

DOCKETED

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BUSINESS MEETING

BEFORE THE

CALIFORNIA ENERGY COMMISSION

In the Matter of:)
) 22-BUSMTG-01
Business Meeting)
 _____)

REMOTE ACCESS ONLY

Public comment is accepted solely through the Zoom platform.

The California Energy Commission's (CEC) July 13, 2022 Business Meeting will be held remotely, consistent with Senate Bill 189 (Committee on Budget and Fiscal Review, Statutes of 2022) to improve and enhance public access to state meetings during the COVID-19 pandemic. The public can participate in the business meeting consistent with the direction provided below.

Please note that the CEC aims to begin promptly at the start time and the end time is an estimate based on the agenda proposed. The business meeting may end sooner or later than the time indicated depending on various factors.

Pursuant to California Code of Regulations Title 20 section 1104(e), any person may make oral comment on any agenda item. To ensure the orderly conduct of business, such comments will be limited to three minutes or less per person. Any person wishing to comment on information items or reports (non-voting items) shall speak during the general public comment portion of the meeting and have three minutes or less to address all remaining comments.

WEDNESDAY, JULY 13, 2022

10:00 a.m.-3:30 p.m.

Reported by:
E. Hicks

APPEARANCES

Commissioners

David Hochschild, Chair
Siva Gunda, Vice Chair
Andrew McAllister
Patricia Monahan

Staff Present:

Drew Bohan, Executive Director
Linda Barrera, Chief Counsel
Jared Babula, Staff Counsel
Dorothy Murimi, Public Advisor's Office
Jacqueline Moore, Chief Counsel's Office
Rhett deMesa, Offshore Wind Project Manager
Lisa DeCarlo, Chief Counsel's Office

Also Present

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<p>Pursuant to Government Code Section 11126(e), the CEC may adjourn to closed session with its legal counsel to discuss any of the following matters to which the CEC is a party:</p>	
<p>i. <i>Interlink Products International, Inc. v. Xavier Becerra, Drew Bohan, Melissa Rae King (United States District Court for the Eastern District of California, Case No. 2:20-cv-02283)</i></p>	
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1 P R O C E E D I N G S

2 JULY 13, 2022

10:00 a.m.

3 (Start of Introductory Video.)

4 MS. MURIMI: Welcome to the California Energy
5 Commission Business Meeting. Zoom's closed-captioning
6 feature has been enabled to make Energy Commission business
7 meetings more accessible. Attendees can use this feature
8 by clicking on the "Live Transcript" icon and then
9 selecting either "Show Subtitle" or "View Full Transcript."
10 Closed captioning can be stopped by closing out of the Live
11 Transcript or selecting "Hide Subtitle." Those
12 participating solely by phone do not have the option for
13 closed captioning.

14 The Energy Commission will continue to post a
15 recording of this business meeting on the Business Meeting
16 webpage in addition to posting a transcript of this
17 business meeting rendered by a professional court reporter
18 in the docket system on the business meeting webpage.

19 To increase access to the California Energy
20 Commission's proceeding, this meeting is being held in-
21 person and is also available for remote participation.

22 The public can participate in the business
23 meeting consistent with the instructions for remote
24 participation found in the notice for this meeting, and as
25 set forth on the agenda posted to the Energy Commission's

1 website. Pursuant to California Code of Regulations Title
2 20, section 1104(e) any person may make oral comments on
3 any agenda item.

4 Once the public comment period begins, to
5 indicate you would like to give a comment in-person please
6 use the QR codes shown in the room and fill out the form.

7 For remote participants, please raise your hand
8 by clicking on the "Raise Hand" icon at the bottom of your
9 screen. If you are joining by phone, press *9 to raise your
10 hand and *6 to unmute.

11 To ensure the orderly and fair conduct of
12 business, public comments will be limited to three minutes
13 or less per person for each agenda item voted on today.

14 Any person wishing to comment on information
15 items or reports which are non-voting items shall reserve
16 their comment for the general public comment portion of the
17 meeting and shall have a total of three minutes or less to
18 state all remaining comments. After the Public Advisor
19 calls on you to speak, spell your name and state your
20 affiliation, if any.

21 Welcome to the California Energy Commission's
22 business meeting. The meeting will now begin.

23 (End of Introductory Video.)

24 CHAIR HOCHSCHILD: Well, good morning and welcome
25 friends. I'm David Hochschild, Chair of the California

1 Energy Commission. Today is Wednesday, July 13th, and I
2 call this meeting to order. Joining me are Vice Chair
3 Gunda, Commissioner McAllister, and Commissioner Monahan.
4 Commissioner Vaccaro is not able to join today. And
5 Commissioner McAllister will now lead us in the Pledge of
6 Allegiance.

7 (Whereupon the Pledge of Allegiance was recited.)

8 CHAIR HOCHSCHILD: Thank you Commissioner.

9 Before we turn to the Consent Calendar, I just
10 want to say we are doing this meeting entirely virtual, in
11 part because of the COVID surge which in the last six weeks
12 has got both my daughters and me, and as of yesterday my
13 wife, and then a number of us at the Energy Commission
14 unfortunately. So please continue to exercise caution
15 everybody, if you haven't gotten it yet.

16 So with that I do want to thank everyone who
17 submitted their nominations for the 2022 Clean Energy Hall
18 of Fame. We've received over 260 nominations. And special
19 thanks as always to our fantastic Selection Committee who's
20 now going to review all those nominations and will be
21 announcing the winners closer to the event, which is going
22 to be at the end of the year. And for more information
23 we'll put a link in the chat.

24 So next, I'm excited to announce that today the
25 Commission will be seeking to approve over \$17 million in

1 investments, all of which contribute to our state's
2 economic recovery.

3 And before we turn to the Consent Calendar, a
4 note regarding an upcoming item, Item 7 which is an
5 informational item regarding the Offshore Wind Report, will
6 be moved and be heard after Item 15.

7 And with that let's turn to the Consent Calendar.
8 We'll split up the items due to a recusal for Item b. So
9 we'll take Items 1a, c, d and e first.

10 And are there any public comments on Items 1a, c,
11 d and e Dorothy?

12 MS. MURIMI: Thank you, Chair. Just a few
13 instructions for everybody. For folks that are on Zoom if
14 you'd like to make a comment go ahead and use the raised-
15 hand feature at the bottom of your screen or device. It
16 looks like a high-five or open palm. And for those calling
17 in go ahead and press *9 to raise your hand and *6 to
18 unmute.

19 At this time, Chair, there are no comments for
20 those items.

21 CHAIR HOCHSCHILD: Okay. With that, Vice Chair
22 Gunda, would you be willing to move those items?

23 VICE CHAIR GUNDA: Yes, moving the items that
24 were called.

25 CHAIR HOCHSCHILD: Okay. And Commissioner

1 McAllister would you be willing to second?

2 COMMISSIONER MCALLISTER: I second.

3 CHAIR HOCHSCHILD: All in favor say aye.

4 Vice Chair Gunda?

5 VICE CHAIR GUNDA: Aye.

6 CHAIR HOCHSCHILD: Commissioner McAllister?

7 COMMISSIONER MCALLISTER: Aye.

8 CHAIR HOCHSCHILD: Commissioner Monahan?

9 COMMISSIONER MONAHAN: Aye.

10 CHAIR HOCHSCHILD: And I vote aye as well. Those
11 items pass 4-0.

12 We'll now take up Item 1b. And we'll turn first
13 to Commissioner McAllister.

14 COMMISSIONER MCALLISTER: Okay, thank you, Chair.

15 So I will recuse myself from Item 1b, the National
16 Association of State Energy Officials for any discussion,
17 consideration, and a vote on the proposed resolution for
18 CEC's membership agreement with NASEO.

19 I am currently a member of the NASEO Board. This
20 position constitutes a conflict of interest under both the
21 Warren-Alquist Act and Government Code 1090, section 1090,
22 with regard to voting on this membership agreement. So
23 pursuant to the Government Code I am disclosing this
24 conflict and recusing myself from the discussion and vote,
25 so that a quorum of the Commission may deliberate and

1 decide in my absence. So I'll return after the vote and
2 will wait for the Public Advisor to instruct me to come
3 back.

4 CHAIR HOCHSCHILD: Thank you, Commissioner
5 McAllister. I will let him leave.

6 And then with that are there any public comments
7 on Item 1b?

8 MS. MURIMI: Thank you, Chair.

9 So once again for individuals who would like to
10 make a comment if you are on Zoom go ahead and use the
11 raised-hand feature. It looks like an open palm or high-
12 five at the bottom of your screen or device. And for those
13 joining by phone go ahead and press *9 to raise your hand
14 and press *6 to unmute on your end. Giving that one
15 moment.

16 Chair, I see no comments for Item 1b.

17 CHAIR HOCHSCHILD: Okay. Vice Chair Gunda, would
18 you be willing to move Item 1b?

19 VICE CHAIR GUNDA: Yeah, I'll move Item 1b.

20 CHAIR HOCHSCHILD: And Commissioner Monahan,
21 would you be willing to second?

22 COMMISSIONER MONAHAN: I second it.

23 CHAIR HOCHSCHILD: All in favor say aye.

24 Vice Chair Gunda?

25 VICE CHAIR GUNDA: Aye.

1 CHAIR HOCHSCHILD: Commissioner Monahan?

2 COMMISSIONER MONAHAN: Aye.

3 CHAIR HOCHSCHILD: And I vote aye as well. That
4 item passes 3-0.

5 Turning now to Item 2, Information Item on the
6 Office of Compliance Assistance and Enforcement. Welcome
7 to Maunee Berenstein.

8 MS. BERENSTEIN: Good morning, Chair and
9 Commissioners, thank you very much. My name is Maunee
10 Berenstein, Manager for the Office of Compliance Assistance
11 and Enforcement. I will be giving an informational
12 presentation about our office and the work we do. Next
13 slide, please.

14 The work of the Office of Compliance Assistance
15 and Enforcement provides many benefits to Californians.
16 The first being savings in energy and water utilities. We
17 accomplish this by enforcing the appliance standards set
18 for energy and water efficiency. Because of our authority,
19 we interact directly with manufacturers, retailers, and
20 distributors to help them navigate California's appliance
21 efficiency standards.

22 By enforcing our energy and water efficiency
23 standards it helps to preserve our natural resources. More
24 efficient appliances means less strain on power plants
25 generating energy. And as California continues to have

1 years of drought, conserving water in any way we can
2 becomes critical. Next slide, please.

3 Our office has been given a large responsibility
4 to enforce the requirements listed in Title 20 for
5 appliances sold or offered for sale into California. This
6 means manufacturers, distributors, and installers have a
7 responsibility to make sure covered appliances are:

8 1) Tested to meet applicable efficiency
9 standards;

10 2) Marked appropriately with information such as
11 date of manufacture and model number;

12 And 3) the appliance is certified in the Energy
13 Commission's Modernized Appliance Efficiency Database.

14 When we find a product that fails any of these
15 requirements, we open an enforcement case with the company.
16 This is the main function of our office. Next slide,
17 please.

18 To give you an idea of the scope of appliances we
19 regulate here are a few of them on this slide. As the need
20 to conserve water in California has become critical, our
21 office is focused on water appliances such as plumbing
22 fittings. This includes appliances like showerheads,
23 kitchen faucets, and lavatory faucets. Some other
24 appliances include, computers, computer monitors, pool
25 pumps, lighting, portable electric spas, and portable air

1 conditioners. Next slide, please.

2 The Office of Compliance Assistance and
3 Enforcement has three primary objectives. The main one is
4 to enforce consumer appliance efficiency standards. In
5 addition, we provide compliance assistance to stakeholders,
6 and audit testing laboratories.

7 The goal for our enforcement cases is to prevent
8 wasted energy, to level the playing field for the compliant
9 actors, and to deter future violations through the use of
10 monetary penalties.

11 The compliance assistance portion of the office
12 involves walking manufacturers and distributors through the
13 compliance process to ensure their products meet
14 California's appliance efficiency requirements. We also
15 work with retailers to educate them on their role and
16 responsibility in preventing non-compliant products from
17 reaching California consumers.

18 The test lab audit program involves staff
19 traveling to California-approved appliance testing labs to
20 ensure they have the correct equipment, record keeping, and
21 processes in place to perform accurate and repeatable
22 testing. If we find any deficiencies, we document them and
23 provide the lab with a report our findings and
24 recommendations. Next slide, please.

25 Appliance testing is critical to our program. We

1 currently work with three different labs for this testing.
2 It allows us to test products in the California market to
3 ensure they meet the applicable performance, marking, and
4 certification requirements as mentioned earlier.

5 Appliance testing also allows us to spot-check
6 data reported in the Energy Commission's Modernized
7 Appliance Efficiency Database. Since the data is self-
8 reported it's important that we are able to test products
9 to ensure there are no errors or deficiencies in this data.

10 Appliance testing is a tool to help identify
11 inefficient products for sale, so we can remove them from
12 the California market to help minimize excess energy and
13 water usage.

14 The results from the test lab are used as the
15 basis for opening enforcement cases, which really makes it
16 one of the foundations of our whole program. Next slide,
17 please.

18 Our Office was granted authority to issue
19 monetary penalties in 2015, and here are some of our
20 statistics since that time. We have closed 243 cases,
21 resulting in over \$13 million in penalties. Of the 395
22 products that we have tested, 65 percent of them failed the
23 performance and/or marking requirements. And of those
24 products tested, 68 percent had certification deficiencies.

25 We have also gone onsite to conduct 32 lab

1 audits, with more scheduled for later this year.
2 Unfortunately, due to COVID, this part of our work was put
3 on hold in 2020 but has resumed this year.

4 This concludes my informational presentation.
5 But in closing I would like to acknowledge the talented
6 team of investigators, support staff, and enforcement
7 attorneys. Their hard work and dedication to protecting
8 the environment and helping stakeholders is responsible for
9 the success of our program. My attorney, Jared Babula, and
10 I are here to field any of your questions, thank you.

11 CHAIR HOCHSCHILD: Well thank you so much,
12 Maunee, to you and your terrific team. And let me just say
13 thank you for your diligence and professionalism and
14 attention to detail. This is one of those quiet but
15 essential pieces of machinery in the mosaic of energy
16 policy here in California. We've put a huge amount of
17 effort into code development, but that is meaningless
18 without an effective compliance and enforcement strategy,
19 and so the work you guys do is just essential. And just on
20 behalf of all of us I want to recognize you, the legal
21 team, everyone else who's involved with that.

22 And let's have some Commissioner discussion. I'd
23 love to, if it's okay, Commissioner McAllister to begin
24 with you, since so much of this goes to efficiency work.
25 Any questions from your side?

1 COMMISSIONER MCALLISTER: Yeah, absolutely. So
2 Maunee, thank you so much for that presentation. And I
3 just want to secondly really acknowledgments to you and the
4 team, and the legislation that gave us this authority, this
5 enforcement authority. The Legislature really trusted us
6 with that new authority. And it reflects the confidence I
7 think they have in us and the robustness of our regime,
8 both on the appliance -- well, here in this case on the
9 appliance side.

10 And I guess I just want to make a few comments.
11 I don't have any questions. I'm pretty intimately familiar
12 with the operation and I just have so much trust and faith
13 in the team. And just well, I guess I will have one
14 question that perhaps you and the legal team can field.

15 But I wanted to just emphasize that our goal is
16 compliance, right? It's not to make as many fines as we
17 can. And the process by which we develop compliance
18 regulations on the energy side and on the water side it is
19 incredibly robust. The timelines are fairly prescriptive,
20 but it's up to us which appliances we actually choose to
21 pursue, the analysis of the savings potentials. The sort
22 of interaction with the federal government even can be very
23 subtle actually, wherever there is a federal standard,
24 either outright at the outset or eventually it will be
25 preempted by the federal standard.

1 And so I think we provide a really valuable
2 service to the country by getting going on appliances that
3 the federal government would not regulate itself, so it
4 helps to move the needle on those. And then other states
5 can actually point to California and adopt our regulations
6 where they exist. So it really has a knock-on effect.
7 There's a lot of spillover, positive spillover effects from
8 what we do in the state to the rest of the country and the
9 world, really.

10 And often historically our standards have
11 actually come around to the adopted as national standards,
12 because the industry doesn't like to have a playing field
13 that differs from state to state. So the history here is
14 very august. This is one of those, the regulatory
15 authorities to developing standards goes all the way back
16 to the origins of the Commission in Warren Alquist Act.
17 And then this enforcement authority as Maunee indicated is
18 new.

19 And so I think the implementation of SB 454,
20 which gave us this authority has been very, very deliberate
21 and has resulted in the stellar team that we have that's
22 actually implementing it.

23 I did have one question. I wanted to just sort
24 of get a little more color on the process by which we
25 identify potential violators, sort of assess whether or not

1 they have violated. And then walk that pathway of
2 negotiations to get to a fix, and something like that, kind
3 of a settlement, a monetary settlement. But, again, with
4 compliance as the primary goal. Maybe Maunee and Jared can
5 shed some sort of additional light on that. I think it's
6 important to understand that process.

7 MS. BERENSTEIN: Absolutely, Commissioner. So to
8 identify violations it comes in a few ways, and we do
9 receive a lot of complaints from competitors and consumers
10 who are purchasing non-compliant products.

11 We do random assessments out in the marketplace
12 where we will purchase things directly off the shelves and
13 send them to the test lab.

14 And then we also do hunt for specific appliance
15 types that we're aware of issues existing within, or where
16 we're able to easily identify performance issues. So that
17 might happen in your lighting or your plumbing fitting
18 arena specifically.

19 But when we're able to target something or
20 receive a complaint and look into it from there, we go
21 ahead and purchase the appliance, send it to the test lab,
22 await the results. If we find a deficiency in the
23 performance, the marking, or the certification requirement,
24 we go ahead and open a case.

25 Once that case is open, we notify the

1 manufacturer or distributor, responsible party if you will,
2 of the issue that we have discovered and we open dialogue
3 about that issue. Many times after interacting with the
4 company the issue will be resolved just from learning more
5 information on about say, for instance, "I have no idea how
6 you got that one particular product. It's actually only
7 manufactured for Canadian consumers. It was a rarity,
8 let's make sure there aren't any others in California."
9 There's various circumstances that might result in after-
10 further dialogue as resolving the issue right then and
11 there.

12 But with continued dialogue with the manufacturer
13 we're able to really iron out where the specific
14 deficiencies occur. We'll go ahead and put together a
15 compliance plan to help them get all of their products out
16 of California that aren't compliant, retool them, redevelop
17 them, test them, and get them into our database so that
18 they can go ahead and move forward and legally sell the
19 products.

20 From there we give them the tools that they need
21 to keep up on the regulations. And so moving forward they
22 are able to comply with the rules and they have all the
23 tools available to do that. So part of our job really is
24 hand-holding and walking people through that compliance
25 plan and compliance process, teaching them and helping them

1 with any problems that they encounter along the way.

2 Once we've done that, we actually talk about the
3 actual violations that had occurred and we come up with a
4 penalty. That penalty is negotiated. We take a lot of
5 factors into consideration, such as the company's
6 cooperativeness, that's really huge. Some companies go
7 above and beyond to try to correct the problem fully, and
8 including going back to a retailer and saying, "I want you
9 to pull all of these products from your shelf and return
10 them to me."

11 I've had companies do rebate programs. I've had
12 them send out replacement parts that make the product
13 efficient at that point to all the consumers that purchase
14 them. Cooperation from a company really goes a long way in
15 helping us negotiate those penalties and taking compliance
16 seriously and correcting the deficiencies quickly as well.

17 But once we come to an agreement on a penalty, we
18 ink a settlement agreement, and we hope that we never have
19 to interact with that company, and we've set them up
20 properly so that they can be compliant moving forward.

21 CHAIR HOCHSCHILD: Thank you.

22 COMMISSIONER MCALLISTER: Thanks so much.

23 CHAIR HOCHSCHILD: Are there -- sorry,
24 Commissioner McAllister, are there any other questions or?

25 COMMISSIONER MCALLISTER: I guess the only thing

24

1 else I would point out is that all this information in
2 terms of the settlements is publicly available on our
3 website, so there's a long list of all of the many
4 settlements that the Commission has done since the origin
5 of this program. And it's interesting actually to look at
6 the sort of the patterns, right, because there was a wave
7 of automatic vacuums, robots, where we got one of them that
8 was not in compliance. And then that one said, "Well, you
9 know, you're looking at me, not looking at that other one."
10 And so I think the word of mouth and kind of the general --
11 once a sector begins to become aware of the fact that we
12 have a regulation that does govern them, all of them want
13 to be in compliance. And it's only rarely that we really
14 find somebody who fights and says, "No, no, no, you can't
15 do this."

16 And we clearly have the authority, and I think
17 everybody gets on board pretty quick. So Maunee's team, as
18 Maunee just described that process, it works. So anyway
19 that's it for me. So thanks and any other questions from
20 my colleagues?

21 CHAIR HOCHSCHILD: Thank you. Yeah, other
22 Commissioners wishing to ask a question and make some
23 comments? Yeah, Vice Chair Gunda, please.

24 VICE CHAIR GUNDA: I don't have a question per se
25 and it's long, but Maunee just on the process typically

25

1 what's the timeline in kind of initiating a case through to
2 resolution? If you want to just comment on that?

3 MS. BERENSTEIN: Sure.

4 VICE CHAIR GUNDA: The other thing I just wanted
5 to say is thank you so much. This presentation really
6 helps, because I don't work directly with your office and
7 it's really helpful. And thank you for your extraordinary
8 leadership. Thank you.

9 MS. BERENSTEIN: Oh, you're very welcome. To
10 answer your question on the timeline for a typical
11 enforcement case they really do vary, but on average we're
12 looking at about a year from the very beginning when we
13 purchase and test a product to the completion and the
14 inking of the settlement agreement. On the shorter end it
15 can take anywhere as early as six months, and sometimes it
16 can stretch out to a couple of years, but I'd have to say
17 on average it's about a year from beginning to end.

18 VICE CHAIR GUNDA: Thank you, Maunee. No more
19 questions from me, Chair, thank you.

20 CHAIR HOCHSCHILD: Commissioner Monahan, please.

21 COMMISSIONER MONAHAN: Yeah, a quick comment. I
22 wanted to thank Maunee, and just say that I think Paul
23 Jacobs would be so proud. Because I remember when Paul
24 came over from CARB to help kick off this enforcement
25 program and it's just amazing to see how it has evolved.

26

1 And with your leadership and the team it's just a very
2 impressive workload and I really think this is a critical
3 component of making sure that the standards that we pass
4 are actually implemented and enforced.

5 MS. BERENSTEIN: Thank you, I completely agree
6 with you. A rule is only as good as your ability to
7 enforce it, and so you're absolutely correct.

8 CHAIR HOCHSCHILD: Maunee, I did have one last
9 question, which is I'm interested in our ability to support
10 crowdsourcing of enforcement. And when there's
11 noncompliance, we can't be everywhere in every store with
12 every product with 40 million people. I'm just curious if
13 there's ways that, for example, the Public Advisor's Office
14 could better support this and make the public aware of how
15 to participate in this? And I don't know, this may be a
16 question for Noemi and Dorothy as much as is for you,
17 Maunee, but just any thoughts on how to better support the
18 word getting out there so people know this is something
19 that anybody can report, so we get better compliance?

20 MS. BERENSTEIN: You know, I think there's
21 various mechanisms that we can do a little bit of promotion
22 of our regulations and our enforcement program and the
23 ability to anonymously report a complaint to us.

24 Some of them can be done through our trade
25 associations. They have a lot of publications that they

1 put out. They do their own webinars. We do actually work
2 with a few teams, the Appliances Office does anyway, with
3 Energy Code Ace, who really does get out in the marketplace
4 and try to send a message.

5 We do work with retailers really closely too.
6 And in terms of the impact to the online marketplace and
7 sellers that's been one of our most effective tools, where
8 they're actually letting people know what the requirements
9 are who we haven't had an opportunity to connect with. Or
10 who aren't aware of the Energy Commission's websites and
11 tools, so that venue is there.

12 But in terms of getting the public more involved
13 yeah, I'd be interested in maybe doing some brainstorming
14 with the Public Advisor's Office and possibly the
15 Appliances Unit to see if there's additional pieces we can
16 put into place.

17 CHAIR HOCHSCHILD: That'd be great. Yeah, so
18 maybe Noemi and Dorothy, if you could take an action and
19 work with Maunee on that that'd be great.

20 Well thank you again, Maunee, this is terrific.
21 Just I want to recognize the outstanding work. And this is
22 something that requires a lot of diligence. There's so
23 many different enforcement actions and products to monitor,
24 so a lot of plates you've got spinning there. So thanks on
25 behalf of us all, again much appreciate it.

1 With that we'll turn now to Item 3, University
2 Enterprises Inc.

3 MR. PRUITT: Well thank you, Commissioners and
4 Chair, for all those comments and feedback about our
5 office. My name is Sean Pruitt and following up on the
6 informational presentation we are requesting approval of a
7 contract with one of our test labs. Next slide, please.

8 As mentioned earlier appliance testing is a
9 crucial component to achieve our program objectives.
10 Testing allows our office to test products on the open
11 market, which leads to opening enforcement cases and
12 removing non-compliant products from the California market.
13 We are asking for approval of an agreement with University
14 Enterprises, Incorporated, to perform necessary appliance
15 efficiency testing for our program.

16 The testing is conducted at the California State
17 University of Sacramento Engineering Laboratory. It is for
18 a three-year term, for \$675,000. Next slide.

19 We request the Commission approve the agreement
20 with University Enterprises Incorporated. Thank you and
21 I'm available for any questions.

22 CHAIR HOCHSCHILD: Thank you, Sean.

23 Let's turn now to public comment on Item 3.

24 MS. MURIMI: Thank you, Chair.

25 So for individuals that are on Zoom go ahead and

1 use the raised-hand feature, it looks like a high-five or
2 open palm at the bottom of your screen or device. And for
3 individuals on the phone go ahead and press *9 to raise
4 your hand and *6 to unmute on your end.

5 I see one comment, Chase M. Please state and
6 spell your name, give your affiliation if any, and give
7 your comment. You may begin.

8 MS. MAXWELL: Am I -- can you hear me?

9 CHAIR HOCHSCHILD: Yeah, we can hear you.

10 MS. MURIMI: Yes, we can.

11 MS. MAXWELL: Great. My name is Chase Maxwell
12 and I'm an attorney at Ellison Schneider Harris & Donlon.
13 My question is general in nature for the informational item
14 on the enforcement of the Appliance Efficiency Standards.

15 And my question is that the last slide reports
16 closed cases. And I was wondering if we could get some
17 sort of an idea of what that means, if there is a number
18 for the cases open or-- and when is a case considered open?
19 Is it upon risk? Is it upon the enforcement letter or the
20 testing of the product?

21 So I guess that's two questions: What is an open
22 case? And how many open cases have there been in
23 comparison to closed cases? Do we have that information?

24 CHAIR HOCHSCHILD: Great. Thank you.

25 Dorothy, are there other public comments or was

30

1 that the only one?

2 MS. MURIMI: No other public comments at this
3 time.

4 CHAIR HOCHSCHILD: Okay.

5 MS. MURIMI: So for individuals --

6 CHAIR HOCHSCHILD: Yeah, let's ask Sean to
7 respond to that question.

8 MR. PRUITT: Sure. Well as the slide said I
9 believe we have tested about I think it was 395 products
10 total, so of those we had opened cases where we found
11 deficiencies in about 68 percent that weren't certified,
12 and 65 percent that failed either performance and/or
13 marking. So that would be the ratio of tests that we've
14 conducted and products that have failed.

15 And a case is opened upon the results of the test
16 lab. So if we get results of a failed product then that is
17 the basis to us opening the case and notifying the company
18 that there's been a violation.

19 CHAIR HOCHSCHILD: Commissioner McAllister?

20 COMMISSIONER MCALLISTER: Yeah. So there
21 certainly is a lot of more information there. I would
22 encourage the caller to get in touch with the Public
23 Advisor's Office and they can connect with the Enforcement
24 Office and just walk you through the whole process. It's a
25 great question and I think it deserves a considerate answer

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1 and following up on this meeting. So thanks, Sean. I
2 really appreciate the question.

3 CHAIR HOCHSCHILD: Okay. Unless there are other
4 questions or comments, Commissioner McAllister, do you want
5 to move this item?

6 COMMISSIONER MCALLISTER: Yes. I wanted to just
7 make one quick comment. I would encourage my colleagues
8 and others of the Commission to actually pay a visit to the
9 test lab and then see it in action; it's actually quite
10 interesting and fundamental. It's the backbone
11 infrastructure. Our arguably primary test lab for doing
12 many of the testing of devices in our suite of regulations,
13 so it's an interesting thing to look at in person. And
14 with that I'll move this item.

15 CHAIR HOCHSCHILD: All right. Commissioner
16 Monahan, would you be willing to second?

17 COMMISSIONER MONAHAN: I second this item.

18 CHAIR HOCHSCHILD: All in favor say aye.

19 Commissioner McAllister?

20 COMMISSIONER MCALLISTER: Aye.

21 CHAIR HOCHSCHILD: Commissioner Monahan?

22 COMMISSIONER MONAHAN: Aye.

23 CHAIR HOCHSCHILD: Vice Chair Gunda?

24 VICE CHAIR GUNDA: Aye.

25 CHAIR HOCHSCHILD: And I vote aye as well. Item

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1 3 passes 4-0.

2 We'll turn now to Item 4, Appointment of
3 Disadvantaged Communities Advisory Group Members, over to
4 Noemi.

5 MS. GALLARDO: Hello, Chair and Commissioners.
6 For the record, I'm Noemi Gallardo serving as Interim
7 Public Advisor and Chief of Staff to Chair Hochschild. I'm
8 before you today to present you with one candidate to fill
9 a vacancy on the Disadvantaged Communities Advisory Group,
10 who we also know as the DACAG. Next slide.

11 Having the DACAG as a joint advisory body for the
12 Energy Commission and the Public Utilities Commission has
13 helped our agencies design policies and programs in ways
14 that help achieve dignity and prosperity for tribes and
15 communities throughout our state.

16 The DACAG has also helped both agencies advance
17 our state's equity and environmental justice goals. They
18 do provide a lot of benefits to the state. Next slide.

19 All right, so the DACAG has 11 seats total. On
20 this slide you'll see the 9 current members. There are
21 currently 2 vacancies, one of which we hope to fill today.

22 To serve on the DACAG candidates must be from or
23 a representative of disadvantaged communities. We also
24 seek candidates that will help diversify the DACAG with
25 different backgrounds, expertise, and geographic

1 representation.

2 The staff from both agencies had a robust
3 candidate solicitation process that resulted in the
4 selection of at least one highly-qualified candidate who
5 has been nominated by the Commissioners from both agencies
6 who lead on DACAG efforts. They are Vice Chair Gunda and
7 Commissioner Monahan from the Energy Commission, and
8 Commissioners Houck and Rechtschaffen from the Public
9 Utilities Commission. Next slide.

10 So I'd like to introduce you to the leading
11 candidate, who is Julia Mary Popolizio Hatton. She goes by
12 Julia Hatton. And she is the CEO of Rising Sun Center for
13 Opportunity, a workforce development organization with
14 offices in Oakland, Stockton, and that's expanding into the
15 Central Valley region.

16 She has 15 years of community development
17 experience and has been passionate about energy and
18 environmental justice as a member of the Equity
19 Subcommittee of the California Sustainable Energy
20 Entrepreneur Development Group, the California Green New
21 Deal Coalition, and the Community Advisory Group at the
22 Lawrence Berkeley National Lab. She has also participated
23 in our Energy Commission's Equity and Environmental Justice
24 Roundtables. So she is very active in the energy space.

25 Julia will help increase the expertise of the

1 DACAG with her day-to-day work on training and workforce
2 development, along with increasing the DACAG's geographic
3 representation given her organizations' reach from the Bay
4 Area to Stockton to the Central Valley. We currently don't
5 have that representation on the DACAG. Next slide.

6 So staff's recommendation, based on Vice Chair
7 Gunda and Commissioner Monahan's approval, is for the
8 Energy Commission to vote to appoint Julia Hatton to fill
9 the one vacancy on the DACAG.

10 Staff will continue reviewing applications for a
11 candidate to fill the remaining position.

12 That concludes my presentation. Thank you so
13 much. And I'm available for questions if you have any.

14 CHAIR HOCHSCHILD: Thank you so much, Noemi. Do
15 we have any public comment on Item 4?

16 MS. MURIMI: Thank you Chair. So for individuals
17 that are on Zoom go ahead and use the raised-hand feature,
18 looks like an open palm or high-five at the bottom of your
19 screen or device. And for those on the phone press *9 to
20 raise your hand and *6 to unmute on your end

21 At this time, Chair, I see no public comments.
22 I'll hand the mic back to you.

23 CHAIR HOCHSCHILD: Thank you. Let's go to
24 Commissioner discussion, starting with Vice Chair Gunda.

25 VICE CHAIR GUNDA: Thank you, Chair. Thank you,

35

1 Noemi, for the presentation.

2 I just want to begin by just thanking the staff
3 from both agencies in helping go through the applications,
4 go through the process, and developing recommendations for
5 the committees at both agencies. So thank you, Noemi, to
6 you and the counterparts at the PUC for making this happen.

7 I want to just make one comment. DACAG is an
8 extraordinary body of members who volunteer, show up day
9 after day, take on extraordinary amount of work to really
10 help advance -- and I'm going to cut straight to the
11 "advance" and then "achieve" is the new word -- achieve
12 equity in all our programs.

13 Personally on the IEPR this year they've taken a
14 large amount of work to help shape the IEPR process and
15 really advanced the conversations and bring the achievement
16 of equity to actually something that we can see soon. So I
17 just want to thank the DACAG members from the bottom of my
18 heart for all the work and inspiration that they provide
19 for our agencies.

20 And to going to Julia, Julia, thank you so much
21 for putting in your name to serve on this body. I really
22 look forward to work with you. With that I'm looking
23 forward to supporting this, so thank you.

24 CHAIR HOCHSCHILD: Thank you. Just any other
25 Commissioners wishing to make a comment. Yeah,

1 Commissioner Monahan, please.

2 COMMISSIONER MONAHAN: Just a quick I think Vice
3 Chair Gunda did a great job talking about how the DACAG has
4 really helped inform us, also on transportation
5 electrification investments as well. But I just want to
6 say that Julia's resume is really impressive. So if you
7 haven't had a chance to take a look at it, please do.
8 She's pretty amazing. I think she really has a background
9 in sustainability, but now is really transferring some of
10 the lessons learned to workforce development and working
11 with formerly incarcerated people and just really helping
12 lift up communities. And really just an inspirational and
13 a deep background, so she's a great addition to the DACAG.

14 CHAIR HOCHSCHILD: Wonderful. Well, I will -- go
15 ahead, Commissioner McAllister, please.

16 COMMISSIONER MCALLISTER: Just very quickly, I
17 just want to pile on praise for the DACAG. And we have a
18 lot of lifting to do, and I know they're already doing so
19 much. But our responsibilities going forward for the next
20 few years are going to be even greater. We're going to be
21 pushing a lot of resources out into the state and we have
22 to take advantage of those resources to build our clean
23 energy economy from the ground up.

24 And the ground, that groundwork from the DACAG is
25 just so essential for truth, for ground truth in those

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1 efforts. And we have to produce hundreds of thousands,
2 millions of jobs. And so Julia's skillset is very well-
3 positioned to help us figure out how to do that well. So
4 thanks again to her for joining.

5 CHAIR HOCHSCHILD: Well, well said.
6 Congratulations to Julia in advance here.

7 Yeah, the only other point I would make is
8 building on the Vice Chair's comments about how critical
9 the DACAG is. When I think about the California model on
10 addressing climate it really is about going bold and big
11 and in a very focused and deliberate way trying to lift up
12 the communities that have borne the heaviest burden of
13 pollution. And provide the opportunities, provide the
14 investment across everything: across EV charging
15 infrastructure, building decarbonization, and all the rest
16 of it. And the DACAG has been absolutely instrumental in
17 that. It's really, I think, been the conscience of
18 California's climate policies.

19 And just my gratitude to Julia, to you. And to
20 everyone who has served and to all the staff who have
21 helped support it, engage, and Noemi and especially you on
22 behalf of the Energy Commission, but everyone else who's
23 participated. I think it's a great model and something
24 that I hope spreads to other states.

25 So with that I would invite Vice Chair Gunda to

1 make a motion on Item 4.

2 VICE CHAIR GUNDA: Absolutely. I move Item 4.

3 CHAIR HOCHSCHILD: Commissioner Monahan, would
4 you be willing to second?

5 COMMISSIONER MONAHAN: I second.

6 CHAIR HOCHSCHILD: All in favor say aye.

7 Vice Chair Gunda?

8 VICE CHAIR GUNDA: Aye.

9 CHAIR HOCHSCHILD: Commissioner Monahan?

10 COMMISSIONER MONAHAN: Aye.

11 CHAIR HOCHSCHILD: Commissioner McAllister?

12 COMMISSIONER MCALLISTER: Aye.

13 CHAIR HOCHSCHILD: And I vote aye as well. Item
14 4 passes 4-0.

15 Let's move now to Item 5, Gem Energy Storage
16 Center.

17 MR. KNIGHT: Good morning, Chair and
18 Commissioners, my name is Eric Knight. I'm the Manager of
19 the Siting and Environmental Office in the Siting,
20 Transmission, and Environmental Protection Division. With
21 me today are staff's Project Manager for the Gem Project,
22 Leonidas Payne and Staff Counsel's Jared Babula and Kari
23 Anderson. Staff is requesting your approval of a Proposed
24 Order adopting the Executive Director's recommendation that
25 the Application for Certification for the Gem Energy

1 Storage Center, 21-AFC-02, is now complete and therefore
2 should be considered filed for the purposes of starting the
3 12-month power plant certification process. Next slide,
4 please.

5 On December 1st and 2nd, 2021, GEM A-CAES LLC
6 filed an Application for Certification, or an AFC, with the
7 CEC seeking approval to construct and operate the Gem
8 Energy Storage Project. The Gem project would be a nominal
9 500-megawatt, 4,000-megawatt-hour advanced compressed air
10 energy storage build facility located in unincorporated
11 Kern County. Next slide, please.

12 At the CEC's January 26th, 2022, Business
13 Meeting, the CEC adopted the Executive Director's first
14 data as the recommendation on December 30th, 2021, that the
15 application did not contain all the information required by
16 the California Code of Regulations, Title 20, section 1704,
17 and therefore was incomplete.

18 At the Commission's June 8th, 2022 Business
19 Meeting, the CEC approved an exemption from the Notice of
20 Intention process for the Gem project and directed staff to
21 process the application as an AFC including reviewing the
22 applicant's supplemental filings for data completeness
23 pursuant to Title 20, section 1704, and Appendix B.

24 Between April 25th, 2022, and June 28th, 2022,
25 the Applicant filed supplemental application materials.

1 Staff reviewed this information and on July 5th, 2022 the
2 Executive Director filed his recommendation the application
3 now contains all the information required by the CEC's
4 regulations. By adopting the Executive Director's
5 recommendation this would start the 12-month timeline to
6 reach a decision on the AFC as required under Public
7 Resources Code section 25540.6.

8 Should the AFC be accepted, staff will begin the
9 discovery phase of the proceeding, and a detailed
10 examination of the application will commence. Staff will
11 prepare and publish a Preliminary Staff Assessment, which
12 will be available for public comment for a period of at
13 least 30 days, hold public workshops, and prepare and
14 publish a Final Staff Assessment.

15 As part of the review process staff will work
16 closely with local, state, and federal agencies to ensure
17 that all laws, ordinances, regulations, and standards
18 applicable to the proposed project are considered in the
19 staff assessment. Next slide, please.

20 In conclusion, staff requests your approval of
21 Order Number 22-0713-5 finding the Gem Application for
22 Certification, 21-AFC-02, is complete, starting the 12-
23 month power plant certification process. Staff is
24 available for any questions the Commissioners may have.
25 And representatives from the project, mainly Curt

1 Hildebrand and Nyree Grimes are available on the line as
2 well. And they say they want to make some brief opening or
3 brief comments. Thank you.

4 CHAIR HOCHSCHILD: Thank you so much, Eric.

5 MR. KNIGHT: You're welcome.

6 CHAIR HOCHSCHILD: We'll move now to public
7 comment on Item 5.

8 MS. MURIMI: (Overlapping colloquy.) Thank you,
9 Chair.

10 MS. NEUMYER: Good morning -- apologies. Good
11 morning, Chair and Commissioners. Samantha Neumyer with
12 Allison Schneider Harris & Donlon, outside Counsel on
13 behalf of the Applicant. With me today from Hydrostor is
14 Curt Hildebrand and Nyree Grimes.

15 On behalf of the Applicant we thank you for the
16 opportunity to be here today. We appreciate and thank
17 Commission staff for its diligent review of the AFC and
18 supplemental materials. There were several lengthy filings
19 in May. I especially thank the project manager Leon Payne
20 for his efforts in keeping the process on track.

21 We support the Executive Director's
22 recommendation to find the Application for Certification
23 complete and ask that the Commission adopt the Proposed
24 Order. I would like to turn this over to Curt Hildebrand
25 for any other comments, and we are available to answer any

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1 questions. Thank you.

2 MR. HILDEBRAND: Good morning, Chair and
3 Commissioners. My name is Curt Hildebrand, Senior Vice
4 President with Hydrostor. I would like to echo Samantha's
5 comments and also express Hydrostor's appreciation for
6 staff's work to date in getting to this recommendation. We
7 very much appreciate their efforts. And we look forward to
8 advancing and working closely with the entire Commission to
9 advance this important project for California.

10 CHAIR HOCHSCHILD: Great, thank you both.

11 Do we have any further public comment on Item 5,
12 Dorothy?

13 MS. MURIMI: Thank you, Chair. We do have some
14 public comments. We'll move to individuals on Zoom.

15 So real quick for individuals, if you are on Zoom
16 go ahead and use the raised-hand feature to make a comment.
17 And if you're calling in go ahead and press *9 to indicate
18 that you'd like to make a comment and *6 to unmute on your
19 end.

20 We have Claire Warshaw. Please state and spell
21 your name, give your affiliation, and you may begin your
22 comment.

23 MS. WARSHAW: Hi, my name is Claire Warshaw. I'm
24 a member of the public. Can you hear me?

25 MS. MURIMI: Yes, we can. Yes, we can. Go

1 ahead.

2 CHAIR HOCHSCHILD: Oh, Claire did we lose you?

3 MS. MURIMI: Claire your line is muted.

4 MS. WARSHAW: Okay. Now can you hear me?

5 CHAIR HOCHSCHILD: There you go. Now we can hear
6 you.

7 MS. WARSHAW: Okay.

8 CHAIR HOCHSCHILD: Yes, go ahead.

9 MS. WARSHAW: I'm sorry, my Zoom thing has a
10 little triangle on it with an exclamation point under the
11 mute thing, it looks unusual.

12 I wondered about the water being used for this
13 project and the drought in California. And I noticed in
14 the docket someone having commented on water in the area,
15 that they use wells. And they're concerned about those
16 draining. And I have heard similar issues from a totally
17 different area and different reason, about big projects
18 that sap water out of the ground system. And I just
19 wondered how water will be addressed in that area for this
20 project and evaporation, and things like that.

21 MS. MURIMI: Thank you, Claire.

22 MS. WARSHAW: That's the end of my comment.

23 MS. MURIMI: Thank you, Claire.

24 We have one more comment from someone listed as
25 Apprenticeship Coordinator. Please state and spell your

1 name, give your affiliation, if any, and you may begin your
2 comment.

3 MR. LUCERO: Thank you Commissioners for having
4 me. My name is Dominic Lucero, that is L-U-C-E-R-O. I'm
5 an apprenticeship instructor, Chair of the New Endeavors
6 Research and Development Committee, or NERD Committee for
7 short, and business agent for Boilermakers Local 549. The
8 Boilermakers continue to support this new clean energy and
9 are excited to help bridge California in its clean energy
10 future while building skilled and trained labor to support
11 disadvantaged communities by providing higher education of
12 working-class people with no college debt. Thank you.

13 MS. MURIMI: Thank you.

14 We have another comment from Timothy Jefferies.
15 Please state and spell your name, give your affiliation, if
16 any, and you may begin your comments.

17 MR. JEFFERIES: Thank you for the time. My name
18 is Timothy Jefferies, that's J-E-F-F-E-R-I-E-S. I'm the
19 International Rep for representing the over 2,000
20 Boilermakers from Northern and Southern California. We are
21 in support of this project just as my brother Dominic just
22 stated. This will put a lot of members to work,
23 boilermakers, giving them an opportunity to buy, to put, to
24 invest back into local economies. Local hands will be
25 taking these jobs and they would put to invest back into

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1 local economy in the areas they live in, and so we are
2 definitely in support of this project. Thank you very
3 much.

4 MS. MURIMI: Thank you.

5 With that, Chair, there is no more public
6 comments. I'll hand the mic back to you.

7 CHAIR HOCHSCHILD: Thank you. Yeah, I actually
8 would like to ask maybe the project representatives, if not
9 Eric, the question on water usage if someone would like to
10 respond to that question.

11 MR. HILDEBRAND: Eric I'd be happy to field that.

12 MR. KNIGHT: Sure, Curt.

13 MR. HILDEBRAND: The project -- firstly, the
14 project is located in adjudicated water basin, which means
15 that all water users need to require -- are required to
16 secure water rights for the facility. The entire basin is
17 monitored and regulated, so any water use for the project
18 will be subject to those water rights and regulatory
19 requirements. We will fully abide by those regulations.

20 The design of our project does not consume water.
21 We require about 5 or 600-acre feet to initially charge
22 our reservoir and caverns. We do not consume water. We
23 actually produce water in our operations by condensing
24 water in ambient air. So depending on the ambient
25 conditions we are periodically a net-water producer. And

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1 we will also take necessary measures to minimize
2 evaporation.

3 We're very aware of the drought. I live in
4 California. I see the brown hills out my window. And we
5 are very understanding of the importance of water. And our
6 design actually is much more efficient in terms of water
7 use than pump storage. So water will be thoroughly
8 reviewed throughout the process, and we will do everything
9 within our reasonable powers to minimize our water use
10 going forward.

11 CHAIR HOCHSCHILD: Okay.

12 And, Dorothy, no further public comments at this
13 time?

14 MS. MURIMI: Sorry, Chair, I do see one more
15 individual with a raised hand (indiscernible) as well. We
16 have Christopher Bobbitt. Christopher, if you could state
17 and spell your name, give your affiliation, if any, and you
18 may begin your comment.

19 MR. BOBBITT: Christopher, C-H-R-I-S-T-O-P-H-R,
20 Bobbitt, B-O-B-B-I-T-T. I'm with the North Carolina Clean
21 Energy Technology Center. This is the first that I've
22 heard of this project. And it may have been addressed in
23 other comments, but I was just curious how many positions
24 this facility would provide given the labor support that
25 the other public comments gave. I'm curious how many

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1 positions, full or part-time or temporary positions, this
2 facility would provide?

3 CHAIR HOCHSCHILD: I think that's a reasonable
4 question to answer. Could we have the Project Proponent
5 respond to that?

6 MR. HILDEBRAND: Yeah, happy to. The project
7 will require about a four-and-a-half-year construction
8 timeframe. It will reach a peak workforce of approximately
9 800 workers during that timeframe. We expect at least 2
10 million-man hours will be required to construct the
11 facility. During operations we expect to have 25 to 40
12 full-time employees operating and maintaining the facility.
13 That's just within the fence boundary of the project. We
14 also expect a lot of additional jobs and economic benefits
15 in the regional -- in the region as a result of our
16 operations, but 25 to 40 full time employees during
17 operations.

18 CHAIR HOCHSCHILD: Great, thank you.

19 Dorothy, any further public comments or is that
20 the last?

21

22 MS. MURIMI: No more public comments at this
23 time, Chair.

24 CHAIR HOCHSCHILD: Thank you.

25 We'll turn now to Commissioner discussion

1 starting with Commissioner McAllister.

2 COMMISSIONER MCALLISTER: Great. Well thank you
3 Eric and thank you Ms. Neumyer and Mr. Hildebrand as well
4 for your presence today.

5 I also wanted to acknowledge my partner on the
6 committee here, Commissioner Vaccaro, who couldn't be with
7 us today. But she is the Lead Commissioner on this project
8 and so we're working together on it.

9 So thanks to Eric for sure and Leonidas
10 (phonetic) and the rest of the staff who has been working
11 on this. I also want to acknowledge Renee Webster-Hawkins
12 and Ralph Lee the hearing officers, as well as Chief
13 Counsel's Office Kristen Driskell and Linda Barrera.
14 They've working and helping on the Commissioner side as
15 well as Jared. So lots of chefs in the kitchen here on the
16 Commission side.

17 I want to also just remind everyone we went
18 through a consideration of a Notice of Intent give the
19 assumption that now this is the beginning of the AFC
20 process.

21 So I'm really -- so obviously we have a long road
22 ahead of us. We are committed to meeting all the timelines
23 and giving this project for full consideration. An
24 exemption of an NOI was in no way a prejudgment on the
25 value on the project itself. And so the AFC process will

1 completely vet the project, make sure that it complies with
2 CEQA and has a full stakeholder process. I just want to
3 make that clear publicly today.

4 Having said that, I think it's really great that
5 we're starting to get these sorts of projects applications
6 into the Commission. You know, storage is a key resource
7 for the grid going forward, with the reliability issues
8 that we're all painfully aware of going into the summer and
9 for some years to come. So without passing judgment on
10 this particular project, the AFC process will work through
11 all the nuts and bolts and make sure everything's tidy and
12 make a determination of whether this particular project
13 moves forward.

14 But I do kind of see this as a positive
15 development, just globally, because I think getting
16 innovative clean energy resources, storage and other
17 support resources, into consideration in this state is
18 important really for getting our targets going forward and
19 getting our long-term goals met.

20 So I'm really excited about moving this project,
21 this process forward, the AFC, and really working through
22 what are definitely going to be some new issues that come
23 up and have to be considered so with this sort of project,
24 it's different than other projects we've done before. So
25 anyway, I wanted to just make those comments.

1 CHAIR HOCHSCHILD: Thank you, Commissioner.

2 COMMISSIONER MCALLISTER: Yeah.

3 CHAIR HOCHSCHILD: Yeah, terrific. And I look
4 forward to supporting Commissioner Vaccaro and you on this
5 project going forward.

6 The only comment I would make is what is
7 happening in storage right now is incredibly exciting. In
8 California you go back a couple years we only had 200
9 megawatts of storage total. Last year we added 2 gigawatts
10 of storage, mostly lithium-ion. this year we're adding
11 another 2 gigawatts. And a week ago the legislature
12 approved the first tranche of our proposed long-duration
13 storage pretty much, so the \$140 million got approved; more
14 to come.

15 I would say diversity has been a central strategy
16 in our renewables acquisition we're doing, so thermal and
17 biomass and solar PV and wind and geothermal and all the
18 rest. And diversity within storage chemistries is also
19 important. They do have different characteristics. As we
20 move to a 100 percent clean energy grid increasingly
21 powered by resources like solar and wind, storage becomes
22 ever more important. So it's really encouraging to see the
23 diversity of technologies move forward.

24 COMMISSIONER MCALLISTER: Totally agree with
25 that. (Overlapping colloquy.) This is not chemical storage

1 so it's even more diverse, and I think the various
2 durations and just figuring out how to mix and match
3 storage is a really open realm for learning and
4 understanding and application, so this is kind of part of
5 that overall landscape.

6 So I also wanted to acknowledge Drew and the
7 Executive Office as well for sort of helping navigate this
8 terrain, which is new for us.

9 CHAIR HOCHSCHILD: Thank you. Yeah, thank you to
10 Drew and team. Oh sorry, Vice Chair Gunda, please go
11 ahead.

12 VICE CHAIR GUNDA: Yeah, Chair, thank you.

13 I just wanted to thank the team.

14 I also wanted to thank the public commenters for
15 raising questions as well as support, it's always helpful.
16 Thank you for taking the time to be a part of the business
17 meeting.

18 Eric, to you and the team, Curt and Samantha,
19 thank you for both providing answers, but also kind of
20 (indiscernible) what information that's helpful.

21 So yes, as both the Chair and Commissioner
22 McAllister mentioned storage is an extremely important part
23 of the future, so really looking forward to the progression
24 of this and acknowledging that this is a first step in the
25 process, so thank you.

1 CHAIR HOCHSCHILD: Great. Commissioner
2 McAllister, would you be willing to move the item?

3 COMMISSIONER MONAHAN: Oh, can I just ask a --

4 CHAIR HOCHSCHILD: Oh sorry, Commissioner
5 Monahan, please go ahead

6 COMMISSIONER MONAHAN: I'm sorry Just can I ask a
7 quick question of Curt, I believe it would be? So Curt I
8 had seen in the past that this would be the largest
9 compressed air energy storage system in the world. Is that
10 still true?

11 MR. HILDEBRAND: To our knowledge it is the
12 largest compressed air energy storage facility that is
13 currently being advanced to this point. So it's possible
14 that something else might be out there that we're unaware
15 of, but it's very safe to say it's the largest in
16 California, in North America, that has reached this point.
17 500 megawatts by 8 hours is, by any measure, a very large
18 project. And it is bound to move the needle of California.

19 COMMISSIONER MONAHAN: That's great. Thank you.
20 And then one --

21 CHAIR HOCHSCHILD: Actually, could I ask -- oh
22 sorry, go ahead, go ahead.

23 COMMISSIONER MONAHAN: Well one last question, I
24 don't know if it's for Eric or Curt. But just -- and I
25 should have asked you this, Eric, in the briefing -- but

1 what are the next steps after this, just really briefly?

2 MR. KNIGHT: So the next steps would be the
3 informational hearing and site visit that the committee
4 will conduct. So our regulations require that that be
5 conducted within 45 days of the AFC being found complete,
6 and that's about today, so that would put you out towards
7 the end of August for holding that event.

8 And also staff will begin discovery and that will
9 amount to rounds of data requests to explore the
10 information in the AFC a little deeper. There's the
11 information requirements. The data as the requirements are
12 basically kind of like the floor of information, it's not
13 the extent of the information we may need to complete the
14 analysis. So we're working on a set of data requests and
15 will be filing those shortly.

16 And discovery lasts, I think it's 180 days, is in
17 a typical 12-month pot. And once we've gathered the
18 information we need, we'll produce the preliminary staff
19 assessment with that public review and comment. And we're
20 coordinated with agencies and will continue to do so
21 throughout the process.

22 COMMISSIONER MONAHAN: Great. Thank you.

23 MR. KNIGHT: You're welcome.

24 COMMISSIONER MCALLISTER: I believe we actually
25 have this on the calendar already there, Eric. And so that

1 (indiscernible).

2 MR. KNIGHT: I've seen (indiscernible). Yes,
3 there's a (indiscernible) data. I saw that. Yes, thank
4 you.

5 COMMISSIONER MCALLISTER: I did have one,
6 Mr. Hildebrand if you could answer a specific question,
7 could you give some idea of the round-trip efficiency of
8 the storage facility?

9 MR. HILDEBRAND: Yeah, happy to. The base case
10 round-trip efficiency as currently designed is right around
11 60 to 61 percent. We are working on various aspects as we
12 get into more detailed engineering to try to improve that
13 into the mid-60s, if possible, and we're optimistic that we
14 can get at least 63-64 percent at the end of the day.

15 COMMISSIONER MCALLISTER: Great. Thank you.

16 If there are no further questions, I'm happy to
17 move Item 5.

18 CHAIR HOCHSCHILD: That would be great. Thank
19 you, Commissioner.

20 CHAIR HOCHSCHILD: Commissioner McAllister has
21 moved the item. Vice Chair Gunda, would you be willing to
22 second?

23 VICE CHAIR GUNDA: Yes, second the item.

24 CHAIR HOCHSCHILD: Okay. All in favor say aye.

25 Commissioner McAllister?

1 COMMISSIONER MCALLISTER: Aye.

2 CHAIR HOCHSCHILD: Vice Chair Gunda?

3 VICE CHAIR GUNDA: Aye.

4 CHAIR HOCHSCHILD: Commissioner Monahan?

5 COMMISSIONER MONAHAN: Aye.

6 CHAIR HOCHSCHILD: And I vote aye as well. Item
7 5 passes 4-0. Thank you to all the stakeholders and
8 staff.

9 We'll turn now to Item 6, Small Power Plant
10 Exemption for the San Jose City Backup Generating Facility.

11 MS. DYER: Good morning, Chair and Commissioners.
12 I'm Deborah Dyer with the Chief Counsel's Office. And I'm
13 appearing today on behalf of the committee that the Energy
14 Commission appointed to preside over the proceeding in
15 review of the Applicant, Microsoft Corporation's
16 Application for Small Power Plant Exemption, which we also
17 know as an SPPE for the proposed San Jose City Backup
18 Generating Facility in San Jose California. The committee
19 proposes that the Energy Commission adopt the Committee
20 Proposed Decision.

21 The Committee Proposed Decision reflects the
22 committee's careful consideration of the evidence submitted
23 by the parties, as well as the public comments received.

24 The proposed decision recommends that the Energy
25 Commission certify a final Environmental Impact Report,

1 also known as a Final EIR, and including the addendum to
2 that final EIR for the San Jose City Data Center project,
3 of which the San Jose City Backup Generating Facility is a
4 part.

5 The proposed decision also recommends that the
6 Commission grant a Small Power Plant Exemption to the San
7 Jose City Backup Generating Facility as it would meet the
8 requirements of the Warren-Alquist Act including that a) it
9 would not generate more than 100 megawatts of electricity;
10 b) that the projects, construction, and operation would
11 have no significant impacts on the environment and; c) that
12 the project's construction and operation would have no
13 significant impacts on energy resources.

14 What the Applicant proposes is to construct and
15 operate an approximately 396,914 square-foot data center
16 located in San Jose, California, at 1657 Alviso Milpitas
17 Road. The primary purpose of the proposed data center
18 would be to house IT equipment and computer services for
19 private clients in a secure and environmentally controlled
20 structure.

21 The backup generating facility would consists of
22 224 0.45-megawatt natural gas emergency backup generators
23 and two Tier 4 diesel life-safety emergency generators of
24 1.25 megawatts and 0.5 megawatts. All the generators would
25 be located onsite, and no electricity generated by the

1 backup generating facility would be distributed offsite.
2 The backup generating facility would generate up to 99
3 megawatts of power, which would be the maximum demand of
4 the data center.

5 The backup generating facility would serve the
6 data center as a backup to its primary power supply
7 delivered by Pacific Gas and Electric Company, which we
8 know as PG&E. The backup generators would primarily be run
9 for testing maintenance and would usually not operate
10 unless there was an interruption in power from the local
11 electric utility.

12 Applicant also intends to participate in PGE's
13 Base Interruptible Program, which is also known as the BIP,
14 which was designed to reduce electrical loads on PG&E's
15 system when the California Independent System Operator
16 issues a curtailment notice. The Base Interruptible
17 Program would allow the project to reduce its load on the
18 electric distribution system, also known as the grid, by
19 disconnecting from the grid and self-generating its
20 required electrical load with the natural gas generators.
21 That quantity of electric power would then be available to
22 the grid elsewhere.

23 Under the Warren-Alquist Act section 25541 the
24 Energy Commission may grant a Small Power Plant Exemption
25 only when it makes three separate and distinct findings.

1 1) that the proposed power plant has a generating capacity
2 of up to 100 megawatts. 2) That no substantial adverse
3 impact on the environment will result from the construction
4 or operation of the power plant. And 3), that no
5 substantial adverse impact on energy resources will result
6 from the construction or operation of the power plant.

7 In addition, the California Energy Commission
8 acts as the Lead Agency under the California Environmental
9 Quality Act, commonly known as CEQA.

10 In reviewing an application for a Small Power
11 Plant Exemption, the Energy Commission considers the "whole
12 of an action." And for this particular application the
13 whole of an action means the backup generating facility,
14 the data center and other related facilities such as the
15 new substation, the distribution lines, the parking, and
16 the landscaping. Collectively, these are known as "the
17 Project."

18 It is important to note that if the Energy
19 Commission adopts the Committee Proposed Decision that
20 adoption would not approve the Project. Instead, if the
21 Energy Commission grants a Small Power Plant Exemption the
22 Applicant would then be required to obtain permits and
23 licenses from other local and regional agencies before the
24 Project would be allowed to be built and operated. In this
25 case, those agencies would include the City of San Jose and

1 the Bay Area Air Quality Management District. Those
2 agencies will also conduct any other environmental analysis
3 necessary for them to act as responsible agencies pursuant
4 to CEQA.

5 So now turning to the findings of the proposed
6 decision, beginning with generating capacity, the proposed
7 decision found that the generating capacity of a facility
8 that cannot distribute power offsite should be calculated
9 based on the maximum load of the Project, as well as by any
10 permanent design constrictions that limit the amount of
11 power that can be delivered from the from the facility. In
12 this case, the Project's maximum demand includes the demand
13 of the computer servers housed in the data center and the
14 cooling and lighting demands for the building. The
15 Project's maximum demand was calculated to be no more than
16 99 megawatts, which would be fixed by the use of electrical
17 equipment, and which would be an upper capacity limit.

18 The committee has proposed Condition of Exemption
19 PD-1 to ensure that if the configuration of the data center
20 were to change in a way that would increase -- that would
21 result in an increase in the project's electrical demand,
22 any such alteration change or modification would be subject
23 to the requirements set forth in the Energy Commission
24 regulations relating to changes in project design operation
25 or performance and amendments.

1 The committee has also proposed a Condition of
2 Exemption PD-2 that precludes any of the electricity from
3 the San Jose City Backup Generating Facility from being
4 used for any other facility property or use, including but
5 not limited to, delivery to the electric distribution
6 system without the express written authorization of the
7 Energy Commission.

8 The proposed decision concludes that the
9 project's generating capacity meets the requirements of the
10 Warren-Alquist Act for a Small Power Plant Exemption.

11 Regarding the environmental review of the
12 project, the project includes design features to mitigate
13 or avoid potential environmental effects of the project.
14 Staff prepared the Final EIR and an addendum to the Final
15 EIR. The Final EIR proposes mitigation measures for air
16 quality, biological resources, cultural and tribal
17 resources, paleontological resources, greenhouse gas
18 emissions, hazards and hazardous materials, noise and
19 transportation. The proposed decision incorporates the
20 Final EIR and the addendum.

21 Granting a Small Power Plant Exemption requires
22 the Energy Commission to adopt a mitigation monitoring or
23 reporting program. A recommended mitigation monitoring and
24 reporting program for the project is attached to the
25 proposed decision in Appendix C.

1 CEQA also provides that the Energy Commission may
2 delegate reporting or monitoring responsibilities to
3 another public agency that accepts that delegation. And
4 for this project the City of San Jose has agreed to monitor
5 the Applicant's performance of the mitigation measures
6 contained in the final EIR and addendum.

7 The committee considered staff's final EIR during
8 the committee's adjudicatory process and the proposed
9 decision includes the Final EIR as Appendix A. Staff's
10 addendum to the Final EIR is Appendix B to the proposed
11 decision.

12 On the basis of the record, and with the
13 imposition and implementation of the mitigation measures,
14 the proposed decision finds that the project will not have
15 any adverse impact on the environment.

16 The proposed decision also concludes that the
17 project would not have any adverse impacts on energy
18 resources. This finding is recommended for the Energy
19 Commission in its role as the Lead Agency under CEQA, and
20 as required under the Warren-Alquist Act.

21 As usual, the public was presented with a full
22 opportunity to participate at every stage of this
23 proceeding. We had meaningful and substantive
24 participation from the parties: Applicant, staff, and the
25 two intervenors: California Unions for Reliable Energy,

1 which is also known as CURE, and Robert Sarvey.

2 The Energy Commission also received public
3 comments on the proposed project. Following the February
4 2021 Public Scoping Meeting the CEC received written
5 comments from the Bay Area Air Quality Management District,
6 the Native American Heritage Commission, the California
7 Department of Fish and Wildlife, and the community
8 organization, Organización Comunidad de Alviso. The CEC
9 also received written comments on the draft EIR from the
10 County of Santa Clara Parks and Recreation Department, Ada
11 Marquez, the Bay Area Air Quality Management District,
12 Claire Warshaw, and the applicant.

13 The committee provided Notice of Availability of
14 its proposed decision on July 1st, 2022. And that Notice of
15 Availability was sent electronically to the proof of
16 service list and the project's subscription list and was
17 also sent via U.S mail to a list of property owners,
18 occupants, and responsible and trustee agencies. The
19 Notice of Availability invited written comment on the
20 proposed decision and asked that written comments be
21 received no later than July 11th, 2022, at 5:00 o'clock p.m.

22 On July 11th, we received comments on the Final
23 EIR from an urban planner at the law firm of Shute, Mihaly
24 & Weinberger on behalf of the Organización Comunidad de
25 Alviso, which also goes by OCA. OCA has previously

1 participated in this proceeding. The comment letter
2 questioned the factual sufficiency of this Final EIR, the
3 adequacy of the analysis of the environmental impacts and
4 the sufficiency of the environmental justice analysis. The
5 comment requests that the EIR be revised and recirculated.

6 The committee carefully considered these comments
7 prior to today's Business Meeting. As to the sufficiency
8 of the Final EIR and adequacy of the analysis of the
9 environmental impacts we do not believe that any
10 "significant new information" has been identified that
11 would require revision and recirculation of the EIR.

12 As to the points raised regarding the sufficiency
13 of the environmental justice analysis, I want to address
14 the proposed points in a general way, given the importance
15 of equity and environmental justice to our work at the CEC.
16 When we talk about environmental justice it's important to
17 note the terms "environmental justice" and "disadvantaged
18 communities" are not consistently defined in law.

19 Even so, the Final EIR in section 4.21 includes a
20 detailed evaluation of the different ways environmental
21 justice communities could be defined. It describes how the
22 staff identifies the environmental justice populations for
23 this project. And analyzes the potential environmental
24 impacts specific to those populations. The Final EIR
25 concludes that the project will not have a significant

1 impact on any environmental justice population.

2 Furthermore, the Final EIR contains a response to
3 public comments on this and other topics. This analysis
4 goes beyond what is required by CEQA, and sufficiently
5 addresses the potential impacts of the environment on
6 potential impacts of the project on environmental justice
7 populations.

8 On July 12th, Applicant filed a comment responding
9 to OCA's comments and the committee considered those
10 comments before today's Business Meeting as well.

11 So based on the information in the record of this
12 proceeding and consideration of all comments received, on
13 behalf the committee I recommend that the Energy
14 Commission: 1) adopts the Committee Proposed Decision as
15 the Energy Commission's own final decision; 2) certify the
16 Final EIR, including the March 29th, 2022, addendum; and 3)
17 grant a Small Power Plant Exemption for the San Jose City
18 Backup Generating Facility.

19 That concludes my presentation. I'm available to
20 respond to any questions the Commissioners may have.

21 Otherwise, the parties, including applicant, staff, and
22 intervenor Robert Sarvey may address the Commission. Thank
23 you.

24 CHAIR HOCHSCHILD: Thank you, Deborah.

25 Let's go to public comment on Item 6.

1 MS. MURIMI: Thank you, Chair. We have Timothy
2 Jefferies from Boilermakers. Again, please state and spell
3 your name, give your affiliation if any. And for those
4 that are Zoom applicants you may use the raised-hand
5 feature.

6 MS. GALLARDO: Dorothy?

7 MS. MURIMI: You may use the raised-hand -- oh,
8 yes?

9 MS. GALLARDO: Apologies, this is Noemi, the
10 Interim Public Advisor interrupting. We actually should
11 start with Scott Galati. He's on as a panelist and can
12 turn on his video. We won't have a timer for him, but
13 he'll keep his remarks brief.

14 Scott, if you could turn on your camera? Oh,
15 there you are. Sorry, go ahead.

16 MR. GALATI: Thank you very much. Members of the
17 Commission, thank you for having this proposed decision on
18 this meeting for us, so we can meet our very important
19 schedule. We have participated in the process since 2019.
20 And on behalf of Microsoft I'm proud to present that we
21 have reviewed the proposed decision and also agree with the
22 Hearing Officer's characterization of the most recent
23 comments. And we very much ask for your support and
24 approval today so we can build this project, get over to
25 the City of San Jose, get our permits.

1 So thank you very much. I'm available for any of
2 the questions that you might have. And we have members of
3 our team, including Jonathan Noble (phonetic) representing
4 Microsoft if you have any additional questions.

5 MS. MURIMI: Thank you, Scott.

6 We'll go on to other public commenters. Again,
7 if you'd like to be able make a comment go ahead and use
8 the raised-hand feature, looks like a high-five or open
9 palm at the bottom of your screen or device. Press *9 to
10 raise your hand if you calling in, and *6 to unmute on your
11 end.

12 I see Timothy Jefferies. Please state and spell
13 your name and you may begin your comments.

14 MR. JEFFERIES: Thank you again, panelists. I
15 was here for the last item, but I will speak on this as
16 well too. My name is Timothy Jefferies. My last name is
17 J-E-F-F-E-R-I-E-S. I'm with the International Brotherhood
18 of Boilermakers representing over 2,000 boilermakers in
19 Northern and Southern California.

20 The power industry is what we do and, as was
21 stated earlier, California is going in a different
22 direction about energy. And we as a workforce of
23 boilermakers are concerned. We would like to be a part of
24 that going forward. And this project will also be right up
25 the alley of Boilermakers, putting boilermakers to work

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1 here in the Bay Area and giving them a sustainable and
2 livable wage. And so I appreciate that. And I would ask
3 you, I request you go ahead and pass this amendment as
4 well, too. Thank you.

5 MS. MURIMI: Thank you.

6 And apologies, I'd like to make a call again for
7 our parties wishing could make a comment on this item.
8 Again, parties wishing to make a comment on this item go
9 ahead and use the raised-hand feature. And if you're a
10 panelist go ahead and turn on your video. Apologies. Go
11 ahead and turn on your video to make that comment. We'll
12 give that one moment.

13 MR. BABULA: This is Jared Babula, I'm Staff
14 Counsel. And so I would just like to echo what Hearing
15 Officer Dyer -- her detailed analysis is consistent with
16 staff's view. And we did review the comments that were
17 received recently from Ada Marquez, and we concur with Mr.
18 Galati's filing that the issues have been addressed.
19 There's nothing new that was brought up in the comments.
20 And the comprehensive 500-page Environmental Analysis
21 covered all of the aspects and concerns weighed, especially
22 environmental justice issues.

23 And so if there are questions from the
24 Commissioners, we do have technical staff available. But
25 otherwise I think Hearing Officer Dyer's synthesis was

1 excellent. Thank you.

2 MS. MURIMI: Thank you, Jared.

3 Thank you, Chair. And we have no more comments.

4 I'll hand the mic back to you.

5 CHAIR HOCHSCHILD: Thank you.

6 Okay, we'll move to Commissioner discussion

7 starting with Commissioner Monahan.

8 COMMISSIONER MONAHAN: Thank you, Chair. Well, I

9 just want to begin by saying that although I've

10 participated in other Small Power Plant Exemption

11 proceedings this was my first time as a Presiding Member.

12 And as Hearing Officer Dyer noted staff issued an

13 Environmental Impact Report that found that neither the

14 construction, nor the operation of the project would have

15 significant adverse impacts on the environment or on energy

16 resources. Our proposed decision finds that the Final EIR

17 is CEQA compliant and that it thoroughly and adequately

18 assesses potential environmental and energy resource

19 impacts. With the implementation of the specific

20 mitigation measures project impacts are less than

21 significant.

22 The proposed decision also finds that the project

23 will generate less than 100 megawatts of electricity, which

24 is the qualifying line for an SPPE.

25 And we had a very robust public process. There

1 was information and comments from the applicant, staff, and
2 intervenors. We considered written comments on the draft
3 EIR from a series of stakeholders. We also considered
4 written comments on the final EIR on behalf of the
5 Organización Comunidad de Alviso and the Applicant's
6 response to that comment.

7 So I just want to thank everybody involved in
8 this process: the CEC staff, the Applicant, the
9 intervenors, and all the public commenters for their
10 thoughtful engagement in this proceeding. Their
11 participation and input has made this a very robust
12 process, which resulted in a thorough consideration of the
13 project and issues presented in this SPPE.

14 So I want to thank the CEC's Hearing Unit,
15 including our able Hearing Officers Deborah Dyer and Caryn
16 Holmes, for all their hard work and dedication on this.
17 And especially want to thank also my advisor Mona Badie for
18 her support in this proceeding. It's great to have such an
19 astute legal team working on this.

20 And finally, I want to thank Commissioner Vaccaro
21 and her advisors for their work. I'm sorry that
22 Commissioner Vaccaro is not here today to provide her
23 feedback. And I really appreciated her expertise and
24 insights along the way.

25 So I urge -- I'm going to support this, and I

1 recommend that we approve this item.

2 CHAIR HOCHSCHILD: All right, thanks. Well
3 unless there are other Commissioner comments would you be
4 willing to move Item 6?

5 COMMISSIONER MONAHAN: I move Item 6.

6 CHAIR HOCHSCHILD: Vice Chair Gunda, would you be
7 willing to second?

8 VICE CHAIR GUNDA: Second Item 6.

9 CHAIR HOCHSCHILD: All in favor say aye.
10 Commissioner Monahan?

11 COMMISSIONER MONAHAN: Aye.

12 CHAIR HOCHSCHILD: Vice Chair Gunda?

13 VICE CHAIR GUNDA: Aye.

14 CHAIR HOCHSCHILD: Commissioner McAllister?

15 COMMISSIONER MCALLISTER: Aye.

16 CHAIR HOCHSCHILD: And I vote aye as well. Item
17 6 passes 4-0.

18 We'll turn now to Item --

19 COMMISSIONER MONAHAN: Oh, Chair?

20 CHAIR HOCHSCHILD: I'm sorry, go ahead.

21 COMMISSIONER MONAHAN: I want to make a few final
22 comments that are sort of unrelated to the (indiscernible)
23 approval process for this item.

24 So I just want to mention, I think we all know
25 resilient power supplies are necessary in our state and

1 including with data centers through the pandemic. We've
2 all become acutely aware of the role of good internet for
3 the work that we do, and lifesaving work in some cases for
4 some folks in the state.

5 This is the first data center SPPE that the
6 Energy Commission has evaluated that will use natural gas
7 generators for the majority of its backup power, rather
8 than diesel backup generators. And I hope that as our use
9 of technology, clean technology expands, that we will
10 continue to use and develop cleaner technologies to provide
11 power resilience to our data centers.

12 So going hand-in-hand with the projects, moving
13 away from diesel fuel and its backup generators is the
14 possibility that the San Jose City data center can assist
15 California's grid system and the event of electrical
16 curtailment events through participation in PG&E's BIP, or
17 the Base Interruptible Program. And I'm sure, Vice Chair
18 Gunda, this is something of interest to him and the work on
19 resilience. So it'll be interesting to see how projects
20 like this one can be used to help respond to help balance
21 the grid and improve reliability.

22 So I just wanted to make those statements, and
23 because I think they were important for things to grow out
24 from this proceeding.

25 CHAIR HOCHSCHILD: Thank you, I appreciate that.

1 So as I mentioned Item 7 on Offshore Wind, we'll
2 take up after Item 15. And we'll turn now to Item 8,
3 Humboldt State University Sponsored Program Foundation.
4 (Silence on the line.)

5 VICE CHAIR GUNDA: Jim, you're muted.

6 MS. MURIMI: Jim, you're muted.

7 CHAIR HOCHSCHILD: Hey, Jim, we are not hearing
8 you.

9 MR. BARTRIDGE: Well, let's try again

10 CHAIR HOCHSCHILD: All right, there we go.

11 MR. BARTRIDGE: Okay, great. Sorry.

12 Good morning, Chair and Commissioners. I'm Jim
13 Bartridge with the Energy Resource and Land Use Planning
14 Office in the Siting, Transmission and Environmental
15 Protection Division. I'm presenting for your approval
16 today a proposed resolution approving an agreement with
17 Humboldt State University Sponsored Programs Foundation to
18 analyze transmission infrastructure limitations and
19 opportunities, map existing infrastructure, and provide
20 technical data and assistance to further assess wind energy
21 resources off the coast of Northern California and Southern
22 Oregon. And adopting staff's determination that this
23 project is exempt from CEQA. Next slide, please.

24 California, particularly the northern coast
25 region, has some of the best offshore wind resources in the

1 country. And floating offshore wind is emerging as a
2 promising source of renewable energy generation for
3 California, Oregon and the West Coast. The electric system
4 in this area is relatively isolated and additional
5 transmission infrastructure will be needed to support the
6 development of and deliver energy from this area in the
7 future.

8 The Northern California & Southern Oregon Mission
9 Compatibility and Transmission Infrastructure Assessment
10 Project contract is funded by a grant from the U.S.
11 Department of Defense Office of Local Defense Community
12 Cooperation to assist California, Oregon and stakeholders
13 to further assess and identify areas for offshore wind
14 development while addressing and preventing encroachment on
15 DOD testing, training and military operations areas.

16 It will also support continued community economic
17 development and enhance civilian and military
18 communication, collaboration, and partnership. Next slide,
19 please.

20 The primary goal of this project is to provide
21 data, mapping and technical analysis to support continued
22 partnership and promote early consultation with the DOD to
23 prevent impacts to testing, training and operational areas.

24 The project will develop a detailed technical
25 analysis for transmission infrastructure limitations and

1 opportunities, map that existing infrastructure, and
2 provide information that will allow California, Oregon,
3 stakeholders, and developers to further assess and identify
4 areas best suited for offshore wind development.

5 The project will also develop scenarios for
6 different levels of offshore wind development to deliver
7 energy to California, Oregon, and the broader Western grid.
8 Next slide, please.

9 Part 1 of the project will map and evaluate the
10 existing electric infrastructure in Northern California and
11 Southern Oregon, including generation type and source,
12 transmission, and distribution systems. This will allow
13 for early identification of potential siting conflicts with
14 military areas.

15 Part 2 of the project will develop infrastructure
16 scenarios and frameworks to describe and assess how
17 different geographic assumptions for offshore wind energy
18 resources can contribute to the electricity supply for
19 California, Oregon, and the broader Western region.

20 The scenarios will attempt to integrate
21 technological, economic, and deployment-related
22 information. And all information will be assembled into a
23 final report that will support the Commission's Offshore
24 Wind Strategic Plan next June. Next slide, please.

25 So here's a quick look at the project structure.

1 The Core Steering Group will consist of the CEC, the ODOE
2 which is the Oregon Department of Energy, and the
3 Department of Defense, and will provide key input, data,
4 and guidance for the project. The CSG will also help
5 develop and maintain relationships with key stakeholders.

6 Our technical contractor and their team will
7 perform the bulk of the work, assisted by a Technical Focus
8 Group that will provide technical expertise, guidance, and
9 input. The TFG will include individual staff
10 representatives from the CEC, ODOE, and the DOD, other
11 state and federal agencies, electric utilities and
12 balancing areas representatives from each state, national
13 labs, regional organizations, and other entities. Next
14 slide, please.

15 So I won't go into detail on this slide, but just
16 wanted to give you a snapshot of the participants we'll be
17 inviting to participate as part of TFG. I'll note here
18 NREL, under the Federal, NREL is a sub to the Schatz Group
19 working on this, but we do have a support letter as well
20 from Pacific Northwest National Lab. Okay, and next slide,
21 please.

22 The contract, again, is funded by a grant from
23 the U.S. Department of Defense Office of Local Defense
24 Community Cooperation. Next slide.

25 And with that staff recommends approval of the

1 proposed agreement with the Humboldt State University
2 Sponsored Programs Foundation and adoption of staff's
3 determination that the project is exempt from CEQA. I'm
4 happy to answer any questions.

5 CHAIR HOCHSCHILD: Thank you so much, Jim.

6 We'll turn now to public comment on Item 8.

7 MS. MURIMI: Thank you, Chair.

8 So for individuals that are on Zoom go ahead and
9 use the raised-hand feature, it looks like a high-five or
10 an open palm at the bottom of your screen or device. And
11 for those joining us via phone go ahead and press *9 to
12 raise your hand and *6 to unmute on your end.

13 We'll give that one moment. Again, use the
14 raised-hand feature to raise your hand if you're on Zoom
15 and press *9 if you're calling in. I see one commenter,
16 Doug LeMoine. Apologies if I've misstated your name.
17 Again, this is for Item 8, public comment for Item 8.
18 Seeing no -- oh, one moment, Chair.

19 Nancy Kirschner-Rodriguez, please state and spell
20 your name, give your affiliation, if any. Again, this is
21 for Item 8.

22 MS. KIRSHNER-RODRIGUEZ: Yep. Thank you, Nancy
23 Kirschner, K-I-R-S-C-H-N-E-R, hyphen Rodriguez, R-O-D-R-I-
24 G-U-E-Z, Business Network for Offshore Wind. And I just
25 want to commend the Commission for pursuing this and the

1 broad group of partners and recognize how incredibly
2 significant this study will be for the future of offshore
3 wind in the Pacific. And I just want to mention that the
4 Business Network, we have an ongoing grid and transmission
5 working group and we would welcome the opportunity to be
6 supportive. Thank you.

7 MS. MURIMI: Thank you for that comment.

8 One more time for individuals on Zoom, you can
9 use the raised-hand feature and those calling in press *9.
10 Seeing no comments, Chair I'll hand the mic back to you.

11 CHAIR HOCHSCHILD: Okay. Well thank you, Jim,
12 for all your work and that of the rest of the team there.
13 And to Commissioner Vaccaro and her team for this important
14 step forward. Unless there are Commissioners wishing to
15 make a comment -- yeah, go ahead, Vice Chair Gunda, please.

16 VICE CHAIR GUNDA: Yeah, thank you, Chair. I
17 just wanted to thank Jim and team for this item. I just
18 kind of want to note a couple of things. Given the
19 importance of the journey towards the clean energy, the
20 diversity of resources that has to be considered, the
21 importance of offshore wind as a potential mix, this kind
22 of proactive work is extremely helpful in charting out a
23 path as we move forward. So I just want to commend the
24 team's leadership, Commissioner Vaccaro's leadership on
25 helping move this conversation forward by adding this to

1 the portfolio of work we are conducting.

2 And so Jim, you've been critical part of the SB
3 100 journey, the last report. And I know you'll continue
4 to play a role, whether you want it or not. So I've just
5 got to request you to keep the teams aligned in terms of
6 the lessons learned and how do we incorporate these things
7 to make whatever work we do holistic and comprehensive. So
8 with that again, thank you for bringing this item forward,
9 thank you for your leadership and the team's work, looking
10 forward to supporting it.

11 MR. BARTRIDGE: Thank you.

12 CHAIR HOCHSCHILD: Thank you.

13 Commissioner McAllister?

14 COMMISSIONER MCALLISTER: Yeah, so just to add to
15 what Vice Chair Gunda said, I think it's some notable
16 aspects of this are -- and thank you, Jim and team, for
17 everything on this item.

18 The partnership with Oregon I think it's
19 fantastic and just a really integral partnership with the
20 federal government. And embracing sort of all the aspects
21 of the need here will help lay groundwork, not just for
22 California but really much more broadly for the west.
23 We're not the only state that needs these kinds of
24 resources, and I think really looking forward to seeing
25 this project move forward and the results. So thanks a lot

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1 Jim and team for bringing it forward.

2 CHAIR HOCHSCHILD: With that would you be
3 willing, Commissioner McAllister, to move this item?

4 COMMISSIONER MCALLISTER: Yes, I will move Item
5 8.

6 CHAIR HOCHSCHILD: Okay, Vice Chair Gunda, would
7 you be willing to second?

8 VICE CHAIR GUNDA: Yes, second Item 8.

9 CHAIR HOCHSCHILD: All in favor say aye.
10 Commissioner McAllister?

11 COMMISSIONER MCALLISTER: Aye.

12 CHAIR HOCHSCHILD: Vice Chair Gunda?

13 VICE CHAIR GUNDA: Aye.

14 CHAIR HOCHSCHILD: Commissioner Monahan?

15 COMMISSIONER MONAHAN: Aye.

16 CHAIR HOCHSCHILD: And I vote aye as well. Item
17 8 passes 4-0.

18 We'll turn now to Item 9, Lumen Energy Strategy.

19 MS. WILHELM: Good morning, Chair, Vice-Chair,
20 Commissioners. I'm Susan Wilhelm, Technical Lead for
21 Energy-Related Environmental Research. Today I'm here to
22 request approval of a single agreement supported by a
23 solicitation that brings climate science and energy system
24 modeling to bear on electricity sector resilience planning.
25 Next slide, please.

1 The proposed agreement is with Lumen Energy
2 Strategy, a California-based microbusiness whose principal
3 researchers each bring more than 15 years' electricity
4 sector consulting experience, serving regulators,
5 utilities, bulk grid operators, and a diversity of other
6 actors. The overarching goal of the proposed work is to
7 advance the state's clean energy and climate goals by
8 supporting integration of climate resilience considerations
9 and to state energy-planning processes.

10 As we've seen in recent years with dramatically
11 diminished hydropower generation resources, with wildfire-
12 related transmission outages, with soaring net peak load
13 during regional heatwaves integrating climate change into
14 electricity sector resource planning processes is
15 absolutely essential to charting a transition to 100
16 percent zero-carbon energy that is resilient, that is
17 reliable, and that is cost-effective. Next slide, please.

18 Recognizing that the California joint agencies
19 have not established a formal definition for "resilience,"
20 Lumen will engage stakeholders in developing a working
21 definition of "electricity supply resilience," and a
22 conceptual framework for resilience planning.

23 This framework will serve as a basis for building
24 a resilience assessment model that enables comparison of
25 cost and reliability tradeoffs of alternative future

1 portfolios and development pathways that will help take us
2 to our SB 100 goals.

3 In parallel with development of this innovative
4 new loss-of-load model, Lumen will be reworking inputs and
5 assumptions to existing resource planning models to capture
6 key climate-related uncertainties and risks to electricity
7 supply and delivery. This will enable Lumen to support
8 existing processes, such as supply and demand forecasting,
9 integrated resource planning, support the existing
10 processes through incremental improvements to our current
11 modeling frameworks while at the same time building a more
12 powerful resilience planning framework that is designed
13 specifically to shed light on electricity sector resilience
14 in a changing climate. Next slide, please.

15 This proposed effort contributes to a broader
16 portfolio of EPIC research that sits at the nexus of energy
17 system modeling represented here by the trio of agreements
18 on the right-hand side of this slide, and climate science
19 which is represented by the two ongoing agreements on the
20 left-hand side of the slide. Collectively, these efforts
21 aim to provide a rigorous foundation for revamping
22 electricity sector planning processes to help us cope with
23 California's changing climate while we meet our ambitious
24 climate goals.

25 And I would like to thank colleagues in the CEC's

1 Energy Assessment Division, specifically in the Supply
2 Analysis Branch and Demand Analysis Branch for ongoing
3 discussions that are helping us advance research to provide
4 timely, transparent, publicly accessible data and
5 analytical frameworks to support climate resilient planning
6 in the context of our rapidly evolving electricity system.
7 Next slide, please.

8 In closing, staff recommends approval of this
9 agreement and adoption of staff's determination that these
10 projects -- sorry this project, only one -- is exempt from
11 CEQA. Thank you so much for your consideration.

12 CHAIR HOCHSCHILD: Thank you, Susan. And, as
13 always, thanks for your incredible diligence and hard work.

14 We'll go to public comment on Item 9 at this
15 time.

16 MS. MURIMI: Thank you, Chair.

17 So for attendees on Zoom go ahead and use the
18 raised-hand feature, it looks like that open palm or high-
19 five at the bottom of your screen or device. If you are
20 calling in go ahead and press *9 to raise your hand and *6
21 to unmute on your end.

22 Seeing no comments, Chair, I'll hand the mic back
23 to you.

24 CHAIR HOCHSCHILD: Okay, well, I think this is
25 pretty straightforward, cut and dry. It's exactly the kind

1 of analysis we need to support resilience and reliability
2 in a changing climate, so I'm very glad to see this. And I
3 would open up to other colleagues. Vice Chair Gunda,
4 please go ahead.

5 VICE CHAIR GUNDA: Yeah, thank you, Chair.

6 And first of all, Susan, thank you for the
7 presentation, but years of work on advancing the climate
8 science at CEC. You've been a real champion of this work
9 and I just want to acknowledge your work and thank you for
10 everything you do in this area. So I think most of the
11 presentation you laid out is the importance of this, as a
12 note for the broader public, but also just as a way of
13 conversing with the rest of the Commissioners here and
14 colleagues

15 The reliability crisis we're in right now stems
16 from a lack of understanding, an adequate way of modeling
17 climate as we move forward as well as understanding how the
18 supply side resources react under different levels of
19 climate assumptions, as well as demand, so I think it's a
20 very complicated situation that we're in. And then you
21 also kind of broadened the resiliency element, not just the
22 reliability, which is even more critical as we lay it in.
23 And then how do we standardize that analysis?

24 I think this is an extremely important work to be
25 done. And I'm so glad that you've built the relationships

1 within the agencies, but also outside -- I mean within the
2 CEC as well as outside of the agencies to help steer this.
3 So I just look forward to hearing more about this and thank
4 you for your work and looking forward to supporting it.

5 CHAIR HOCHSCHILD: Thanks.

6 Let's go to Commissioner McAllister.

7 COMMISSIONER MCALLISTER: Great. Well I will
8 reiterate thanks to Susan, thanks for all your work just
9 throughout the years, but in particular this item. I mean
10 a couple of notable things I wanted to mention, just the
11 need for metrics so that we can gauge, so that we could
12 actually set a target, or set of targets, a group of
13 targets, and then know actually how much progress we're
14 making toward those targets. I mean, that's fundamental to
15 really narrowing the error bands around our decisions.

16 And that's part of the problem with climate
17 change is that the error bands are just getting wider and
18 wider. And so anything we can do to increase rigor and
19 really lay a foundation that is known and agreed upon and
20 comment all of our various discussions is critical.

21 And then I just wanted to point out the nexus
22 between supply and demand climate change is stressing out,
23 from the west-wide transmission grid, both transmission
24 grids, all the way down to individual appliances where you
25 have climate-based loads or climate-centric loads. And so

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1 really great to see, I really appreciated the visual
2 relating all of these various pieces.

3 And really, I want to just keep encouraging our
4 various teams and contractors to talk to each other about
5 the demand side and the supply side. And really making
6 sure that they are kind of communicating in the analysis
7 sides, because they will be communicating in real time on
8 the actual grid operation side over time as we develop
9 tools to enable that.

10 So I'm just really looking forward to this work
11 and it's enabling us to focus on more specific and tailored
12 solutions to the actual problems that surface. So thanks
13 again, Susan.

14 CHAIR HOCHSCHILD: (Overlapping colloquy) And are
15 you looking forward -- are you looking forward to it enough
16 to move the item?

17 COMMISSIONER MCALLISTER: Yes, I am looking
18 forward to it enough to move the item as expeditiously as
19 possible. (Overlapping colloquy.)

20 CHAIR HOCHSCHILD: Commissioner Monahan would you
21 be willing to second?

22 COMMISSIONER MONAHAN: I second it.

23 CHAIR HOCHSCHILD: All in favor say aye.

24 Commissioner McAllister?

25 COMMISSIONER MCALLISTER: Aye.

1 CHAIR HOCHSCHILD: Commissioner Monahan?

2 COMMISSIONER MONAHAN: Aye.

3 CHAIR HOCHSCHILD: Vice Chair Gunda?

4 VICE CHAIR GUNDA: Aye.

5 CHAIR HOCHSCHILD: And I vote aye as well. Item
6 9 passes 4-0.

7 We'll turn now to Item 10, Institute of Gas
8 Technology dba Gas Technology Institute.

9 MR. HOU: Thank you, Chair. Good morning, Chair,
10 Vice Chair, Commissioners. My name is Yu Hou. I work in
11 the Energy Research and Development Division. And today I
12 am recommending approval of an award to the Institute of
13 Gas Technology, also known as GTI, for a study to examine
14 the effects of hydrogen in end-use appliances for large
15 commercial buildings and industrial applications. This
16 award was a result of a competitive solicitation. The
17 purpose of the study is to identify the impacts associated
18 with the use of hydrogen and the hydrogen blends in the
19 existing equipment as a potential decarbonization strategy
20 for hard-to-electrify applications in those sectors. Next
21 slide.

22 Electrification is a primary pathway to meeting
23 our GHG emission reduction goals. However, in some
24 applications in large commercial buildings and the
25 industrial sectors they can be difficult to electrify, and

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1 it is currently a source of significant GHG emissions.
2 This proposed study will provide us with information on the
3 limitations of existing equipment to handle different
4 views, safety implications, and emissions impacts of
5 adopting hydrogen-based fuels. As shown in the picture
6 here, this is an example in GTI's laboratory setup to test
7 hydrogen-based fuels.

8 The project will benefit Californians by
9 assessing the potential of hydrogen as a viable
10 decarbonization strategy for hard-to-electrify applications
11 in those sectors. This information will equip California
12 with the necessary guidance to potentially bring hydrogen
13 as an alternative fuel to the market, and to help prevent
14 negative health outcomes. Next slide.

15 The key objective of the study is to look at
16 hard-to-electrify applications in large buildings and
17 industrial sectors through a techno-economic analysis,
18 laboratory testing, calibrating numerical simulation to
19 help determine whether hydrogen-based use is a viable
20 strategy.

21 Some examples are shown here such as industrial
22 furnaces and large boilers. Next slide, please.

23 The grant agreement will focus on identifying and
24 resolving key research and technology gaps concerning, so
25 the following tasks. First, it's a techno-economic

1 analysis to identify the specific target equipment that is
2 hard to electrify, but could be a candidate for hydrogen
3 substitution.

4 The second is a laboratory testing to determine
5 the technical limitations of the hydrogen-based fuel in
6 current equipment.

7 Third, it's a calibrated simulation of combustion
8 equipment. And then followed by air quality modeling to
9 investigate the potential impact on emissions from fuel-
10 switching. The example is there is some early indication
11 that there could be a change in NOx emissions if we switch
12 fuels due to the higher temperature.

13 Stakeholder engagement follows to help inform the
14 research and can include academia, equipment manufacturers,
15 researchers, hydrogen producers, industries, large
16 commercial building owners and communities.

17 The results of the study will be shared with
18 stakeholders through a public workshop. Next slide,
19 please.

20 Staff recommends approval of this grant and adopt
21 the staff's determination that the project is exempt from
22 CEQA. Abigail Jacob and I are available for any questions.
23 Dr. Kaushik Biswas from GTI is also on the line. This
24 concludes my presentation. Thank you for your time.

25 CHAIR HOCHSCHILD: Thank you so much, Yu Hou.

1 Let's go to public comment on Item 10.

2 MS. MURIMI: Thank you, Chair. For individuals
3 that are on Zoom go ahead and use the raised-hand feature,
4 it looks like a high-five or an open palm at the bottom of
5 your screen or device. And for those calling in go ahead
6 and press *9 to raise your hand and *6 to unmute on your
7 end.

8 Once again, for those on Zoom use the raised-
9 hand feature, it looks like the high-five or open palm at
10 the bottom of your screen or device. And for those calling
11 in press *9 to raise your hand and *6 to unmute.

12 Seeing no comments, Chair, I'll hand the mic back
13 to you.

14 CHAIR HOCHSCHILD: Okay let's go to Commissioner
15 discussion. Commissioner, or Vice Chair Gunda, why don't
16 you begin?

17 VICE CHAIR GUNDA: Yeah, thank you, Chair. I
18 just want to note the importance of this work, both through
19 the lens of IEPR. This year, as we've kind of discussed,
20 this is an important track in IEPR. And I also want to
21 first begin by thanking Commissioner Monahan and
22 Commissioner McAllister's leadership on both hydrogen
23 elements, but also the industrial decarbonization, I just
24 want to thank them for their leadership.

25 And Yu Hou thank you for the for the

1 presentation. Just a couple of high-level comments, it
2 could be just a comment or a question depending on if you
3 want to respond. As we look through this kind of important
4 sector for decarbonization what were kind of the lack of
5 information, or our information gap, has been how to really
6 think about modeling the potential demand reduction of
7 demand changes on the system, because of hydrogen pathways.
8 And which industrial sectors, at what levels, as a way to
9 think about the future, right? As a way of thinking about
10 how do we then support that on the supply side.

11 So I want to just understand how this project
12 could help inform that?

13 Second, I don't necessarily see both the hydrogen
14 creation part of it, but also the transport of it for the
15 users here? Are we going to tackle that, even
16 perfunctorily in this?

17 And finally, on the air quality modeling, what's
18 the scope of it? Are we going to be doing dispersion
19 modeling to really understand the broader elements?

20 So I just wanted you to think about them. You
21 don't have to answer if you don't want to at this point.
22 But it's important that this work is treated as an
23 important step towards our SB 100 work. And how this
24 intersects both in the SB 100, but also the gas transition
25 work, right? I would really encourage you to keep in touch

1 with Terra Weeks, who has been taking point on thinking
2 through the gas transition for CEC. And I appreciate your
3 collaboration across all the particular departments in the
4 agencies. Thank you.

5 MR. HOU: Thank you, Vice Chair. So some of the
6 -- I can certainly address some of your questions. So on
7 the generation of fuel and the production of hydrogen and
8 transportation it's not within the scope of this. And we
9 actually purposely didn't include anything like a CHP
10 application, generation application.

11 There are some questions when we had some
12 (indiscernible) where exclusively focusing on those hard-
13 to-electrify applications in large building, industrial
14 sector, for end use, right? So that's one.

15 And for air quality modeling, it is going to be
16 a regional modeling because the NOx emission it's one, the
17 top priority we're looking at. And that's a
18 (indiscernible) around air pollutant. And you will need to
19 have -- we didn't allow air quality modeling to turn
20 emissions into exposure impacts, right? Because nobody is
21 going to be sitting right next to the stack, but people
22 living in the region will be potentially impacted.

23 We certainly will coordinate with the gas
24 transition. I believe that there are other efforts
25 addressing the transmission part. Also, I believe we

1 already have work in on the production side as well, so
2 absolutely happy to coordinate. And thank you for your
3 comment.

4 VICE CHAIR GUNDA: Yeah. Yu Hou, just kind of
5 closing that I think R&D does an extraordinary job in
6 planning of the totality of work, you do a really great
7 job. So I think given that we are at the beginning of the
8 gas transition and the future of gas and the clean
9 molecules, it would be really helpful as we fund these to
10 really construct how they feed into each other. And note
11 how they all fit together right, so we can really leverage
12 the work. And then if there is incremental efforts we
13 could put into these contracts and agreements to really
14 help inform the broader strategy, it would be really,
15 really helpful.

16 So again, thank you for the presentation and
17 thanks for the excellent work R&D does. And I look forward
18 to continued discussion, thank you.

19 CHAIR HOCHSCHILD: Thank you.

20 Let's go to Commissioner McAllister.

21 COMMISSIONER MCALLISTER: Thank you Chair, Vice
22 Chair. And thanks to you and the whole team for just
23 developing the whole suite of projects here. I'm really
24 impressed by your effort and just consideration and
25 thoughtfulness, including this one.

1 And I appreciate -- well, a couple comments and
2 then a question -- I appreciate the exclusion of
3 transportation, because you have to limit the scope somehow
4 so that it's doable in a given contract.

5 I would just make a comment that emerging issue
6 of sort of onsite generation of hydrogen versus
7 transportation to a site. And that may end up being a big
8 driver of the overall impact or feasibility. So we
9 encourage R&D Division to develop that idea further and
10 sort of make sure that our projects are looking at the
11 various sort of the role of off-takers (phonetic) and the
12 site of generation of hydrogen, an important issue.

13 And second, on the NOx front just building on
14 what Vice Chair Gunda said, I definitely would hope that
15 we're coordinating with the AQMDs on that. The NOx issue
16 is huge and there's just we're really in a bind in terms of
17 -- particularly in the (indiscernible) ozone and NOx is a
18 key element there, so we've got to get a handle on. So any
19 increase in NOx is obviously going to be a big red flag.

20 My question is, maybe it's even for Dr. Biswas,
21 but perhaps you've thought about this and can answer as
22 well, I guess it's just a direct question. Is the 50
23 percent to 100 percent hydrogen, is that based on volume or
24 energy? There's a big difference.

25 MR. HOU: Yes, so it is based on volume. And,

1 yes, because the nature of the hydrogen molecule 50 percent
2 volume doesn't give you 50 percent energy and it doesn't
3 mean it's 50 percent of emission reduction.

4 So currently most other study -- and also this is
5 easier to control from an experimental perspective right,
6 it's much easier to control your fuel originally in front
7 of mixing (phonetic). But we will -- certainly looking at
8 from 50 percent to 100 percent in terms of mixing water,
9 we'll look at the emission reduction. Certainly if you go
10 to 100 percent right, then we've essentially replaced all
11 the methane. But perhaps there are some numbers in between
12 that you could achieve a higher level of emission.

13 But yeah, so to easier answer to your question
14 Commissioner it's that those presented are water-based.

15 COMMISSIONER MCALLISTER: Thank you very much.
16 I'm supportive of this project. And I don't know if
17 Commissioner Monahan wanted to chime in.

18 CHAIR HOCHSCHILD: I think Commissioner Monahan,
19 do you want to comment?

20 COMMISSIONER MONAHAN: Yeah, I wanted to just
21 respond to some of the issues that Vice Chair Glenda and
22 Commissioner McAllister raised around why it's this study,
23 why not the inclusion of pipeline or eventual inclusion of
24 pipeline. And to me it actually makes sense to start with
25 this, because we do have questions about what the

1 combustion of hydrogen means in terms of NOx admissions.
2 We don't have that in transportation, when it's going
3 through a fuel cell it's zero emission. So this is a
4 completely different process and I think we know little
5 about it.

6 And what we do know is that high-heat
7 applications in the industrial sector are really hard to
8 electrify. We don't have a solution there. And so this is
9 a great study.

10 I think also it could potentially connect with
11 the hydrogen hub conversation. I think we're going to be
12 dealing with pipelines for hydrogen in other sectors before
13 we get to the industrial sector, so there are other places
14 where this is a real issue, and we need to evaluate it.
15 And I was just talking with a facility that's looking at
16 pipeline hydrogen and some of these questions around what
17 it does to the pipeline integrity.

18 So I feel like that's a broader question, kind of
19 separate from the -- as part of the industrial decarb, but
20 first let's do this first-level assessment about the
21 potential role and implications of what it means for
22 California's air quality goals. So I think we're all
23 curious about hydrogen, we all realize like we need to have
24 every tool we can in our toolbox. And for understanding
25 what that means for air quality is really going to be

1 important in our decision-making going forward.

2 So one of the things that you and I talked about
3 when we met with Virginia and the team was to connect
4 Andrew to the meetings -- Commissioner McCallister to the
5 meetings that we're hosting monthly around industrial
6 decarb. And then to connect it also to the IEPR, so to
7 integrate the interim results into the processes that are
8 ongoing, and the gas transition strategy as well. There's
9 all these intersection points so we want to extract what we
10 can and not wait until the end products before we start
11 taking some lessons learned.

12 CHAIR HOCHSCHILD: Great. Unless there are
13 additional comments Commissioner Monahan, would you be
14 willing to move Item 10?

15 COMMISSIONER MONAHAN: I move Item 10.

16 CHAIR HOCHSCHILD: And Commission McCallister,
17 would you be willing to second?

18 COMMISSIONER MCALLISTER: I second.

19 CHAIR HOCHSCHILD: All in favor say aye.
20 Commissioner Monahan?

21 COMMISSIONER MONAHAN: Aye.

22 CHAIR HOCHSCHILD: Commissioner McAllister?

23 COMMISSIONER MCALLISTER: Aye.

24 CHAIR HOCHSCHILD: Vice Chair Gunda?

25 VICE CHAIR GUNDA: Aye.

1 CHAIR HOCHSCHILD: And I vote aye as well. Item
2 10 passes 4-0.

3 We'll turn now to Item 11, DNV GL USA,
4 Incorporated.

5 MS. SCHMIDT-POOLMAN: Yeah, so good -- oh, it's
6 afternoon -- Chair, Vice Chair, and Commissioners. I am
7 Martine Schmidt-Poolman from the Energy Research and
8 Development Division. And today I am here to request
9 approval of an agreement that I'm quite excited about. It
10 will develop a data-driven, actionable tool that provides
11 valuable information for assessing the technical, social,
12 and economic feasibility of decommissioning specific
13 segments of the gas system. Next slide, please.

14 So the proposed agreement, which is called
15 "Mindful Decommissioning: A Data-Driven Tool for
16 Prioritizing Strategic Gas Asset Decommissioning," will be
17 with DNV GL. And the team will provide a systematic
18 approach for integrating disparate datasets from various
19 sources to support a cost-effective, equitable gas system
20 decarbonization.

21 In addition, it will help support controlling
22 costs to ratepayers, especially by avoiding unsustainable
23 large-cost burdens for ratepayers. And it'll support
24 maintaining gas system safety. Next slide, please.

25 Great. So in spring 2020, CEC released a final

1 report of research by E3 on "The Challenge of Retail Gas in
2 California's Low-Carbon Future." And one of the key
3 findings out of that was that a strategic transition of
4 California's gas system really is desirable. However, the
5 data and tools available to state agencies and other
6 stakeholders at that time, and also this time still, do not
7 really support that spatial planning of decommissioning
8 with consideration of cost and equity issues. And so today
9 we are requesting about \$1.5 million in funding for this
10 grant agreement which is really intended to address this
11 important gap and then help enhance the capacity of state
12 agencies, IOUs, local governments, and other stakeholders
13 to collaboratively plan. And develop policy for the gas
14 system in California's low-carbon future by screening for
15 these promising sites for decommissioning our gas
16 infrastructure.

17 And so what the project will do is it will
18 combine a suite of geospatial data layers into this visual
19 tool. It will provide the state agencies, local
20 governments, IOUs and the stakeholders this valuable
21 information for assessing the technical and economic
22 feasibility and other issues that are related to the
23 decommissioning of specific segments of the gas system.

24 So heterogeneous data types and sources that
25 cover technological, engineering, financial and social

1 factors, those will be combined. Metrics that capture
2 risks and benefits related to economic safety and equity
3 impacts will be incorporated into the tool.

4 The team will engage with stakeholders to further
5 understand the underlying variables and the data types that
6 are needed.

7 And then the tool will be tested out or will be
8 built and tested in ways to really visualizes the
9 geographic dependence of the risks and costs and benefits
10 of gas decommissioning.

11 We have worked really closely with our
12 colleagues, so staff at the California Public Utilities
13 Commission and within our own Energy Assessments Division,
14 especially to coordinate across all these ongoing processes
15 that exist. And to really make sure that we are leveraging
16 data collection efforts across the gas system planning
17 efforts.

18 So these efforts include CPUC's Long-Term Gas
19 Planning Rulemaking, our own 2021 Integrated Energy Policy
20 Report proceeding, and our Title 20 regulations for IOUs to
21 submit the hydraulic modeling and data.

22 And this coordination within the CEC and with our
23 colleagues at CPUC will also continue throughout this
24 project. Next slide, please.

25 So to close, staff recommends approval of this

1 grant energy agreement, and also adoption of staff's
2 determination that this item is exempt from CEQA. And so
3 this concludes my part of the presentation. And I want to
4 thank you for your consideration. But we also have our
5 colleague from CPUC, Eileen Hlavka, lined up to just have a
6 few words to share for you as well.

7 CHAIR HOCHSCHILD: Yeah, by all means. I mean
8 please go ahead.

9 MS. HLAVKA: Sure. Thank you, Martine. Thank
10 you, Commissioners. Good afternoon I'm Eileen Hlavka. I'm
11 a Senior Gas Planning Analyst at the California Public
12 Utilities Commission. The Public Utilities Commission and
13 the Energy Commission, as I'm sure you all know, both have
14 various gas planning activities and proceedings going on.
15 And as Martine noted we coordinate regularly at a staff
16 level, including regarding this particular project. As our
17 gas system faces increasingly difficult challenges this
18 particular project has the potential to use data to support
19 both statewide equity and local decision-making. So we are
20 really excited to see this grant moving forward.

21 CHAIR HOCHSCHILD: Great, thank you.

22 Let's go to public comment on Item 11.

23 MS. MURIMI: Thank you, Chair.

24 For individuals on Zoom who would like to make a
25 comment go ahead and use the raised-hand feature, looks

1 like a high-five or an open palm at the bottom of your
2 screen or device. For those coming in over the phone go
3 ahead and press *9 to raise your hand and *6 to unmute on
4 your end.

5 We'll give that one moment. Seeing no comments,
6 Chair, I'll hand the mic back to you.

7 CHAIR HOCHSCHILD: Okay, thanks.

8 Let's go to Commissioner discussion. Vice Chair
9 Gunda did you want to -- yeah?

10 VICE CHAIR GUNDA: Thank you, Chair. And I'm
11 also super-excited about this project and looking forward
12 to supporting it. I think just in the way of commenting in
13 the spirit of the discussion on the previous item, again I
14 think this is an important element of a broader transition
15 strategy. And so really look forward to continuing the
16 collaboration and expanding them as needed and connecting
17 them across different efforts.

18 And then Martine thank you for the presentation
19 and I look forward to your leadership in making that
20 happen.

21 So one, I know as we think through
22 decommissioning, especially, I think the geographical
23 nature of it becomes really important. I know the words
24 that we have in terms of socioeconomic impacts and
25 understanding the decommissioning, from the perspectives of

1 not only the physical and economic and operational states,
2 but also the socioeconomic, I think is extremely important.

3 The one thing I would urge for us to think
4 through is really the equity portion of this. Equity comes
5 in many flavors, right? And equity doesn't mean the same
6 for everybody. And I think it's important for us to have
7 the necessary public engagement in designing that for
8 ourselves. I know this tool might not go that far. It
9 might be the initial assessment that then generate the
10 necessary discussions. But to the extent that we could
11 front-end some of those conversations I think it would be
12 really helpful, including DACAG, understanding their
13 perspectives on it. And thinking through how we can
14 solicit some feedback from local governments or communities
15 on how to really have this tool made in a way that will be
16 most beneficial.

17 So that's just a high-level comment. I know you
18 are already on it, I just wanted to put it out there, thank
19 you. And thank you, Eileen, for your comments.

20 CHAIR HOCHSCHILD: Thank you.

21 Let's go to Commissioner McAllister.

22 COMMISSIONER MCALLISTER: Yeah, thanks Martine
23 and thanks Eileen, for being here. It's really great to
24 see collaboration here. I know that PUC is doing a lot of
25 interesting things on the gas side as well and Commissioner

1 Rechtschaffen is proceeding on the sort of the gas line
2 extension rate-basing. And this decommissioning or sort of
3 reworking of the gas system really is a fundamental issue
4 and it's really great.

5 I think that E3 initial work here was not ahead
6 of its time, but I think it was timed just right to get
7 this conversation moving and begin to sort of encourage
8 stakeholders and the agencies to get their heads around
9 what that really means because it is, as you said Martine,
10 a difficult set of issues.

11 And as Vice Chair Gunda said, equity is Job One
12 here in many ways to unwind the gas system, trying to
13 figure out what that Point B we were aiming for is, and do
14 it in a way that's equitable, so a big challenge and sort
15 of a reflection of the conversations on reliability and
16 investment in the electric side.

17 So I'm really excited about this. I think it's
18 exactly what's needed. It's good to sort of sharpen our
19 pencils and figure out the nuts and bolts of what has to
20 happen going forward with the gas system and be very
21 intentional about it. So I'm excited for this next step in
22 the evolution of gas planning.

23 CHAIR HOCHSCHILD: Thank you. Yeah, I second all
24 those comments. Unless there's comments from anyone else,
25 I'd invite Commissioner McAllister to move Item 11.

1 COMMISSIONER MCALLISTER: I move Item 11.

2 CHAIR HOCHSCHILD: Vice Chair Gunda, would you
3 second?

4 VICE CHAIR GUNDA: Yes, second Item 11. Thank
5 you.

6 CHAIR HOCHSCHILD: All in favor say aye.
7 Commissioner McAllister?

8 COMMISSIONER MCALLISTER: Aye.

9 CHAIR HOCHSCHILD: Vice Chair Gunda?

10 VICE CHAIR GUNDA: Aye.

11 CHAIR HOCHSCHILD: Commissioner Monahan?

12 COMMISSIONER MONAHAN: Aye.

13 CHAIR HOCHSCHILD: And I vote aye as well. Item
14 11 passes 4-0.

15 We'll turn now to Item 12, Volvo Technology of
16 America.

17 MS. ODUFUWA: Good afternoon, Commissioners. My
18 name is Esther Odufuwa, an Energy Commission Specialist
19 with the Fuels and Transportation Division. So today, I'll
20 be presenting the agreement with Volvo Technology of
21 America, LLC. And this agreement will be a \$2 million
22 grant to develop an electrified corridor for medium- and
23 heavy-duty battery electric vehicles. Next slide, please.

24 The proposed project will have multiple benefits
25 for California. First, it will result in an accessible

1 electrified corridor along State Route 99 and the
2 Interstate 5. These charging stations will increase access
3 to charging opportunities and reduce total cost of
4 ownership for medium- and heavy-duty zero-emission vehicles
5 by removing the cost of infrastructure installation from
6 fleets. And also provide them multiple locations across
7 Northern and Central California for opportunity charging.
8 The picture on this slide is from the Bakersfield location
9 that will be used for charger installation.

10 Now another benefit is that this project will
11 accelerate the conversion of all medium- and heavy-duty
12 vehicles to zero-emission vehicles by alleviating one of
13 the key concerns shared by many fleets, which is actually
14 lack of charging infrastructure. Thus, small business
15 fleets that lack the financial resources for investing in
16 large-scale charging infrastructure at their sites will
17 have access to publicly accessible charging stations.

18 One other thing to note is that within
19 California, trucks are the largest source of air pollution
20 amongst all vehicles and are responsible for one-third of
21 statewide oxides of nitrogen, or NOx emissions and 25
22 percent of statewide diesel particulate matter emissions,
23 despite numbering only 2 million among the 30 million
24 registered vehicles in the state.

25 So to address this sector on June 25, 2020, the

1 California Air Resources Board adopted a first-in-the-world
2 rule requiring truck manufacturers to transition trucks and
3 vans towards zero-emission technologies beginning in 2024.
4 So therefore, the deployment of a zero-emission
5 infrastructure and the operation of cleaner zero-emission
6 trucks are expected to actually result in cleaner air for
7 all. Next slide, please.

8 So specifically, Volvo Technology of America, LLC
9 is seeking to accelerate the adoption of these medium- and
10 heavy-duty vehicles in California through a publicly
11 accessible electrified corridor. Specifically, it will
12 deploy two DCFC, or Direct Current Fast Chargers, at five
13 dealership locations along Interstate 5 and the State Route
14 99 corridor for a total of ten DCFCs. And this corridor
15 will be the first charging corridor of its kind in our
16 state.

17 So as you can see on the map on this slide these
18 locations include Bakersfield, Fresno, Stockton, Dixon, and
19 Oakland. The Fresno, Stockton, and Oakland stations
20 located in disadvantaged communities and the Dixon and
21 Bakersfield stations are just outside a disadvantaged
22 community. As a result, this project will result in more
23 emissions reductions and cleaner air in both disadvantaged
24 communities and the surrounding communities.

25 In addition, this project is innovative, because

1 this grant will provide funding for use of a mobile
2 application that will provide a description of the charging
3 infrastructure at each of those charging sites. There will
4 be information on payment types that will accepted, and
5 there will be answers to frequently asked questions about
6 charging. Volvo will also operate a webpage that will
7 provide real-time updates about the charging stations.
8 Next slide, please.

9 The stations will use the Combined Charging
10 System, or CCS Type 1 standardized connectors that can be
11 utilized by all brands of trucks. So the photo on this
12 slide is that of a charger that will be deployed for this
13 project. It is a dual outlet CCS with cable management
14 system. Again, this project will be using ten of these
15 DCFC chargers, with two chargers at each of the five Volvo
16 dealership locations. Each charger will have a capacity of
17 180 kilowatts, but the charging speed will actually depend
18 on the trucks. So according to Volvo staff Volvo trucks
19 can accept 150 kilowatts and their next generation trucks
20 would be able to accept up to 250 kilowatts.

21 CHAIR HOCHSCHILD: Sorry Esther, can I just to
22 clarify? So it looks like you have 10 chargers, but you're
23 saying each charger will have two cords? Am I
24 understanding that right?

25 MS. ODUFUWA: Yes, yes.

1 CHAIR HOCHSCHILD: Okay.

2 MS. ODUFUWA: Basically this picture, so it's
3 dual cords. Yes.

4 CHAIR HOCHSCHILD: Got it. Thank you.

5 MS. ODUFUWA: So for these chargers there is
6 actually a charging management software system that will
7 give the capability to limit power during specific periods
8 and to adjust pricing. It will also comply with the
9 OpenADR standard, so that it can accept OpenADR signals
10 that will participate in Utility Demand Response programs.

11 So I believe Volvo is looking at those options to
12 address grid weakness in some of these locations, although
13 Volvo has also made specific plans for grid management at
14 this stage because no one actually knows what real demand
15 will be or when the peak demand periods will occur. But a
16 test of the management projects for this project, its
17 parameters will be uncovered, and the system they are
18 deploying will have the capability to address challenges to
19 the grid capacity.

20 It is also possible to rethink that
21 (indiscernible) charging during high-demand periods, either
22 by raising prices or lowering power levels or both. So in
23 addition, collecting data from this project will enable
24 Volvo to actually learn what is needed and then test the
25 various approaches to grid management. Next slide.

1 Now I'll briefly discuss the market
2 considerations for this project. So a little bit
3 background about the CEC's AB 2127 Report, it shows that
4 California will need an additional 157,000 chargers to
5 support the 180,000 medium-duty and heavy-duty vehicles
6 that are anticipated by 2030. Thus, the chargers for this
7 project will help reduce the charger gap. And moreover,
8 since 180,000 medium-duty vehicles are anticipated, these
9 chargers can be used to power many of those vehicles.

10 Another market consideration for this project is
11 that it will result in easily accessible high-power
12 charging. And as I mentioned earlier this will be the
13 first charging corridor of its kind in the state. This is
14 important because many major freeways actually lack robust
15 high-powered public charging. And this will be more
16 accessible than other DCFC sites.

17 For example, according to Volvo, the next closest
18 DCFC locations in Bakersfield is actually 8 miles to the
19 south and 25 miles to the north of Volvo's planned DCFC
20 Bakersfield site. Volvo has also stated that the next
21 closest DCFC location in Stockton is 8 miles to the north
22 and 10 miles to the south of Volvo's planned Stockton DCFC
23 site.

24 So shown on this slide again is another picture
25 view of the Bakersfield location that will be used for the

1 charger installation. Next slide.

2 Staff recommends approval of this grant award and
3 adoption of staff's determination that the action is exempt
4 from CEQA.

5 Thank you all for your time and consideration of
6 this item. Staff is available to answer any questions you
7 may have. And I believe there is also a representative
8 from Volvo that is available on Zoom to make comments.

9 CHAIR HOCHSCHILD: Thank you so much, Esther.
10 Let's go to public comment on Item 12.

11 MS. MURIMI: Thank you, Chair.

12 So for individuals who would like to make a
13 comment go ahead and use the raised-hand feature, it looks
14 like a high-five at the bottom of your screen or device.
15 For those calling in *9 to raise your hand and *6 to
16 unmute.

17 We'll start with Mike. Please state and spell
18 your name, give your affiliation, if any, and you may begin
19 your comment.

20 MR. IPPOLITI: Okay. Hello, this is Michael
21 Ippoliti, that's spelled I-P-P-O-L-I-T-I. I'm a Public
22 Projects Manager for Volvo Group North America.

23 Thank you, Mr. Chairman, thank you Esther, and
24 thanks to the California Energy Commission for this
25 opportunity to comment and for funding our California

1 Electrified Charging Corridor Project. Volvo has
2 successfully delivered very positive outcomes for
3 California under state-funded projects, with the Volvo
4 LIGHTS program being a prime example. Since Volvo LIGHTS
5 we have commercialized production of battery electric
6 trucks and are helping more customers transition to
7 electric trucks every day.

8 This California electrified charging corridor
9 project complements our market-leading Volvo VNR electric
10 truck by creating a charging corridor from Southern
11 California all the way up to the Bay Area. The project
12 will address key barriers to long-range medium- and heavy-
13 duty EV deployments. And all brands of battery electric
14 trucks can use these chargers to relieve range anxiety.

15 Many groups are working toward the goal of
16 expanding publicly available electric truck charging. With
17 the help of the CEC BESTFIT program, our fantastic Volvo
18 truck dealers and our lead partner Shell Recharge
19 Solutions, the California electrified charging corridor
20 project intends to be the first of these initiatives put
21 into service.

22 The project has the full support of our partners
23 who have embraced the risk of being leaders and invested
24 their own capital to help make public charging for battery
25 electric trucks a reality in California.

1 On behalf of the team I request you move forward
2 with approving the project as presented, and we will work
3 together to deliver outcomes that meet your expectations.
4 Thank you again.

5 COMMISSIONER MONAHAN: Can I ask Mike a question,
6 Public Advisor before we move on?

7 MS. MURIMI: Thank you. Oh yeah.

8 CHAIR HOCHSCHILD: Oh yeah, please, please.

9 COMMISSIONER MONAHAN: So Michael I'm wondering,
10 we know this is the first of its kind in California. From
11 your knowledge is this the first of its kind in the United
12 States or are there other corridors like this?

13 MR. IPPOLITO: To the best of my knowledge,
14 Commissioner, we would be the first in the country.

15 COMMISSIONER MONAHAN: We always like be the
16 first in the country, yeah. Thank you.

17 CHAIR HOCHSCHILD: I have a quick question for
18 you, Mike, as well. Just I understand they're fast
19 chargers, but how many miles of charge per 30 minutes or an
20 hour could we be talking about here?

21 MR. IPPOLITO: Yes, Mr. Chairman. That depends
22 on the truck of course and the rate of charging, assuming
23 that it can charge at 150 kilowatts maximum, and the load
24 of the truck and things like that. I believe it is -- let
25 me see if I can find that -- I believe it's on the order of

1 25 to 30 miles per hour.

2 CHAIR HOCHSCHILD: But that could not be -- that
3 would surprise me. That's the Level 2 charger when this is
4 Level 3, correct?

5 MR. IPPOLITO: It is, yes.

6 CHAIR HOCHSCHILD: I would expect it to be more,
7 but I don't know if, Esther if you have any stats handy?

8 COMMISSIONER MONAHAN: Well it depends if the
9 vehicle moves, so the efficiency is so much different for
10 a heavy-duty vehicle with a payload than a light-duty
11 vehicle.

12 MR. IPPOLITO: Right.

13 CHAIR HOCHSCHILD: But for charging? I
14 understand if it is (indiscernible) but for charging?
15 Would it still --

16 COMMISSIONER MONAHAN: But the miles per --
17 because the miles-per-charger can be based on the
18 efficiency of the vehicle --

19 CHAIR HOCHSCHILD: Oh interesting, okay.

20 COMMISSIONER MONAHAN: -- when the battery is
21 taking off, yeah.

22 (Overlapping colloquy.)

23 MR. IPPOLITO: Right, it's much different than
24 with cars. To fully charge a truck it would be a little
25 under three hours, so at one hour you could probably get,

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1 yeah, on the order of 50 miles. Yeah.

2 CHAIR HOCHSCHILD: So to fully charge a truck --
3 okay, so that's not 25 miles an hour, because you're not
4 saying the range is 75 miles. What is the typical range
5 for the trucks you'd expect to be charging for this?

6 MR. IPPOLITO: Yeah, the typical range of the
7 current trucks is between 100 and 200 miles depending on
8 (indiscernible).

9 CHAIR HOCHSCHILD: Okay, so roughly 50 miles of
10 charge per hour?

11 MR. IPPOLITO: Yeah.

12 CHAIR HOCHSCHILD: Okay, that's helpful. Thank
13 you.

14 Do we have additional public comment on Item 12
15 Dorothy?

16 MS. MURIMI: Yes, we do. We have Timothy
17 Jefferies. If you could, state and spell your name, give
18 your affiliation, if any, and you may begin your comments.
19 And Timothy, please unmute on your end.

20 MR. JEFFERIES: Thank you very much. Thanks you
21 presenter. Actually, my two questions I had were just
22 recently asked and answered. I heard recently -- I guess
23 this question is of Esther -- I heard also that they were
24 potentially for the big rigs doing a swap-out battery
25 program. Is that something that you're looking at as well

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1 too or is just the chargers that you're looking at?

2 MS. ODUFUWA: So for this particular project it's
3 just the charging. I am not aware of any battery swapping
4 unless Volvo has anything to say about that.

5 MR. JEFFERIES: Okay, thank you.

6 MR. IPPOLITO: Yes, no. As of right now, at
7 least, we are not looking at battery swapping. It would be
8 -- it's very complicated with larger vehicles and larger
9 battery packs.

10 MR. JEFFERIES: Thank you.

11 CHAIR HOCHSCHILD: Okay, any additional comments
12 on Item 12 Dorothy?

13 MS. MURIMI: That concludes the public comment
14 for this item. Thank you.

15 CHAIR HOCHSCHILD: Okay let's go to Commissioner
16 discussion, starting with Commissioner Monahan.

17 COMMISSIONER MONAHAN: Well I want to emphasize a
18 few points, some that Esther had made around, and this idea
19 that this is the first of its kind in California as Michael
20 said. This is probably the first of its kind in the U.S.
21 And I'm really excited to kick it off and to use the
22 learnings from this project to inform other investments.

23 I mean, these rules, the CARB regulations that
24 are being developed around diesel vehicles means that we
25 have to be ready with a robust infrastructure to support

1 the CARB regulations. And this is the first time we're
2 looking at not just like small fleets that travel back to a
3 central depot but vehicles that will be traveling across
4 the state.

5 And I know the Chair and the Vice Chair and
6 Commissioner McAllister are all really interested in how do
7 we make sure that these are good citizens of the grid. So
8 this project at this point doesn't incorporate storage and
9 solar, but it's something I think we really need to
10 evaluate in the future of how do we make sure that as we
11 electrify especially medium and heavy-duty vehicles are
12 going to be big draws on the grid that we think about this,
13 eventually, in a way that really supports our clean grid
14 goals.

15 And I think, also Esther pointed out that some of
16 these are located in disadvantaged communities, but these
17 trucks are traveling all over the place. And so it's
18 really where the trucks go, they're the zero-emission
19 vehicles, not so much where the chargers are located. But
20 this benefits disadvantaged communities directly through
21 air quality.

22 CHAIR HOCHSCHILD: Great.

23 Okay, Vice Chair Gunda, please.

24 VICE CHAIR GUNDA: Yeah, thank you Chair. Thank
25 you, Esther, for your presentation. Thank you, Mike, for

1 adding some additional clarifications.

2 Just a couple of questions. I mean, I think
3 Esther, you mentioned during your presentation that we
4 currently don't have good charging data on this kind of
5 fleet. But to the extent that there is survey data
6 available out there, two parts: One, when is that likely
7 to occur, the charging? And then two, I mean maybe the
8 answer is, "We don't know, we'll find out." And then the
9 second one is what is the expectation from fleet owners or
10 drivers on how long they're okay charging, right? And then
11 typical-like breaks in the schedules and driving, anything
12 that we know of today?

13 COMMISSIONER MONAHAN: Oh, Esther, can I take a
14 stab at this one and then you can embellish?

15 MS. ODUFUWA: Okay.

16 COMMISSIONER MONAHAN: So the 2127 analysis does
17 include analysis of the charging implications of different
18 types of vehicles. And I think what we need to explore --
19 and I haven't talked to Esther about it, we should talk
20 about it -- is how to connect the dots between projects
21 like this that are really like providing on-the-ground data
22 with our 2127 analysis, which is looking at our 2030 and
23 2035 charging needs, but using data from today to really
24 inform that. So I think you raise a great point, Vice
25 Chair, about how do we connect the dots to bring real-world

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1 data into our analytical processes.

2 VICE CHAIR GUNDA: Thank you, Commissioner
3 Monahan. Commissioner Monahan, do we also have any
4 insights or beginnings of insights on like assuming that
5 this is a two-to-three-hour charging? Is that likely to
6 inhibit or are we okay from kind of a market penetration?

7 COMMISSIONER MONAHAN: I think that's the big
8 question. Mike might be better suited to answer those
9 questions around what his sense is of the receptivity of
10 this. Mike, are you still on and available? (No audible
11 response.) Not sure if we can get him back.

12 MS. MURIMI: Apologies, (indiscernible)
13 Commissioner.

14 COMMISSIONER MONAHAN: So I do think that that's
15 going to be one of our challenges is the length. And
16 that's why hydrogen as a solution, and one person talked
17 about battery swapping, which is actually happening in
18 China -- it's not really happening in the U.S. yet --

19 MR. IPPOLITO: Correct.

20 COMMISSIONER MONAHAN: -- but we are aware it's
21 happening in China. And I think this is a state of we're
22 in a state of learning and accelerated change. So I think
23 those are key questions we're at, we're exploring right
24 now.

25 MR. IPPOLITO: Yes, indeed. And our expectation

1 is that these chargers will be used for what we would call
2 "opportunity charging," meaning that they would not stay
3 for two or three hours to completely fill the truck. They
4 would stop on a lunch break or some other break period and
5 fill the truck as much as possible over the course of an
6 hour or so, such that they could make it to their next
7 destination which may have charging at the depot or
8 something.

9 And so we'll see, no one knows, but we don't
10 think they will be stopping and staying for three hours to
11 go from empty to full. It'll more be topping off.

12 (Overlapping colloquy.)

13 VICE CHAIR GUNDA: Thank you, Commissioner
14 Monahan. I just wanted to say thank you for that. Look
15 forward to continuing that conversation and really
16 appreciate this. And I look forward to supporting it.
17 Excellent.

18 CHAIR HOCHSCHILD: Great. So what I'd like to do
19 is vote this item out and then we'll break for a 30-minute
20 lunch and reconvene at one o'clock.

21 Unless there's other Commissioner comments,
22 Commissioner Monahan, would you be willing to move the
23 item?

24 COMMISSIONER MONAHAN: I move this item.

25 CHAIR HOCHSCHILD: And Vice Chair Gunda, would

1 you be willing to second?

2 VICE CHAIR GUNDA: I second the item.

3 CHAIR HOCHSCHILD: All right, all in favor say
4 aye. Commissioner Monahan?

5 COMMISSIONER MONAHAN: Aye.

6 CHAIR HOCHSCHILD: Vice Chair Gunda?

7 VICE CHAIR GUNDA: Aye.

8 CHAIR HOCHSCHILD: Commissioner McAllister.

9 COMMISSIONER MCALLISTER: Aye.

10 CHAIR HOCHSCHILD: And I vote aye as well. Item
11 12 passes 4-0.

12 We will take a 30-minute break and be back at one
13 o'clock, thanks.

14 (Off the Record at 12:32 p.m.)

15 (On the Record at 1:00 p.m.)

16 MS. MURIMI: We are live now.

17 CHAIR HOCHSCHILD: Are we back on, Dorothy?

18 MS. MURIMI: Yes, we are back on.

19 CHAIR HOCHSCHILD: Okay welcome back, Dorothy.

20 There we go, okay.

21 MS. MURIMI: Yes. We are back on, Chair.

22 CHAIR HOCHSCHILD: Welcome. Welcome back
23 everyone. Let's continue with Item 13, Charging Access for
24 Reliable On-Demand Transportation Services.

25 MS. JARVIS: Hello Chair, Vice Chair, and

1 Commissioners. My name is Madison Jarvis with the Fuels
2 and Transportation Division. Today, staff is seeking
3 approval for three projects that were proposed for funding
4 under the Charging Access for Reliable On-Demand
5 Transportation Services solicitation, also known as CARTS.
6 Next slide, please.

7 The proposed projects will demonstrate
8 replicable, scalable models for rapid deployment of
9 charging equipment for high-mileage on-demand
10 transportation service providers.

11 Located throughout the state these projects
12 demonstrate geographically diverse needs for continued EV
13 infrastructure deployment. The proposed projects will
14 reduce greenhouse gas emissions and criteria air
15 pollutants, providing air quality benefits to
16 transportation network drivers and the local community,
17 which are often designated as disadvantaged and priority
18 populations. Next slide, please.

19 Before I present these three projects, I want to
20 provide a brief overview of the CARTS solicitation. The
21 focus of this solicitation is to support electric vehicle
22 charging infrastructure by providing grant funding for high
23 mileage on-demand transportation services, including
24 services such as ride-hailing, taxis, and meal and grocery
25 delivery. Proposed projects must demonstrate participation

1 of or written support from on-demand transportation service
2 companies. And the charging infrastructure can be either
3 publicly or privately available.

4 The three projects that I will be presenting
5 today account for roughly \$2.6 million of the total \$16.6
6 million proposed for awards under this solicitation. Next
7 slide, please.

8 AB 2127 analysis shows that the Transportation
9 Network Companies account for 30 percent of market use for
10 DC Fast Chargers, indicating that they are and will
11 continue to be a major user of California's expanding EV
12 infrastructure network. Estimates show that with CARB's
13 Clean Miles Standard, there will be 400,000 EVs used for
14 ride-hailing in California by 2030.

15 These projects will help support thousands of new
16 electric vehicles in California and aid in the effort to
17 reach 90 percent electric vehicle miles traveled for
18 Transportation Network Companies, or TNCs. Next slide,
19 please.

20 The first proposed agreement is with FreeWire
21 Technologies. They are requesting slightly more than
22 \$600,000 with more than 50 percent in matching funds, to
23 install five of their Boost DC Fast Chargers at two new BP
24 stations in Central California. One in Orangevale near the
25 Orange Tree Plaza Shopping Center. And one in Delta

1 Shores, Sacramento, adjacent to the Delta Shores Shopping
2 Center. The Delta Shores site is located in a
3 disadvantaged and low-income community. And all chargers
4 in this project will be publicly accessible.

5 FreeWire's battery-integrated Boost Chargers have
6 onsite battery storage and only pull 27 kilowatts from the
7 grid at any given time, avoiding demand charges or time-of-
8 use rates and lowering the charging costs for drivers.

9 FreeWire will also work with Uber to ensure
10 sufficient outreach for the new sites as well as to collect
11 Uber driver usage data to provide insight on the TNC
12 business-use case for these gas-station models. Next
13 slide, please.

14 The next proposed agreement is with Zeco Systems
15 dba Shell EV Charging Solutions Americas. Shell is
16 requesting \$2 million and contributing over \$2 million in
17 match-funding to install six fast chargers in the Los
18 Angeles area. Four of these chargers will be located at
19 the popular Los Angeles Convention Center with two 180
20 kilowatt chargers to be installed curbside for easy access,
21 and two 350 kilowatt chargers in a gated parking lot for
22 special access to TNC drivers.

23 The other two chargers, one 180 kilowatt and one
24 350 kilowatts, will be installed in the publicly accessible
25 parking lot of the Pico Gardens housing complex to provide

1 charging for residents who are TNC drivers, or to drivers
2 dropping off or traveling through this disadvantaged and
3 low-income neighborhood.

4 Throughout the project, Shell will hold at least
5 eight EV educational and outreach events for the
6 surrounding communities and encourage TNC participation
7 through discounted rates and in-app charger information.
8 Next slide, please.

9 The third proposed agreement is with AMPLY Power,
10 Inc. for their Robust Airport Charging for Electric Ride
11 Hail Fleets, or RACER Project. They are requesting \$2
12 million and providing over \$3 million in match-funding to
13 install a charging hub site with 48 DC fast chargers that
14 will exclusively service TNC drivers around Los Angeles
15 Airport, or LAX which AMPLY cites as making up about 20
16 percent of LAX traffic.

17 The project will use AMPLY's INRUSH containerized
18 charging system, which houses charging infrastructure in
19 pre-built modular systems to reduce installation costs and
20 time, with power levels ranging from 75 to 360 kilowatts
21 per vehicle. This system is portable and semi-permanent,
22 allowing for flexibility in charger placement for site
23 owners.

24 AMPLY Power has received letters of support from
25 TNC apps like Uber and Lyft to work together for data

1 sharing, as well as in-app payment methods and reduced
2 charging rates for drivers to encourage electrification.

3 AMPLY is also partnering with local
4 organizations, LA Cleantech Incubator and Breathe SoCal,
5 for outreach to surrounding disadvantaged and low-income
6 communities. Next slide, please.

7 Staff's recommendation is to approve these three
8 agreements and adopt staff's recommendation that these
9 actions are exempt from CEQA.

10 On the line we have Brian Kee from FreeWire and
11 potentially a representative from Shell here to make a
12 comment. Thank you for your consideration and this
13 concludes my presentation. I'm happy to answer any
14 questions.

15 CHAIR HOCHSCHILD: Thank you so much, Madison,
16 good job.

17 Let's go to public comment on Item 13.

18 MS. MURIMI: Thank you, Chair.

19 For individuals that are on Zoom go ahead and use
20 the raised-hand feature. It looks like a high-five or an
21 open palm at the bottom of your screen or device. For
22 individuals that are on the phone, go ahead and press *9 to
23 make a comment and *6 to unmute on your end.

24 We'll start with Brian Kee. Go ahead and state
25 and spell your name, give your affiliation, if any, and you

1 may begin your comments.

2 MR. KEE: Hi, this is Brian Kee, B-R-I-A-N K-E-E.
3 And I'm with FreeWire Technologies, a provider of battery-
4 integrated EV charging solutions. I want to thank the CEC
5 for the funding opportunity to enable the production of
6 carbon emissions from Transportation Network Companies.

7 FreeWire is excited to partner with BP and Uber
8 to expand DC fast charging access for TNC drivers.
9 FreeWire is based in Newark, California. And CEC grant
10 funding opportunities, such as the RACER and BRIDGE grants
11 have played a large part in the development of our
12 innovative charging technology.

13 We are excited to work with Madison and the rest
14 of the CEC team to achieve the goals of the project. Thank
15 you.

16 MS. MURIMI: Thank you.

17 Next we'll go to Erick Karlen, apologies if I've
18 misstated your name. Please state and spell your name,
19 give your affiliation if any. You may begin your comments.

20 MR. KARLEN: Yes, thank you. This is Erick
21 Karlen, that's E-R-I-C-K K-A-R-L-E-N. I'm a Senior Policy
22 Advisor with Shell Recharge Solutions. And I just want to
23 say that on behalf of Shell Recharge Solutions, formerly
24 Greenlots, they want to thank the Commissioners and staff
25 for their support and consideration.

1 Shell Recharge Solutions and our project partners
2 are excited to move forward with our project to increase
3 access to charging electric vehicles for TNC drivers in
4 very direct service of aggressive local LACI transportation
5 electrification goals. Thank you.

6 MS. MURIMI: Thank you.

7 With that, Chair, there are no more public
8 comments.

9 CHAIR HOCHSCHILD: Okay. Let's go Commissioner
10 discussion, starting with Commissioner Monahan.

11 COMMISSIONER MONAHAN: Well I want to
12 congratulate Madison on the grants, but also on keeping her
13 cool as her dog was barking in the background. All of us
14 dog owners were like, "Yes, we have all been there."

15 So just to highlight, I want to say the Chair was
16 really like an inspiration for this solicitation for TNCs.
17 And so just thank you Chair, for pushing this idea, I think
18 it's a really smart one. And I think as Madison
19 highlighted that 30 percent of all DC fast charging used by
20 TNCs, at least according to the 2127 analysis, is pretty
21 compelling about why we have to really focus on this
22 sector, and together with the CARB regulation.

23 I think it's fascinating actually to see the
24 partnership with the industries that used to just be oil,
25 BP and Shell, and it's just great to see the investment

1 that companies are making in the clean energy, clean
2 transportation energy in the future.

3 And I'm particularly also excited about the
4 integration with TNCs in-app that AMPLY is exploring. I
5 think I've mentioned this in the past that in China they're
6 looking at having this whole ecosystem of integration
7 between the charger and the app for the vehicle. I mean,
8 they're actually funding the vehicle as well. But just
9 this idea that we need to make sure that this is seamless
10 and that app integration, I think, will be really
11 interesting.

12 So fun grants, I hope you're as excited about
13 them as I am.

14 CHAIR HOCHSCHILD: Well, thank you so much
15 Commissioner Monahan, for your leadership. Sorry, Vice
16 Chair Gunda, were you going to say something? No?

17 Okay. I was just going to thank you for your
18 leadership on this, and Madison for your work and the
19 teams. This is a terrific group of projects.

20 I did want to share a few years ago, I was at
21 Stanford, and I was talking to a professor there whose name
22 escapes me at the moment, who was studying the trends among
23 Uber and Lyft drivers and the ride-hailing community. And
24 it turns out it's like on average 50,000 miles a year for
25 an Uber or Lyft driver. I drive a fair bit. I drive about

1 10,000 miles a year so it's about 5X.

2 And so for a long time the metric that everyone
3 paid attention to, in this space, was how many electric
4 vehicles were getting sold. But it's really also about in
5 whose hands are they going? And to facilitate these ride-
6 hailing drivers, being able to actually make use of
7 electric vehicles is essential, because they're driving so
8 much more. So I just want to applaud this suite of grants.

9 I also just wanted to say about two months ago or
10 so, I was able to join FreeWire down in Newark for their
11 factory opening. And I just want to welcome them and their
12 manufacturing facility to the state. I'm really excited
13 about that technology, particularly because the storage
14 element co-located now with charging is something that I
15 think will save ratepayers a lot of money, actually, not
16 having to do distribution system upgrades when we put in
17 charging. And so really excited to see that. And of
18 course AMPLY also is doing fabulous work, so really
19 thrilled to support all these and look forward to their
20 success.

21 Unless there are other Commissioners --

22 COMMISSIONER MONAHAN: (Indiscernible) I didn't
23 know Brian, until you said it, that our grants, the CEC's
24 early development grants were part of the reason that
25 you're flourishing today, so that was great to know.

1 CHAIR HOCHSCHILD: Yeah, great. Unless there's
2 other comments, Commissioner Monahan, would you be willing
3 to move the item?

4 COMMISSIONER MONAHAN: I move this item.

5 CHAIR HOCHSCHILD: All right, Commissioner
6 McAllister, would you be willing to second?

7 COMMISSIONER MCALLISTER: Second.

8 CHAIR HOCHSCHILD: All right, all in favor say
9 aye.

10 Commissioner Monahan?

11 COMMISSIONER MONAHAN: Aye.

12 CHAIR HOCHSCHILD: Commissioner McAllister?

13 COMMISSIONER MCALLISTER: Aye.

14 CHAIR HOCHSCHILD: Vice Chair Gunda?

15 VICE CHAIR GUNDA: Aye.

16 CHAIR HOCHSCHILD: And I vote aye as well. Item
17 13 passes 4-0.

18 We'll turn now to Item 14, The Energy
19 Conservation Assistance Act Loan Program.

20 MS. ANTONIO: Good afternoon, Chair, Vice Chair
21 and Commissioners. My name is Marites Antonio with the
22 Renewable Energy Division. I'm here to request your
23 approval of three Energy Conservation Assistance Act loan
24 agreements with the City of Fowler, the City of Indian
25 Wells, and the Malaga County Water District.

1 Please note that the Energy Conservation
2 Assistance Act is commonly known by the acronym ECAA, and
3 this is how I'll refer to it for this presentation. Next
4 slide, please.

5 So the ECAA program provides low-interest or
6 zero-interest loans for energy-efficiency and energy
7 generation projects. Benefits to California from ECAA
8 loan-funded projects include reducing greenhouse gas
9 emissions, improving health outcomes, the creation of green
10 jobs, and saving and generating energy resulting in lower
11 utility costs. Next slide, please.

12 So the City of Fowler is located in the San
13 Joaquin Valley in Fresno County with a population of about
14 6,000. The City is proposing to finance an energy project
15 using an ECAA 1 percent interest loan in the amount of
16 almost \$183,000.

17 The project will install a 67-kilowatt solar
18 array at the City's Fire Station. This project will
19 provide the power for both the Fire Station and the nearby
20 City Hall Complex. Next slide, please.

21 The City of Indian Wells is located in Coachella
22 Valley in Riverside County with a population of about
23 5,000. The City is proposing to finance an energy project
24 using an ECAA one-percent interest loan in the amount of
25 approximately \$2.7 million.

1 The project will install a 647-kilowatt solar
2 array on a carport structure to provide power to the
3 City's Golf Resort Clubhouse. Next slide, please.

4 The Malaga County Water District is located in
5 Fresno and serves a population of about 6,000. The
6 District is proposing to finance an energy project using an
7 ECAA one-percent interest loan in the amount of
8 approximately \$2.5 million.

9 The project will construct carport structures at
10 the district's Wastewater Treatment Plant and Community
11 Center and install two solar arrays totaling about 389
12 kilowatts atop the carport structures. Next slide, please.

13 Staff has reviewed these projects and determined
14 they are technically sound. Each project meets the ECAA
15 cost-effectiveness and loan repayment term requirements.

16 As you can see in the chart the City of Fowler
17 project is estimated to save more than 98,000 kilowatt
18 hours annually resulting in energy cost savings projected
19 at more than \$28,000 each year, which the City plans to use
20 for a future energy efficiency project, specifically HVAC
21 retrofit.

22 The City of Indian Wells project is estimated to
23 save more than a million-kilowatt hours annually resulting
24 in annual energy cost savings projected at more than
25 \$163,000.

1 And the Malaga County Water District project is
2 estimated to nearly 743,000-kilowatt hours annually
3 resulting in energy cost savings of over \$163,000 each
4 year. Next slide, please.

5 So legal staff found these projects to be exempt
6 from the California Environmental Quality Act and staff
7 recommend approval of these loans.

8 Thank you for your consideration. This concludes
9 my presentation. My colleague Sean Lockwood and I, and
10 Manuel Aguerre (phonetic) who is a consultant contractor
11 will be available if you have any questions.

12 CHAIR HOCHSCHILD: Thank you so much, Marites, we
13 appreciate that

14 MS. ANTONIO: Thank you.

15 CHAIR HOCHSCHILD: Let's go to public comment on
16 Item 14.

17 MS. MURIMI: Thank you, Chair.

18 So for individuals that are joining on Zoom go
19 ahead and use the raised-hand feature, it looks like a
20 high-five or an open palm at the bottom of your screen or
21 device. And for those calling in go ahead and press *9 to
22 indicate that you'd like to make a comment and press *6 to
23 unmute on your end.

24 Seeing no comments, Chair, I'll hand the mic back
25 to you.

1 CHAIR HOCHSCHILD: Okay. Let's go to
2 Commissioner discussion, starting with Commissioner
3 McAllister.

4 COMMISSIONER MCALLISTER: Thank you, Chair. And
5 thank you Marites, that was great. I've looked at these
6 projects and I'm in enthusiastic support.

7 I did want to just make a note or two here. If
8 you look at that table, you're going to notice the
9 variability in the cost and the energy generation and the
10 savings. And so the PV market is fully mature now, and I
11 think this is an opportunity, the ECAA program at large, is
12 an opportunity to really do some market monitoring and take
13 advantage of this database that we have now of projects.

14 And the profile of the project really varies with
15 utility rates and geography and the type of mounting and
16 all that kind of stuff. And so I've asked staff to put
17 together, to scope out an analysis for how to take account
18 of all those factors and both learn what the drivers of
19 cost and benefit actually are, and then also that will
20 allow us to spot any outliers in terms of cost just so
21 we're being responsible in terms of what projects we fund.
22 So just focusing on the PV for now, but I think there's a
23 potential to look at our program broadly and include HVAC
24 and other efficiency measures.

25 But the program is just such a shining light at

1 the Energy Commission, as we all know, and I'm in full
2 support of these particular three projects. And then
3 thanking the local jurisdictions: Indian Wells and Fowler
4 and Malaga County, for bringing those forward to us.

5 CHAIR HOCHSCHILD: I did have one just more
6 general comment. These projects are great. But again, I
7 am really interested in how we can use the ECAA program to
8 best support reliability. So I'm thinking, for example, of
9 incenting west-facing rather than south-facing PV that
10 better aligns with when our load is peaking, energy storage
11 as part of the project. And I just would love, Marites, if
12 you or your colleagues have any thoughts on that. (No
13 audible response.) And sorry you're on mute. I think you
14 may have just accidentally muted yourself.

15 MS. ANTONIO: Yeah, when the projects that we get
16 for the modeling projects that we do receive -- most of
17 them are actually modeled on the most, I guess, beneficial
18 for that entity or the facility. So it is mostly facing
19 south -- west actually, so yeah that's what we see. And we
20 do look at the modeling when they request those, the
21 projects that come in, yeah.

22 COMMISSIONER MCALLISTER: Maybe I'll jump in
23 quickly. We are in the process, the Renewables Division
24 is in the process of expanding the scope of ECAA in
25 response to this (indiscernible) I believe, so it would

1 include tribes. And sort of there's an update process
2 happening, so perhaps we can have that discussion about the
3 criteria, and modernizing the criteria to reflect current
4 policy priorities like (indiscernible).

5 CHAIR HOCHSCHILD: Yeah, that'd be great, that'd
6 be great.

7 Okay, Vice Chair Gunda, please.

8 VICE CHAIR GUNDA: Yeah, thank you, Chair. I
9 think I'd also just have a general comment. Marites, thank
10 you for the presentation. It's always great to see the
11 ECAA projects coming through. It's always a wonderful
12 thing to be able to support these.

13 Just at a high level I think in context of what
14 Commissioner McAllister and the Chair mentioned, it would
15 be helpful as you construct the database to think about the
16 (indiscernible) element of it, right? I mean, I think just
17 looking at how do we scale these benefits appropriately.

18 And also as you think about the designing it, it
19 would be really helpful to -- I mean, given that the
20 Renewables Division will be very much involved in
21 dispersing the monies that are coming through for
22 reliability purposes on the distribution side -- it would
23 be really helpful to think about how some of those could be
24 co-funded potentially in a way to both support reliability
25 and the broader goals as well. So I just wanted to put

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1 that out there. Thank you.

2 CHAIR HOCHSCHILD: Great, thank you.

3 Unless there's other comments, Commissioner
4 McAllister, would you be willing to move Item 14?

5 COMMISSIONER MCALLISTER: Move Item 14.

6 CHAIR HOCHSCHILD: Vice Chair Gunda, would you be
7 willing to second?

8 VICE CHAIR GUNDA: Second Item 14, thank you.

9 CHAIR HOCHSCHILD: All in favor say aye.
10 Commissioner McAllister?

11 COMMISSIONER MCALLISTER: Aye.

12 CHAIR HOCHSCHILD: Vice Chair Gunda?

13 VICE CHAIR GUNDA: Aye.

14 CHAIR HOCHSCHILD: Commissioner Monahan?

15 COMMISSIONER MONAHAN: Aye.

16 CHAIR HOCHSCHILD: And I vote aye as well. Item
17 14 passes 4-0. Thank you so much, Marites.

18 We'll turn now to Item 15, Local Ordinances for
19 the City of Encinitas, the City of Solana Beach, the City
20 of Emeryville and the City of Half Moon Bay.

21 MS. DROZDOWICZ: Good afternoon, Chair, Vice
22 Chair and Commissioners. My name is Danuta Drozdowicz. I
23 work in the Efficiency Division's Buildings Standards
24 Office and I'm presenting local ordinances that both meet
25 and exceed the energy code from four jurisdiction that have

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1 applied for review and consideration by the CEC. Joining
2 me today is Jacqueline Moore from the Chief Counsel's
3 Office. Next slide, please.

4 Jurisdictions that adopt local ordinances are
5 exploring and adopting cost-effective technologies for our
6 clean energy future and ensuring that with these
7 technologies their constituents reduce both state
8 greenhouse gas emissions and dollars spent for energy, as
9 they lead from the grassroots.

10 Of interest, approximately one in three
11 Californians lives in a community with an energy code that
12 exceeds state energy standards. Next slide, please.

13 For a local standard to be enforceable, the
14 jurisdiction must file with the CEC its determination that
15 its standards are cost-effective, and the CEC must find
16 that the local standards reduce energy consumption compared
17 to the current statewide Energy Code. Next slide, please.

18 To give you a better sense of what's happening
19 throughout the state, to date, under this code cycle, 50
20 ordinances have been reviewed for enforcement by the CEC.
21 This does not include the applications on the agenda today.

22 The majority require all-electric or electric-
23 preferred construction; 30 ordinances also require
24 photovoltaics on buildings not subject to the current
25 provisions of the Energy Code; and 27 require additional

1 electric vehicle infrastructure or charging. Three of the
2 four today also require electric vehicle infrastructure.
3 Next slide, please.

4 Four jurisdictions have submitted a local
5 ordinance application for consideration at this business
6 meeting.

7 The City of Encinitas requires that existing
8 single-family residential buildings include energy
9 efficiency improvements where building permit valuation of
10 alterations and additions is greater than \$50,000.

11 And that existing residential, high-rise
12 residential, and hotel/motel buildings include energy
13 efficiency improvements where building permit valuation of
14 alterations and additions is greater than \$200,000.

15 And finally, that new nonresidential, high-rise
16 residential, and motel/hotel buildings install photovoltaic
17 systems.

18 The City of Solana Beach requires that new
19 nonresidential buildings install photovoltaic systems.
20 Next slide, please.

21 The City of Emeryville requires that new high-
22 rise residential and hotel/motel buildings install
23 photovoltaic systems.

24 And the City of Half Moon Bay requires that new
25 nonresidential and hotel/motel buildings install

1 photovoltaic systems. Next slide, please.

2 Staff determined that these local ordinances will
3 result in a further reduction of the energy permitted by
4 the 2019 Energy Code, and that the jurisdictions publicly
5 adopted a finding of cost-effectiveness for their
6 standards.

7 Staff posted the complete applications on the
8 CEC's website under Docket Number 19-BSTD-06 for the
9 required public comment period.

10 The applications meet all the requirements of the
11 Public Resources Code and staff recommends allowing
12 enforcement of the ordinance. This concludes my
13 presentation, and I am available to answer any questions
14 that you may have. Thank you.

15 CHAIR HOCHSCHILD: Thanks so much, Danuta.

16 Let's go to public comment on Item 15.

17 MS. MURIMI: Thank you, Chair.

18 For individuals that are joining on Zoom go ahead
19 and use the raised-hand feature. It looks like an open
20 palm or high-five at the bottom of your screen or device.
21 For those joining over the phone go ahead and press *9 to
22 indicate that you'd like to present make a comment and *6
23 to unmute on your end.

24 We'll give that one moment. Again, that's using
25 the raised-hand feature it looks like a high-five or open

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1 calm at the bottom of your screen or device if you are on
2 Zoom. And for those calling in press *9 to raise your
3 hand.

4 Seeing no comments, Chair, I'll hand the mic back
5 at you.

6 CHAIR HOCHSCHILD: Thank you.

7 We'll turn to Commissioner discussion starting
8 with Commissioner McAllister.

9 COMMISSIONER MCALLISTER: Oh, well great. Well
10 thank you, Danuta. I really appreciate your bringing these
11 items and just all the work you've done on local
12 ordinances. In the past we have lots of them, as you
13 noted, and they are as diverse as our state is diverse.
14 And I think it's really a great kind of representation of
15 the integration that happens at the local government level.

16 I support all of these. I obviously really
17 appreciate the cities kind of getting ahead of the 2022
18 Building Code that will come into effect in January of next
19 year. And we're pretty late in the cycle at this point, so
20 there's only six months, less than six months left in the
21 2019 Code. And so the 2022 will kick in here pretty soon.
22 And we're advancing into requiring PVs in nonresidential as
23 well with that update.

24 But nothing more to add, just want to thank
25 Encinitas and Solana Beach, Emeryville and Half Moon Bay;

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1 really get to see some live roofs in their architecture on
2 the Half Moon Bay proposal. So with that I will support
3 this item.

4 CHAIR HOCHSCHILD: Any other Commissioners
5 wishing to comment? If not, you'll move the item,
6 Commissioner?

7 COMMISSIONER MCALLISTER: Yeah, I'll move the
8 item.

9 CHAIR HOCHSCHILD: Thank you.
10 Commissioner Monahan, would you be willing to
11 second?

12 COMMISSIONER MONAHAN: I second this item.

13 CHAIR HOCHSCHILD: All in favor say aye.
14 Commissioner McAllister?

15 COMMISSIONER MCALLISTER: Aye.

16 CHAIR HOCHSCHILD: Commissioner Monahan?

17 COMMISSIONER MONAHAN: Aye.

18 CHAIR HOCHSCHILD: Vice Chair Gunda?

19 VICE CHAIR GUNDA: Aye.

20 CHAIR HOCHSCHILD: And I vote aye as well. That
21 item passes 4-0.

22 We'll turn now to Item 7, Information Item on
23 Offshore Wind Draft Report. I welcome Elizabeth Huber to
24 present.

25 MS. HUBER: Good afternoon, Chair, Vice Chair,

1 and Commissioners. My name is Elizabeth Huber and I manage
2 the Safety and Reliability Office within the Siting,
3 Transmission and Environmental Protection Division. With
4 me today is Rhetta deMesa, our Offshore Wind Project
5 Manager, and Lisa DeCarlo from the Chief Counsel's Office.
6 We also have with us Walter Musial, Principal Energy and
7 Offshore Wind Lead with the National Renewable Energy
8 Laboratory out of Colorado.

9 We are here today to present this informational
10 item on the CEC staffs' initiatives and activities to
11 support the upcoming revisions of the draft report,
12 "Offshore Wind Energy Development off the California Coast:
13 Maximum Feasible Capacity and Megawatt Planning Goals" for
14 2030 and 2045. Next slide, please.

15 The CEC has been engaged in a range of
16 initiatives to better understand the opportunities and
17 actions for deploying floating offshore wind responsibly
18 off the coast of California for more than a decade.

19 As a result of these early efforts, California
20 launched the Intergovernmental Renewable Energy Task Force
21 to identify possible offshore areas that could be the focus
22 of a call for information and nominations by the U.S.
23 Bureau of Ocean Energy Management, commonly known as BOEM.
24 In 2016, this occurred.

25 A year later the CEC established a project team

1 to identify opportunities to lower and remove possible
2 risks associated with the development of offshore wind
3 energy projects. The CEC also went on to sign Memorandums
4 of Understanding with Denmark and Scotland, countries that
5 have been paving the way for offshore wind energy.

6 The CEC also published multiple reports
7 addressing California's offshore wind energy development
8 potential.

9 The CEC's offshore wind energy efforts were
10 accelerated in May 2021 when Governor Gavin Newsom signed
11 an agreement on behalf of California with the U.S.
12 Department of the Interior and the U.S. Department of
13 Defense opening the West Coast for offshore wind
14 development for the first time in our history.

15 The Governor went on to sign Assembly Bill 525
16 making its provisions law effective in January of this
17 year, launching an analytical planning framework for
18 offshore wind energy development off the California Coast
19 in federal waters. Next slide, please.

20 Understanding the long-term benefits to
21 Californians, Assemblymember Chiu introduced AB 525 with
22 the intent to further the state's goal of 100 percent clean
23 energy by 2045, by planning for the development of utility-
24 scale offshore wind energy in California. He cited that
25 the East Coast states have already set a total of 29

1 gigawatts worth of offshore wind development planning goals
2 and was concerned that California had yet to make a
3 significant investment in offshore wind energy.

4 When the bill was introduced on February 10th,
5 2021, it included planning goals of 3 gigawatts by 2030 and
6 10 gigawatts by 2040. However, during the April 2021
7 Assembly Committee on Utilities and Energy the committee
8 amended the bill to remove the planning goals citing the
9 competing values of 10 gigawatts from the joint agencies SB
10 100 Joint report, 8 gigawatts from the California Public
11 Utilities Commission's IRP sensitivity, 21.1 gigawatts from
12 the California Independent System Operator outlook
13 assessment, 30 gigawatts from the Biden Administration's
14 call for national offshore wind development. And with over
15 21 gigawatts identified in BOEM Call Areas on both the East
16 and West Coast the committee -- and the author agreed --
17 felt it would be difficult to determine what an appropriate
18 gigawatt goal would be for a strategic plan, aimed at
19 developing the California's offshore wind industry without
20 having a thoughtful and public process in determining
21 California offshore wind energy planning goals. Next
22 slide, please.

23 As AB 525 became effective on January 1, 2022,
24 requiring the CEC, in coordination with an array of
25 specified local, state, and federal partners, and with

1 input from a variety of stakeholders where to develop a
2 Strategic Plan for Offshore Wind in Federal Waters off the
3 California Coast by one, evaluating and quantifying the
4 maximum feasible capacity of offshore wind to achieve
5 reliability, ratepayer, employment, and decarbonization
6 benefits.

7 Also by establishing megawatt offshore wind
8 planning goals for 2030 and 2045. Identifying sea space,
9 port and transmission infrastructure, and workforce
10 benefits and needs to achieve planning goals for offshore
11 wind.

12 Developing a Permitting Roadmap, and considering
13 potential impacts and identifying strategies to address
14 those impacts to coastal resources, fisheries, Native
15 American and Indigenous peoples, and National Defense.

16 And after conducting this work complete an
17 Offshore Wind Energy Strategic Plan for California by June
18 30th, 2023.

19 This informational item before you today is
20 focused on the CEC staff activities to perform a portion of
21 the first deliverable, establishing the megawatt planning
22 goals for 2030 and 2045. Next slide, please.

23 AB 525 requires the CEC to take into account 12
24 statutory enumerated factors when establishing the megawatt
25 offshore wind energy planning goals. CEC staff assessed

1 all 12 factors required by the legislation and determined
2 that while all factors are important in establishing
3 megawatt planning goals for the strategic plan. The first
4 5 factors, which are bolded here on the slide, have greater
5 influence on shaping or effecting the megawatt planning
6 goals than the others.

7 The importance of these factors was reinforced
8 with our continued research and evaluation of the initial
9 studies as staff discussed in detail in the May 6th, 2022,
10 draft report. Next slide, please.

11 The CEC staff reviewed and referenced numerous
12 studies in the draft report. The key elements in the
13 technical studies were identified based on wind speed,
14 ocean depth, bottom slope, distance to grid
15 interconnection, and distance to existing current
16 infrastructure, and are technically suitable for current
17 technology.

18 This slide before you, shows six studies
19 referenced in AB 525, including one listed among the twelve
20 factors. Studies 1 and 2 are 2020 NREL studies, when
21 describing the modeling of the new CA20 wind field dataset,
22 and comparing it to the previous wind field dataset, known
23 as WIND Toolkit.

24 The other NREL study describes the methodology
25 for the expected levelized cost of electricity for the five

1 BOEM-identified locations off the California coast, which
2 includes Humboldt, Morro Bay, Diablo Canyon, Del Norte and
3 Cape Mendocino.

4 Both studies focus the research on the key
5 elements of power density used to determine both ocean
6 locations, gross and technical offshore wind potential,
7 bottom depth, wind speeds and hub height.

8 Studies 3 through 6 will sound familiar. Studies
9 3 and 4 are the CPUC's 2021 preferred system plan and
10 modeling and substance for the 2021/2022 transmission
11 planning process. Study 5 is the California ISO's 20-year
12 transmission outlook. And Study Six⁶ is California ISO's
13 2021 and 2022 transmission plan.

14 These four publications focus on the technical
15 offshore wind potential, which is an estimate of the amount
16 of generation capacity that could be technically feasible
17 considering wind speed and water depth. Next slide,
18 please.

19 Public involvement is an important part of the
20 CEC proceeding. The CEC staff coordinate with multiple
21 public agencies and a wide variety of stakeholders. This
22 slide highlights the three workshops and key takeaways from
23 the discussions and public comments at those workshops.

24 To summarize, within the three months of AB 525
25 being enacted the CEC staff held their first public

1 workshop where the requirements of AB 525 were presented
2 and our approach for meeting those first requirements was
3 discussed.

4 Since the first workshop staff has reviewed and
5 analyzed the various studies, publications, and research
6 that was available at the time, and worked in close
7 partnership with our sister agencies to develop the initial
8 draft report.

9 On May 6th we released the draft report for
10 public comment.

11 Following the release of the draft report, we
12 held a second workshop on May 18th where we presented our
13 proposed preliminary planning goals. During the workshop
14 we received several comments suggesting CEC staff revise
15 the proposed planning goals, pointing to some recently
16 released studies that were not available during the
17 development of the draft report. We thought it important
18 to consider those studies and to put an additional public
19 process around those suggested higher planning goals.

20 Our third workshop was held on June 27th where we
21 invited those study authors to present their own work.

22 We also invited representatives from
23 environmental organizations, fisheries, workforce,
24 industry, shipping, and members of tribal and environmental
25 justice communities to participate in a roundtable

1 discussion to share their perspectives and observations to
2 the CEC's proposed planning goals. The variety of
3 stakeholders suggested higher planning goals and additional
4 studies.

5 As a result of these workshops and public
6 comments the consistent message we heard around the
7 megawatt planning goals has been that they should be
8 reasonable and be based on the information we need in order
9 to do the analyses required by AB 525; continue the
10 research on the ecosystem impacts to better understand the
11 environment, social and ocean conflicts;

12 The importance of (indiscernible) there is that
13 any planning goal should be robust to drive economies of
14 scale and send market signals to spur investment in
15 infrastructure and supply chain development.

16 And the most common feedback is that since these
17 are not procurement goals, but planning goals, they should
18 be bold and as large as feasible. Next slide, please.

19 With that in mind, the CEC staff has been
20 examining the four new studies that were recommended at the
21 May workshop and were discussed at the June workshop and
22 roundtable.

23 This slide summarizes the elements of these new
24 and ongoing studies' research. The first study is the most
25 recent NREL publication that evaluates several elements and

1 options for delineating potential lease areas for the two
2 specific California Wind Energy Areas of Morro Bay and
3 Humboldt. The study options divide these Wind Energy Areas
4 into lease areas of approximately 1-gigawatt wind plant per
5 lease area. This study was developed for BOEM to inform the
6 federal offshore wind lease process, delineating the number
7 of recommended lease areas for each of the BOEM-identified
8 Wind Energy Areas.

9 The second study by GridLab evaluated the
10 feasibility of achieving an accelerated clean, carbon-free
11 electricity target of 85 percent in 2030. Analysts
12 designed three portfolios that hit an 85 percent clean
13 target by 2030 using the RESOLVE modeling tool. And are
14 based on: (1) a base portfolio, (2) a diverse clean
15 portfolio with geothermal and offshore wind, and (3) a high
16 electrification portfolio.

17 Studies 3 and 4 are actually ongoing studies, and
18 were presented at the June workshop and roundtable. These
19 include a draft working paper from the University of
20 California Berkeley's Goldman School of Public Policy and
21 the Nature Conservancy's forthcoming study, "Power of Place
22 West."

23 The UC Berkley draft report discussed how the
24 cost of offshore wind has been decreasing steadily since
25 2010. The authors state that approximately 45 gigawatts of

1 floating offshore wind are in the pipeline, and they
2 anticipate a 40 percent cost reduction by 2030. Their
3 analysis included offshore wind energy generation at
4 various gigawatt sizes and included bulk transmission in
5 inner connection in that research.

6 The Nature Conservancy presented their ongoing
7 study that will update an earlier study they published in
8 2019. It will include spatial and techno-economic analyses
9 to inform estimates of the expected need for various clean
10 energy sources and development to meet SB 100 goals, taking
11 advantage of both in-state and out-of-state resources. The
12 authors also indicate that their forthcoming report
13 includes considerations of the five factors of particular
14 importance noted by our draft report. Next slide, please.

15 So the CEC staff is now considering the comments
16 received throughout this public process and evaluating all
17 the new studies and presentations to revise the draft
18 report.

19 We look forward to publishing a revised draft of
20 the "Offshore Wind Energy Development off the California
21 Coast: Maximum Feasible Capacity and Megawatt Planning
22 Goals for 2030 and 2045" report and bringing it before the
23 Commission for your consideration at the next business
24 meeting.

25 This concludes the informational update and we

1 are happy to answer any questions. And want to remind you
2 that Walter Musial with NREL is here to address any of your
3 technical questions. Thank you.

4 CHAIR HOCHSCHILD: Thank you so much, Elizabeth,
5 for all your hard work and that of the whole team.

6 Let's go to Commissioner discussion starting with
7 Vice Chair Gunda.

8 VICE CHAIR GUNDA: Thank you, Chair. And thank
9 you Elizabeth, and the entire team, and Scott, everyone in
10 the STEP team that have been working on this for so long
11 now. Thank you for the conversations we've been having.

12 So as the Lead for SB 100 for me I've been
13 thinking about the offshore wind through the lens of SB
14 100. And the value of offshore wind in the SB 100 context,
15 so really appreciated the workshop as well as the recent
16 conversations that I've been having with a number of
17 stakeholders and as well as the comments. So I'm looking
18 forward to the continued conversation and the adoption,
19 potential adoption of the report next big step. Thank you.

20 CHAIR HOCHSCHILD: Great, thank you.

21 Unless there are comments from other
22 Commissioners what I'd like to do is -- oh sorry,
23 Commissioner McAllister were you going to say something?

24 COMMISSIONER MCALLISTER: Yeah, just quickly.

25 CHAIR HOCHSCHILD: Yes, please.

1 COMMISSIONER MCALLISTER: Yeah, I just wanted to
2 just acknowledge the multiple briefings that I've gotten on
3 the offshore wind topic area. And specifically on this
4 report and its evolution and just wanted to note there is
5 stuff, very high level of interest. Kudos to you, Chair,
6 for driving this from way back and Karen Douglas as a
7 Commissioner and then now as an administration official, so
8 just lots of forward moment, which is great. And lots of
9 really technical issues and planning issues to work out.
10 So again, just am really impressed with the teams'
11 expertise. And Elizabeth, thanks for the briefing.

12 CHAIR HOCHSCHILD: Yeah, I appreciate that. No,
13 my thanks as well to Commissioner Vaccaro for all her work,
14 and ongoing work with the implementation of all this. And
15 then to our former Commissioner Karen Douglas. And also to
16 the very first person at the Energy Commission who
17 initiated our engagement with offshore wind as a subject
18 here, which was Laurie ten Hope. I know it was almost
19 eight years ago, I think, the first funding we did for some
20 research and so we're forever in Laurie's debt.

21 What I'd like to do at this point is take public
22 comment on this, but in the form of Item 20. So folks are
23 welcome to comment on this item as well as anything else.
24 So we'll just go ahead and move to Item 20 and take public
25 comment. And you can begin with that, Dorothy. Thank you.

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1 MS. MURIMI: Thank you, Chair.

2 And one more thing, Walt Musial is here to make a
3 comment as well. Would you like to begin with Walt?

4 CHAIR HOCHSCHILD: Yeah, please. Let's begin
5 with Walt, thank you.

6 MS. MURIMI: Thank you. Walt, you may begin.

7 MR. MUSIAL: Oh, I didn't have any specific
8 comments prepared, but thank you to Chairman Hochschild and
9 Commissioners for allowing me to participate in this. I do
10 make myself available to answer technical questions
11 regarding any of the uncertainties that might have come up.
12 And thanks for recognizing a lot of the work that we've
13 done at NREL. So I will just stop there and take questions
14 if there are any.

15 CHAIR HOCHSCHILD: I do have just one question
16 actually for you, Walt, which is just to -- so if I'm
17 remembering correctly, the current density that NREL is
18 projecting is roughly 5 megawatts per square kilometer. Am
19 I remembering that correctly?

20 MR. MUSIAL: Yeah, I think there's some confusion
21 over array densities, because when we estimate area
22 densities we've been using conservative numbers to allow
23 for the possibility that site densities might be reduced
24 due to geohazards or potential easements that might get
25 imposed. But if we look at actual densities that are

1 resulting from projects that are being built on the East
2 Coast and other places in Europe, we see that the densities
3 are around 5 megawatts per square kilometer. And that's
4 different than the 3 megawatts per square kilometer that
5 are used in projecting the array densities. And that what
6 BOEM had used in announcing the array densities in the
7 current upcoming auctions.

8 CHAIR HOCHSCHILD: Okay. That's great.

9 MR. MUSIAL: Does that answer your question?

10 CHAIR HOCHSCHILD: Yeah, it does. Thank you.

11 MR. MUSIAL: Thanks. So yeah, 5 megawatts per
12 square kilometer is probably a good number, although those
13 numbers will vary depending on developer interests and in
14 their cost optimizations.

15 CHAIR HOCHSCHILD: Got it. Okay, thank you so
16 much Walt.

17 Okay, Dorothy, we'll take --

18 COMMISSIONER MCALLISTER: Yeah, I do wish
19 Commissioner Vaccaro were here so we could give her kudos
20 live, because she's been working on this for years, in
21 Commissioner Douglas's office and now in her own right. So
22 I'll just acknowledge that as well.

23 MS. MURIMI: Thank you, Chair, and thank you,
24 Commissioners. We'll move to public comments.

25 We'll start with Jean King. Please state and

1 spell your name, give your affiliation, if any.

2 And one more time, for those on Zoom who would
3 like to make a comment go ahead and use the raised-hand
4 feature. It looks like a high-five or open palm at the
5 bottom of your screen or device. And for those calling in
6 press *9 to indicate that you'd like to make a comment and
7 *6 to unmute on your end.

8 Again, we'll start with Jean King followed by Dan
9 Jacobson. You may begin.

10 MS. KING: Good afternoon this is Jean King, the
11 last name is spelled K-I-N-G. I live in Livermore,
12 California, and I very much appreciate this opportunity. I
13 have found the information about everything that I've
14 listened to very interesting.

15 I have solar panels on my house. I am a strong
16 believer in distributed solar panels. I had solar panels
17 in 2006, and they've created all the electricity that I
18 needed. But then I added a heat pump and I did not have
19 enough. And I added more solar panels so that I now create
20 all the things for heating and cooling. I still have a gas
21 water heater, but otherwise I'm creating it.

22 I do not have a battery, so therefore I do
23 realize that I am not producing any electrical power during
24 the evenings when the sun has gone down. So I am also a
25 strong supporter of getting the offshore wind power and so

1 I am very much in favor of that.

2 I would ask you to go with the higher goals when
3 they were talking about the different ones, since there is
4 a potential of 200 gigawatts out there in our offshore.
5 Then I think that the higher goal of 5 gigawatts of
6 offshore wind by 2030 or 20 gigawatts by 2045 is a very
7 reasonable amount to do. We have no offshore power here in
8 the West Coast and the East Coast. And Europe is very far
9 ahead of us on everything that they're doing, and I believe
10 that we should try to catch up and do that. Obviously,
11 climate change is very important, and we do need to produce
12 electricity for all of those electric cars.

13 And I congratulate you for working on this. I
14 think you're doing a very good job in all this and the
15 other things that I listened to during the afternoon. And
16 thank you for giving me a chance to testify. Thank you.

17 MS. MURIMI: Thank you.

18 Next we have Dan Jacobson. Go ahead and state
19 and spell your name, give your affiliation if any. You may
20 give your comments. Afterwards we have Nancy Rader.

21 MR. JACOBSON: Thank you very much. My name is
22 Dan Jacobson, J-A-C-O-B-S-O-N. I'm a Senior Advisor for
23 Environment America.

24 First, I want to thank all of the Commissioners
25 for taking the time to meet with our coalition over the

1 past two weeks. You all were very generous with your time,
2 and we were thrilled to have the opportunity to be able to
3 speak with each of you.

4 And next I want to just echo what Commissioner
5 Monahan said is I agree with you, California likes to be
6 the first. And we should be the first to set a 20-gigawatt
7 goal for a state here in the United States and we should do
8 that by 2045. And our coalition supports 5 gigs by 2030
9 and 20 by 2045.

10 And our reasons are very clear and really were
11 highlighted in much of the meeting that you had today. The
12 first is that we need the clean energy. I mean, you all
13 approved many distributed generation projects, energy
14 efficiency projects. It's clear, and it's in the CEC's own
15 SB 100 report that this clean energy is needed. And it can
16 save the state up to a billion dollars.

17 Second, is that other states and countries are
18 already moving ahead with this, and we can learn a lot and
19 should be learning a lot from what they're doing on
20 offshore wind.

21 Third, is that some of the state's smartest
22 organizations, including NREL, UC Berkeley, have looked at
23 this issue. Your staff report that was just gone through
24 highlights much of that. We should follow their lead and
25 go big on offshore wind.

1 Fourth, is that as you'll hear from other
2 colleagues this continues to be the kind of issue that
3 brings people together and we need that in our politics
4 today.

5 Fifth, is that the federal government is looking
6 at California and many of the coastal states and the Great
7 Lake states in order to meet the President's vision of
8 getting to 110 gigawatts by 2050. We can't do that if
9 California sets small goals.

10 And finally, as the state struggles to keep its
11 lights on we need to set big goals and to meet them. I
12 mean, that's really critical is right now we're doing
13 everything that we can and including relying on fossil fuel
14 power plants. And legislation was just signed in the past
15 couple of weeks that allows us to spend more time focusing
16 on fossil-fuel power plants, and that's a move in the wrong
17 direction. But setting a high goal here allows us to set
18 and meet goals that will finally get us off of these fossil
19 fuels. Thank you for your time, I appreciate the really
20 good discussion.

21 MS. MURIMI: Thank you.

22 Next we have Nancy Rader after which we have
23 Mark. Please state your name, give your affiliation, if
24 any. You may begin your comment.

25 MS. RADER: Good afternoon, Commissioners, and

1 staff. This is Nancy Rader, R-A-D-E-R, from the California
2 Wind Energy Association or CalWEA.

3 CalWEA applauds the Commission for delaying
4 consideration of its draft report and viewing the new
5 studies that were issued by NREL, UC Berkeley's Goldman
6 School, and others.

7 The Berkeley study puts offshore wind planning
8 goals in their proper context, which is the role that
9 offshore wind could play in meeting the state's SB 100
10 goals. That's the right frame. This analysis was not
11 previously conducted to inform this process. The Berkeley
12 study shows that a 2045 portfolio that balances solar with
13 a complimentary production profile of offshore wind, 50
14 gigawatts of offshore wind would reduce our total overall
15 SB 100 capacity needs by 60 gigawatts without increasing
16 costs.

17 This massive reduction in the total amount of
18 capacity needed is in and of itself a major benefit because
19 it will greatly reduce pressures on land use and the need
20 for raw materials.

21 Diversifying a solar-heavy portfolio with
22 offshore wind will also reduce various types of risks,
23 including reliability risks.

24 All of these things will have will help us
25 achieve our SB 100 goals, 50 gigawatts is achievable.

1 The NREL report as we've discussed shows that
2 much more offshore wind can be produced from a given area
3 than was previously assumed. That means the areas that the
4 federal government has already identified can support at
5 least 30 gigawatts without counting the Diablo Call Area
6 that the Navy objects to

7 We should be able to identify reasonable
8 locations for an additional 20 gigawatts given greater
9 power densities, and also the ability to go to greater
10 ocean depths.

11 The Energy Commission really should have done
12 this kind of analysis itself to inform its AB 525 planning
13 goals, but thankfully we do now have these critical studies
14 which support a planning goal of 50 gigawatts, at least as
15 part of a range that can be further considered in the rest
16 of the AB 525 process, as well as the SB 100 study process.

17 To adopt a 2045 planning goal of even 20
18 gigawatts is to say that we can only achieve in the next 23
19 years what China largely installed just last year. Clearly
20 that's not the maximum feasible planning figure for 2045
21 that AB 525 called for, and we urge the Commission to
22 include 50 gigawatts in its final report. Thank you.

23 MS. MURIMI: Thank you.

24 Next we have Mark. Please state and spell your
25 name, give your affiliation if any. You may begin your

1 comments. Please unmute on your end.

2 MR. MULLNER: Can you hear me?

3 MS. MURIMI: Yes, we can.

4 MR. MULLNER: Can you hear me?

5 MS. MURIMI: Yes, we can.

6 MR. MULLNER: My name is Mark Mullner, M-U-L-L-N-
7 E-R. I'm calling on behalf of the California State
8 Building Trades. We are in full support of this project.
9 We've been training and working to meet all the needs for
10 the just transition. And we are 100 percent behind the 5
11 and 30 and 20 and 40. And we know we can meet any needs
12 that you need in the skilled and trained workforce. Thank
13 you.

14 MS. MURIMI: Thank you.

15 Next we have Manley McNinch. Please state and
16 spell your name, give your affiliation if any. You may
17 begin.

18 MR. MCNINCH: Good afternoon, Manley McNinch, M-
19 A-N-L-E-Y, last name McNinch, M-C-capital N-I-N-C-H. And
20 I'm with the United Brotherhood of Carpenters, Southwest
21 Regional Council.

22 To start out with we are in 100 percent support
23 of the project. We'd like to see as much offshore wind
24 being put in and produced as we possibly can get.

25 We fully support a much higher threshold. We'd

1 like at a minimum to be able to replace the energy that
2 we're going to be losing from Diablo Canyon. Recently
3 they're talking about keeping the canyon open longer to
4 give the offshore wind a chance to pop, be able to get up
5 and start supporting the needs of this state. And so
6 Diablo Canyon, we're going to be losing around 18 gigs, so
7 we definitely need to set our target higher for 18.
8 According to diablo's website they lose -- they turn out 18
9 gigawatts a year and that we need to set the goals for 2030
10 at 18 or higher.

11 You need to make sure that all the work is done
12 local, local hire much as possible. On the local hire some
13 of it's going to have skilled requirements that bring
14 people in from out of the area, but we need to make sure
15 all employees are being paid on a prevailing wage basis,
16 not just the locals because it would make it where the
17 contractors can't compete fairly.

18 We also, in addition -- local hires, we need to
19 make assurances to local communities that we're going to
20 replace these jobs that will be lost in the general area
21 and are going to be replaced with a skilled and trained
22 workforce.

23 These projects fall in -- a lot of the projects
24 are going to be seeking -- a lot of developers will be
25 seeking tax credits. We'd like to make sure these tax

1 credits directly bring any project that's using a tax
2 credit into the prevailing wage parameters and definitions.
3 And if they (indiscernible) some of the laws that are out
4 there, they get used on tax credits. And because it's a
5 tax credit being paid back, they don't have to put them
6 under prevailing wage. We need to make sure that going
7 into the start of these projects that that is not the case.
8 Thank you for your time.

9 MS. MURIMI: Thank you.

10 Next we have Jesse Greer. Apologies if I've
11 misstated your name. Go ahead and state and spell your
12 name, give your affiliation if any. You may begin your
13 comments.

14 MR. GREER: Hi, can you hear me?

15 MS. MURIMI: Yes, we can.

16 MR. GREER: Oh, thank you. My name is Jesse
17 Greer, J-E-S-S-E, Greer, G-R-E-E-R. And I am with the
18 (indiscernible) --

19 (Audio cutting in and out).

20 MS. MURIMI: Apologies, Jesse, we are having
21 trouble hearing you.

22 MR. GREER: Can you hear me now?

23 MS. MURIMI: Can you speak a little louder?

24 MS. MURIMI: Yes.

25 MR. GREER: Okay. So sorry about that. Did you

1 get my name and everything and how to spell it?

2 MS. MURIMI: If you can start over again.

3 MR. GREER: Okay sorry about that. So it's
4 Jesse, J-E-S-S-E, Greer, G-R-E-E-R. And I am with the
5 Operating Engineers District 80. And I support the 5
6 gigawatts by 2030 and 20 gigawatts by 2040. These jobs in
7 the offshore wind industry will be a pathway to the middle
8 class for thousands of workers. And (indiscernible) --

9 CHAIR HOCHSCHILD: Jesse, we lost you there.
10 Should we -- Dorothy, do you want to move on to
11 the next, and maybe Jesse could patch back in on a
12 different line?

13 MS. MURIMI: Yes. Let's move on to Jim Jacobs.
14 Go ahead and state and spell your name, give your
15 affiliation if any, and you may begin your comment.

16 MR. JACOBS: Good afternoon, my name is Jim
17 Jacobs last name is J-A-C-O-B-S. I am with the Operating
18 Engineers as well. But speaking as a fifth-generation
19 Californian I am super-excited about the prospect of
20 developing offshore wind power. I 100 percent support it.
21 I absolutely support the 5 by 2030 and the 20 by 2040 plan.

22 California, I mean come on, we lead the nation.
23 So I'm really excited about the prospect of this. And I'm
24 also excited about the prospect of green jobs, green
25 energy, and the ability to work some Californians on this

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1 project. Obviously, I am a construction person so that
2 part of it is exciting to me as well.

3 I also have to give you guys a comment, you have
4 mastered the Zoom meeting. I've never seen one done like
5 this and I have to say I'm very impressed with how you ran
6 today's meeting. It's the first one I've been involved in.
7 I'm going to be involved more often.

8 And I'd like to thank you for your time and your
9 hard work to all the Commission for allowing me to make a
10 comment.

11 MS. MURIMI: Thank you, Jim.

12 Next we have V. John White. Go ahead and state
13 and spell your name, give your affiliation if any. You may
14 begin your comments.

15 MR. WHITE: Thank you, my name is V. John White,
16 W-H-I-T-E. I am Director of the Center for Energy
17 Efficiency and Renewable Technologies.

18 I want to thank the Commissioners and the staff
19 for a particularly effective presentation and for all the
20 time that you all have spent. As Elizabeth's narrative
21 reflected it really has been the CEC pushing forward and
22 laying the foundation for where we are today, so this is a
23 very important success for this agency.

24 I very much agree with Dan Jacobson and Nancy
25 Rader about the value and importance of offshore wind to

1 California. As a balancing resource for our portfolio it
2 is hugely important, both for reliability and as Dan said
3 to help us lower costs. The price of natural gas is not
4 going down, it's likely headed up and will likely stay
5 there, so it costs us a lot. Clean energy is cheaper,
6 offshore wind is particularly advantageous because of how
7 it fits into the needs that we have.

8 The other aspect, CEERT was involved many years
9 ago in the Tehachapi Study Group, which laid the foundation
10 for accessing the wind resource in the Tehachapi area.
11 But, as with offshore wind, transmission was the barrier
12 and we had to build the transmission in advance of building
13 the projects. And we're going to have to do something
14 similar for offshore wind.

15 And in the case of Humboldt, it's likely we're
16 going to need an undersea cable to get the power down to
17 the load-serving load entities. And the scale of that
18 transmission is going to matter, so the bigger that we can
19 set our goal at 20,000 in 2045 or above, it will help us
20 drive the infrastructure needed to support this large
21 industry. So we have port investments that are going to be
22 needed.

23 I mean, as the labor folks have said, the
24 workforce opportunities are enormous, the workforce
25 training needs. So between transmission and workforce

1 training, having in mind a large goal will help advance and
2 accelerate the planning and help us get this done in a
3 timely fashion.

4 So again, I commend the Commission for its
5 leadership and the staff for its fine work and look forward
6 to having a leadership goal be adopted and consistent with
7 AB 525. Thank you.

8 MS. MURIMI: Thank you.

9 And next we have Emily McCabe. Go ahead and
10 state and spell your name, give your affiliation if any.
11 You may begin your comments.

12 MS. MCCABE: My name is Emily McCabe, E-M-I-L-Y
13 M-C-C-A-B-E. I'm a fourth-year student at UC Berkeley
14 studying Society and the Environment. And I'm here to
15 underscore the urgency of being bold in your plan for
16 offshore wind development.

17 I grew up in Chico, Northern California, and each
18 year it seems like the fire season was growing longer. In
19 2018 when I was a senior in high school, my community
20 experienced extreme devastation. A campfire burned down an
21 entire town 15 minutes away from my home. Four years later
22 the community is still recovering, but will never be the
23 same. This new normal of extreme wildfires is a result of
24 climate change.

25 Last semester, I wrote a research paper that

1 explored the link between greenhouse gas emissions and
2 wildfires. I discovered that there's a colloquial saying
3 in the scientific community, "Hotter and drier equals more
4 fire." The scientific consensus is that climate change is
5 driving increasing frequency and severity of wildfires in
6 our state. Communities throughout California have already
7 experienced the climate disaster that is wildfires, from
8 Redding in Northern California to Montecito and SoCal.
9 It's happening today in Yosemite National Park.

10 This is all to say that climate change is not far
11 off in the future it's already here. It's not the time to
12 hold back. We need to transition to renewable energy,
13 including offshore wind, to prevent further warming of our
14 planet and increasing climate disasters.

15 I urge you to be ambitious in your planning for
16 offshore wind in California the Commission should plan for
17 5 gigawatts of offshore wind power by 2030 and 20 gigawatts
18 by 2045. It is absolutely necessary to go big on offshore
19 wind. Our state needs to transition to renewable energy as
20 soon as possible. We're already seeing the consequences of
21 what happens when we wait.

22 Thank you for your thoughtful work on this issue
23 and for allowing public participation in the process.

24 MS. MURIMI: Thank you.

25 Next we have Mandy Sackett. Go ahead and state

1 and spell your name, give your affiliation if any. You may
2 begin your comments.

3 MS. SACKETT: Hello, Mandy Sackett with the
4 Surfrider Foundation. My name is spelled M-A-N-D-Y S-A-C-
5 K-E-T-T. Surfrider supports responsibly planned, sited,
6 designed, and operated offshore wind as an important piece
7 of California's energy portfolio.

8 At Surfrider, our mission is to protect our ocean
9 waves and beaches for all people and we represent thousands
10 of ocean and coastal recreational users across the state.
11 We appreciate and commend the Energy staff for bringing
12 their work forth in this plan that will help the state
13 transition off fossil fuels. And by doing so may help
14 avoid the most severe effects of the climate crisis looming
15 over our coasts and planet.

16 Surfrider appreciates the realistic targets and
17 goals set forth in the draft plan. An overly ambitious
18 target could create future conflicts with existing
19 environmental laws as federal and state agencies apply NEPA
20 and the California Coastal Act and others during the
21 project review and licensing process, so this is why
22 Surfrider supported AB 525 last session. As a balanced and
23 thoughtful approach, an incremental approach allows us to
24 develop the sector in a responsible way. We can apply new
25 information and avoid or mitigate impacts.

1 AB 525 details 12 important considerations for
2 the definition of "feasibility." We're happy those are
3 included in the draft. We urge that balanced approach to
4 remain in the final draft and we particularly support
5 Priority 5 which is what is now included as Priority 5, to
6 protect coastal resources as an important part of this.

7 And it's important to set realistic goals, not
8 only considering technical feasibility but also to ensure
9 that our coastal communities, our environment, marine life,
10 and recreational impacts are all minimized.

11 More information is needed, especially for large-
12 scale offshore wind development and its potential impacts
13 on ground swells, on ocean upwelling, currents, tides,
14 marine life, migration corridors, and many other important
15 details that other recent studies, like the Berkeley
16 report, didn't necessarily consider.

17 And so it's tempting to champion any large-scale
18 renewable energy at any cost, given the urgency with which
19 we must address the climate crisis. We urge you as
20 regulators to ensure that our path forward is carefully
21 considered. We must learn from the mistakes of the past
22 and carefully consider all of our energy infrastructure,
23 moving forward. We don't want to attempt to solve one
24 biodiversity environmental crisis by creating another, so
25 just urge you to be moderate as the original draft

1 intended. Thank you.

2 MS. MURIMI: Thank you.

3 Next we have Mandy -- no, Laura Deehan,
4 apologies. Go ahead and state and spell your name, give
5 your affiliation if any. You may begin your comment.

6 MS. DEEHAN: Thank you. Thank you, Chair
7 Hochschild and Commissioners. My name is Laura Deehan,
8 last name is spelled D-E-E-H-A-N. I'm the State Director
9 for Environment California. We're a statewide
10 environmental advocacy organization that stands up for
11 clean air, clean water, protecting open spaces, wildlife,
12 and a livable planet. And we're also one of the founding
13 members of the Offshore Wind Now Coalition. And today I'm
14 speaking up in support of our state going big on offshore
15 wind.

16 California has been a leader on rooftop solar
17 deployments when we committed to 100 percent clean energy
18 with the passage of SB 100, with clean cars, and so much
19 more. And we've accomplished this much because of the
20 visionary leadership and ambitious goal-setting that
21 allowed regulators, leaders in our state to have this guide
22 star to help direct strategic planning and to help
23 coordinate stakeholder engagement.

24 And we can do that, once again, right now with
25 offshore wind. Offshore wind offers so much incredible

1 promise for our state as we've heard today from so many
2 studies, such as the NREL report that shows that there's
3 the capacity for over 200 gigawatts of energy that's
4 technically possible off the California coast. And we have
5 a huge opportunity to tap into this untapped resource with
6 all of the cutting-edge, technological innovations. And we
7 can use that to restore the balance of nature by using
8 clean, renewable energy instead of oil and gas to power our
9 lives.

10 And all the research is showing that is
11 absolutely possible to do this while protecting wildlife
12 and empowering California communities. And that's why
13 we've now counted I think over 1,400 people have submitted
14 comments to your Commission urging California to go big on
15 offshore wind with goals of at least 5 gigawatts by 2030
16 and 20 gigawatts by 2045, which is eminently reasonable as
17 well as being ambitious, considering the enormous capacity
18 potential.

19 And the Offshore Wind Now Coalition, made up of
20 labor groups, environmental groups, environmental justice
21 groups, local elected officials, business groups, energy
22 groups, including also the Schwarzenegger Institute are
23 standing together in support of ambitious goal-setting now
24 to make sure that California has a clean, renewable and
25 resilient energy future. So thank you so much for your

1 work in this. And let's go big on offshore wind.

2 MS. MURIMI: Thank you.

3 Next we have Claire Warshaw. Go ahead and state
4 and spell your name give you affiliation, if any. You may
5 begin.

6 MS. WARSHAW: Hi, my name is Claire Warshaw. I'm
7 a member of the public and I didn't prepare to talk about
8 offshore wind, but I do think about it. And I know the
9 Energy Commission has been supportive of offshore wind.

10 The one thing I think about is the cables that
11 these turbines will have. And hopefully there's a whale
12 migration plan is going in place, somehow guiding things
13 not to run into those things.

14 My comment is about other items on the agenda,
15 it's kind of a mixed comment. The first thing would be
16 with the appliance review for Agenda Items 2 and 3. I
17 would ask the Commission to start, if they could, looking
18 for spyware such as cameras and audio that might end up in
19 these products that people buy. And if there is that
20 potential to ask manufacturers to have a disclosure of
21 that, because I do think privacy invasions have been not
22 really talked about much, but I do think they're in many of
23 our homes and I wish that they would be disclosed.

24 The next thing is for the Item Agenda 12 with
25 Chair Hochschild had asked about the two fuel hoses from

1 the charging to the Volvo trucks, or whatever trucks might
2 use those, electric trucks. Maybe they could design trucks
3 so that they have two ports, a two-battery system so they
4 could charge faster.

5 And then the bulk of my comment is about wave
6 energy, and I have mentioned this before, but there is a
7 company I've been noticing a lot on LinkedIn called Eco
8 Wave Power. It has a female lead from I think she's
9 Israeli, although she has combined her company with other
10 countries so I'm not certain on that. And I would ask the
11 Commission to possibly invite her team, or even virtually
12 to discuss her product, because it does look successful
13 from the different posts I've seen on LinkedIn.

14 I attended a webinar on June 30th from the United
15 Nations, like a side event, and it featured AltaSea, which
16 is part of, I guess the Long Beach Port of Los Angeles.
17 And her system is apparently going to go in there for a
18 pilot project. And since she is from a different country
19 and she is a female leader, I think it's especially
20 important to try and help her be successful, because the
21 project that she's getting involved with -- I'm not certain
22 is that clear as to what kind of generation waves, wave
23 generation is. It's very different from offshore wind, I
24 don't think people should compare it at all.

25 Wave generation like hers could potentially go

1 into areas like along the piers of San Francisco and on the
2 land edges, marina areas, and things like that. So I'm
3 asking the Commission to maybe invite her to discuss and
4 see what policies the state could put in place to help her.
5 Thank you.

6 MS. MURIMI: Thank you for your comment.

7 And next we have Adam Stern. Go ahead and state
8 and spell your name, give your affiliation if any. You may
9 begin your comment.

10 MR. STERN: Thank you. I'm Adam Stern, that's S-
11 T-E-R-N, Executive Director of Offshore Wind California, a
12 trade group that represents the offshore wind industry.

13 We want to thank the Commissioners and staff for
14 their ongoing work to finalize the Commission's report on
15 the state's AB 525 offshore wind planning goals. And
16 special thank-yous to Chair Hochschild and Vice Chair Gunda
17 for spending time with us recently.

18 As an industry we're continuing to encourage the
19 Commission to approve planning goals of 5 gigawatts by 2030
20 and at least 20 gigawatts by 2045. We believe these goals
21 are well supported by the latest research and would fully
22 take advantage of the many benefits that economies of scale
23 can bring Californians from responsibly developing offshore
24 wind.

25 Here are several key points to consider. First,

1 what the Commission is being asked to set per AB 525 are
2 planning goals not mandates. If we want to go big, we need
3 to plan big.

4 Ambitious planning goals are essential to
5 appropriately size and scale the other key elements
6 necessary to deploy offshore wind, including transmission,
7 port infrastructure, workforce development, and a
8 sustainable supply chain.

9 Setting goals below the state's ultimate need for
10 offshore wind risks significant missed opportunities to
11 right-size planning, program, and investments that will
12 help to deliver the full benefits of this new industry.

13 Second, as has been discussed in today's hearing
14 new data and analysis presented by Walt Musial at NREL at
15 the CEC's June 27th workshop, and restated in today's
16 meeting, shows that 5 gigawatts by 2030 and at least 20
17 gigawatts by 2045 are goals that are very achievable when
18 factoring in the industry's most likely power density
19 scenarios. Doing the math with NREL's new data shows these
20 goals can be reached at the designated wind energy areas at
21 Morro Bay and Humboldt and the other wind energy or other
22 wind areas that are being studied for future offshore sea
23 space planning with BOEM, the CEC and other state agencies.

24 Third, it's important to emphasize the industry
25 can deploy the first 5 gigawatts by 2030 within existing

1 leased areas and without need for additional sea space.
2 That's a key point to consider as the Commission strives to
3 balance sea space user needs for the next 15 gigawatts or
4 more to reach the 20 gigawatt or more by 2045, there's
5 plenty of time and sea space to consider for additional
6 offshore wind areas.

7 Finally, industry trends and data all point to
8 increased U.S. and global reliance on offshore wind and
9 growing benefits of offshore wind as part of a diverse
10 renewables portfolio to help California meet its SB 100
11 clean power and climate objectives. Ambitious planning
12 goals will send an important signal to the industry and
13 other agencies that California is committed to moving
14 forward as a leader on offshore wind. Thank you very much.

15 MS. MURIMI: Thank you next we have Kelly Boyd.
16 Please state and spell your name, give your affiliation if
17 any. You may begin.

18 MS. BOYD: Thank you. Kelly Boyd, B-O-Y-D. And
19 I'm with Equinor U.S. Offshore Wind.

20 I am here today to thank you, the Commission,
21 again and thank Elizabeth Huber and the staff that was a --
22 the update report, everything points and trends in the
23 right direction here. Especially based on the new studies
24 that have provided even more information about both the
25 wind, value of the wind resource and the technological

1 developments companies like ours have made.

2 More than that California, as has been expressed
3 throughout the day here and over the past few years, has a
4 reliability and climate crisis colliding. Offshore wind is
5 part of the balanced portfolio that's going to most
6 efficiently, most cost-effectively, and in a most climate-
7 focused fashion address that situation.

8 This is a key resource. We believe the 5
9 gigawatts by 2030 goal is more than reasonable. We have to
10 set a high goal to achieve a high goal, have to develop
11 infrastructure transmission, etcetera.

12 As my colleague from CEERT, V. John White stated
13 earlier we've done this before, we've planned for
14 transmission and other attributes to bring in resources
15 most efficiently and cost-effectively. We need to do that
16 for offshore wind and absolutely a 20-gigawatt goal by
17 2040, 2045 is more than achievable and is significantly
18 less than the footprint that has been indicated is feasible
19 in these studies.

20 As technologists we're improving every day, we're
21 improving on costs, on efficiency, deliverability scale,
22 all of those things are going to be huge for California.
23 And the sooner we establish goals and get moving and start
24 developing the right footprint here regulatorily everything
25 that we're doing for compatible uses in the ocean as well,

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1 the sooner we'll be able to deliver this resource and help
2 address some of the pressing issues, including our wildfire
3 and drought problems in the state that are ongoing.

4 With that, I want to thank you very much and
5 let's get moving on offshore wind.

6 MS. MURIMI: Thank you.

7 Next we have Kate Kelly. Please state and spell
8 your name, give your affiliation if any. You may begin.

9 MS. KELLY: Good afternoon, Chair and
10 Commissioners. I'm Kate Kelly, K-A-T-E K-E-L-L-Y, and I'm
11 here on behalf of Defenders of Wildlife speaking on Item 7,
12 the draft offshore wind report.

13 Defenders supports environmentally responsible
14 offshore wind development that balances renewable energy
15 generation, with the protection of wildlife and ecosystems.
16 Defenders worked with the state, industry, and stakeholders
17 on the passage of AB 525.

18 We appreciate the Commissioner Vaccaro and her
19 staff's extensive efforts in developing the draft offshore
20 wind report and the planning goals that was released in
21 May. We believe the planning goals in the May draft report
22 are consistent with the provisions of AB 525 and meet the
23 standards for maximum feasibility under 525. The word
24 "feasible" is critical here. It's important to consider
25 that the legislation did not use the word "possible," nor

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1 did the legislation insert the word "technically" before
2 "feasible."

3 In developing the May draft report, the CEC team
4 correctly and reasonably looked at its own regulations to
5 define what is feasible. It's something that is capable of
6 being accomplished in a successful manner within a
7 reasonable period of time, taking into account economic,
8 environmental, legal, social and technological factors. In
9 this case the factors that influence what is feasible come
10 from AB 525 itself as part of the 12 planning criteria and
11 the 5 criteria that were identified as being key to the
12 feasibility.

13 Importantly, it looks at the coastal resources,
14 fisheries, Native American Indigenous peoples, National
15 Defense, and strategies for addressing those impacts. The
16 NREL and UC Berkeley phase did not factor in environmental
17 or social factors, as required by AB 525. So setting a
18 planning goal based on just technical criteria that ignores
19 the 12 factors in 525 as not setting a peaceful offshore
20 wind goal and would not be consistent with the letter or
21 intent of AB 525.

22 The planning goals and the May draft report meet
23 the standards for maximum feasibility under AB 525, and
24 higher goals should not and cannot be considered until
25 they're supported by the additional analysis from the

1 required, but yet to be completed, sea space analysis
2 strategic plan and permitting roadmap.

3 Yes, investments in offshore wind seek certainty,
4 thoughtful feasibility analysis and planning that considers
5 the 12 factors, particularly environmental and social
6 factors as we've learned with renewable energy development
7 in other places, and particularly the desert, brings
8 certainty.

9 Chasing higher goals based on states that don't
10 include the full consideration of these factors as required
11 by 525 will only delay meeting our renewable energy goals
12 and undermine a fledgling industry.

13 Thank you for considering our comments. We look
14 forward to continue working with the Commissioners, agency
15 staff, and stakeholders to identify appropriate location,
16 strategic approaches, and the permitting roadmap to achieve
17 responsible offshore wind development. Thank you for your
18 time today.

19 MS. MURIMI: Thank you.

20 Next we have Sarah Xu followed by Michael Ginter.

21 Sarah, you can please state and spell your name,
22 give your affiliation if any. You may begin your comments.

23 MS. XU: Good afternoon, my name is Sarah Xu, S-
24 A-R-A-H X-for-X-Ray U-as-in-Uniform. Thank you so much
25 again for your time and evaluation of the subject and the

1 multiple workshops, public workshops.

2 Brightline is in support of 5 gigawatts by 2030
3 goals and the 20 gigawatts by 2045 goals. Offshore wind
4 provides a really exciting opportunity as a utility scale
5 clean energy resource and its potential to deliver strong
6 benefits to frontline communities, open up opportunities
7 for workforce development to generate thousands of quality,
8 family-sustaining jobs. And, in combination with really
9 thoughtful policies like targeted and local hire policies
10 offshore wind has the opportunity to support local
11 workforce development and job creation in the communities
12 most impacted and frontline communities.

13 Offshore wind is an important opportunity for the
14 state of California and the California Energy Commission is
15 a great place to inject more equity into this process as
16 well. Community engagement throughout the offshore wind,
17 goal setting, and for future reports is important as is
18 investment and partnership with local communities to
19 determine what the right scale and placing the development
20 is for those places. And the California Energy Commission
21 should incorporate community benefits as part of the
22 economic and community impact in a strategic plan.

23 Furthermore, equity analysis in future AB 525
24 reporting is key. California Energy Commission should
25 include explicit equity analyses and discussions throughout

1 strategic planning process and invest in funding structures
2 that support leadership, a frontline black, indigenous and
3 people of color communities, and communities that are
4 directly impacted by offshore wind development.

5 Brightline, in coalition with other labor,
6 environmental organizations, strongly supports the 5
7 gigawatts by 2030 and the 20 gigawatts by 2040 goals
8 through steady progress towards greenhouse gas reduction
9 and towards an equity- based offshore wind development
10 process. Thank you.

11 MS. MURIMI: Thank you.

12 And next Michael Ginter followed by Julia de
13 Lamare. Michael, please state and spell your name, give
14 your affiliation if any. You may begin.

15 MR. GINTER: Okay, thank you. Good afternoon, my
16 name is Michael Ginter, G-I-N-T-E-R. I'm a Business
17 Representative for Operating Engineers Local Union No. 3.
18 Local 3 represents thousands of men and women in the
19 construction industry. We support 5 gigawatts of offshore
20 wind power by 2030 and 20 gigawatts of offshore wind power
21 by 2040.

22 These jobs in the offshore wind industry will
23 provide good-paying union jobs with benefits, providing a
24 pathway to the middle class. Thank you for your time and
25 have a good day.

1 MS. MURIMI: Thank you.

2 Next we have Julia de Lamare followed by Daniel
3 Mora. Julia, please state and spell your name, give your
4 affiliation if any. You may begin.

5 MS. DE LAMARE: Hi, my name is Julia. And I'm a
6 Clean Energy Advocate at the Natural Resources Defense
7 Council.

8 NRDC strongly supports responsible offshore wind
9 development and planning goals that get California to the
10 economy-wide decarbonization goals, while accounting for
11 environmental concerns.

12 We don't oppose updating the planning goals as
13 long as the CEC complies with AB 525 requirements,
14 including analysis on potential impacts on coastal
15 resources, fisheries, Native American indigenous people,
16 and strategies for addressing those potential impacts.

17 The CEC must ensure that the planning goals be
18 based on a comprehensive, cost-effectiveness analysis that
19 accounts for environmental, social, and local economic
20 development considerations, meaning that the final CEC
21 report should estimate what amount of offshore wind is on
22 the intersection of economic potential to achieve our
23 economy-wide decarbonization goals and physical potential
24 to account for real-world constraints, such as
25 environmental, social, and reliability issues.

1 NRDC also recommends that when applying the
2 results of the Berkeley study to determine what level of
3 offshore wind is part of the cost-effective solution the
4 CEC should assess detailed results of all the scenarios to
5 figure out what amount of offshore wind helps realize the
6 lowest cost for California cumulatively through 2045, as
7 well as best help attain a reliable electric grid.

8 Then the CEC should consider environmental
9 impacts and make sure all 12 factors required by AB 525 are
10 accounted for. NRDC's previous comments offer
11 environmental factors and management practice that is
12 essential to consider when determining planning goals. The
13 CEC must consider, among others, the impact on benthic
14 habitats, seabirds, marine mammals and sea turtles, as well
15 as the cumulative effects of offshore wind development and
16 the onshore effects of transmission, infrastructure and
17 other land-based infrastructure.

18 Finally, because environmental impacts may not be
19 completely understood without detailed monitoring and
20 analysis which would happen at a later stage it's also
21 appropriate for the CEC to establish a range of offshore
22 wind planning goals. We appreciate the opportunity to
23 present these comments and look forward to continuing to
24 support CEC's work on offshore wind development. Thank
25 you.

1 MS. MURIMI: Thank you.

2 Next we have Daniel Mora followed by phone number
3 ending in 737. Daniel, please state and spell your name,
4 give your affiliation if any. You may begin.

5 MR. MORA: Good afternoon, Chair and members. My
6 name is Daniel Mora, M-O-R-A. I'm currently a student from
7 the University of Southern California, where I'm a rising
8 junior studying both economics and history.

9 I'm calling for the Energy Commission to set a
10 goal of 5 gigawatts of offshore wind by 2030 and 20
11 gigawatts by 2045. Offshore wind is a critical part to the
12 transition to 100 percent renewable electricity. It
13 increases grid resiliency by providing another tremendous
14 clean energy source that can -- that -- when the sun sets.

15 California has some of the highest offshore wind
16 potential anywhere in the world. We would technically
17 produce enough energy offshore to meet the state's current
18 entire electricity twice over according to the National
19 Renewable Energy Lab.

20 However, currently there is no offshore wind
21 anywhere on the West Coast. This is one of the renewable
22 resources where California is way behind the East Coast and
23 Europe.

24 As we electrify cars, trucks, buses, and how we
25 cook and eat in our homes our need for more clean,

1 renewable electricity will grow in the coming decades. The
2 development of offshore wind will allow us to move to 100
3 percent renewable energy faster.

4 We also urge the state to maintain the highest
5 standards for environmental review to ensure we minimize
6 disruption to our coastal ecosystem and marine life.

7 Lastly, the climate crisis necessitates bold
8 goal-setting now to accelerate our way out of dependence on
9 fossil fuels that's wrecking our ocean life, as well as all
10 life on earth. Thank you for your time today.

11 MS. MURIMI: Thank you.

12 Next we have phone number ending in 737, followed
13 by Francisca Martinez. Please unmute on your end by
14 pressing *9 or *6, sorry. You may begin. And please state
15 and spell your name.

16 MS. BOICE: Hi, my name is Cassandra Boice, last
17 name B-as in boy-O-I-C-E. So I am a student at the
18 University of California Merced.

19 So first I'd like to thank the Commission for the
20 opportunity to speak today. As a young person I really
21 appreciate that I can talk to you all today. I'm from
22 Sacramento and I'm currently studying environmental science
23 at UC Merced as a fourth-year student.

24 I have been studying in environmental science
25 since my junior year of high school. And the more I

1 learned, the more the more concerned I get. I remember my
2 high school teacher, Mr. Carson, telling the class that we
3 had 12 years to reduce carbon emissions in order to stay on
4 track for the 2015 Paris Climate Accord. Close to six
5 years later we're still business as usual. In the U.S.
6 we've made progress in going green, but we're still not
7 even close to where we need to be.

8 We need to move away from fossil fuels as fast as
9 we can if we want to mitigate the worst effects of climate
10 change. These include stronger storms, hotter summers, and
11 more intense droughts. As we know in California, these are
12 the ingredients for record-breaking community-destroying
13 wildfires. If we do nothing, they'll only continue to get
14 larger, more severe and more deadly.

15 I think offshore wind is a fantastic, potential
16 sources green energy. And it makes so much sense. We have
17 steady western winds from the Pacific Ocean on our coast
18 that could be used to generate a lot of steady electricity
19 at all times of the day.

20 I think that 20 gigawatts by 2045 should be an
21 easy amount to achieve, and that we just need to build the
22 infrastructure to get us there. A great start would be
23 achieving 5 gigawatts of offshore wind by the end of the
24 decade. The energy is there, and we just need to harness
25 it. Once we have that '30 number, I know it'll be able to

1 expand and generate even more.

2 Additionally, offshore wind turbines have been
3 found to increase bio diversity in an area by providing
4 shelter and food for fish. So scientists in Belgium and
5 the UK, so better countries that are that have already
6 installed offshore wind farms, found that wind turbines
7 provide mussels with habitats to grow, which resourced sea
8 beds and increases crab and lobster populations.

9 Wind farms can also create habitats for young and
10 juvenile fish to grow until they reach adulthood. So not
11 only are wind farms great to the atmosphere it can also be
12 a great sustainable resource for the fishing industry by
13 creating sheltered nurseries for fish to reproduce.

14 Please go big on offshore winds. I earnestly
15 believe it will be one of the largest sources of energy for
16 California and that our state can lead the way to a
17 greener, brighter future.

18 My generation, and the one seven generations
19 after, are depending on you to make the right decision
20 today so we can still live on a clean and green earth
21 tomorrow. I look forward to the day when I can go to any
22 beach in the world and look out to the ocean and see not
23 oil rigs, but offshore wind farms. Thank you.

24 MS. MURIMI: Thank you.

25 Next we have Francisca Martinez. Please state

1 and spell your name, give your affiliation if any. You may
2 begin your comment.

3 MS. MARTINEZ: Hello, my name is Francisca
4 Martinez. That's F-R-A-N-C-I-S-C-A, Martinez M-A-R-T-I-N-
5 E-Z. I'm the Deputy Chief of Staff at the Schwarzenegger
6 Institute and part of the Offshore Wind Now Coalition.

7 We encourage the Commission to go big on offshore
8 wind and set a 20 gigawatt by 2045 target. We believe that
9 offshore wind has the potential to be California's next
10 success story, and we need it to fight the climate crisis
11 to meet our clean energy goals, all while creating new
12 jobs.

13 I look forward to continuing working together to
14 make this happen. And I'm here, let us know if the
15 Schwarzenegger Institute can be helpful in any way. Thank
16 you.

17 MS. MURIMI: Thank you.

18 Next we have Angela More. Please state and spell
19 your name, give your affiliation if any. You may begin
20 your comment. Sorry, that's Angel More.

21 MS. MORE: Hello, thank you so much. My name is
22 Angel More, A-N-G-E-L M-O-R-E. I'm from San Mateo County
23 and a student at UCLA. I support setting strong megawatt
24 targets for offshore wind, specifically using 5 gigawatts
25 by 2030 and 20 gigawatts by 2045.

1 Offshore wind energy can help reduce greenhouse
2 gas emissions and combat climate change. Also it can
3 provide a reliable source of clean energy and can bring
4 jobs and a new industry to California. Thank you so much.

5 MS. MURIMI: Thank you.

6 Next we have User UM 998. Please state and
7 spell your name, give your affiliation if any. You may
8 begin your comment. (No audible response.) That is UM
9 998. Please unmute and you may begin.

10 MR. FERRY: Hi, this is Tim Ferry, F-E-R-R-Y.
11 I'm the U.S Offshore Wind Editor for "Recharge." And I
12 have a question actually. I hope that's okay. And my
13 question is --

14 MS. MURIMI: Yes, you may proceed.

15 MR. FERRY: Thank you. My question is with the
16 multiple bottlenecks facing the industry, particularly the
17 supply chain and transmission vessels, etcetera. And with
18 multiple analytics firms not seeing much or even any
19 offshore wind prior to 2030, BNEF just forecast that
20 California will not have any offshore wind before the end
21 of this decade, I'm wondering if the CEC faces a
22 credibility gap by over-promising and under-delivering in
23 this sector? And I wonder if anybody would be willing to
24 address that?

25 MS. MURIMI: Thank you for your comments. And we

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1 can connect you with staff to answer questions. Feel free
2 to reach out to the Public Advisor's Office at public
3 advisor@energy.ca.gov.

4 Next we have Christa West. Please state and
5 spell your name, give your affiliation if any. You may
6 begin your comments.

7 MS. WEST: Hi, my name is Christa West, last name
8 is W-E-S-T, first names is Christa, C-H-R-I-S-T-A. I am a
9 big supporter of the Energy Commission setting a goal of 5
10 gigawatts of offshore wind by 2030 and 20 gigawatts by
11 2045.

12 I am a community member. I have been listening
13 to all these comments. And while joining this meeting as a
14 supporter initially I've heard a number of wonderful points
15 that I had not thought of, including the jobs creation.
16 And the fact that we will be -- we have so much space and
17 all these opportunities to move towards wind.

18 And that I also would urge the state to maintain
19 the highest standards of environmental review to ensure we
20 minimize disruption to our coastal ecosystem and marine
21 life. I feel like these big goals are possible and
22 certainly doable. So thank you for taking the time to
23 listen to me. And thank you for all the work that you're
24 doing.

25 MS. MURIMI: Thank you, Christa.

1 Next we have Sal Flores (phonetic). Please
2 state and spell your name, give your affiliation if any.
3 You may begin your comments.

4 That's Sal Flores. Please unmute on your end,
5 state and spell your name and give your affiliation if any.
6 And you may begin your comments. (No audible response.)

7 Seeing no comments we'll go to Doug LeMoine,
8 apologies if I've misstated your name. Please state and
9 spell your name, give your affiliation if any. You may
10 begin your comment.

11 MR. LEMOINE: Hi. Good afternoon, my name is
12 Doug LeMoine. I'm a resident of Solano County and a
13 business rep for Labor's Union Local 324. I'm calling in
14 today to speak in support of the offshore wind plan and the
15 hundreds if not thousands of good-paying jobs this would
16 create.

17 I personally have been a part of multiple wind
18 farm projects over the years. In my experience the
19 standard when it comes to environmental compliance, as well
20 as safety, quality of construction of these turbines has
21 been set right here in California with dozens of other
22 successful wind farm projects completed in the past. Thank
23 you for your time.

24 MS. MURIMI: Thank you.

25 Next we have Marybeth Benton. Please state and

1 spell your name, give your affiliation if any. You may
2 begin your comments.

3 MS. BENTON: Hi, good afternoon. My name is
4 Marybeth Benton, spelled M-A-R-Y-B-E-T-H B-E-N-T-O-N, from
5 The Nature Conservancy of California.

6 Thank you, Chair and Vice Chair, for the
7 opportunity to comment. TNC appreciates the opportunity to
8 have presented one of the studies featured during the
9 recent AB 525 goals workshop.

10 TNC's forthcoming Power of Place study uses TNC's
11 peer-reviewed methodology and considers reliability,
12 affordability, and land-based and environmental protection
13 constraints. It suggests 15 to 16 gigawatts of the
14 important energy source of offshore wind across the entire
15 West Coast by 2050 is optimal for high electrification
16 scenarios, indicating that the CEC's preliminary draft goal
17 of 10 to 15 gigawatts of offshore wind by 2045 for
18 California specifically, is an appropriate and realistic
19 starting place ahead of comprehensive ocean user and
20 stakeholder engagement in a science lab process to
21 understand impacts and tradeoffs.

22 I should also note TNC's study took into account
23 power, transportation, heating, and manufacturing sector
24 needs, as well as a full suite of carbon-neutral
25 technologies deployed across the western interconnect.

1 Specifically, we would encourage not raising this
2 preliminary goal for 2045 ahead of those important
3 processes to minimize the risks of setting too high a goal
4 that could have later implications for the assumptions used
5 in other state planning processes and goals: our coasts,
6 the ocean, marine mammals, seabirds, and other species,
7 ratepayer costs, and optimal transmission prioritization.

8 Thank you for your consideration of these
9 comments and to the Chair, Vice Chair, Commissioners, and
10 to Elizabeth Huber and CEC staff for your work and
11 leadership on this important technology for California's
12 energy and climate future.

13 MS. MURIMI: Next we have Nikit Abhyankar.
14 Please state and spell your name, give your affiliation if
15 any. You may begin.

16 MR. ABHYANKAR: My name is Nikit Abhyankar, N-I-
17 K-I-T A-B-H-Y-A-N-K-A-R. I'm a scientist at UC Berkeley
18 and one of the lead authors of the UC Berkeley Offshore
19 Wind California Report that was referred to in this
20 hearing.

21 So first of all thank you so much CEC for your
22 leadership and for all the work that CEC staff has put in,
23 and thank you NREL for all the previous groundwork that you
24 have led.

25 So I am speaking to strongly support a much

1 higher planning goal for 2045 for three reasons of the tune
2 of close to 50 gigawatts, and for three main reasons.

3 Number one is because of the technology
4 advancements, because of how European offshore wind
5 developers have been kind of planning their offshore wind
6 farms. Their offshore wind farms are getting much more
7 denser and that's why the standard assumption of 3-
8 megawatt-per-kilometer squared of offshore wind density
9 really needs to be updated.

10 Second is the depth of offshore wind farms is not
11 really one of the binding constraints as has been confirmed
12 by several offshore wind developers, as well as other
13 experts in the field. And if you remove the depth as well
14 as the added density constraints, then the overall gross
15 resource potential for offshore wind in California goes to
16 as high as 1,000 to 1,500 gigawatts, so even larger. And
17 then we are really talking about exploiting close to 50
18 gigawatts of that by 2045.

19 Second, if we only limit ourselves to say 20-25
20 gigawatts then it doesn't really contribute much to the
21 resource diversity. With about 20 gigawatts of offshore
22 wind only implies a between 10 to 15 percent or even less
23 off total electricity generation by 2045. And that doesn't
24 necessarily enhance the resource diversity that we
25 desperately need, particularly when we face significant

1 wildfire risk. So to get to about that 25 percent, 30
2 percent electricity generation mark we again strongly
3 recommend 50 gigawatts of offshore wind planning goal.

4 And the third reason is several other countries,
5 particularly in Europe, have also endorsed much higher
6 targets. For example, UK has been planning 50 gigawatts of
7 offshoring by 2030, Germany 70 gigawatts by 2045, and so
8 on. So we really do not want to fall behind globally and
9 that's why I strongly, again, want to recommend over 50
10 gigawatts of offshore wind planning goal by 2045.

11 Thank you again, CEC, for this opportunity and
12 all the work you have been doing.

13 MS. MURIMI: Thank you.

14 Next we have Ethan Lester. Please state and
15 spell your name, give your affiliation if any. You may
16 begin your comment.

17 MR. LESTER: My name is Ethan Lester, Operating
18 Engineers of Local 3 out of Burlingame, California. I
19 strongly support the 20 gigs of offshore wind power for
20 2040 and 5 gigawatts for 2030. Thank you and have a great
21 day. You guys are doing a great job.

22 MS. MURIMI: Thank you.

23 Next we have Kalysta Barrios, apologies if I've
24 misstated your name. Please state and spell your name,
25 give your affiliation if any. You may begin your comments.

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1 MS. BARRIOS: Hi, my name is Kalysta Barrios, B-
2 A-R-R-I-O-S and I'm a third-year college student at UC
3 Merced studying political science. The Central Valley has
4 some of the worst air quality in California and has already
5 caused health issues within my family and friends, such as
6 asthma. And so we need to completely move away from fossil
7 fuels.

8 And I believe that offshore wind is a critical
9 part of the transition to 100 percent renewable energy.
10 California also has some the highest offshore wind
11 potential, and we could potentially produce enough offshore
12 wind energy to meet the state's current entire electricity
13 use twice over. This could help stop more health issues
14 for future generations. I support the goal of 5 gigawatts
15 of offshore wind by 2030 and 20 gigawatts by 2045. Thank
16 you.

17 MS. MURIMI: Thank you.

18 Next we have Jacquelyn Griffith. Please state
19 and spell your name, give your affiliation if any. You may
20 begin your comments.

21 MS. GRIFFITH: Yes Jacqueline Griffith, J-A-C-Q-
22 U-E-L-Y-N G-R-I-F-F-I-T-H. Thank you for the chance to
23 speak today and for all the work that you're doing on this.
24 I support the highest that we can do, the highest amount we
25 can do the soonest, because we do have a lot of problems

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1 with climate change. And so much of the country is stymied
2 and uses of fossil fuels keeps going up. And we know
3 there's big problems so we need to do whatever we can, but
4 we need to do it environmentally sensitively. So that
5 there should be input from ocean ecosystem scientists,
6 biologists to take care of our fish and the overall balance
7 of any area, and onshore as well.

8 I want to speak primarily to how we develop this
9 in that we don't need more super-rich people. We need to
10 have more money in the hands of everyone. We need to have
11 a more viable society. We need to take care of the places
12 like the last person who was speaking of, where people are
13 getting sick from the air quality. So we need to make sure
14 that this is a public development. It is the public that
15 really owns the value of looking out at the ocean and will
16 now have windmills out there, so it should be owned by the
17 public.

18 Now that means we have a tremendous California
19 surplus. We should use that in developing it. We may need
20 further financing. We could have bonds or financing, so
21 that people who are getting paid for the money they're
22 giving, have a set amount that they're getting. But the
23 overall returns come back to the California public system,
24 so that we can continue environmentally responsible
25 projects to take us through to this transition to 100

1 percent clean energy.

2 And so maybe we would be able to also do some
3 other things that are good, like to make sure that this
4 does not increase, but rather reduces pollution in BIPOC
5 areas, low-income areas, and super-polluted areas. We also
6 have a lot of those really dirty, toxic areas that we're
7 going to have to take.

8 Oh my, I'm almost out of time. We should look at
9 wave energy as well. And that this not be used to offset
10 increases in dirty energy elsewhere. Thank you very much
11 for the chance to speak.

12 MS. MURIMI: Thank you for your comment.

13 Next we have Christian Brock, EOPA. Please state
14 and spell your name, give your affiliation if any. You may
15 begin.

16 MR. BROCK: Hi. Thank you. Yes, Christian
17 Brock, B-R-O-C-K. I'm the CEO of the Elected Officials to
18 Protect California. On behalf of the over 65 elected
19 officials, state and local elected officials that have
20 signed on to our letter calling for support and development
21 of offshore wind capability in California we'd like to
22 encourage the Commission to vote and support the expansion
23 of setting higher goals in association with the development
24 of having a goal of 20 gigawatts by 2045.

25 We believe that this is important and is

1 essential to the state having the ability to achieve this
2 100 percent renewable energy goals as established, so thank
3 you again for your time and opportunity to provide input to
4 the Commission.

5 MS. MURIMI: Thank you.

6 MS. MURIMI: Next, we have Nancy Kirshner-
7 Rodriguez. Please state and spell your name, give your
8 affiliation if any. You may begin.

9 MS. KIRSHNER-RODRIGUEZ: Thank you so much. This
10 is Nancy Kirshner, K-I-R-S-H-N-E -Rodriguez, R-O-D-R-I-G-U-
11 E-Z. I am speaking on behalf of the Business Network for
12 Offshore Wind. And I want to thank you today for the
13 opportunity. We, the Business Network for Offshore Wind,
14 appreciates the comprehensive overview of the offshore wind
15 goal-setting process, thus far, and thanks Commissioners,
16 the many staff, and our many stakeholder colleagues for the
17 expanded discussions and ongoing studies that are providing
18 significant critical data.

19 We have previously provided comments and we want
20 to continue to emphasize the strong, economic benefits we
21 believe will come to the State of California as well as
22 Oregon and Washington, the Pacific coast, if the planning
23 strives for large goals and sets the state as a global
24 leader in floating offshore wind.

25 We are a national nonprofit with over 500 member

1 companies, labor organizations, research universities,
2 ports, small businesses, technology experts, and truly many
3 visionaries; you've heard some eloquently speaking on the
4 phone today.

5 We are currently working on a major NREL and now
6 our DC project to map the supply chain nationally that is
7 providing a path forward for many domestic businesses. And
8 we work in all the states currently pursuing and
9 considering offshore wind. The East Coast states have now
10 identified 40 gigawatts of need. And the West Coast wind
11 speeds suggest that even beyond the two wind energy areas
12 and two study areas lie many more gigawatts of potential.

13 We came before the SB 100 Interagency Working
14 Group several years ago to push for offshore wind to be
15 included in that report and maximized. It's exciting to
16 see where we are today. However, you've already heard that
17 China has completed 17 gigawatts of fixed bottom offshore
18 wind this past year and is creating a massive supply chain.

19 We see our European partners striving for
20 significantly greater offshore wind, and we also know that
21 our East Coast states are looking to floating offshore wind
22 as well.

23 Our organization is proud to work with these
24 businesses across the supply chain and workforce and labor
25 leaders to identify opportunities to establish a strong

1 industry. And we urge you to plan a -- to establish a
2 planning goal that looks beyond what NREL has already shown
3 to be within our reach. Please go big. Thank you.

4 MS. MURIMI: Thank you.

5 Next we have Umed Paliwal. Please state and
6 spell your name, give you your affiliation, if any, and
7 apologies If I've misstated your name. You may begin.

8 MR. PHADKE: Hi, this is Amol Phadke and Umed
9 Paliwal. We are making our comments together. It's A-M-O-
10 L, Amol, Phadke is P-as in Peter-H-A-D-K-E. Both of us are
11 the scientists at the Goldman School of Public Policy, and
12 we are the lead authors of the 50-Gigawatt California OSW
13 Assessment.

14 We would like to make three points. First, we
15 need to look at these goals in the context of what is
16 required for carbon neutrality by 2045 and what is
17 required, what is in the SB 100 goals.

18 Our observation is that significantly additional
19 clean power will be required beyond what is planned in SB
20 100 to support the green hydrogen and the direct removal of
21 carbon identified in the net-zero CARB scoping plan. Our
22 estimate is that is about 100 gigawatts of PV equivalent
23 electricity.

24 So one of our objectives of thinking about
25 offshore wind is to say that we want to make sure that

1 there is sufficient diversity, but also sufficient clean
2 power to meet those goals. So it's not the case that we
3 are choosing between 50 gigawatts of offshore wind or
4 nothing we are choosing between what to build, whether 50
5 gigawatts of offshore wind or 100, 150 gigawatts of solar
6 PV in addition to what's being planned in the grid.

7 So that's one of the reasons why we think that we
8 really need to go big on offshore wind of the scale of 50
9 gigawatts in the context of the additional clean power
10 required.

11 Second, we have shown multiple times that it will
12 come, it will not increase electricity supply costs. And
13 that is based on even just the current projections of a
14 newer technology baseline the MID (phonetic) case.

15 What we have seen the repeatedly is that if
16 California in any region goes big, economies of scale apply
17 in the costs fall more rapidly. The recent auction in UK
18 where they auctioned off 6 gigawatts of offshore wind,
19 offshore wind big scheme (phonetic), they undercut the cost
20 of even land-based solar and wind.

21 One wind plan auctioned off by Orsted was given
22 to Orsted, which was 2,800 megawatts. So imagine the kind
23 of economies of scale that are being deployed in offshore
24 wind, so there is a potential to even further reduce costs.

25 And we as researchers are here to help. We are

1 going to publish all the underlying data in an interactive
2 dashboard of all our scenarios in a day or two. We are
3 willing to consider -- my colleague already told me that
4 there is 800 gigawatts of future potential. We are willing
5 to do the analysis to identify 50 gigawatts, which is going
6 to lead to the lowest amount of conflict.

7 So we are here to help, and we are thankful for
8 CEC's leadership. But we really need to change what is
9 required in the context of California climate goals and go
10 big. Thank you.

11 MS. MURIMI: Thank you.

12 And with that, Chair, there's no more public
13 comments. I'll hand the mic back to you.

14 MS. MURIMI: Oh, sorry one more --

15 CHAIR HOCHSCHILD: Thank you so much to -- oh
16 sorry, was there one more?

17 MS. MURIMI: -- apologies, Chair. Yes, we have
18 Jana Ganion.

19 CHAIR HOCHSCHILD: Okay, yeah.

20 MS. MURIMI: Please state and spell your name,
21 give you your affiliation. You may begin.

22 MS. GANION: Hi, there. My name is Jana Ganion
23 and I am the Sustainability and Government Affairs Director
24 for the Blue Lake Rancheria Tribe. I want to check my
25 sound. Okay, great.

1 CHAIR HOCHSCHILD: We can hear you fine, Jana.

2 Yep, go ahead.

3 MS. MURIMI: Yes. We can hear you.

4 MS. GANION: Thank you. So just some quick
5 comments. In its final offshore wind planning goal
6 targets, the Blue Lake Rancheria Tribe encourages the CEC
7 to balance everything it's balancing: state greenhouse gas
8 reduction goals, regional community and developer
9 confidence, local opportunities and impacts of regional
10 host locations for this new industry.

11 And as we consider increased offshore wind
12 planning goals it's worth noting that past state greenhouse
13 gas reduction related goals, such as the renewable
14 portfolio standard has been exceeded early, suggesting room
15 for more ambitious targets.

16 For offshore wind, ensuring the targets are set
17 high enough to send clear signals to regions, including
18 tribal governments and local governments, which rely on a
19 planning backstop to conduct local development activities
20 against, this is crucially important. So if 5 gigawatts by
21 2030 and 20 or more gigawatts by 2045 helps ensure
22 accelerated greenhouse gas reductions and supports the
23 dedication of appropriate state, federal, tribal, and
24 regional resources to focus on responsible equity-based
25 offshore wind development, the tribe supports planning

1 goals in that range.

2 The tribe relies on the CEC for its thought
3 leadership, expertise, and boldness in the face of the
4 climate crisis. And as we all carefully consider these
5 goals the tribe relies on the CEC staff to incorporate the
6 new studies as well as the worsening issues with the
7 western grid, including the clear threats from the climate
8 crisis and the mega drought to the hydropower fleet.

9 Offshore wind can also be the catalyst for
10 transmission and distribution grid upgrades which can
11 improve reliability and provide more space for new clean
12 energy generation in addition to offshore wind, which we
13 have incredible support for here on the north coast.

14 So I'll end by saying thanks so much for the work
15 done to date by Commissioner Vaccaro and her team. And we
16 look forward to the next steps here. Thanks so much.

17 MS. MURIMI: Thank you.

18 Next we have Steve Black. Please state and spell
19 your name, give you your affiliation, if any, and you may
20 begin your comments.

21 MR. BLACK: Thank you. Can you hear me all
22 right?

23 MS. MURIMI: Yes, we can.

24 MR. BLACK: All right. Chair Hochschild thank
25 you, and Vice Chair Gunda, Commissioners. I apologize that

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1 I'm late to the party and not with you in person, but
2 really appreciate your leadership and the work that the
3 Commission and its staff have done to date on this
4 important task.

5 I just want to make two points. First of all, my
6 name is Steve Black, S-T-E-V-E B-L-A-C-K. I represent
7 Castle Wind, an offshore wind developer based in San
8 Francisco. We do support ambitious and achievable offshore
9 wind goals of at least 5 gigawatts by 2030 and especially a
10 long-term goal of at least 20 gigawatts by 2045. I
11 endorse the comments of my colleagues.

12 California has a vast, untapped offshore wind
13 resource and an urgent need to diversify its carbon-free
14 energy supply. Offshore wind can help the state meet
15 critical reliability, resource diversity, climate and
16 energy goals at the least cost.

17 I want to emphasize two things. First, as you've
18 heard many times offshore wind technology is evolving
19 rapidly. And as the record demonstrates, our planning
20 goals should be ambitious. We cannot limit ourselves based
21 on today's technology or assumptions about barriers to
22 future development, such as water depth, anchoring systems,
23 interconnection cables and the like.

24 We will thoroughly evaluate impacts to marine
25 wildlife and habitat, seabirds, and affected coastal

1 communities. And that that will come during the NEPA and
2 CEQA processes before projects are permitted.

3 We can also do a robust sea space planning, lease
4 conflicts analysis of sea space for future offshore wind
5 development.

6 But we need to plan big to achieve our goals,
7 both in terms of infrastructure development, transmission
8 development, and attracting the kind of investment
9 necessary to stand up this industry.

10 The second point I want to make is based on my
11 personal experience. You know me, I am the former
12 counselor to Secretary Salazar. We partnered very closely
13 with Governor Schwarzenegger, Governor Brown, on standing
14 up wind and solar in the California desert. Goals matter.

15 In 2005, when we passed the Energy Policy Act the
16 Senate endorsed a 10-gigawatt goal of renewable energy on
17 public land by 2015. We met that goal early. And if you
18 look at every Record of Decision for every solar project
19 permitted in the California desert it references that goal.

20 We were motivated to work together, state and
21 federal agencies alike, to coordinate on the permitting
22 processes, the environmental review necessary to permit
23 those projects. The kind of signal the Governor and the
24 Commission sends with these goals is extremely important
25 and should be bold and ambitious. Thank you.

1 MS. MURIMI: Thank you.

2 And for individuals who would like to make a
3 comment, please use the raised-hand feature. It looks like
4 a high-five or an open palm at the bottom of your screen or
5 device.

6 I see Gary George. Please state and spell your
7 name, give your affiliation if any. You may begin your
8 comments. That's Garry George. Please unmute on your end
9 and you may begin your comment. (No audible response.)

10 MS. MURIMI: Apologies, Garry, we can't hear you.

11 MR. GEORGE: Can you hear me now?

12 MS. MURIMI: Yes, we can Garry.

13 MR. GEORGE: You can? Great, sorry.

14 My name is Garry George. I'm the Director of the
15 Clean Energy Initiative at National Audubon Society. And I
16 work on offshore wind across North America, and I'm a
17 member of the Steering Committee of the Regional Wildlife
18 Scientific Collaborative of 11 Atlantic states, federal
19 agencies, NGOs and industry on offshore wind.

20 So I want to thank Commissioner Gunda and Chair
21 Hochschild for holding this informational session today.
22 We really appreciate it. And we were also very, very
23 grateful to the Commission for your leadership on offshore
24 wind, and especially to Commissioner Vaccaro and her staff,
25 and, of course former Commissioner Karen Douglas.

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1 We collaborated with the industry closely in
2 writing, and not only writing but also passing AB 525 in
3 the legislature. We thank the CEC staff that prepared the
4 May 6th draft report, and we support the goals that they
5 analyzed.

6 We also, by the way, are very grateful and
7 excited about the testimony here today from the next
8 generation of clean energy advocates who care about climate
9 change.

10 We are in a climate crisis that is impacting our
11 birds and may cause the extinction of 389 North American
12 species of birds if we can't keep warming below three
13 degrees Celsius above pre-industrial levels. So offshore
14 wind plays a very, very important role in meeting that goal
15 as fast as possible.

16 While we appreciate the technical feasibility
17 analysis of the NREL report, and the UC Berkeley report AB
18 525 requires much more than that. We do not oppose raising
19 or lowering the goals, but we remind the Commission that AB
20 525 and 25991.1, Chapter 231, Page 91, that in
21 establishing the goals for 2030 and 2045, and I quote, "The
22 Commission shall consider all of the following, and lists
23 12 factors for consideration." Number 12 is, and again I
24 quote, "potential impacts on coastal resources, fisheries,
25 Native American indigenous peoples, and National Defense,

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1 and strategies for addressing those potential impacts.”

2 So we look forward to engaging in that analysis
3 and we remind the Commission that is the requirement of the
4 Statute AB 525. And we look forward to working on that.
5 Thank you very much.

6 MS. MURIMI: Thank you.

7 Seeing no more raised hands, Chair, I'll hand the
8 mic back to you.

9 CHAIR HOCHSCHILD: Thank you so much to all the
10 members of the public for all those comments. That's
11 extremely helpful. And this is sort of the latest chapter
12 in what I think has been a really robust public process
13 we've had around this issue. So my thanks to all of you
14 for staying on so long.

15 With that, I will share we are tentatively
16 planning to take up offshore wind planning goals for
17 adoption on August 10th at our Commission meeting pending
18 Vice Chair Gunda's direction, so stay tuned for more
19 information soon.

20 With that let's turn now to Item 16, the Minutes
21 of the May 11th and May 24th. My recollection is that
22 Commissioner McAllister was not able to join us at the May
23 11th meeting.

24 COMMISSIONER MCALLISTER: Correct.

25 CHAIR HOCHSCHILD: Is that correct, so I think --

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1 COMMISSIONER MCALLISTER: Yeah, that's correct.
2 So can I abstain from May 24th?

3 CHAIR HOCHSCHILD: Yeah, would you? Well let's
4 first see, do we have public comment on Item 16, Dorothy?

5 MS. MURIMI: Thank you, Chair.

6 For individuals who would like to make a comment
7 please use the raised-hand feature, it looks like an open
8 palm or a high-five at the bottom of your screen or advice.
9 And for those calling in press *9 to indicate that you'd
10 like to make a comment and *6 to unmute.

11 Seeing no comments, Chair, I'll hand the mic back
12 to you.

13 CHAIR HOCHSCHILD: Yeah, why don't we move these
14 two separately?

15 Commissioner McAllister, would you be willing to
16 move the May 24th Business Meeting minutes?

17 COMMISSIONER MCALLISTER: I'll move the May 24th
18 minutes.

19 CHAIR HOCHSCHILD: And Vice Chair Gunda, would
20 you be willing to second that?

21 VICE CHAIR GUNDA: Second moving this.

22 CHAIR HOCHSCHILD: All in favor say aye.

23 Commissioner McAllister?

24 COMMISSIONER MCALLISTER: Aye.

25 CHAIR HOCHSCHILD: Vice Chair Gunda?

1 VICE CHAIR GUNDA: Aye.

2 CHAIR HOCHSCHILD: Commissioner Monahan?

3 COMMISSIONER MONAHAN: Aye.

4 CHAIR HOCHSCHILD: And I vote aye as well. The
5 May 24th Business Meeting minutes passed unanimously 4-0.
6 Commissioner McAllister, can you --

7 COMMISSIONER MCALLISTER: I'll just abstain
8 (indiscernible).

9 CHAIR HOCHSCHILD: -- abstain on this, that would
10 be great. Thank you.

11 CHAIR HOCHSCHILD: So Vice Chair Gunda, would you
12 be willing to move the May 11th Business Meeting minutes?

13 VICE CHAIR GUNDA: Yeah, moving May 11th Business
14 Meeting minutes.

15 CHAIR HOCHSCHILD: Great, thank you.
16 Commissioner Monahan, would you second?

17 COMMISSIONER MONAHAN: If I can unmute. I
18 second.

19 CHAIR HOCHSCHILD: Thank you.
20 All in favor say aye.
21 Vice Chair Gunda?

22 VICE CHAIR GUNDA: Aye.

23 CHAIR HOCHSCHILD: Commissioner Monahan?

24 COMMISSIONER MONAHAN: Aye.

25 CHAIR HOCHSCHILD: And I vote aye as well. The

217

1 May 11th business meeting minutes passed 3-0, with
2 Commissioner McAllister abstaining.

3 We'll turn now to Item 17, Lead Commissioner or
4 Presiding Member Reports, beginning how about with
5 Commissioner Monahan.

6 COMMISSIONER MONAHAN: Sure, let get my head off
7 the offshore wind comments.

8 So I took a trip actually to Denmark and Norway.
9 Just a quick summary of that was the Denmark trip was based
10 on energy efficiency and industrial decarbonization. And
11 Commissioner McAllister and his office really developed
12 this very strong relationship with the Danish Energy
13 Agency, the DEA, which is a strange acronym for the United
14 States. And we have an MOU with them focused on EE. And
15 the DEA invited a CEC delegation, so it wasn't just me, but
16 also Fritz Foo, who is Commissioner McAllister's advisor,
17 my advisor Mona Baddie and Energy Efficiency Division's
18 Tiffany Mateo.

19 So we attended this International EIA-sponsored
20 Energy Efficiency Symposium as well as kind of a site visit
21 of mostly industrial facilities, but some others as well.

22 And some of the topics we explored were really
23 the critical role of energy efficiency as a bedrock
24 strategy for resilience. And this had a lot of
25 conversations actually at this energy efficiency conference

1 with energy ministers from across the world. And they are
2 worried about winter and what is happening in the EU with
3 Ukraine and Russia. And viewing energy efficiency as a way
4 they're going to survive the winter. So it was really more
5 -- often we think of energy efficiency, no offense
6 Commissioner McAllister, but it can be a little like ho-hum
7 but it's not ho-hum when you're facing such a big energy
8 crisis and concerns about the winter.

9 We also visited an industrial symbiosis facility
10 that uses the waste stream -- well multiple facilities --
11 they use the waste stream of warranted to power or to use
12 as an input into another. And I just thought it was so
13 interesting and something that we hopefully could explore
14 in California. So I wanted to talk to you Andrew about
15 that and the role of hydrogen and other things. So it was
16 really a fascinating, inspirational visit.

17 And then we went to Norway. Norway is hosting
18 this big international Electric Vehicle Symposium. And
19 I've been to many of them, and this was like the biggest
20 and the best ever because electric transportation is really
21 evolving so much. And I was on the main stage as a keynote
22 speaker, together with CARB's Sydney Vergis and we --
23 really it was a delight to give the California clean
24 transportation story to the world.

25 And after our presentation BNEF's Colin

1 McKerracher -- I don't know if I'm pronouncing his name
2 right -- but he's BNEF's Lead for electric vehicles and
3 been doing it for a long time. One of the things he said
4 that really stuck with me, he was like, "The most important
5 regulation in the world right now are the CARB truck
6 regulations, and because those have the potential to
7 migrate and make a huge difference from a carbon and
8 criteria-pollutant perspective." And he talked about how
9 infrastructure is really critical to that.

10 So some of the things that we've approved today,
11 kind of fit with that whole narrative of these regulations
12 are really important. We need to do all we can to support
13 them, and that infrastructure is a key piece of it.

14 We also did a tour of zero-emission technologies
15 at ports and marine vessels, and that was just fascinating
16 as well, lots to learn. And if the port -- with port
17 funding for zero-emission equipment, we may be able to
18 apply some of those lessons learned. So it was a great
19 trip, really inspirational.

20 And I came back from that, like I literally flew
21 from that into Los Angeles. And I got awarded from the
22 Coalition for Clean Air, one of their annual clean air
23 quality awards, for government service. And it was really
24 -- thank you, Vice Chair -- and it was a very just sweet
25 and nice. I mean, I feel really touched and honored to

1 have gotten the award. And I got to bring my younger
2 daughter with me, which was very fun. And so I just really
3 just appreciated that honor.

4 So on the budget we're still waiting for
5 direction from the Legislature and the Governor on
6 transportation, hydrogen, industrial decarb, so all the
7 areas I'm closely tracking we're in a holding pattern.

8 I want to say that the Fuels and Transportation
9 Division is working really closely with CARB. And I'm
10 talking with Chair Randolph and Chair Hochschild about
11 charger reliability and how we can have better oversight
12 and improve the customer experience when it comes to the
13 reliability of chargers. So more to come on that, I think,
14 we'll share with you all what we're learning and to how
15 we're thinking about improving charger reliability.

16 There's a lot of work the team is doing to get
17 the federal money. And reports that are being developed to
18 help get federal funding and to align what some of the
19 criteria in the federal government with what's happening
20 here in California. So we're really trying to partner as
21 much as we can with the federal government on lots of
22 different issues and make sure that \$364 million comes to
23 us to deploy charging infrastructure. So that's it.

24 CHAIR HOCHSCHILD: Thank you so much,
25 Commissioner.

1 Let's go to Commissioner McAllister.

2 COMMISSIONER MCALLISTER: Well, great. So glad
3 that Denmark trip -- we haven't had a chance to catch up,
4 so it was great to get that feedback. No doubt I'm sure
5 you made a big splash. And yeah, tons of important
6 information. The Danes really are ahead of the pack in so
7 many areas. And they are small but mighty.

8 COMMISSIONER MONAHAN: Yeah. Oh, can I just ask
9 -- I forgot to mention we talked about a new MOU that would
10 include offshore wind. And they currently have about 3
11 gigawatts. They have a goal of now 10ish gigawatts by 2030
12 and 35 by 2050. So that was one of the areas they wanted
13 to expand an MOU to cover that, they really want to share
14 lessons learned on offshore wind.

15 COMMISSIONER MCALLISTER: Great. And just they
16 have a delegation in Palo Alto that's staffed and has
17 experts, and they bring over delegations to California.
18 And it's just amazing that a country that's significantly
19 smaller than California really has dedicated some resources
20 to partnering with us. And so I think it's great that you
21 got to go over, and Fritz as well, and the rest of our
22 team, Tiffany and Mona. Looking forward to keeping that
23 going.

24 I don't have a long report, because I was
25 fortunate in the last month to be able to take a little bit

1 of time out of the office to go on a little bit of a
2 vacation with my kids and actually kind of two separate
3 mini-vacations with my kids. And that was much needed. It
4 had been a while. And so I will just make a few comments.

5 I was able to go to VerdeXchange. And again just
6 that annual pilgrimage is always very fruitful. And the
7 L.A. area is just -- it's (indiscernible) and there's so
8 much going on there. And it's good to be able to plug into
9 the nuts and bolts on what they're doing down there and
10 exchange ideas and just keep those relationships vital. So
11 I always appreciate David Jacot and his team.

12 And I think all of us, I think most of us at
13 least were down there. And they always make us work pretty
14 hard to get through all the panels throughout the day,
15 every day, which is good. But mostly, the real value is on
16 relationship-building, so I really appreciated that.

17 Well I have to respond to your comment about EE,
18 Commissioner Monahan, "energy efficiency." I have always
19 thought it sexy, of course. You know, the nerd patrols
20 always thought it's sexy.

21 But I think we have a great opportunity to make
22 it much more broadly sexy as a reliability and carbon-
23 reduction resource much more explicitly and directly and a
24 cost-mitigation resource. And I think we do that by
25 bringing traditional energy efficiency into the digital age

1 and really making it much more responsive in real time.
2 And we've talked about that with the transportation sector.

3 And I think much of many of the tools that you
4 and I are talking about, and all of us really on the
5 Commission are super-excited about, are the ones that are
6 going to let us sort of aggregate and automate in ways that
7 makes sense. And it will target our load flexibility
8 sources, develop them, aggregate them, and target them
9 where they can do the most good. And where they really
10 cause the least amount of disruption or just they're really
11 behind the scenes being a reliability resource that is
12 really behind the curtain. And nobody's really going to
13 notice, but it can add up to a very large resource.

14 And so I think as we look at -- somebody
15 commented earlier -- as we look at all these new resources
16 coming in with sort of traditional supply resources coming
17 on and moving into large-scale renewables and storage that
18 sort of distributed resources, and within that efficiency
19 and flexibility are really, I think, an area where we are
20 leading as a state. And then with our -- I think lead to
21 charge globally, for being able to develop these resources
22 and really show what can be done. And so I'm super-excited
23 about that. And this modern, digital active efficiency is
24 even more sexy.

25 The last thing I wanted to do is just acknowledge

1 some staff. The Efficiency Division, I'd encourage folks
2 to ask for briefings about any of these topics, but lots of
3 big items moving forward. And staff in all the offices
4 have just been working so hard on Load Management Standards
5 that are really getting pretty far down the road, gearing
6 up for the 2025 Building Energy Efficiency Standards,
7 there's the Code update, a lot of work there.

8 The Flexible Demand Appliance Standards actually
9 have their first staff report that is, I think really well
10 done. And what I would encourage folks is to have a look
11 at that. That's about pool pump controls. And so it's
12 sort of setting the stage for the next series of devices,
13 water-heating and the light, that will be -- that will
14 conform this resource that we're talking about with
15 flexible demand.

16 And let's see, and then enforcement lots of
17 effort there. The Compliance Office is doing a lot of
18 creative thinking, lots of stakeholder engagement on how we
19 can improve enforcement of the building standards. And not
20 just enforcement in the kind of policing sense, but also
21 enforcement in the sense of providing tools that make
22 compliance just a lot easier. I guess "compliance in
23 enforcement" is really the term I was looking for.

24 So we really want to work with stakeholders to
25 make compliance easy and straightforward and kind of

1 either. And then we'd be able to understand how the
2 marketplace is moving. And then we would use the
3 information that we get along the way to understand the
4 building codes and how we can develop better code going
5 forward.

6 So anyway, lots of big lifts under the hood, it's
7 just a lot of -- some complexity but big, big payoffs. And
8 we'll move those rulemakings forward, so bread and butter
9 stuff of the Energy Commission.

10 And I just wanted to acknowledge all the great
11 work by Mike Sokol and Christine Collopy and their
12 respective teams on those items. Thank you.

13 CHAIR HOCHSCHILD: Thank you, Commissioner.

14 Let's go to Vice Chair Gunda.

15 VICE CHAIR GUNDA: Thank you, Chair. I'm going
16 to set expectations, I'm going to go a little longer today.
17 And there's a lot happening since the last business
18 meeting. We feel like we've accomplished a number of
19 different things we were working on. But I also was able
20 to get COVID and ride through it, so I feel like we've done
21 a lot as an office.

22 So first of all, my thanks to the entire team. I
23 really appreciated the public comment on the offshore wind
24 and looking forward to future conversations on that. But
25 since the last business meeting, a couple of highlights for

1 our colleagues and also the broader public, so we can
2 continue to think about these things together.

3 The first thing is the energy package that the
4 State Strategic Reliability Reserve has passed, which was a
5 huge lift for a number of our agencies, along with the
6 Governor's Office and many, the Department of Finance,
7 CAISO. So many people were directly and indirectly were
8 involved, and all the stakeholders, to help move that
9 forward. So that begins now.

10 Now that we had the vote and then the passage of
11 the bill, that really means our staff now has to go into
12 the second phase of actually implementing some of the money
13 that we get through that. The CEC gets about 1.3 billion
14 for reliability purposes. Both of them will be worked out
15 through the Renewables Division.

16 The first element of that is about \$300 million
17 for what is called the DSGS program, or the Demand Site
18 Grid Support program which is complementary to the ELRP
19 program, or the Emergency Load Reduction Program that PUC
20 administers right now. And our staff have been working
21 diligently in an accelerated fashion to come up with
22 guidelines. So I want to just congratulate Deana Corrillo
23 from RED along with Ashley and many number of staff that
24 are working behind the scenes to make this happen. So I
25 just want to say that is moving forward with the hope that

1 we could get some megawatts under the belt through that
2 program.

3 And my understanding is we are going to target
4 Monday July 25th for the public workshop to go over the
5 guidelines for the program. And it's going to be a huge
6 lift, it's going to be adapted. It has to provide
7 optionality, but also kind of giving ourselves a starting
8 point on which we can innovate from.

9 And then going to -- so before I close the
10 reliability side a special, a special kudos to the CCO.
11 Linda Barrera, Lisa, they've not only worked on this, but
12 they worked at so many other pieces to make sure the tailor
13 to the language was done and such, so thank you CCO.

14 Special thanks to David Erne, Elizabeth Huber,
15 who have been incredible as well as Damien from the admin,
16 so there's probably 25 people. I would love to do what
17 Andrew, Commissioner McAllister does, go over everybody,
18 but I'm just going to (indiscernible) write them a note.
19 But just, at least those three absolute stars in making it
20 happen so thank you.

21 So going to SB 100 real quickly, SB 100 is two-
22 and-a-half years out now, the next report. Given the
23 attention we got for the for the scoping plan and all the
24 discussion there, it is extremely important to ensure
25 there's public dialogue moving forward and envisioning

1 this. So we've been essentially starting the process to
2 development of the next report. And the first thing we're
3 going to do, again under the capable leadership of Liz and
4 Alicia, we're really trying to set up some roundtables with
5 different stakeholders on doing an envisioning exercise.
6 What would we want to get out of the next SB 100 report
7 outside of the statute, and the intent and the spirit of
8 it? So we're going to work on that, just giving a heads-
9 up. We would love to engage your offices on specific
10 elements as it pertains to transportation or buildings,
11 especially on-demand lights (phonetic). We would love to
12 have you briefed on all the things we learn, and we'll
13 bring it to the business meeting as much as we can.

14 The next part is just IEPR. I continue to be
15 impressed with Heather and her team and the fantastic work
16 and labor, obviously not surprised. They continue to
17 excel. They have successfully organized two IEPR workshops
18 in June. As Commissioner McAllister and Commissioner
19 Monahan participated in the hydrogen, as well as
20 Commissioner McAllister's participation in the regional
21 workshop on energy, equity, and environmental justice, so
22 just a big kudos for making that happen.

23 Commissioner McAllister and I have both attended
24 the VerdeXchange in L.A. Some really good conversations
25 that on hydrogen perfectly fit into this broader

1 conversation on gas transition. I would love to kind of
2 send out a report out to you all on what some of the key
3 points were.

4 But one thing of note is when we were at the
5 Exchange, I was especially pleased with the opportunity to
6 meet with Akira Muto who is on the Consul General of Japan
7 in L.A. and Hiroaki Ishizuka Chair of NEDO along with
8 Senator Hertzberg and Chair Randolph from CARB. There's a
9 lot of interest in partnering with California to advance
10 both hydrogen technology solutions and other clean energy
11 technologies between Japan and California, so it was a
12 great conversation. And Commissioner Monahan, thank you
13 for taking points from there and kind of advancing those
14 conversations.

15 So I got to mid-point, this is where I'm going
16 to go a little bit. And I just want to give a report out
17 at the end just on the Salton Sea visit and the IEPR
18 workshop. And just what an amazing four days that we had
19 down in the Imperial Valley. I really had the opportunity
20 to not only think about these things but really feel and
21 empathize, hold hands, give hugs, and understanding the
22 perspectives from the communities, right.

23 So, a couple of points to start with. First of
24 all, it was great the Imperial Valley hosted a workshop.
25 That was a really valuable conversation, overall, I

1 thought, great framing. But I would like to highlight a
2 few thoughts that came out of the workshop. And then
3 Commissioner McAllister heard this, but just for the
4 broader staff who were not able to be there and some of the
5 colleagues who are attending, listening in today.

6 So I think the first one is words matter. We all
7 know that words matter, but the way it was framed as the
8 keynote speaker Dr. Manuel Coster (phonetic) kind of spoke
9 about this idea of talking about the economy, the
10 environment, the communities versus really owning it as our
11 economy, our energy system, our environment together. It
12 was such a profound conversation that really moved me. And
13 I just want to share that, the importance of really moving
14 forward and talking about this as our energy system, our
15 transition, our state our country, and the world. So
16 hopefully, that's helpful.

17 They talked about timing matters. We know the
18 importance of engaging continuously, regularly, and key
19 timing was important.

20 And also talked about how people matter, right?
21 I mean, like so when we think about engagement, community
22 engagement, who are we inviting and who is representing?
23 But also who is speaking on behalf of the state policies?
24 Who is the best representative to speak to the communities
25 that can build trust? And then that can speak to them with

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1 the language that is necessary and experience that is
2 necessary? So I just thought it was important as we move
3 forward.

4 And, finally, just thinking about this point was
5 extremely important for me going into a lot of things that
6 we're going to do which are going to be very challenging is
7 to recognize that there will be conflict to achieve equity,
8 period. There will be conflict, there will be
9 perspectives, and there will be conflict. And rather than
10 running away from it, really embrace the conflict and lean
11 into it to help build the trust and solve it.

12 I thought it was incredibly helpful for me to
13 hear that. A lot of times it's just easier to say, "I
14 don't want to have the conversation, it's too difficult,"
15 but it's so, so, so important. And I think I am incredibly
16 grateful for the CEC staff who lean into conflict. And I'm
17 really grateful for the colleagues on the dais who always
18 lean into the conflict to really help figure things out, so
19 just thank you. But just reinforcing some of the things we
20 do, and some of the things we can do better.

21 And finally, on the Salton Sea visit, thanks to
22 Noemi and Katrina. They arranged a beautiful trip to
23 really meet with the communities. The Salton Sea is really
24 a beautiful and special region of California. I felt
25 really fortunate to have had the privilege of visiting the

1 area and meeting with community members and tribal members
2 from Coachella Valley, Mecca, Thermal, the North Shore. We
3 spent four days, which was great to really kind of have and
4 understand the pulse of the community, begin to understand
5 the pulse of it, and then really kind of a think with the
6 needs. It was really eye-opening for me. It was a first-
7 hand experience of really what inequity looks like and all
8 that we do and how much more that needs to be done.

9 It was also really moving for me to meet with
10 tribal members to better understand their spiritual
11 connection to the land and the region. The deep wisdom in
12 seeing the world through sacred landscapes and recognizing
13 our environment as our kid, I thought it was so beautiful
14 and so wise. And they had a special opportunity to really
15 reciprocate in my own native traditions. I grew up in
16 India and being able to respect the elders as my elders and
17 being able to do that in the ways I understood and being
18 welcomed by them was very, very special. So just kind of
19 going through a few pictures. We want to go to the next
20 slide.

21 This is a slide we were -- pictures -- we were
22 trying to avoid the 112 degrees heat, waking up at 5:00 in
23 the morning. We met with Silvia Paz with the organization,
24 Alianza Coachella Valley, to go on a sunrise hike up the
25 Mecca Canyon. It was really beautiful but it also just

1 kind of gives you that depth of the beauty, but also the
2 harshness of the weather down there. And how do you ensure
3 people have reliability and resiliency and opportunities
4 like most of us enjoy in the rest of the state? I want to
5 go to the next slide.

6 So this is a quick visit of with IID on thinking
7 through their storage projects and had a wonderful visit
8 with the local elected members, the office of elected
9 members, to think through how to advance some of the
10 storage projects down there. Next one.

11 The afternoon, after the IID next day, the IEPR
12 workshop we just wanted to put some pictures out there.
13 There was a number of our staff down there, along with a
14 few interns. It was so awesome to see the next generation,
15 both were kind of leading us, but also learning and being a
16 part of the conversation. It was a wonderful experience to
17 be down there and do it in the community. Next slide.

18 And here's kind of the picture of our visit with
19 the elders from the tribes when we went to the Salton Sea.
20 This is Obsidian Butte we had the opportunity to visit, the
21 next two pictures of that. It's just, as I mention again,
22 the wisdom and the importance of respecting cultures,
23 respecting wisdom that we might not necessarily understand
24 because we don't have the language for it right away, is
25 essential. And the cultivation that happens in those

1 moments where you are vulnerable with each other and
2 learning and embracing each other's differences and really
3 learning from each other. So I feel blessed, that's the
4 word I come up with, to share that experience with our
5 wonderful CEC team and the elders down there. And I wanted
6 to share that with all of you.

7 And in closing I met a lady, a wonderful lady who
8 actually reminded me of my mother. She looked very much
9 like my mother. And she makes approximately 15K a year and
10 was paying \$200 a month in electricity bills. That is not
11 necessarily reliable. It's deeply troubling to be in the
12 situations, people who don't have access to water in our
13 state, in our state where we have so many resources and
14 wealth.

15 And the reason I'm sharing this is not to tell
16 people that they are not already knowledgeable of this, but
17 to inspire, share my gratitude for the incredible work that
18 CEC does, and the amazing people we have here. And
19 welcoming everybody to visit these places as much as we
20 can, for them to know that we are here for us and for us to
21 learn what it really means to be a Californian.

22 So I just wanted to share that and leave those
23 with all of you. And thank you, Chair, for giving me a
24 little bit of time to share those.

25 CHAIR HOCHSCHILD: Well thank you for those

1 reflections and stories and wonderful photos.

2 In the interest of time I'm going to forgo my
3 update, it's been a long, long meeting. So let's turn now
4 to Item 18, Executive Director's Report.

5 MR. BOHAN: Chair, I will follow your lead but
6 just be very, very quick. I just wanted to leave two
7 comments.

8 One, on June 30th the Assembly Select Committee
9 on Gasoline Supply and Pricing met. They invited us to
10 present along with a number of other presenters. And I
11 just want to give a shout-out to our staff who prepared for
12 it. That would be Aleecia who runs EAD, and Gordon was
13 especially helpful, one of our experts, and Amanda who is
14 just a tremendous boss.

15 And then, finally the Vice Chair already talked
16 about the strategic reliability piece of the Budget
17 Enterprise, one of the trailer bills. Another one involves
18 opt-in. I'd invite everybody on the dais, or the virtual
19 dais, if you want briefings on either or both of those
20 staff can provide those. But our jurisdiction and our
21 siting has expanded substantially with the passage of the
22 opt-in legislation. Thank you.

23 CHAIR HOCHSCHILD: Thank you. We'll turn now to
24 Item 19, Public Advisor's Report.

25 MS. MURIMI: Thank you, Chair, nothing to report

1 from the Public Advisor's Office.

2 CHAIR HOCHSCHILD: Thank you.

3 We already did Item 20. So we'll turn now to
4 Item 21, Chief Counsel's Report.

5 MS. BARRERA: Good afternoon. Nothing to report
6 Chair, thank you.

7 CHAIR HOCHSCHILD: All right, we're adjourned,
8 thank you, everybody.

9 MS. MURIMI: Oh, Chair, apologies, we didn't take
10 general public comment?

11 MS. BARRERA: Yes, we did, Dorothy.

12 MS. MURIMI: Oh, we did? Okay, my apologies.

13 COMMISSIONER MCALLISTER: Thanks all.

14 VICE CHAIR GUNDA: Thank you all, peace.

15 (The Business Meeting adjourned at 3:44 p.m.)

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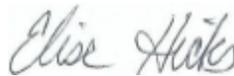
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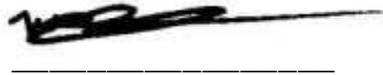
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