know what we're dealing with and the reason I bring this up again is because, back in 2010, there was a lot of discussion by the Commission at hearings, and by the Commission staff, they wrote a paper delineating all kinds of problems with the definition, and multiple definitions, and how we should solve -- come up with an alternative to calling these programs public domain. This was a draft version and, as far as I know I thought it

was going to be implemented, but it isn't. So the Commission has no definition of public domain, yet you're proposing all these hearings to adopt software that is public domain somehow, referring back to the Warren-Alquist Act where there are absolutely no requirements for the public domain computer programming. So it seems like what you're telling me is your California State Compliance Programs are going to be adopted in September, or wherever, and have no requirements that they have to meet. But yet private vendors, when they come in with their ACMs, they're going to have to meet the ACM requirements. Well, how are the two programs ever going to come up with the same answer? Shouldn't they?

CHAIRMAN WEISENMILLER: Okay, now, I was going to ask the staff if they want to respond or certainly briefly and/or have an off line conversation with this gentleman?

MR. SPLITT: Well, there's a bunch of them here.

CHAIRMAN WEISENMILLER: No, as I said, no, it's --

MS. BROOK: So unfortunately I don't

think it's possible to have a brief discussion and conclude anything. I think that Pat brings up some really challenging questions and he's right that the public domain is not defined in the Warren-Alquist Act in terms of how it relates to software, and we have for many years made an interpretation of what that means. Our current interpretation is that it's software that is available to the public for free, and it's released under an open source software license, and it does act as compliance software, and therefore it has to pass the same test as any ACM private vendor software has to pass. And I think Pippin should speak to the fact of how we plan to go forward to approve the software.

MR. BREHLER: Commissioners, this is Pippin Brehler again, Senior Staff Counsel. The software that staff is developing for release in July and issued in December would meet the statutory direction in 25402.1(A) to develop a public domain software program. The Warren-Alquist Act also directs the Commission to develop procedures for approving alternative calculation methods and compliance calculation methods, and those are elaborated on in the

Standards that were adopted as private third party software that is developed, that also is used to demonstrate compliance with the Building Standards.

So what the Commission has on the one hand is the public domain software, and the Regulations don't impose requirements upon ourselves for either procedurally or substantively going through a series of tests, we don't apply to ourselves to approve this software for obvious reasons. But as Martha mentioned, we will put the software through the same tests that we require third party Alternative Calculation Method software vendors to go through.

MS. BROOK: And Pat is right that we pretty much have to do that because we have to establish the reference method that every private software tool needs to be compared to, and the only way that we know how to do that is to develop the public domain software, set that as the reference method, and then everybody else has the ability to compare and test against that basically standard of reference.

COMMISSIONER MCALLISTER: And I'll just point out, as I understand the process going

forward is to make sure that we validate -- that we actually put it through paces that are defensible and realistic, and based on the real world, and then that helps the tool, it helps everybody be confident that the publicly available tool is good and it gives reasonable answers and responds to the particular climate zones appropriately that we have here in California, and all that stuff. And you know, to the extent that we're creating something out of whole cloth, really, and putting it out there, it becomes the reference and then others by definition almost need to judge -- those tools need to be judged against that. And so this is a very creative activity that we're engaged in because we're blazing the trail, and I think it's a good thing.

One thing that might help, actually, or one explanation that might help, is for this cycle what the basic software tools are and sort of the public access of the kernel and that kind of stuff, the structure that we're moving towards, because I think actually the way we're doing it now and moving towards is going to solve some of these differences.

MS. BROOK: Yes, and we did present all of that detail in the 2013 Standards proceeding, we had a special day on compliance software and explained in detail our plans. We can certainly include that kind of documentation when we issue the public release of the software in July for public review, just so that everybody understands what we've been working on and sort of the opportunities that we see moving forward with that architecture.

MR. SPLITT: So basically I just want to be sure that somehow this is written down somewhere, that the procedure -- because right now when it was explained to me that you're just going to adopt directly from the requirements of Warren-Alquist, there are no requirements. So if you're saying that, well, this program that we're going to develop is going to have to meet all the same ACM requirements, it would be nice to say that somewhere.

COMMISSIONER MCALLISTER: Well, in the 1970's, I mean, we're in a completely different technical reality today than we were in the 1970's when the Warren-Alquist Act was written, so, I mean, the idea that there's a spec for

software that has some, I mean, more than cursory direction in the Warren-Alquist Act, I think, is kind of not tenable, that's something that we create today because we're in today, but we can't really -- we're not originalists in the sense that we can look for that in the Warren-Alquist Act.

MS. BROOK: Yeah, and you Commissioners can decide whether or not this kind of publication of what we mean by public domain is something that you want to review and approve as a Commission, or if you want to delegate that to staff, so that's definitely your call. I would and have argued the same that Pat is arguing, that it is kind of confusing because public domain software doesn't mean anything today. You can Google that and not really find anything useful because public domain is sort of an antiquated term, and the best thing that we have now, we believe, which meets the intent of public domain, is open source software. And so that's been our interpretation, we can publish that, and you guys can approve it or we can discuss it, anything -- basically it's your call where we go from here.

MR. BREHLER: One aspect of that, or why we approach it from that perspective, is to the extent something is public domain it's available, free, can be downloaded. What Martha mentioned about an end use license agreement, we want to make sure that it's not something that folks in the regulated community could open, reverse engineer, and start to change the results to fabricate compliance. So we do want to have restrictions on complete access to it, it wouldn't be just publishing the base code and saying, "Here, you take it and do what you will with it."

MS. BROOK: We actually are going to do both, to be honest with you, we're going to release the source code and let people do anything they want with it, that's what it means by an open source license, but we can also encrypt the code that we use within the compliance software so that it can't be unlocked and messed with. And there's lots of examples where people have done that with open source software, you can use a mechanism like encryption to keep people from basically messing with your code, but the underlying source codes can still

be made available and we plan to do that.

MR. SPLITT: Okay, well, we'll wait and see what happens as it's developing.

CHAIRMAN WEISENMILLER: Okay, thank you.

COMMISSIONER HOCHSCHILD: Just one reminder to everybody. Next week on the 20th, we have a guest speaker. I asked the Chairman who would be the best person to give a talk about the birth of the Energy Commission and all the dynamics around that, and he recommended Gene Varanini, who was the key Aide who wrote much of the Warren-Alquist Act, and is going to come speak. We have over 200 people who have RSVP'd to that, so get here early, it will be webcast, as well. And I think we're going to have an overflow room in Hearing Room B, but that's next Thursday at 11:00.

CHAIRMAN WEISENMILLER: Yeah, I think we can guarantee it will be colorful.

COMMISSIONER MCALLISTER: I'm really glad that that doesn't conflict with the Demand Response Workshop that we're putting on. I think we know where the attendance would go. But, no, thanks for organizing that, that's really great.

CHAIRMAN WEISENMILLER: Okay, this

meeting is adjourned.

(Whereupon, at 4:53 p.m., the Business Meeting was adjourned.)