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Karen Douglas
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Janea Scott
David Hochschild

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Cody Goldthrite, Secretariat
Amber Moran, Intern

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Others Present (* Via WebEx)

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Pursuant to Government Code section 11126(e), the Energy Commission may also discuss any judicial or administrative proceeding that was formally initiated after this agenda was published; or determine whether facts and circumstances exist that warrant the initiation of litigation, or that constitute a significant exposure to litigation against the Commission, which might include:

- a. Claims filed at, and rejected by, the Victim Compensation and Government Claims Board against a number of defendants including the Energy Commission relating to the gas leak at Aliso Canyon.

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P R O C E E D I N G S

FEBRUARY 15, 2017 10:05 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. I thought it would be appropriate to start with a minute of silence in memory of Art Rosenfeld. We're going to have more of a celebration at a future business meeting, but I think at least we can start today.

(Whereupon, a moment of silence for Art Rosenfeld was held.)

CHAIRMAN WEISENMILLER: And again, I'd like to thank Commissioner Hochschild for working with Karen Barker on organizing our event. So let's go on to the first item.

(Brief off mic colloquy.)

CHAIRMAN WEISENMILLER: Is anyone going to move?

COMMISSIONER SCOTT: Sure. Move approval of the Consent Calendar.

COMMISSIONER DOUGLAS: Second.

CHAIRMAN WEISENMILLER: All those in favor?

(Ayes.)

CHAIRMAN WEISENMILLER: Thanks.

The second item is held, so let's go on to the

1 third item.

2 MS. RAITT: Good morning. Staff is requesting
3 that you adopt the 2016 Integrated Energy Policy Report
4 Update, the IEPR. I'm Heather Raitt, the Program Manager.

5 The Energy Commission is required to prepare an
6 IEPR every two years that assesses energy issues and
7 develops policies that conserve resources, protect the
8 environment, ensure reliability, enhance the state's
9 economy, and protect public health and safety. On even-
10 numbered years, the Energy Commission prepares an IEPR
11 update. I will present a high-level overview of the
12 report.

13 First, some background, the IEPR Lead
14 Commissioner, Karen Douglas, issued a scoping order on
15 March 28, 2016, identifying the report topics. The Energy
16 Commission adopted the order instituting the information
17 proceeding in April of 2016. The Commission adopted the
18 order instituting the proceeding and held 13 public
19 workshops on topics identified in the scoping order. And
20 the information gleaned from the workshops was instrumental
21 in developing the draft report.

22 The Energy Commission held a workshop on the
23 Draft 2016 IEPR Update on October 24, 2016. The written
24 and oral comments on the draft were carefully considered in
25 developing the final report presented today. The Lead

1 Commissioner released the final draft on January 18th,
2 2017. And subsequently made updates to the report that are
3 detailed in the errata, which was distributed to the
4 Commissioners and posted online prior to the meeting. The
5 errata is also available at the entrance to the hearing
6 room.

7 The 2016 IEPR Update reflects upon the transition
8 we are in as we work to transform the energy system in the
9 face of a changing climate. There is an increasing
10 recognition of the far-ranging effects of climate change
11 and the need to address it. The state's unprecedented
12 drought has resulted in the death of over 102 million trees
13 since 2010. About half of the 20 largest wildfires in
14 California burned in the last decade.

15 This report examines how the state has made great
16 progress in transforming its electricity sector to achieve
17 the state's energy and climate policy goals and identifies
18 other transformations that are still needed.

19 California continued its leadership in
20 environmental policy when Governor Brown signed Senate Bill
21 32 by Senator Pavley on September 8th, 2016. Senate Bill
22 32 put into law the Governor's goal to reduce California's
23 greenhouse gas emissions 40 percent below 1990 levels by
24 2030. The Governor also signed a companion bill, Assembly
25 Bill 197 by Assemblymember Garcia, to assure that the

1 implementation of the 2030 greenhouse gas reduction goals
2 is transparent and equitable, with the benefits reaching
3 disadvantaged communities. Senate Bill 1383 by Senator
4 Lara requires the Air Resources Board to implement a
5 comprehensive plan to reduce short-lived climate
6 pollutants: methane, hydroflourocarbons, and anthropogenic
7 black carbon.

8 While California is taking bold steps to reduce
9 its greenhouse gas emissions, the state generates only 1
10 percent of global emissions. Reducing California's
11 emissions will not be enough to solve climate change.
12 Accordingly, the Governor is working to advance global
13 action by spearheading the Under2 MOU, a commitment by
14 cities, states, and countries to take action to help limit
15 the rise in global average temperature to below 2 degrees
16 Celsius. The Governor was also a leader at the 2015 United
17 Nations Climate Change Conference in Paris and has signed
18 accords with leaders worldwide to reduce greenhouse gas
19 emissions.

20 Looking at California's greenhouse gas emissions
21 by sector, electricity generation, including imported
22 electricity consumed in California, accounted for about 20
23 percent of California's greenhouse gas emissions in 2014.

24 The industrial sector, which includes oil
25 refineries, accounted for roughly 24 percent.

1 The residential and commercial sectors accounted
2 for roughly 11 percent. And although not shown in the
3 figure, greenhouse gas emissions from the residential and
4 commercial sectors collectively account for more than 26
5 percent when also accounting for electricity use in those
6 sectors.

7 The transportation sector is the single largest
8 contributor of greenhouse gas emissions in California,
9 accounting for roughly 37 percent of statewide emissions in
10 2014 -- almost double the electricity sector. Transforming
11 California's transportation system away from gasoline to
12 zero-emission and near-zero emission vehicles is critical
13 for meeting the state's climate goals.

14 The 2016 Environmental Performance Report of
15 California's electrical generation system describes
16 progress in the environmental performance of California's
17 electricity system over the last decade, primarily as a
18 result of its energy and environmental policies.

19 Greenhouse gas emissions in the electricity
20 sector are already 20 percent below 1990 levels. Over the
21 last decade, renewable generation has grown considerably.

22 Installed capacity of renewable energy in
23 California more than tripled between 2001 and 2016,
24 currently totaling 26,300 megawatts. This includes small,
25 self-generation such as rooftop solar, which has grown

1 dramatically in recent years.

2 Coal-fired electricity serving California has
3 steadily declined to currently serve about 6 percent of
4 California's load, and is expected to decline to zero by
5 the middle of the next decade.

6 For the electricity sector, criteria pollutant
7 emissions are modest, contributing just 2 percent of total
8 emissions in 2000 and were cut by more than half by 2015.
9 Still while newer power plants are more efficient and tend
10 to run less than older natural gas plants, they can raise
11 local community concerns.

12 California has made tremendous strides in its
13 land-use planning. The Desert Renewable Energy
14 Conservation Plan is a comprehensive effort to identify the
15 most appropriate areas for large-scale renewable energy
16 development within 22 million acres of public and private
17 desert landscapes while protecting and conserving desert
18 ecosystems. As a culmination of years of effort, on
19 September 14, 2016, the U.S. Secretary of the Interior
20 approved Phase I of the DRECP covering 10.8 million acres
21 of public lands managed by the Bureau of Land Management.

22 Building on such landscape-scale planning
23 efforts, the Energy Commission, California Public Utilities
24 Commission, and California Independent System Operator
25 launched the Renewable Energy Transmission Initiative 2.0,

1 or RETI 2.0, to identify the constraints and opportunities
2 for new transmission needed to access additional renewable
3 resources.

4 Also, over the past decade, the fossil-fueled
5 power plant fleet in California has become more water-
6 efficient, resulting in a relatively modern fleet of
7 thermal power plants that consume little water. Even
8 greater improvements can be achieved, however, by updating
9 the 2003 IEPR water policy to require the use of recycled
10 water and alternative technologies for all power plant
11 operations.

12 Even with these advancements, more work is
13 needed. The rapid growth in California's renewable
14 resources has brought new challenges for grid operators
15 trying to maintain reliability while managing swings in
16 wind and solar generation. Two days in 2016 illustrate
17 that the Grid is already experiencing unprecedented
18 operational fluctuations. On May 15, 2016, the net load
19 reached a minimum of almost 12,000 megawatts, an amount not
20 anticipated until 2020. On February 1st, 2016, the three-
21 hour ramp was 11,000 megawatts, approaching a ramping need
22 also not expected before 2020.

23 Helping to address such challenges, the
24 California ISO, PacifiCorp, NV Energy, Arizona Public
25 Service, and Puget Sound Energy participate in a Western

1 Energy Imbalance Market, or EIM, to balance supply and
2 demand and dispatch least-cost resources every five
3 minutes. With the Western EIM, excess renewable energy in
4 the California ISO balancing area can be transferred to
5 other areas in real-time. With the energy transfers
6 facilitated by the EIM, the California ISO avoided
7 curtailing 328,000 megawatt hours of renewable energy in
8 2016, equivalent to 140,000 metric tons of carbon
9 emissions.

10 Further benefits can be realized with the
11 development of a regional, west-wide electricity market to
12 help integrate renewable resources. The California ISO's
13 study found that a regional grid would save California
14 ratepayers up to \$1.5 billion per year and reduce
15 greenhouse gas emissions by more than 7 million metric tons
16 by 2030.

17 Also, flexible resources that can reliably and
18 cost-effectively ramped up and down to meet ramping needs
19 are becoming increasingly important.

20 More work is needed to upgrade the electricity
21 distribution system to accommodate the growing use of
22 small, distributed generation. As California electrifies
23 its transportation system, this need will only grow.

24 The permitting process for new transmission
25 continues to take six-to-eight years, much longer than the

1 three-year process envisioned by the Governor. The Energy
2 Commission, CPUC, and California ISO should conduct
3 regulatory process reform to implement the Governor's
4 vision.

5 Meeting the 2030 greenhouse gas reduction goal
6 will require significant progress decarbonizing the entire
7 energy system. Energy efficiency is a key component of the
8 state's strategy. At sufficient scale, energy efficiency
9 reduces the need for new generation and transmission
10 resources.

11 In the transportation sector, while sales of
12 zero-emission vehicles are growing and infrastructure
13 deployment is advancing, much more growth is needed to meet
14 the Governor's goal of 1.5 million zero-emission vehicles
15 on California roadways by 2025.

16 Also, all Californians need to have access to,
17 and realize the benefits from, energy efficiency and
18 weatherization, renewable energy, and zero-emission and
19 near zero-emission vehicles. In accord with SB 350, the
20 Energy Commission assessed the barriers and developed
21 recommendations for low-income customers, to access these
22 clean energy technologies, including those living in
23 disadvantaged communities. Work in this area is ongoing.

24 Finally, California leads the nation in the
25 development of innovative technologies and must continue to

1 support the research, development, and deployment of
2 emerging technologies that will be critical to ultimately
3 transforming its energy system.

4 While California must take swift action to
5 address climate change, it is also grappling with the
6 legacy of an aging energy infrastructure. In the past few
7 years, the state has suffered two major disruptions in its
8 energy infrastructure that have tested the state's
9 abilities to provide reliable energy services to Southern
10 California. Energy supply disruptions can put public
11 health and safety at risk and have consequences to local
12 businesses and the economy as a whole.

13 The most recent disruption stems from the massive
14 leak at the Aliso Canyon natural gas storage facility in
15 late 2015. The Energy Commission, CPUC, California ISO,
16 and the Los Angeles Department of Water and Power worked
17 together to assess the risks to local energy reliability
18 and develop action plans to reduce those risks.

19 In response to the leak at Aliso Canyon, the
20 Legislature passed a suite of bills addressing the storage
21 of natural gas. For example, SB 380 by Senator Pavley
22 continues a moratorium on injection of natural gas at the
23 Aliso Canyon gas storage facility until specified standards
24 are met. SB 826 by Senator Leno appropriates \$2.5 million
25 to the California Council on Science and Technology to

1 study the long-term viability of natural gas storage
2 facilities in California in accordance with the Governor's
3 Aliso Canyon State of Emergency Proclamation.

4 The second ongoing risk to energy reliability in
5 Southern California stems from the shutdown of the San
6 Onofre Nuclear Generating Station compounded by the closure
7 of several natural gas power plants as part of the phase-
8 out of once-through cooling technologies.

9 A multiyear, joint agency effort has been closely
10 tracking the development of resources needed to assure
11 reliability in the area, including preferred resources,
12 transmission additions, and conventional generation. One
13 of the conventional generation projects, the Carlsbad
14 Energy Center, was planned to replace the Encina OTC plant,
15 but is facing delays from legal challenges. The joint
16 agencies may need to request that the State Water Resources
17 Control Board delay the schedule for the Encina power
18 plant.

19 Managing the decommissioning of nuclear power
20 plants is another legacy issue for California.
21 Decommissioning of San Onofre is already underway and the
22 last operational nuclear power plant in California, Diablo
23 Canyon, will close by 2025 as part of an agreement between
24 PG&E, labor, and environmental organizations. For both San
25 Onofre and Diablo Canyon, public safety, security,

1 environmental remediation, and the management of
2 radioactive materials are key concerns. Citizen groups,
3 local government, and state agencies continue to express
4 concern over long-term onsite storage of nuclear waste,
5 while actively engaging federal agencies and congressional
6 representatives for expedited development of both interim
7 and permanent storage options for nuclear materials.

8 Going forward, the state is shifting to a more
9 comprehensive approach aimed at improving the performance
10 for the energy system and achieving the 2030 greenhouse gas
11 reduction goals. Consistent with SB 350, integrated
12 resource plans will be the primary tool for implementing
13 greenhouse gas reduction measures in the electricity
14 sector, while also maintaining reliability and controlling
15 costs.

16 SB 380 also requires investor owned utilities to
17 increase access to electricity as a transportation fuel to
18 support widespread transportation electrification.
19 Further, the 2016 ZEV Action Plan, identifies actions state
20 agencies will take to help meet the Governor's goals for
21 zero-emission vehicles.

22 The 2030 greenhouse gas reduction goals also
23 require expanded and improved analytical capabilities. To
24 reflect changes in the evolving energy system, forecasters
25 need access to more granular data, particularly more

1 locational data to better track, for example, increases in
2 distributed energy resources, energy efficiency, and zero-
3 emission vehicle charging. Further analysis is also needed
4 to better understand how the peak demand is shifting to
5 later in the day with the increased use of rooftop solar.
6 The 2016 IEPR Update lays the groundwork for revisions to
7 the Energy Commission's forecast in the 2017 IEPR and
8 beyond.

9 In planning for new transmission and generation,
10 the state needs to continue refining and implementing
11 proactive strategies, like landscape-scale planning, to
12 reduce energy infrastructure impacts.

13 Despite these efforts to reduce greenhouse gas
14 emissions, California's climate is changing. Governor
15 Brown's Executive Order B-30-15, and a suite of bills
16 passed the last two years, require the expansion of state
17 adaptation efforts, with the goal of making the
18 anticipation and consideration of climate change a routine
19 part of planning. To that end, the 2016 IEPR Update adopts
20 climate scenarios to facilitate science-based planning and
21 ensure a coherent approach through the use of consistent
22 climate scenarios. These scenarios were selected through a
23 process led by the Governor's office of Planning and
24 Research, the California Natural Resources Agency, and the
25 Climate Action Team Research Working Group, which acts as a

1 steering committee for California's ongoing Fourth Climate
2 Change Assessment, which is using these scenarios.

3 In summary, the state must prepare for climate
4 change and build on its successes in the electricity sector
5 to transform its overall energy system.

6 Well, that concludes my presentation. And again,
7 staff requests that you adopt the 2016 IEPR Update with the
8 changes detailed in the errata.

9 CHAIRMAN WEISENMILLER: Great. Thank you.
10 Before we go to public comments, I was just going to thank
11 you Heather, for the presentation. Nice job of really
12 summarizing what's always a complicated document and you
13 actually built some nice visuals into the presentation.

14 MS. RAITT: Thank you.

15 CHAIRMAN WEISENMILLER: So again, thanks.

16 We have one public comment, I think, PG&E?

17 MR. OLINEK: Spencer Olinek, Pacific Gas and
18 Electric. We just want to thank Commissioner Douglas for
19 her leadership and staff for all their hard work on this
20 report and the continued consideration of all stakeholders'
21 inputs. We look forward to working on a number of these
22 important topics again this year and we support adoption.
23 Thank you.

24 CHAIRMAN WEISENMILLER: Thank you. Thanks for
25 being here.

1 Anyone else in the room or on the line?

2 (No audible response.)

3 Then let's transition to the Commissioners.
4 Commissioner Douglas?

5 COMMISSIONER DOUGLAS: Well, I obviously
6 recommend this for the Commission's adoption today. And I
7 do want to thank staff tremendously for their hard work on
8 this report. And I'll make a brief statement about this
9 after we take a vote. But, you know, I'll just say now,
10 that while this was an update year and update years are
11 typically somewhat lighter than the full IEPR years, this
12 report is much closer in size and scope to a full IEPR. We
13 had about 13 workshops. We had not only the IEPR report
14 that you see before you, but a full environmental
15 performance report that the IEPR team partnered with the
16 citing staff to work on. And that we took action on, on an
17 earlier date, and that was incorporated into the IEPR. And
18 so it was a pretty heavy lift this year and I really
19 appreciated the hard work of staff and recommend this for
20 your approval.

21 So I'll move this item.

22 COMMISSIONER SCOTT: Yes.

23 CHAIRMAN WEISENMILLER: No. Go ahead.

24 COMMISSIONER SCOTT: Okay. And I'm happy to
25 second this item heartily, very happy.

1 I just wanted to say thank you so much to
2 Commissioner Douglas and her team for their leadership on
3 the IEPR update. And also to say thank you to Heather and
4 Stephanie and the rest of our fantastic IEPR team for their
5 great work as always in helping us put the IEPR together.
6 But yes, I'm happy to second.

7 CHAIRMAN WEISENMILLER: Okay. Great, so all
8 those in favor?

9 (Ayes.)

10 CHAIRMAN WEISENMILLER: Those opposed, no. So
11 anyway, this is adopted 5-0. Thanks.

12 COMMISSIONER DOUGLAS: And I'll just say, very,
13 very briefly I'd like to thank Heather Raitt, Stephanie
14 Bailey, Raquel Kravitz and Denise Costa. I'll mention this
15 was -- as well as the full team that worked on the
16 Environmental Performance Report -- and as I mentioned,
17 this was an update year. But there were a lot of
18 workshops, multiple dockets to hold comments and materials.
19 And the IEPR staff just does a tremendous job of helping us
20 pull together these workshops and the content and
21 synthesize comments and respond to comments. And works
22 with commissioners very effectively, so I really appreciate
23 their professionalism and very capable work on this.

24 COMMISSIONER MCALLISTER: Yeah. So I want to
25 just thank Commissioner Douglas for shouldering this

1 responsibility this year. And I've done a couple of them
2 and know what a constant kind of effort it is. I mean, it
3 definitely is a marathon, not a sprint. But I guess as
4 I've been here for a full term now. I see the IEPR as
5 somewhat unfairly maligned as sort of a big document that
6 the Commission does and then nobody reads. And
7 increasingly, I think it's relevant and we are doing so
8 many big lift things in the state that this is the place.
9 That process is really the place where a lot of the heavy
10 lifting and thinking gets done. Even if it ends up behind
11 the scenes, it's absolutely that be done. And then it goes
12 all sorts of different places and it informs all sorts of
13 different smaller groups that are doing their own lifting
14 and they build on it. And it's a really great foundation
15 for that.

16 So I think it's somewhat, behind the scenes it
17 seems very wonky and it's not high profile in general, but
18 really the stakeholders who participate in it are our bread
19 and butter stakeholders that we need to keep participating.
20 And that networking that happens through the IEPR, I think
21 is really important on many, many levels.

22 So I think you did a great job on just making
23 sure that all those relevant conversations happened. So
24 I'm thankful that it exists, because we all can use it.
25 So, thanks.

1 CHAIRMAN WEISENMILLER: Thanks. Let's go on to
2 Item 4, staff?

3 MS. ROOT: Good morning. My name is Christine
4 Root. I'm the Compliance Office Manager for the Siting
5 Division. With me here this morning is Staff Attorney Sara
6 Kim.

7 The Energy Commission is the Chief Building
8 Official, or CBO, for all power plants near the Energy
9 Commission's jurisdiction. And is authorized to designate
10 a DCBO, or a Delegate CBO or DCBO, to assist with Energy
11 Commission CBO responsibilities.

12 On December 2nd, 2016, the Energy Commission
13 released RFQ-16-701, Request for Qualifications for
14 Delegate Chief Building Official services for the Alamitos
15 Energy Center and Huntington Beach Energy Project. The
16 purpose of the RFQ was to select a highly qualified firm to
17 carry out the design, review and construction inspections
18 on behalf of the Energy Commission.

19 The Alamitos Energy Center and the Huntington
20 Beach Energy Project are currently under review by the
21 Energy Commission and have not yet been approved. The DCBO
22 is being selected at this time to prevent any delays in
23 providing the project owner the best opportunity for timely
24 construction should the projects be approved and ready for
25 immediate mobilization. The advanced planning allows the

24

1 DCBO to finalize any pending agreements, such as with
2 subcontractors. And allows time for the DCBO and the
3 project owner to engage early and become familiar with each
4 other's processes.

5 Selection of a DCBO prior to a final decision
6 does not guarantee or even imply that a project will be
7 approved. If the projects are not approved, the Energy
8 Commission may terminate the DCBO contract. Because of the
9 flexibility needed, the Energy Commission does not
10 guarantee any minimum or maximum amount of work to the
11 selected DCBO or any subcontractor under the agreement.

12 Before you today is the proposed resolution
13 approving Agreement 700-16-003 with NV5 Incorporated for
14 contract of zero state dollars to provide DCBO services for
15 the Alamitos Energy Center and Huntington Beach Project.

16 NV5 will carry out design, review and
17 construction inspections on behalf of the Energy
18 Commission. While there will be no state funds spent on
19 this contract, NV5 will receive payment for DCBO services
20 directly from the project owner. Generally, the Conditions
21 of Certification require the project owner to pay for DCBO
22 services. The amount to be paid is based on the cost
23 negotiated between the Energy Commission and the DCBO
24 through the competitive bidding process.

25 NV5 will enter into a separate agreement with the

1 project owner. And the project owner will pay NV5 for DCBO
2 services at the rates negotiated by the Commission with a
3 not to exceed amount of \$10,944,960 for both projects. The
4 Energy Commission will be named as a third-party
5 beneficiary to that agreement to ensure enforcement rights
6 by the Energy Commission.

7 Staff requests approval for Agreement 700-16-003
8 with NV5 Incorporated and the designation of NV5 as the
9 DCBO for both the Alamitos Synergy Center and the
10 Huntington Beach Energy Project.

11 I'm happy to answer any questions that you may
12 have. We also have representatives here today from the
13 project owner AES and the DCBO firm, NV5.

14 CHAIRMAN WEISENMILLER: Great. First, any public
15 comments from anyone in the room or on the phone?

16 (No audible response.)

17 Okay. So let's transition to the Commissioners.
18 I mean, first let me state for the record that obviously as
19 we consider this item, I have not prejudged anything on
20 these pending cases. But understand this as a measure to
21 be taken just in case so we're set.

22 COMMISSIONER DOUGLAS: You know, I'll just add to
23 that if I could, Chair Weisenmiller. As the Commission's
24 Lead Commissioner on Power Plants Siting, I've been working
25 with the staff for some time to make a number of

1 improvements to the DCBO process. And so this is a new
2 process in terms of how these agreements are being
3 procured. And because of the long lead time that it takes
4 to get an agreement in place, in this way, it is important
5 that the Commission act on these agreements when we are
6 able to. And sometimes that will mean before the
7 Commission has reached a decision on an actual case.

8 In this case I'm on both committees, the
9 Committee for Huntington Beach and the Committee for
10 Alamitos. And I join in your statement. I know my
11 colleagues do as well that this action on this contract is
12 not -- with this agreement does not prejudice in any way
13 actions that I would take and the decisions that would be
14 made as part of those citing cases. This is a separate
15 matter.

16 COMMISSIONER MCALLISTER: Sorry, I'll just make a
17 similar statement. Certainly, I'm the Lead on Huntington
18 Beach and this vote is a discrete matter from both of the
19 cases, certainly including Huntington Beach, so this in no
20 way represents any sort of prejudgment on that case.

21 COMMISSIONER SCOTT: I will also note that my
22 individual vote on this discrete matter in no way signals
23 or indicates prejudgment on the proposed projects.

24 COMMISSIONER HOCHSCHILD: And ditto for me.

25 COMMISSIONER DOUGLAS: All right, and so with

1 that clear, I move approval of this item.

2 COMMISSIONER MCALLISTER: Second.

3 CHAIRMAN WEISENMILLER: All those in favor?

4 (Ayes.)

5 CHAIRMAN WEISENMILLER: This passes 5-0. Thanks,
6 staff.

7 Let's go on to Item Number 5, DOE National
8 Renewable Energy Lab.

9 MR. SMITH: Good morning Commissioners and Chair.
10 I'm Charles Smith in the Fuels and Transportation Division,
11 and I am substituting for Pierre duVair on this item.

12 Today, staff is seeking approval of Amendment 2
13 to Contract 600-15-001 with the U.S. Department of Energy's
14 National Renewable Energy Laboratory or NREL.

15 If approved, this amendment will augment the
16 contract by \$152,000, and extend the contract term by 12
17 months to allow NREL to do two things.

18 First, NREL will analyze electric vehicle
19 charging data at California National Parks in support of
20 the National Parks Service efforts to install EV chargers
21 within the California National Parks. NREL has unique
22 access to network charging data at national parks and the
23 U.S. DOE has an established partnership with the National
24 Parks Service.

25 Second, NREL will analyze market trends in light-

1 duty vehicle attributes and technologies in support of the
2 Energy Commission's transportation energy forecast. This
3 information will be used to improve the Energy Commission's
4 transportation energy demand forecasts by: 1) utilizing
5 NREL expertise, data sources, and models related to market
6 trends in California for attributes of the light-duty
7 vehicle fleet. 2) accessing information on attributes such
8 as fuel economy, manufacturer's suggested retail price,
9 range, acceleration, number of vehicle makes and models,
10 and maintenance costs. And 3) providing analyses,
11 worksheets and reports that assist Energy Commission staff
12 with preparation of transportation energy demand forecasts.

13 Additional minor adjustments to the scope of work
14 have also been made.

15 Thank you for your consideration of this
16 augmentation. I'm available to answer any questions you
17 might have for me. Thank you.

18 CHAIRMAN WEISENMILLER: Thank you. Any comment
19 from anyone in the room or on the line?

20 (No audible response.)

21 Okay. Let's transition to Commissioners.
22 Commissioner Scott?

23 COMMISSIONER SCOTT: Sure, I'll just recommend
24 this to you all for your approval. The partnership that we
25 have with the Park Service and the Department of Energy is

1 great for figuring out how to get more chargers and
2 destinations and to understand how those are used. And
3 updating the light-duty vehicle attributes and technologies
4 is a really important component to our transportation
5 energy demand forecast. We've got relatively out-of-date
6 information. So being able to update it with the
7 information NREL will provide will be very helpful.

8 So if there are no comments, I will move approval
9 of Item 5.

10 COMMISSIONER DOUGLAS: Second.

11 CHAIRMAN WEISENMILLER: All those in favor?

12 (Ayes.)

13 CHAIRMAN WEISENMILLER: This passes 5-0. Thanks.

14 Let's go on to Item 6, DOE NREL, staff?

15 MR. GAUTAM: Good morning, Commissioners, members
16 of the public. My name is Asish Gautam. I'm a staff
17 member in the Energy Assessments Division. I am here
18 seeking approval for an agreement with the National
19 Renewable Energy Laboratory, NREL.

20 The purpose of this agreement is to retain the
21 technical expertise of researchers from NREL in developing
22 a custom distributed energy resources modeling tool. This
23 need was identified as a follow-up action item from a
24 workshop held as part of the 2016 IEPR Update regarding
25 methodological improvements necessary in the treatment of

1 impacts from DG, as reflected in the IEPR demand forecast.

2 Currently, staff has developed tools in-house for
3 assessing the impacts of DG. However, given the role
4 expected to be played by DG resources in the future, staff
5 felt that it was necessary to move to a more robust
6 modeling platform.

7 NREL has considerable expertise in modeling
8 complex energy systems including important analysis related
9 to development of tools and methods in forecasting
10 generation from renewable systems, and in recent years
11 policy analysis, as related to DG resources. They have a
12 long history of doing important work in this area and staff
13 would benefit tremendously from NREL's expertise especially
14 given the rapid increase in behind-the-meter generation and
15 the role of these resources as treated in the IEPR demand
16 forecast.

17 The timing to customize this tool is almost
18 perfect given our revamped efforts to collect data and
19 jumpstart our site-to-survey efforts like the SUS and the
20 RASS. And another study looking at changes in customer
21 load shapes. We expect that data from these other efforts
22 were feed into the tool that NREL will be developing and
23 customizing for us.

24 And as with any tool, we want to be in a position
25 to be able to use it as well, so we have a significant

1 focus on training and support, both in person and online
2 for staff to begin using this tool in time for the 2019
3 IEPR.

4 That's all I have. And I'll take any questions
5 you may have.

6 CHAIRMAN WEISENMILLER: First, any comments from
7 anyone in the room or on the line?

8 (No audible response.)

9 CHAIRMAN WEISENMILLER: As the Lead Commissioner
10 in the electricity forecasting area, I'm going to
11 (indiscernible) this. Certainly Commissioner McAllister
12 and I were both at the workshop that dug into this issue
13 and support moving forward.

14 Certainly, there's been a very rapid growth in
15 behind-the-meter in solar. At the same time, there's lots
16 of uncertainties going forward as we deal with -- costs are
17 coming down dramatically. At the same time, we're not
18 quite sure what's going on with tax credits. We're not
19 quite sure what's going on with rate design. And
20 obviously, we're running into a market situation where a
21 lot of the early adaptor or high FICA score people have
22 solar on the roof already. And we're trying to move in --
23 the question is more the sort of rented space or areas
24 where basically the solar is shaded, but rooftops are
25 shaded.

1 And that's what we need really need to dig in
2 deeper to untangle this. So certainly I think this is a
3 good contract to move forward on.

4 COMMISSIONER MCALLISTER: Yeah. And just the
5 offerings are getting more diverse as well, so you have all
6 sorts of technologies other than roof top solar and demand
7 response. We're going to have rate regimes that capture a
8 lot more things that are distributed than behind the meter.
9 You have community solar, all the kind of different
10 offerings that are going to hit different markets. And so
11 those forecasting tools are going to be really key. So
12 this is a great building block for that.

13 So thanks. So I'll move Item 6.

14 COMMISSIONER SCOTT: Second.

15 CHAIRMAN WEISENMILLER: All those in favor?

16 (Ayes.)

17 CHAIRMAN WEISENMILLER: This passes 5-0. Thanks.

18 Let's go on to Item 7.

19 MR. JOHNSON: Good morning, Chair and
20 Commissioners. I'm Daniel Johnson from the Existing
21 Nonresidential Buildings Unit of the Efficiency Division.

22 Today I bring before you three American Recovery
23 and Reinvestment Act of 2009, or ARRA, contract amendments
24 for possible approval. These contracts include finance
25 programs that continued past the end of ARRA in 2012, with

1 five-year extensions until March and April 2017. Now I
2 seek your possible approval to extend the contracts out
3 further.

4 The first amendment is for the Department Of
5 General Services. In compliance with Public Resources Code
6 Section 25471(d), staff is seeking possible approval of
7 Amendment 3 to an Interagency Agreement between the Energy
8 Commission and the Department of General Services to extend
9 the term of the agreement for 13 years from April 30th,
10 2017, to April 30th, 2030. The Department of General
11 Services administers the successful Energy Efficient State
12 Property Revolving Fund to support energy efficiency and
13 renewable energy upgrades on state-owned buildings.

14 The second amendment is for the California Rural
15 Home Mortgage Finance Authority Homebuyers Fund, CHF, now
16 known as the Golden State Finance Authority. Staff is
17 seeking possible approval of Amendment 6 to this contract
18 to update the contractor name to Golden State Finance
19 Authority and extend the term of the agreement 11 years
20 from April 30th, 2017, to April 30th, 2028.

21 The CHF Moderate Income Sustainability Technology
22 or MIST program provided grants and below market interest
23 rate revolving loan funds, and a loan loss reserve, for
24 residential energy efficiency and renewable energy upgrades
25 for moderate and low-income homeowners in CHF member and

1 associate member counties throughout California.

2 The MIST program has ended and the contractor is
3 only receiving principal and interest repayments. And is
4 sending those annually to the Energy Commission for another
5 purpose. The time added through this amendment is solely
6 so that Golden State Finance Authority can service
7 remaining loans and report information to the Energy
8 Commission. No new activities will be performed.

9 The third amendment is for the County of Los
10 Angeles Internal Services Department. Staff seeks possible
11 approval of Amendment 5 to this contract with the County of
12 Los Angeles to continue some existing programs. And shift
13 funds to implement two new programs including the Southern
14 California Regional Energy Network Revolving Loan Fund and
15 support activities under the Existing Buildings Energy
16 Efficiency Action Plan related to the new AB 802 statewide
17 commercial benchmarking and disclosure program.

18 These programs will provide greater access to
19 energy efficiency loans by local governments to retrofit
20 existing buildings, and assist the Energy Commission's
21 Efficiency Division with implementation of the upcoming AB
22 802 statewide benchmarking and disclosure program.

23 The total amount in the contract is \$9,010,000,
24 of which \$4,250,000 will be reallocated for the new
25 efforts. The amendment also requests to extend the term of

1 the agreement from March 31st, 2017, to April 30th, 2030.

2 Thank you for your consideration of these
3 contract amendments. I'm available for any questions.

4 CHAIRMAN WEISENMILLER: Thank you.

5 Is there any comments from anyone in the room or
6 on the line?

7 (No audible response.)

8 Let's transition to Commissioner McAllister.

9 COMMISSIONER MCALLISTER: So I would recommend
10 these heartily for our approval. Yeah, it seems like the
11 ARRA period is sort of the gift that keeps on giving. And
12 in these three cases, really we've got good partners. We
13 have work that continues to need to be done and we want to
14 just extend it out to allow that to continue.

15 In the case of L.A., as you all know, we have the
16 statewide benchmarking program that is coming very soon.
17 And rather than sort of sweep L.A.'s money into a statewide
18 effort, together with the local government challenge that
19 we approved a few meetings ago, it was easier and more
20 straight forward to just leverage L.A. County's existing
21 effort and build on L.A. City and the County efforts on
22 benchmarking to let them move forward and parallel. So
23 that's the overall strategy here.

24 But these are good efforts that need to continue,
25 so I'm fully supportive.

1 COMMISSIONER DOUGLAS: Did you move the item?

2 COMMISSIONER MCALLISTER: No, so I'll move Item
3 7.

4 COMMISSIONER DOUGLAS: All right. And I also
5 support these items and am quite familiar with them and I
6 second the motion.

7 CHAIRMAN WEISENMILLER: Great, all those in
8 favor?

9 (Ayes.)

10 CHAIRMAN WEISENMILLER: This passes 5-0. Thank
11 you.

12 Let's go on to Item Number 8, please.

13 MR. UY: Good morning. My name is Kevin Uy, from
14 the Energy Generation Research Office, in the Research and
15 Development Division. Staff is seeking approval of five
16 projects from the competitive grant solicitation, GFO
17 16503, novel solutions to accelerate deployment of small
18 and micro scale combined cooling, heating, and power
19 systems.

20 The purpose of the solicitation was to fund
21 research, development and demonstration projects that
22 address the barriers to increased market penetration of
23 combined cooling, heating and power systems in California.
24 Five projects are recommended for funding, three of which
25 take place in California.

1 The first project, Be Power Tech, will test and
2 demonstrate an electricity producing heating, ventilation
3 and air-conditioning system. The system integrates
4 combined heat and power, novel liquid desiccant, and
5 thermal energy storage technologies with conventional HVAC
6 rooftop unit components. The goal is to create a package
7 rooftop unit capable of producing cooling, heating and
8 power for commercial buildings in California.

9 The system will be tested at PG&E's Applied
10 Technology Solutions Center in San Ramon, California.
11 After testing, two units will be installed at commercial
12 buildings in Irvine, California and Garden Grove,
13 California, where they will provide electricity and cooling
14 for onsite use.

15 If successful, this technology has the potential
16 to replace roof top units at commercial buildings
17 throughout California, reducing peak demand.

18 In the second project, UC Merced will design,
19 prototype, and test a hybrid solar thermal photovoltaic
20 combined heat and power system at the UC Merced Castle
21 Research Facility in Atwater, California. The system will
22 combine commercially available glass tubes, solar cells
23 ,and aluminum micro channels with the goal of creating a
24 solar CHP system that is both lower cost and higher
25 efficiency when compared to separate PV and thermal rooftop

1 systems.

2 If successful, this technology has the potential
3 to significantly contribute to California's zero net energy
4 building goals.

5 In the third project, ICF Incorporated will
6 perform a comprehensive assessment of small and micro scale
7 combined cooling, heating and power systems, including
8 their technical and market potential in California. The
9 assessment will focus on residential, commercial and
10 industrial applications, which have a peak electrical
11 demand less than five megawatts. In coordination with
12 SoCalGas, public workshops will be held to discuss barriers
13 to adoption, potential solutions to these barriers and to
14 engage relevant stakeholders.

15 Greater understanding of the market issues and
16 barriers for small and micro CHP in California will help
17 insure the success of this key distributed energy resource.

18 In the fourth project, Element 16 Technologies
19 will develop and demonstrate a low-cost, highly flexible
20 energy storage system, which can significantly improve the
21 efficiency of existing combined cooling, heating and power
22 systems. This system will be demonstrated at the
23 California State University, Northridge Energy Research
24 Center, in Northridge, California, where it will
25 continuously store waste heat from existing micro turbine

1 generators.

2 The waste heat will be rapidly discharged during
3 peak electric demand hours to drive an absorption chiller
4 and offset campus cooling loads. If successful, this
5 technology has the potential to improve existing CHP system
6 efficiencies, while contributing to peak load reduction in
7 California.

8 In the last project, All Power Labs will develop
9 and demonstrate a solid biomass-fueled micro combined
10 cooling, heating and power system. The innovative system,
11 called a Power Pallet, integrates small gasifier, internal
12 combustion engine generator, and emissions control
13 technologies into a compact CHP system with the footprint
14 of a standard 4 x 4 foot pallet.

15 The 20-kilowatt power pallet has been
16 demonstrated in remote power applications around the world.
17 And will be further improved in this project to improve
18 system efficiency, reduce output emissions, and integrate
19 absorption and chiller technology to allow for cooling
20 energy output.

21 The system will be developed and tested at All
22 Power Labs in Berkeley, California, then demonstrated at
23 the Madison Resource Recovery Facility in Santa Ana,
24 California. The system will be powered by onsite wood
25 waste and provide cooling, heating and power to the waste

1 recovery facility. If successful, this technology has the
2 potential to create renewable cooling, heating and power at
3 small facilities around the state from California's
4 abundant wood waste resources.

5 Staff is recommending approval of these five
6 agreements and is available if you have any questions.

7 CHAIRMAN WEISENMILLER: Great, thank you.

8 First, are there any comments from anyone in the
9 room or on the line?

10 (No audible response.)

11 Okay. Let's transition to the Commissioners.
12 I'm the Lead in the R&D area and I think this is a very
13 interesting group of potential projects. Again, I think
14 one of the things we're trying to really push is energy
15 innovation. And certainly these are a lot of innovative
16 technologies, combining sort of interesting the whole
17 gambit from solar, biomass, etcetera. So again, I think
18 this is a great project.

19 COMMISSIONER SCOTT: Sure. I move approval of
20 Item 8.

21 COMMISSIONER HOCHSCHILD: Second.

22 CHAIRMAN WEISENMILLER: All those in favor?

23 (Ayes.)

24 CHAIRMAN WEISENMILLER: So this is also approved
25 5-0. Thank you.

1 Let's go on to Number 9, San Diego Community
2 College District.

3 MR. NICHOLS: Good morning, Commissioners and
4 Chair. My name is David Nichols and I am a Specialist with
5 the Zero Emission Vehicle Infrastructure Office, working to
6 advance clean fuels workforce training and development in
7 California.

8 Through our Workforce Training and Development
9 Agreement 600-15-008, the ARFVT Program supported a grant
10 funding opportunity through the Advanced Transportation
11 Technology Energy Center, an initiative of the California
12 Community Colleges Chancellor's Office and hosted by the
13 San Diego Community Colleges District. ATTE is tasked with
14 assisting community colleges throughout California, with
15 the advancement of clean energy training.

16 In August of 2016, ATTE released a competitive
17 solicitation to fund enhancements to community college
18 alternative fuel and vehicle technical training programs
19 throughout California. Up to \$1.6 million was made
20 available to fund proposals in for-credit alternative
21 vehicle technical training courses and programs with an
22 emphasis on addressing the regional workforce technical
23 training needs for those who will be employed by fleets,
24 dealerships, independent shops and similar organizations.

25 ATTE received 16 proposals from seven regions.

1 Each proposal was screened, reviewed, evaluated and scored
2 using the criteria in the solicitation. From the 16
3 submitted proposals, 15 colleges received passing scores,
4 but only 9 were awarded, due to the lack of available
5 funding. The original awards ranged from \$80,000 to
6 \$200,000 based on their proposals. Those awardees
7 included: the American River College, from the far north
8 region; City College of San Francisco and Chabot College
9 from the Bay Area region; Bakersfield from the Central
10 Valley Mother Load region; San Diego Miramar College, from
11 the San Diego Imperial region; College of the Desert, from
12 the Inland Empire region; also Cerritos College, Rio Hondo
13 College, and Cypress College from the Los Angeles-Orange
14 County regions.

15 If this funding augmentation is approved today,
16 the six additional colleges that received passing scores
17 will be funded. Those colleges are Foothill-De Anza and
18 Hartnell College from the Bay Area region; Victor Valley
19 College and Copper Mountain College, from the Inland
20 Empire; the Los Angeles Trade Tech College and Saddleback
21 College, from the Los Angeles-Orange County region.

22 These six community colleges will be developing
23 stronger training programs in clean vehicle technologies,
24 by purchasing specialized equipment and alternative fuel
25 vehicles for essential hands-on training. Upgrading and

1 developing curriculum to meet current best practices by
2 manufacturers, and providing upgraded training for the
3 instructors in ever-evolving clean fuels technologies.

4 I thank you for your consideration of this
5 contract augmentation. I am available for any questions.

6 CHAIRMAN WEISENMILLER: Great. Thank you.

7 First, any comments from anyone in the room or on
8 the line?

9 (No audible response.)

10 Comments, Commissioner Scott?

11 COMMISSIONER SCOTT: This is one of my favorite
12 components of the ARFVTP Program. I just love that we have
13 the ability to help provide funds to make sure that we have
14 a well-trained workforce that can hopefully get some living
15 wage jobs, working on clean transportation technology. And
16 so this program really helps people to be able to take the
17 courses that allow them to work on all of the alternative
18 and renewable fuels and clean technologies that we're
19 working, so hard to push into our transportation sectors.

20 So if there are no questions, I will recommend.

21 I will move Item 9.

22 COMMISSIONER MCALLISTER: I'll second.

23 CHAIRMAN WEISENMILLER: All those in favor?

24 (Ayes.)

25 CHAIRMAN WEISENMILLER: This item passes 5-0.

1 Thank you.

2 MR. NICHOLS: Thank you.

3 CHAIRMAN WEISENMILLER: Let's go on to Item 10,
4 DC fast chargers for California's interregional corridors.

5 MS. LOPEZ: Good morning, Chair and
6 Commissioners. My name is Thanh Lopez with the Fuels and
7 Transportation Division's Zero Emission Vehicle and
8 Infrastructure Office. Staff is seeking approval for a
9 2.45 million dollar grant agreement with Recargo
10 Incorporated to install electric vehicle charging stations
11 along U.S. 101 and State Route 152. I would like to start
12 with a short presentation on California's direct current or
13 DC fast charging station network.

14 In early 2012, Governor Brown issued Executive
15 Order B-16-12 directing state government to help accelerate
16 the market for zero emission vehicles, or ZEVs, in
17 California. The executive order established several
18 milestones on a path toward 1.5 million ZEVs in California
19 by the year 2025. In response to the Executive Order, the
20 Governor's Office released the ZEV Action Plan that
21 identifies specific strategies and actions that state
22 agencies will take to meet the milestones of the executive
23 order.

24 One of the action items included identifying a
25 path to complete the West Coast Green Highway, an

1 initiative to promote the use of cleaner fuels along a
2 stretch of highway from British Colombia to the Mexico
3 border.

4 In 2015, the Energy Commission released grant-
5 funding opportunity 15-601 for projects to install DC fast
6 charging stations along north and south corridors. Many of
7 the previously existing and planned chargers, represented
8 by the red markers on the map, were focused in the San
9 Francisco Bay Area, Los Angeles, and San Diego regions.
10 The solicitation added 61 DC fast chargers and 42 level 2
11 charging stations at 41 sites to the fast charging network,
12 shown as blue markers on the map, allowing electric vehicle
13 drivers to travel between these regions, and from the
14 Oregon to Mexico borders.

15 To build on this effort, in early 2016, the
16 Energy Commission released another grant funding
17 opportunity 15-603 that concentrated on DC fast charging
18 along interregional corridors. The goal of this
19 solicitation was to enable plug-in electric vehicle drivers
20 to travel between popular regions within California, as
21 well as to Nevada, Arizona, and the Oregon coast with range
22 confidence.

23 According to the US Department of Energy's
24 Alternative Fuels Data Center, there are currently about
25 500 public DC fast charging sites in California. Projects

1 from Grant Funding Opportunity 15-601 added 41 planned
2 sites to the network. The awards from the most recent
3 solicitation, Grant Funding Opportunity 15-603 will add an
4 additional 79 sites to the fast charging network.

5 Today staff is presenting for approval proposed
6 Agreement ARV-16-010 with Recargo Incorporated to install
7 electric vehicle charging stations at 14 of the 79 sites
8 represented by the blue markers on the map. The project
9 will install a total of 19 fast chargers and 14 level 2
10 chargers along U.S. 101 from the Oregon border to Santa
11 Rosa, and State Route 152 from Gilroy connecting U.S. 101
12 to Interstate 5 and the Highway 99 corridor. Two
13 agreements for the remaining 65 sites have already been
14 approved at the December 2016 business meeting and are
15 included with the planned and existing sites represented by
16 red markers on the map.

17 With these new corridors, plug-in electric
18 vehicle drivers can confidently travel from the Oregon
19 border to Mexico via Interstate 5, U.S. 101, or Highway 99.
20 They can also travel to Nevada or Arizona via Interstate
21 80, Highway 50, Interstate 15, or Interstate 10.

22 If approved, the Energy Commission will provide
23 \$2.45 million in funding from the Alternative and Renewable
24 Fuel and Vehicle Technology Program. Staff is requesting
25 the Commission's support and approval of the proposed grant

1 agreement.

2 Thank you for your time and consideration for
3 this project and I'm available for any questions you may
4 have.

5 CHAIRMAN WEISENMILLER: Thank you. Are there any
6 comments from anyone in the room or on the line? Okay, so
7 let's move to the -- oh, please, come forward.

8 MR. JENKS: Good morning.

9 CHAIRMAN WEISENMILLER: Please identify yourself
10 for the court reporter too.

11 MR. JENKS: This mic here?

12 CHAIRMAN WEISENMILLER: Yes, please.

13 MR. JENKS: Well, good morning. I'm Ray Jenks
14 with Recargo, and a pleasure to be here. And I just first
15 of all wanted to take the opportunity to thank the
16 Commission for your continued guidance and support with our
17 DC fast charge network, along the long-distance corridors.
18 The growth if the infrastructure we're seeing is very
19 exciting for our EV drivers and we're happy to be part of
20 it.

21 And I'd be glad to answer any questions you have
22 about this particular project or our network in general.

23 COMMISSIONER HOCHSCHILD: I have a few questions
24 unless you --

25 MR. JENKS: Sure.

1 COMMISSIONER HOCHSCHILD: Just roughly, what is
2 the cost per charger for the new DC fast chargers that are
3 going in today, roughly?

4 MR. JENKS: You bet. There's a next generation
5 of high-speed chargers that the market's looking at now.
6 And there are preliminary costs that we've identified for
7 the stations, and that's the 150 kilowatt capable chargers.
8 I'd be happy to share a range of costs, without getting --

9 COMMISSIONER HOCHSCHILD: Yeah, just ballpark?

10 MR. JENKS: Upwards of \$60,000 plus for the
11 station.

12 COMMISSIONER HOCHSCHILD: Uh-huh, okay. And
13 compared to like a Level 2 what is the ballpark for that?

14 MR. JENKS: Oh that, a fraction of that, 10
15 percent.

16 COMMISSIONER HOCHSCHILD: 10 percent, all right.
17 Got it.

18 MR. JENKS: Yeah. And there's some exciting new
19 technologies coming out with the new high-speed chargers.
20 And we're looking for an optimum solution that will service
21 the existing EV drivers, with the current capabilities, but
22 also support the upcoming EVs that are coming out with the
23 higher battery capabilities and the faster charging
24 capabilities. So we're looking for a long-term solution
25 here.

1 COMMISSIONER HOCHSCHILD: And then the other
2 question, just for those of us not super deep on the EV
3 charging technologies --

4 MR. JENKS: No, you bet.

5 COMMISSIONER HOCHSCHILD: -- to what extent has
6 the standardization in the charging infrastructure of the
7 plug itself taken place, and how much more is needed, I
8 guess?

9 MR. JENKS: Well, that's an ongoing development.
10 There are currently a few different standards going on. In
11 the DC fast charge, you have the CHAdeMO and the SAE Combo.
12 I think today that's been a fragmented infrastructure and
13 we're working to consolidate the standards, so the plugs
14 are uniform for the drivers and vehicle manufacturers.

15 I'd be happy to support or get back with Thanh on
16 any technical information you'd be looking for on those
17 standards.

18 COMMISSIONER HOCHSCHILD: Just so I'm
19 understanding, like how many different plug types are
20 there, for example, for the fast charger today? Are we
21 talking about are there five or ten different types, or
22 just one or two for?

23 MR. JENKS: Well, there are a few different types
24 of standards. Depending on the vehicle and depending on
25 the plug type and the charging station, I would say half a

1 dozen.

2 COMMISSIONER HOCHSCHILD: Half a dozen. Okay.

3 That's helpful. Thank you.

4 COMMISSIONER SCOTT: I am excited to see -- I'm
5 always excited about these chargers -- but to see us
6 filling in both our north-south and our east-west
7 corridors. The slides aren't up there anymore, but if you
8 kind of toggle back and forth between the 2015 map and the
9 2016 map it really is exciting to see the state fill in.

10 We worked very hard on the I-5, because that's
11 kind of the corridor that if you think about Washington and
12 Oregon and California driving straight through, people
13 think about I-5. We spent a lot of time on 101 and 99 of
14 course, because that's what Californians typically use when
15 traveling north and south within the state as well. And so
16 I'm excited that we kind of have been able to cover many of
17 the major both north-south and east-west corridors.

18 And I want to thank Ray for being here. We're
19 excited to get to work with Recargo on filling in some of
20 these corridors. And if there aren't any other questions,
21 I will move approval of Item 10.

22 COMMISSIONER HOCHSCHILD: Second.

23 CHAIRMAN WEISENMILLER: All those in favor?

24 (Ayes.)

25 CHAIRMAN WEISENMILLER: It passes 5-0. Thank

1 you.

2 MS. LOPEZ: Thank you.

3 CHAIRMAN WEISENMILLER: Let's go on to Item 11.

4 MS. WILLIAMS: Good Morning Chair and
5 Commissioners, my name is Sarah Williams, with the
6 Fuels and Transportation Division's Emerging Fuels
7 and Technologies Office. Today I am seeking
8 approval of three natural gas fueling infrastructure
9 agreements to be funded through the Energy
10 Commission's Alternative and Renewable Fuels and
11 Vehicles Technology Program.

12 These three agreements, totaling \$1.5
13 million, represent projects resulting from the
14 Natural Gas Fueling Infrastructure solicitation,
15 released on September 7, 2016. The solicitation was
16 tailored to target the highest need entities with an
17 emphasis on deploying projects in areas facing
18 significant environmental challenges. Through this
19 funding opportunity, school districts were able to
20 request financial support to construct new, or
21 upgrade existing, natural gas vehicle fueling
22 facilities. The agreements presented for your
23 consideration include projects that will primarily
24 serve the fleets of three school districts as well
25 as other local natural gas vehicle users. This

1 funding will be used to upgrade stations for two
2 districts, and add a new station for one.

3 I am here to request approval for the
4 following three agreements.

5 Agreement ARV-16-007, which will allow
6 Kings Canyon Unified School District to expand their
7 existing CNG fueling at the Central Valley
8 Transportation Center, that serves the school
9 district and surrounding communities. For this
10 project, in accordance with the California
11 Environmental Quality Act Guidelines, staff has
12 reviewed King Canyon Unified School District's
13 Environmental Impact Report and Mitigation
14 Monitoring and Reporting Program. Staff has
15 considered this information in deciding whether to
16 recommend approval of this proposed project and has
17 no information indicating the environmental
18 documentation is inadequate.

19 Staff recommends that the Commission find
20 that the proposed project presents no new
21 significant or substantially more severe
22 environmental impact beyond those already considered
23 and mitigated. And that the mitigation measures
24 will eliminate or mitigate the environmental impacts
25 of the proposed project to less than significant

1 levels.

2 The next agreement, ARV-16-008, which will
3 enable the Lemoore Union High School District to
4 expand their existing CNG fueling facility, which is
5 also used by the City of Lemoore.

6 And finally, agreement ARV-16-009, which
7 will provide funding for Exeter Unified School
8 District's construction of a new CNG fueling
9 facility, that will ease the burden of the school
10 district and city trying to simultaneously fuel
11 vehicles at an existing undersized facility.

12 The vehicles served by these natural gas
13 fueling stations include options to provide criteria
14 pollutant reduction for vehicles in high pollution
15 areas, as well as help California meet its
16 alternative fuel usage goals. With the wide variety
17 of duty cycles and operational locations for natural
18 gas vehicles in regions served by these projects,
19 the benefits of the reduced tailpipe emissions can
20 be felt in areas impacted by vehicle air pollution.
21 These vehicles are especially important to reduce
22 emissions in financially challenged areas that are
23 not yet able to procure the emerging zero-emissions
24 options.

25 All three of the proposed grants are from

1 proposals located in disadvantaged communities as
2 determined by CalEnviroScreen.

3 Additional benefits will be achieved from
4 the promotion of the natural gas vehicle sector with
5 further development of low-NOx engines, natural gas-
6 electric hybrids and renewable natural gas
7 production facilities currently funded by the Energy
8 Commission.

9 With that, I would like to thank you for
10 your consideration of these items; and we have
11 representatives from Lemoore and Exeter on the
12 phone, as well as representatives from Kings Canyon
13 in the room, to say a few words.

14 CHAIRMAN WEISENMILLER: Thank you. Please
15 come forward. Well, I'll start with those in the
16 room and then go to those on the line.

17 MR. FLORES: Good morning, Commissioners.
18 I am Jason Flores, Director of Transportation for
19 Kings Canyon Unified School District. I'm here
20 today with Dr. John Quinto, our Assistant
21 Superintendent of Business Services, to personally
22 say thank you for your continued support and
23 requesting approval of compressed natural gas
24 infrastructure that will serve our growing fleet
25 needs and our joint youth facility known as the

1 Central Valley Transportation Center.

2 As you may know, our school district is
3 located in the heart of the San Joaquin Valley and
4 home of the four all-electric school buses. We
5 serve the students of disadvantaged communities in
6 Eastern Fresno and Tulare counties in what is one of
7 the worst air-quality regions of our nation.

8 Kings Canyon Unified has a long history of
9 successful Energy Commission projects dating back to
10 the early 1990s and the AB 35 Katz Clear Air Safe
11 School Bus Program, where we received our first five
12 CNG-powered school buses in 1996, that remain in
13 service to this day. By the year end we will have
14 35 CNG school buses in our fleet.

15 Through your program opportunities and
16 support over the past years, we have been able to
17 assemble one of the most advanced CNG stations in
18 our region that not only meets our school district
19 and the City of Reedley fleet needs, but serves
20 neighboring public and private school buses to
21 regional transit agencies and the neighboring city.

22 I want to thank you again for providing
23 these opportunities to our school district. Use of
24 CNG as a cleaner alternative fuel in our school
25 buses has allowed us to be good stewards of our

1 environment.

2 Again, on behalf of our Superintendent,
3 Juan Garza, and our Board, and Dr. John Quinto and
4 myself, we want to thank you again for your
5 continued support.

6 CHAIRMAN WEISENMILLER: Well, thank you.
7 Thanks for being here.

8 Certainly, see in terms of the folks on the
9 line, if they have comments?

10 (No audible response.)

11 Okay. So let's transition to the
12 Commissioners. Commissioner Scott?

13 COMMISSIONER SCOTT: Great. Before you
14 walk away, Dr. Quinto, I was going to ask you if you
15 could tell us what was in the photo?

16 CHAIRMAN WEISENMILLER: (Indiscernible)
17 sorry.

18 COMMISSIONER SCOTT: Excellent.

19 CHAIRMAN WEISENMILLER: So it's no longer
20 an eye test.

21 COMMISSIONER SCOTT: Right.

22 DR. QUINTO: I actually have a postcard of
23 it. Actually Mr. Bauer, who owns BAUER Compressors,
24 came and visited us and took a shot. They're using
25 us for publicity nationwide to show the type of work

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1 they do. BAUER is known for their air for first
2 responders and this is a sideline for them, so
3 they're showcasing this system that the Commission
4 has been very supportive of. This will be our
5 second to expand the services of this in our region.

6 COMMISSIONER SCOTT: Thank you.

7 DR. QUINTO: So we have forwarded you a
8 postcard of what they're distributing.

9 COMMISSIONER SCOTT: I just got it, thank
10 you very much.

11 So I don't have anything to add to Mr.
12 Flores or Dr. Quinto or Sarah's elegant words. So
13 if you don't have questions I will move approval of
14 Item 11.

15 COMMISSIONER MCALLISTER: I'll second.

16 CHAIRMAN WEISENMILLER: All those in favor?

17 (Ayes.)

18 CHAIRMAN WEISENMILLER: Item 11 passes 5-0.
19 Thank you, staff.

20 Let's go on to Item 12, Aspen Environmental
21 Group.

22 MR. GUTIERREZ: Good morning, my name's
23 Julio Gutierrez from the Transportation and Fuels
24 Data Unit in the Supply Analysis Office. I'm here
25 to seek approval for a contract agreement with Aspen

1 Environmental Group totaling \$4 million over three
2 fiscal years. Two bids were received in response to
3 RFP-16-801 with Aspen Environmental receiving the
4 high score in this three-year work authorization
5 contract, \$1 million per fiscal year of ERPA funds
6 will be made available for this contract with fiscal
7 year of '17-18 and '18-19 funds authorized as budget
8 permits.

9 Another million dollars of PIER funding
10 comes from the legislatively-approved April 2016
11 Spring Finance Letter, which authorized the use of
12 these funds for additional analysis of Aliso Canyon
13 natural gas and electricity system interaction
14 issues.

15 Overall, this contract is similar to the
16 Division's current technical support contract. It
17 will provide the Division access to technical
18 assistance, training and support for electricity
19 system and infrastructure analysis, electricity and
20 transportation fuel demand forecasting methods,
21 energy demand analysis, natural gas assessments in
22 forecasting, central station and distributed
23 generation market assessments and distribution
24 system and distributed energy resource assessments.

25 For this new agreement, two new components

1 have been added: transportation system and
2 infrastructure data and analysis and data
3 management. The contract provides the necessary
4 specialized expertise and technical support to
5 compliment staff's current analytical work and build
6 new capabilities. It fills in highly technical and
7 specialized knowledge gaps, so staff can continue to
8 assess California's changing and highly integrated
9 energy systems for decision makers in a timely
10 fashion.

11 Staff recommends the approval of this
12 agreement. I'm happy to answer any questions you
13 may have.

14 CHAIRMAN WEISENMILLER: Thank you.

15 First, any comments from anyone in the room
16 or on the phone?

17 (No audible response.)

18 Okay. So transition to Commissioners.
19 Yeah, I'm the Lead in the electricity and natural
20 gas area and certainly have found the Aspen support,
21 particularly Katie on Aliso stuff, invaluable. So I
22 think it's really important to continue to move
23 forward in this area.

24 COMMISSIONER DOUGLAS: Absolutely I agree
25 with that and move approval of this item.

1 COMMISSIONER MCALLISTER: I agree as well.
2 We're having a good bench of technical support, you
3 know, not only for the plant stuff but occasionally
4 when other things come up, we really need that to
5 lean on. So I'll second.

6 CHAIRMAN WEISENMILLER: All those in favor?
7 (Ayes.)

8 CHAIRMAN WEISENMILLER: This is approved 5-
9 0. Thank you.

10 Let's go on to Item 13, Discussion of
11 Energy Commission Progress in Implementing the Clean
12 Energy and Pollution Reduction Act of 2015, SB 350.

13 MR. SOKOL: All right. Good morning, Chair
14 and Commissioners. I'm Michael Sokol, and I'm here
15 today to provide an update on the Energy
16 Commission's implementation of Senate Bill 350, the
17 Clean Energy and Pollution Reduction Act of 2015.
18 I'll provide a quick update on the major upcoming
19 events and deliverables related to SB 350. Then
20 you'll hear a more detailed update on activities
21 supporting the energy efficiency doubling target
22 setting effort, and the title 20 data collection
23 rulemaking to support future demand forecasts.

24 Since the last business meeting a few weeks
25 ago, a number of efforts have made progress toward

1 achieving the goals described in SB 350.

2 Internal conversations are continuing to
3 firm up plans for implementation of the
4 recommendations included in the Low-Income Barriers
5 Study as part of the 2017 IEPR. Initial workshops
6 are tentatively scheduled for mid-April and mid-May,
7 and interagency discussions will begin well ahead of
8 those dates to firm up roles and responsibilities
9 for implementation.

10 For the energy efficiency doubling target
11 setting effort, detailed work plans have been
12 developed for the various pieces that need to come
13 together to finalize a staff report and present the
14 targets for Commissioner adoption before the
15 November 1st, 2017 deadline. You will hear more
16 about these plans from Bryan Early in just a moment.

17 On the Integrated Resource Planning front,
18 staff continues to coordinate with the Public
19 Utilities Commission and the Air Resources Board to
20 finalize plans for a February 23rd joint agency
21 workshop on establishing and dividing greenhouse gas
22 emission reduction planning targets for individual
23 load-serving entities and publicly owned utilities
24 to use in their IRP planning.

25 An options paper jointly developed by the

1 Energy Commission and CPUC has been posted online
2 that outlines some of the potential methodologies
3 that could be used for establishing and dividing
4 this target, with guiding questions to facilitate
5 stakeholder comments.

6 Separately, for the POU-specific IRP
7 guidelines, the Energy Commission will be holding a
8 separate workshop in the afternoon on February 23.
9 Staff has been working to finalize a discussion
10 paper that will be used as a basis for gathering
11 stakeholder input for the development of POU
12 guidelines. Final guidelines are still expected to
13 be adopted the Energy Commission by summer of this
14 year to ensure that POU's have adequate time to
15 develop and submit IRPs to the Energy Commission by
16 January 2019.

17 Pre-rulemaking activities continue for the
18 Title 20 data collection regulation updates to
19 support the Energy Commission's demand forecast.
20 You'll hear more details about this effort from
21 Malachi Weng-Gutierrez in just a moment.

22 There are also a number of related efforts
23 that continue to progress, including the development
24 of a publicly-available tracking system to monitor
25 progress towards SB 350 goals, and the formation of

1 a disadvantaged community advisory committee that
2 will advise the Energy Commission and CPUC on
3 activities as they related to impacts and benefits
4 to disadvantaged communities

5 With those updates in mind, I'll welcome
6 and questions or comments from Commissioners. And
7 if there are no questions, I'll go ahead and hand
8 off for the specific updates.

9 All right, so Brian Early?

10 MR. EARLY: Good morning, Chair and
11 Commissioners, Brian Early. I work as an adviser to
12 Commissioner McAllister. I'm here to give you all a
13 brief update on the Commission's work in the
14 implementation of the energy efficiency portions of
15 SB 350.

16 So we've had two workshops to date on this
17 work. In July we had a workshop discussing the data
18 and analytical needs for establishing energy
19 efficiency doubling targets. And in January we
20 discussed with stakeholders the proposed policy
21 framework that we intend to follow in implementing
22 these targets.

23 So just as a brief reminder, SB 350 calls
24 upon the Energy Commission by November of this year
25 to establish targets that will achieve a statewide

1 cumulative doubling of energy efficiency savings by
2 2010. The establishment of the 2030 doubling goals
3 are a relatively simple arithmetic exercise. We've
4 previewed with stakeholders a figure in the paper
5 that was posted prior to the January workshop and we
6 will be posting shortly, an updated figure to that
7 effect for stakeholder comment.

8 So the goal of the 2030 cumulative doubling
9 target is really to serve as a beacon by which it
10 will energize the Energy Commission over its work
11 over the next decade and some-odd years in spurring
12 on additional energy efficiency savings that would
13 not otherwise have occurred per the intent of SB
14 350.

15 To that end, the Energy Commission is
16 currently engaged in two parallel analyses of what
17 additional energy efficiency savings can be expected
18 to be achieved using a current cost-effective
19 analysis. So the Energy Assessments Division is
20 engaged in an analysis of what savings we can expect
21 from the publicly-owned utilities. EAD staff are
22 also coordinating with the PUC in preparing to
23 analyze the potential goal studies that will come
24 from the investor owned utilities, so we can know
25 what types of savings we can expect from utility

1 programs in getting us towards that doubling goal.

2 At the same time the Efficiency Division is
3 engaged in analysis of what savings we can expect to
4 achieve from non-utility program sources. So
5 Appliance Standards, Building Standards, local
6 government action, financing mechanisms and other
7 market activity. So both the Efficiency Division
8 and EAD will be posting papers prior to a June 19th
9 workshop. These papers will include draft sectoral
10 targets, so these are going to be proposed targets
11 for various sectors of the economy of what savings
12 we can expect to achieve again based on a cost
13 effective analysis.

14 So these papers will be posted and
15 discussed in a June workshop. We will then take
16 comments from those papers, fold them in with a more
17 detailed description of the 2030 goal. And compile
18 them into a draft Commission report, which will be
19 discussed in a September workshop and then will be
20 considered for adoption by the full Commission in
21 the October business meeting as the SB 350 energy
22 efficiency doubling targets.

23 Now, the Energy Assessment Division and the
24 Efficiency Division have not yet completed their
25 work, but it may be the case that some of the

1 sectoral energy efficiency targets that they
2 calculate don't, at this point we project, get us to
3 that 2030 doubling target. If that is the case, it
4 is our hope, that every two years as we revisit the
5 sectoral targets consistent with the directive in SB
6 350 that we are able to offer recommendations, both
7 programmatic and legislative. So that we may shrink
8 that gap to the extent that over time, we can
9 project that we will actually achieve a statewide
10 cumulative doubling of energy efficiency savings.

11 So that is my summary and happy to answer
12 any questions you may have.

13 COMMISSIONER MCALLISTER: Maybe we should
14 go with Malachi and we can do questions on both.

15 MR. WENG-GUTIERREZ: Good morning, Chair
16 and Commissioners, my name is Malachi Weng-
17 Gutierrez. And I work in the Demand Analysis Office
18 of the Energy Assessments Division and have been
19 working on updating the Title 20 data collection
20 regulations.

21 Title 20, Division 2, Chapter 3 includes
22 data collection supporting analyses across the
23 Energy Commission including energy demand
24 forecasting, energy supply outlooks, infrastructure
25 assessment, environmental analyses, tracking

1 renewable energy generation and monitoring
2 transportation fuel distribution. Recently mandated
3 responsibilities under SB 350 and the need to
4 disaggregate and improve our demand forecasts have
5 prompted the update of these regulations. I'm here
6 to provide a brief update on the rulemaking and the
7 schedule for moving forward.

8 Over the last year the Energy Commission
9 has held two workshops and eight stakeholder topic-
10 specific meetings to discuss the regulation updates
11 as part of the pre-rulemaking activities.
12 Stakeholder comments gathered at the workshops and
13 meetings have led to refinement of the proposed
14 regulatory language including clarification of the
15 responsible parties, clarification of requested data
16 and ensuring no duplication of data collection.

17 Staff is currently working on a formal
18 rulemaking package for submittal to the Office of
19 Administration Law. The material being drafted for
20 the rulemaking package includes the Title 20 data
21 collection regulatory language, the Initial
22 Statement of Reason, which includes the explanation
23 of the problem being addressed, the purpose of, and
24 necessity for, and the benefits of the proposed
25 changes to the Title 20 regulations.

1 And lastly, the Economic and Fiscal Impact
2 Statement for the proposed language. This document
3 provides estimates for the costs to the regulated
4 parties and to the state.

5 The next steps involve submitting this
6 completed rulemaking package to the Office of
7 Administrative Law in April, receiving comments,
8 possibly posting a 15-day revision in July, and
9 adopting the regulations at the August business
10 meeting. The final regulatory package is scheduled
11 to be submitted to OAL in September of 2017.

12 And so with that, I'd be happy to address
13 any questions that you might have on the rulemaking
14 activities.

15 CHAIRMAN WEISENMILLER: Thank you.

16 Commissioners? Well, first any public
17 comment either in the room or on the line?

18 (No audible response.)

19 Okay. So let's transition to the
20 Commissioners.

21 COMMISSIONER MCALLISTER: So thanks for
22 that, Michal and Brian and Malachi. So these, I
23 don't have much to say, I mean these are two
24 parallel tracks that are moving forward. And
25 they're very, very related, which is why they're

1 grouped together today.

2 I want to thank Brian and Martha, my other
3 adviser, as well as Sylvia and her team, and Malachi
4 for all the heavy lifting that's going into both of
5 these efforts. In particular on the doubling, you
6 know, I think the coordination with the POU, and
7 with the PUC. And our work directly with the POUs
8 thus far and I'm hopeful that it'll continue this
9 way. We've really done a good job of connecting all
10 the dots in making sure that, for instance, that
11 everything gets tied up expeditiously.

12 And that quarterbacking effort really with
13 Michael and Brian and Martha and Sylvia's team is
14 going, I think quite well, in the Efficiency
15 Division. So there's a lot of moving parts there
16 and they really do need to move forward in multiple
17 lanes together.

18 You know, assigning a doubling goal is
19 challenging, analytically it's challenging, because
20 you can't measure it. So you've got to figure out
21 how to both calculate a goal to be established and
22 then adopted here. And then also put in place the
23 data resources to be able to track to baseline, and
24 then to track going forward. And so that's going to
25 be an iterative process as Brian said.

1 I think the idea that sort of the reality
2 of efficiency is that there's some savings that are
3 pretty predictable. You know, you do an appliance
4 standard you can pretty much crank the math out and
5 look at the penetration rates as they go up. And
6 you know what the savings are. But market
7 development, market transitions, are more difficult
8 to assess. And so analytically we need the tools to
9 be able to do that.

10 And also the sort of uncertainty band
11 around those less understood savings is wider as
12 well. So that two-year kind of update of the goals
13 and the individual slices of the doubling, is going
14 to be really an interesting and analytical exercise.
15 We're going to learn a lot from it and it's going to
16 produce a resource that really is valuable for the
17 state for the long haul.

18 And so that's why I'm excited about both of
19 these efforts, but want to just highlight the fact
20 that the analytical piece is definitely centered on
21 forecasting, but will produce all sorts of I think
22 corollary benefits for understanding the nature of
23 demand going forward and what influences it.

24 And that's what the Legislature asked us to
25 do from in SB 350. So both of these efforts are

1 really, I think critical, for where we need to go to
2 manage our piece of SB 350. And furthermore, it
3 will help us help the other agencies in some of
4 their efforts in a complimentary way.

5 So anyway, thanks for the presentation.
6 That's all I have to say sort of at a high level,
7 so.

8 COMMISSIONER SCOTT: I had a couple of
9 thoughts here. Thank you so much for the update,
10 it's really helpful. I know that kind of the
11 timeline and schedule for the components that I'm
12 overseeing, but haven't had a chance to follow as
13 closely the components that you're overseeing,
14 Commissioner McAllister. So I think this was really
15 helpful for me to kind of understand what the
16 timeline looks like.

17 One question that I had, and I don't know
18 if it's really for you guys or if it's for us here
19 at the dais is I'm trying to think about how -- as
20 you mentioned there's a bunch of moving pieces here
21 within SB 350 and what the Energy Commission has
22 been asked to do. And are we planning to sort of
23 hand off things one by one? So we have a timeline
24 that Michael mentioned that's summer of 2017. We
25 have a timeline that Brian mentioned that's coming

1 to the Commission for consideration potentially in
2 October. And then another one where the rulemaking
3 goes to OAL in September.

4 Are we envisioning potentially like a
5 summary chapter in our IEPR that kind of explains
6 all the pieces and where they went and how they got
7 there? Just as the Public Member I'm thinking about
8 the Legislature and people who are kind of trying to
9 follow what we're doing and how does it all come
10 together in a succinct way. Or does it not come
11 together in a succinct way, because there's too many
12 moving pieces?

13 CHAIRMAN WEISENMILLER: No, I think
14 obviously we're driven by the legislation. It'd be
15 good to have that, because you know some of the
16 stuff has short timelines and other things we've
17 been working on for years.

18 COMMISSIONER SCOTT: Right.

19 CHAIRMAN WEISENMILLER: So basically trying
20 to at least lay out the steps, so certainly I think
21 Michael can help us in the IEPR have sort of a good
22 flow chart of some sort that at least fills in
23 what's occurred so far and what the upcoming pieces
24 are.

25 COMMISSIONER SCOTT: I think that would be

1 great. And I think these updates are really helpful
2 for us, keeping track of all of the moving pieces
3 since we can't talk to each except for here on this
4 stuff.

5 CHAIRMAN WEISENMILLER: Well, plus it's
6 important not to discover, say in November, there's
7 a missing piece of the puzzle.

8 COMMISSIONER SCOTT: Right.

9 CHAIRMAN WEISENMILLER: So keeping us all
10 talking is important.

11 COMMISSIONER SCOTT: Thanks for your good
12 work on this.

13 CHAIRMAN WEISENMILLER: Yeah, thanks again.
14 Let's go to Item 14, minutes.

15 COMMISSIONER DOUGLAS: Move the minutes.

16 COMMISSIONER SCOTT: Second.

17 CHAIRMAN WEISENMILLER: All those in favor?

18 (Ayes.)

19 CHAIRMAN WEISENMILLER: 5-0, good.

20 Lead Commissioner or Presiding Member,
21 Commissioner Scott?

22 COMMISSIONER SCOTT: Sure. So I just have
23 one brief update, which is that we were at the
24 VerdeXchange, Commissioner McAllister and
25 Chair Weisenmiller and I, late last month, early

1 February. And that was a fantastic opportunity to
2 really engage with our friends and colleagues and
3 compatriots in Southern California and exchange
4 information about what we're doing up here in
5 Sacramento. Of course our agency oversees the whole
6 state, but to have a chance to really spend some
7 time connecting with folks in Southern California, I
8 think is always a fantastic opportunity.

9 I had a chance to highlight the work that
10 we're doing on infrastructure, both within the
11 battery electric and the charging infrastructure.
12 And then also with the hydrogen fuel cells, so a lot
13 of zero emission vehicle infrastructure is what I
14 spent time highlighting when I was down at the
15 VerdeXchange. And that's always, as I mentioned, a
16 really good opportunity for us to engage. As the
17 Chair reminds us, half of the population of the
18 state lives south of Wilshire Boulevard, so it's
19 important I think for us to be there.

20 I also wanted to highlight for you all, or
21 introduce you all, to an intern that I have working
22 with us. She's part of the -- her name is Amber
23 Moran, she's there in the purple, and there is a
24 program at Sac State on government. And they bring
25 in students from the CSUs all over the state, all 23

1 CSUs, to have a chance to get into government, to be
2 here to see what we do, and learn what we do. It's
3 a four-and-a-half month program. So we're delighted
4 to have her here. I'm going to try to get her some
5 exposure to a bunch of different things that we do
6 here at the Energy Commission.

7 That's my update.

8 COMMISSIONER MCALLISTER: Great, so yeah
9 VerdeXchange. That's always a good thing. You
10 always really sort of tune in to what's happening in
11 L.A. and it's good to do that every year, because
12 they're doing so much down there. And it looks
13 different from so many of the efforts in Northern
14 California. And L.A.'s just a big -- it's got a lot
15 of gravity, because it's a big place. And there's a
16 lot of innovation going on down there.

17 I was on a panel that Fran Pavley moderated
18 around California and subregional actors in the
19 climate space, which was really interesting. And
20 she's totally engaged in these issues still, which
21 is good to see. And then on another panel about
22 data ecosystems for clean energy promotion out
23 there, really more market focused. So both really
24 interesting and again lots of innovation on those
25 panels.

1 I guess one theme that's sort of ongoing is
2 the 350 Barriers Report, you know, highlighted and
3 sort of focused us on, is multifamily housing. And
4 a couple of things we've done since then at the
5 meeting that Chair and I -- that NRDC, we asked them
6 to organize, and the Chair and I attended with a
7 whole bunch of multifamily owners and developers and
8 operators, which was really quite useful. And
9 again, there is so much innovation. These are
10 highly, highly able professionals in that space.
11 And we need to help them find solutions to improve
12 the performance of those multifamily buildings. And
13 so that started a good conversation that I'm hopeful
14 about.

15 And then just yesterday, actually my staff
16 and I and some Efficiency Division staff, Building
17 Standards Office staff, visited a multifamily, low-
18 income ZNE development in Woodland, California. And
19 just incredible really what they have been able to
20 do. And you realize each of these projects is
21 different. They use financing. They have five,
22 six, seven streams of different kinds of financing
23 with different terms and different periods. And
24 they get grants wherever they can. And Mutual
25 Housing managed to put the package together and

1 build a ZNE solar-powered facility that's all
2 electric. And it's a beautiful space for low-income
3 residents who pay a maximum of 30 percent of their
4 income for rent and utilities.

5 But yeah, they have tax credits. The
6 Department of Agriculture has a rural focused, farm
7 worker focused program for subsidized capital, as
8 well as rent and assistance. They use the NSHP,
9 which is great to hear. HCD has a farm worker
10 program that provided a soft loan. The City of
11 Woodland gave them a grant. I mean, they work hard
12 to put these projects together. It's really
13 phenomenal.

14 So anyway I think there are solutions. We
15 just need to focus on it. And I think one thing we
16 learned at the meeting with the whole group was that
17 really there are two opportunities. One is at the
18 rehab every 20, 25 years or so, 15 minimum, but
19 usually 20, 25, and then sort of more incremental
20 stuff along the way with the utility programs and
21 the like. So there are pathways, but we really have
22 to focus on them in the 350 context, I think.

23 And then finally, just --

24 COMMISSIONER SCOTT: So I have a question
25 about that.

1 COMMISSIONER MCALLISTER: Yeah, absolutely.

2 COMMISSIONER SCOTT: That's really exciting
3 to hear about I think taking the lessons learned and
4 sharing them with other folks who are working on ZNE
5 for low-income would be fantastic. Is it open? And
6 people are living there, or are they just getting
7 ready to start building?

8 COMMISSIONER MCALLISTER: Yeah, no. It's
9 been there for a couple of years, I think, in early
10 '15 if I remember correctly. We toured a unit and
11 they're learning a lot. They've built 62 units,
12 they're going to build 39 more on the same site,
13 right next door.

14 And again the reason the site is there for
15 multifamily, is a condition of a bigger development
16 that it's in. And often that's the case where if
17 the developer is going to build at market rate
18 housing, they have to bring along a certain amount
19 of low-income housing in the same place.

20 But Mutual really just identified the
21 opportunity and made it happen. And you've got to
22 just give kudos to them. But I think, it's not that
23 uncommon. These developers are just -- they have
24 their mission driven -- and their quality. So
25 anyway hopefully we can have more projects like

1 that. Anything else?

2 COMMISSIONER SCOTT: Nope, I was just
3 wondering if they were open or not yet.

4 COMMISSIONER MCALLISTER: Oh yeah,
5 definitely. I mean, they actually seemed to enjoy
6 giving the tour, because they're rightfully proud of
7 what they've done.

8 And then I spent most of last week in D.C.,
9 doing a couple of things, one -- well attending two
10 board meetings for the Alliance to Save Energy and
11 NASEO.

12 The Alliance organized this thing called
13 the Great Energy Efficiency Day, which was a couple
14 of panels in the afternoon, in the Dirksen Senate
15 Office Building. And it had a couple of hundred
16 people there, mostly Senate staff, but a lot of
17 interested folks. John Di Stasio was there, I know
18 he spends a lot of his time in D.C. now. But it had
19 a variety of political viewpoints there and they
20 were all focused on the business case for energy
21 efficiency.

22 So there is a conversation in D.C. now,
23 whether that actually influences the decision makers
24 I think it will remain to be seen. But at least
25 there's a record and a group of like-minded

1 politically diverse groups and individuals that can
2 help contribute to that discussion going forward.

3 I focused on appliances for the most part.
4 And just sort of holding up our example that
5 actually a civil and fact-based conversation can
6 happen to get to a result that actually industry and
7 environmental folks and regulators can agree on as
8 we recently did with the computers, but there are
9 plenty of examples of that. So I think that
10 example, California's example, is quite powerful to
11 have in the mix there.

12 And let's see, and then NASEO had its
13 policy conference, which it does annually, and
14 really focused on understanding the uncertainty. We
15 don't have a team in place in DOE yet. And the
16 high-level appointees aren't there yet, but there's
17 some signals for what might happen. And talking
18 about state collaboration on different issues,
19 including appliances.

20 And then also just following through on
21 transition recommendations that the various states
22 have agreed on, pretty much by consensus, which is
23 nothing earth shattering for California's
24 perspective. But it's good to have that block on
25 the basic stuff about how elevating the state

1 relationship with DOE in trying to have more access,
2 more timely access, and more responsiveness in
3 interactions at the federal level.

4 So at a high level, that's what last week
5 was about. But a lot of meetings and a lot of
6 people who are wondering what's going to happen in
7 the next month or two. So anyway, that'll do it for
8 me this meeting. Thanks.

9 COMMISSIONER DOUGLAS: Just briefly,
10 Commissioner Hochschild and I are actually just back
11 from a couple of outreach meetings on the offshore
12 wind question, along the coast in the San Luis
13 Obispo area, we had with the help of the Native
14 American Heritage Commission and Cynthia Gomez, the
15 Governor's Tribal Adviser.

16 We pulled together a pretty well attended
17 tribal meeting, hosted by the Santa Ynez Chumash.
18 And also attended by a number of different both
19 Chumash and also Gabrielino tribal representatives.
20 And it was a very productive discussion. And so I
21 was very pleased that we were able to do that and
22 we'll be doing more meetings of a similar nature.

23 We also had a meeting with some of the
24 local environmental groups that next morning. And
25 also a well intended, and a good dialogues in a

1 really good way, of just making sure people in
2 California who care a lot both about meeting our
3 climate renewable energy goals, and about the coast
4 and how the coast can both play a role in this, and
5 also potentially what impacts are and learn more
6 about this technology. It was a really good
7 opportunity to just have some really informal
8 dialogues with people.

9 COMMISSIONER HOCHSCHILD: Let me just add
10 again, at the risk of repeating myself, how
11 fortunate we are to have Commissioner Douglas
12 leading this process, because for one thing she's
13 much more patient than I am. These are a lot of
14 stakeholders at some inclusive meetings, but really
15 fruitful.

16 And I just want to point out with the
17 tribes in particular, there are a number of tribes
18 that are not federally recognized, but they are
19 recognized by the state. And I think the first half
20 of that meeting was just the tribes expressing how
21 important it is for them to be at the table, the
22 ones that are not federally recognized. And I just
23 felt it was a really, really good use of our
24 resources. And you did a spectacular job setting of
25 that up and similarly with the environmental

1 consultations, just very, very inclusive. So my
2 gratitude again for you leading on that.

3 A couple of updates, so I'll just start
4 with something personal, which is I bought a Chevy
5 Bolt on Friday. So this is the new -- and actually
6 I took Commissioner Scott for a little spin around
7 the block this morning -- but no, it is actually a
8 tipping point. This is the first mainstream
9 electric vehicle on the market, with a range of more
10 than 200 miles, so it's got a 238-mile range. And
11 after federal and state rebates, it's a \$28,000 car.

12 And you think about the goals that we have
13 as a state. And Governor Brown, at that speech last
14 year, even threw out the five million electric
15 vehicle number. To get there, we're not going to
16 get there if we don't have manufacturers making
17 high-quality vehicles, and this is just an
18 incredibly well made, well designed, vehicle. It's
19 really a delight to drive. And I hope this is the
20 beginning of much more from the manufacturers, so
21 encouraging to see that.

22 As I've said before, I think one of the
23 single most important things we can do for
24 renewables, is add more electric vehicles to the
25 state.

1 CHAIRMAN WEISENMILLER: Are you going to
2 send us a picture when you go to Tesla with your
3 car?

4 COMMISSIONER MCALLISTER: Oh, yes.
5 Exactly.

6 Well, it's great. This is actually the
7 kind of thing, it's nice to see a real competition
8 actually. And that's actually what we want. We
9 don't just want just one company. I had thought I
10 was going to get the Tesla Model 3, but this came
11 out first, so kudos to Chevy.

12 A couple of things on my end. I gave a
13 talk at the consortium of all the POU's last week, or
14 two weeks ago. And just on EVs, one thing just
15 again what SMUD is doing is totally, totally path
16 breaking. So starting next month when you buy a
17 vehicle in SMUD territory, you get two years of free
18 electricity. And I think we're going to see some
19 other POU's around the state begin to step up and
20 offer those kinds of incentives. But they're really
21 leading the pack in that sense.

22 I had also a great forum in Silicon Valley.
23 I dragged my poor staff down there, which is a four-
24 hour drive for them to get there. And Laurie
25 tenHope joined as well. And I did an annual round

1 table with EPRI, just on renewable research, a
2 really fruitful discussion. And then we met with
3 about 20 Stanford faculty and I gave a talk at
4 Stanford.

5 One thing, and I mentioned this to the
6 Chair, but just to share with the rest of you.
7 Stanford is very interested in California hosting a
8 sort of big clean energy innovation forum of the
9 kind the ARPA-E used to do, during the Obama
10 Administration, which I never attended. Maybe you
11 did, but I gather is they're quite a big endeavor
12 with 3,000 people coming.

13 So they floated that idea, so Laurie
14 tenHope is going to dig into that a little more.
15 But that's obviously a big, big endeavor. But I
16 think there's a lot of interest in continuing those
17 if they don't get organized in DC.

18 I'm speaking at the Water-Energy Nexus down
19 in Southern California in two weeks, as well as at a
20 consortium. There's a bunch of UCs are having a
21 day-long conference at UC Santa Barbara about how to
22 achieve their clean energy goals. I'm going to be
23 keynoting there.

24 And then a couple of other things going on
25 I wanted to just share with folks. There is a

1 summit that is being planned now tentatively for
2 December for the entire West Coast from British
3 Columbia, Oregon, Washington, California, on
4 bringing clean energy stakeholders together and sort
5 of envisioning the whole Western Coast of Canada and
6 California and the United States as one clean energy
7 region. And trying to bring regional stakeholders
8 together, so they'd asked for my input on that. I
9 told them I think that's a great idea.

10 Doing a convening in May at UC Irvine,
11 around electrification and renewables, what that
12 nexus is, and what sort of barrier busting needs to
13 happen to accelerate our goals there.

14 And then I think I mentioned also, Emilio
15 is working with others on a Latino climate summit to
16 highlight opportunities for climate change policy
17 and so on in the Latino community in California.

18 And I think that was it on my end.

19 CHAIRMAN WEISENMILLER: Well, just to give
20 you a couple of things, obviously I think the
21 VerdeXchange and NRDC parts have been covered, so
22 I'm just going to move on from those.

23 I think things I was going to fly first, is
24 the -- we worked for the Administration in putting
25 out a response to the so-called Trump 50 project

1 infrastructure list. It's primarily transportation
2 and water, although there are some energy projects
3 there too. It was interesting the Trump folks had
4 included some renewables in that package. And
5 certainly we wanted to -- as the Governor said in
6 the State of the State -- respond back on working
7 together on infrastructure. So that was something
8 that certainly Kevin and Rob helped me on.

9 And certainly again, I'd like to thank
10 Edison for their contribution, as we're trying to
11 get some ideas on what to do in the Grid
12 modernization area. So certainly, that was
13 interesting to see what the next steps are going to
14 be there from the Administration, or from the
15 Federal Administration.

16 This will be a very big year for me on
17 China. And we had an event last Friday, Panorea and
18 I, down in L.A. with the Consul General there. We
19 had done a trade mission, as you remember last year,
20 it was a sort of seven cities in ten days cycle and
21 so we did a reunion. Part of it was to get feedback
22 from the participants.

23 This year we're certainly going to do
24 another much bigger one, but it was like okay let's
25 see what worked or what didn't work before we just

1 run it through again. And this will certainly be
2 tied to the Clean Energy Ministerial in Beijing in
3 June, which as I said is coming incredibly fast.
4 And I need focus on that.

5 In terms of also, one of the things we are
6 doing, which is -- well, as you know these
7 institutions can be painfully slow at times -- but
8 we here a big drum beat from the various
9 universities, I'm sure you've heard at Stanford,
10 about federal research and development funds. Like
11 what's going to happen in terms of clean tech and
12 climate? So obviously, I'm very data driven, so the
13 first question to them was, "Well, how much are you
14 getting now?" And then you get the, "Well, we don't
15 have anyone really tracking it," or "What do you
16 mean?" or "We'll get back to you."

17 So anyway, we're trying to get that
18 together to get a scale of the problem. My
19 guesstimate is we're probably talking about a
20 billion dollars, probably a couple of hundred
21 million in the climate area. And obviously, there's
22 a lot of interest. I think this will go into a
23 legislative hearing. Again, that's really just a
24 guesstimate, trying to get the data on it. But to
25 try to figure out where and how we can help is the

1 bottom line.

2 But as I said, and certainly this could be
3 something that the Congressional delegation sort of
4 unifies around. But as I said the first step is
5 just show me the numbers. And it's sort of
6 surprising how many entities don't quite have
7 someone on -- well, but again, I don't necessarily
8 track things in this fashion. So anyway, we're
9 trying to get that together.

10 So with that, let's go on to Chief
11 Counsel's Report --

12 COMMISSIONER HOCHSCHILD: I'm sorry, just
13 again when is your next trip to China planned? You
14 said --

15 CHAIRMAN WEISENMILLER: It's certainly
16 going to be huge, so May, June timeframe.

17 COMMISSIONER HOCHSCHILD: May, June,
18 timeframe? Okay. Let us know if there's anything
19 we can do to support you and materials for that for
20 -- or what, if there's anything in particular.

21 CHAIRMAN WEISENMILLER: Well, again I think
22 the Chinese -- you were at the Union Square
23 Innovations?

24 COMMISSIONER HOCHSCHILD: Yeah, yeah, yeah,
25 right.

1 CHAIRMAN WEISENMILLER: I think the Chinese
2 event like that will be like six or eight football
3 fields.

4 COMMISSIONER HOCHSCHILD: Right.
5 (Chuckles)

6 CHAIRMAN WEISENMILLER: In size, so it's a
7 phenomenal opportunity for California.

8 COMMISSIONER HOCHSCHILD: Sure.

9 CHAIRMAN WEISENMILLER: But, yeah. So
10 Chief Counsel?

11 MS. VACCARO: Nothing today, thank you.

12 CHAIRMAN WEISENMILLER: Great.

13 MR. OGLESBY: I have nothing today as well.

14 CHAIRMAN WEISENMILLER: Public Adviser?

15 MR. SANTIAGO: Hello. I'm the Deputy
16 Public Adviser, Rene Macleay Santiago. I'll be very
17 brief, but the Public Adviser has mainly been tied
18 up with hearings down south.

19 But apart from that, we wanted to highlight
20 that there's been a lot of outreach for the local
21 government grant challenge. And that we have been
22 able to connect with all 58 counties and almost 100
23 cities. And we also got some assistance from the
24 California League of Cities to reach out to their
25 memberships in outreach.

1 So there's been a lot of success in terms
2 of putting those sorts of things out there and we
3 wanted to let you guys know. But apart from that,
4 that's all we have.

5 CHAIRMAN WEISENMILLER: Thank you.

6 MR. SANTIAGO: Thank you.

7 CHAIRMAN WEISENMILLER: Public comment?

8 (No audible response.)

9 CHAIRMAN WEISENMILLER: Well, so this
10 meeting's adjourned.

11 (Adjourned at 11:51 A.M.)

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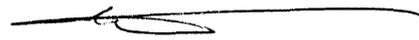
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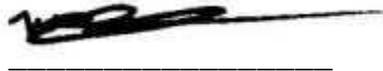
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