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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

Maunee Berenstein 2
Sean Pruitt 3
Noemi Gallardo 4
Eric Knight 5
Deborah Dyer 6
Elizabeth Huber 7
Jim Bartridge 8
Susan Wilhelm 9
Yu Hou 10
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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:

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)

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PROCEEDINGS

JULY 13, 2022 10:00 a.m.

(Start of Introductory Video.)

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

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

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

The public can participate in the business meeting consistent with the instructions for remote participation found in the notice for this meeting, and as set forth on the agenda posted to the Energy Commission’s
website. Pursuant to California Code of Regulations Title 20, section 1104(e) any person may make oral comments on any agenda item.

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

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

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

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

Welcome to the California Energy Commission’s business meeting. The meeting will now begin.

(End of Introductory Video.)

CHAIR HOCHSCHILD: Well, good morning and welcome friends. I’m David Hochschild, Chair of the California
Energy Commission. Today is Wednesday, July 13th, and I call this meeting to order. Joining me are Vice Chair Gunda, Commissioner McAllister, and Commissioner Monahan. Commissioner Vaccaro is not able to join today. And Commissioner McAllister will now lead us in the Pledge of Allegiance.

(Whereupon the Pledge of Allegiance was recited.)

CHAIR HOCHSCHILD: Thank you Commissioner.

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

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

So next, I’m excited to announce that today the Commission will be seeking to approve over $17 million in
investments, all of which contribute to our state’s economic recovery.

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

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

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

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

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

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

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

CHAIR HOCHSCHILD: Okay. And Commissioner
McAllister would you be willing to second?

    COMMISSIONER MCALLISTER: I second.

CHAIR HOCHSCHILD: All in favor say aye.

Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

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

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

    COMMISSIONER MCALLISTER: Okay, thank you, Chair. So I will recuse myself from Item 1b, the National Association of State Energy Officials for any discussion, consideration, and a vote on the proposed resolution for CEC’s membership agreement with NASEO.

    I am currently a member of the NASEO Board. This position constitutes a conflict of interest under both the Warren-Alquist Act and Government Code 1090, section 1090, with regard to voting on this membership agreement. So pursuant to the Government Code I am disclosing this conflict and recusing myself from the discussion and vote, so that a quorum of the Commission may deliberate and
decide in my absence. So I’ll return after the vote and
will wait for the Public Advisor to instruct me to come
back.

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

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

MS. MURIMI: Thank you, Chair.

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

Chair, I see no comments for Item 1b.

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

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

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

COMMISSIONER MONAHAN: I second it.

CHAIR HOCHSCHILD: All in favor say aye.

Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.
CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

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

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

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

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

By enforcing our energy and water efficiency standards it helps to preserve our natural resources. More efficient appliances means less strain on power plants generating energy. And as California continues to have
years of drought, conserving water in any way we can becomes critical. Next slide, please.

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

1) Tested to meet applicable efficiency standards;

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

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

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

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

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

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

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

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

Appliance testing is critical to our program. We
currently work with three different labs for this testing. It allows us to test products in the California market to ensure they meet the applicable performance, marking, and certification requirements as mentioned earlier.

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

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

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

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

We have also gone onsite to conduct 32 lab
audits, with more scheduled for later this year.
Unfortunately, due to COVID, this part of our work was put
on hold in 2020 but has resumed this year.

This concludes my informational presentation.

But in closing I would like to acknowledge the talented
team of investigators, support staff, and enforcement
attorneys. Their hard work and dedication to protecting
the environment and helping stakeholders is responsible for
the success of our program. My attorney, Jared Babula, and
I are here to field any of your questions, thank you.

CHAIR HOCHSCHILD: Well thank you so much,

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

And let's have some Commissioner discussion. I'd
love to, if it's okay, Commissioner McAllister to begin
with you, since so much of this goes to efficiency work.

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

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

But I wanted to just emphasize that our goal is compliance, right? It's not to make as many fines as we can. And the process by which we develop compliance regulations on the energy side and on the water side it is incredibly robust. The timelines are fairly prescriptive, but it's up to us which appliances we actually choose to pursue, the analysis of the savings potentials. The sort of interaction with the federal government even can be very subtle actually, wherever there is a federal standard, either outright at the outset or eventually it will be preempted by the federal standard.
And so I think we provide a really valuable service to the country by getting going on appliances that the federal government would not regulate itself, so it helps to move the needle on those. And then other states can actually point to California and adopt our regulations where they exist. So it really has a knock-on effect. There’s a lot of spillover, positive spillover effects from what we do in the state to the rest of the country and the world, really.

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

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

I did have one question. I wanted to just sort of get a little more color on the process by which we identify potential violators, sort of assess whether or not
they have violated. And then walk that pathway of negotiations to get to a fix, and something like that, kind of a settlement, a monetary settlement. But, again, with compliance as the primary goal. Maybe Maunee and Jared can shed some sort of additional light on that. I think it's important to understand that process.

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

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

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

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

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

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

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

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

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

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

CHAIR HOCHSCHILD: Thank you.

COMMISSIONER MCALLISTER: Thanks so much.

CHAIR HOCHSCHILD: Are there -- sorry,

Commissioner McAllister, are there any other questions or?

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

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

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

VICE CHAIR GUNDA: I don't have a question per se
and it's long, but Maunee just on the process typically
what's the timeline in kind of initiating a case through to resolution? If you want to just comment on that?

MS. BERENSTEIN: Sure.

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

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

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

CHAIR HOCHSCHILD: Commissioner Monahan, please.

COMMISSIONER MONAHAN: Yeah, a quick comment. I wanted to thank Maunee, and just say that I think Paul Jacobs would be so proud. Because I remember when Paul came over from CARB to help kick off this enforcement program and it's just amazing to see how it has evolved.
And with your leadership and the team it's just a very impressive workload and I really think this is a critical component of making sure that the standards that we pass are actually implemented and enforced.

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

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

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

Some of them can be done through our trade associations. They have a lot of publications that they
put out. They do their own webinars. We do actually work
with a few teams, the Appliances Office does anyway, with
Energy Code Ace, who really does get out in the marketplace
and try to send a message.

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

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

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

Well thank you again, Maunee, this is terrific.
Just I want to recognize the outstanding work. And this is
something that requires a lot of diligence. There's so
many different enforcement actions and products to monitor,
so a lot of plates you’ve got spinning there. So thanks on
behalf of us all, again much appreciate it.
With that we’ll turn now to Item 3, University Enterprises Inc.

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

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

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

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

CHAIR HOCHSCHILD: Thank you, Sean.

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

MS. MURIMI: Thank you, Chair.

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

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

MS. MAXWELL: Am I -- can you hear me?
CHAIR HOCHSCHILD: Yeah, we can hear you.
MS. MURIMI: Yes, we can.
MS. MAXWELL: Great. My name is Chase Maxwell and I’m an attorney at Ellison Schneider Harris & Donlon. My question is general in nature for the informational item on the enforcement of the Appliance Efficiency Standards.

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

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

CHAIR HOCHSCHILD: Great. Thank you.
Dorothy, are there other public comments or was
that the only one?

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

CHAIR HOCHSCHILD: Okay.

MS. MURIMI: So for individuals --

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

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

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

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER McALLISTER: Yeah. So there certainly is a lot of more information there. I would encourage the caller to get in touch with the Public Advisor’s Office and they can connect with the Enforcement Office and just walk you through the whole process. It's a great question and I think it deserves a considerate answer.
and following up on this meeting. So thanks, Sean. I really appreciate the question.

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

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

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

COMMISSIONER MONAHAN: I second this item.

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

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

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

MS. GALLARDO: Hello, Chair and Commissioners.

For the record, I’m Noemi Gallardo serving as Interim Public Advisor and Chief of Staff to Chair Hochschild. I’m before you today to present you with one candidate to fill a vacancy on the Disadvantaged Communities Advisory Group, who we also know as the DACAG. Next slide.

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

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

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

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

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

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

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

Julia will help increase the expertise of the
DACAG with her day-to-day work on training and workforce
development, along with increasing the DACAG’s geographic
representation given her organizations’ reach from the Bay
Area to Stockton to the Central Valley. We currently don't
have that representation on the DACAG. Next slide.

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

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

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

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

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

At this time, Chair, I see no public comments.

I'll hand the mic back to you.

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

VICE CHAIR GUNDA: Thank you, Chair. Thank you,
Noemi, for the presentation.

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

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

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

And to going to Julia, Julia, thank you so much for putting in your name to serve on this body. I really look forward to work with you. With that I’m looking forward to supporting this, so thank you.
Commissioner Monahan, please.

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

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

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

And the ground, that groundwork from the DACAG is just so essential for truth, for ground truth in those
efforts. And we have to produce hundreds of thousands, millions of jobs. And so Julia’s skillset is very well-positioned to help us figure out how to do that well. So thanks again to her for joining.

CHAIR HOCHSCHILD: Well, well said.

Congratulations to Julia in advance here.

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

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

So with that I would invite Vice Chair Gunda to
make a motion on Item 4.


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

COMMISSIONER MONAHAN: I second.

CHAIR HOCHSCHILD: All in favor say aye.

Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

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

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

MR. KNIGHT: Good morning, Chair and Commissioners, my name is Eric Knight. I'm the Manager of the Siting and Environmental Office in the Siting, Transmission, and Environmental Protection Division. With me today are staff's Project Manager for the Gem Project, Leonidas Payne and Staff Counsel's Jared Babula and Kari Anderson. Staff is requesting your approval of a Proposed Order adopting the Executive Director's recommendation that the Application for Certification for the Gem Energy
Storage Center, 21-AFC-02, is now complete and therefore should be considered filed for the purposes of starting the 12-month power plant certification process. Next slide, please.

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

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

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

Between April 25th, 2022, and June 28th, 2022, the Applicant filed supplemental application materials.
Staff reviewed this information and on July 5th, 2022 the Executive Director filed his recommendation the application now contains all the information required by the CEC’s regulations. By adopting the Executive Director’s recommendation this would start the 12-month timeline to reach a decision on the AFC as required under Public Resources Code section 25540.6.

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

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

In conclusion, staff requests your approval of Order Number 22-0713-5 finding the Gem Application for Certification, 21-AFC-02, is complete, starting the 12-month power plant certification process. Staff is available for any questions the Commissioners may have. And representatives from the project, mainly Curt
Hildebrand and Nyree Grimes are available on the line as well. And they say they want to make some brief opening or brief comments. Thank you.

CHAIR HOCHSCHILD: Thank you so much, Eric.

MR. KNIGHT: You’re welcome.

CHAIR HOCHSCHILD: We’ll move now to public comment on Item 5.

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

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

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

We support the Executive Director’s recommendation to find the Application for Certification complete and ask that the Commission adopt the Proposed Order. I would like to turn this over to Curt Hildebrand for any other comments, and we are available to answer any
questions. Thank you.

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

CHAIR HOCHSCHILD: Great, thank you both.

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

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

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

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

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

MS. MURIMI: Yes, we can. Yes, we can. Go
CHAIR HOCHSCHILD: Oh, Claire did we lose you?

MS. MURIMI: Claire your line is muted.

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

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

MS. WARSHAW: Okay.

CHAIR HOCHSCHILD: Yes, go ahead.

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

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

MS. MURIMI: Thank you, Claire.

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

MS. MURIMI: Thank you, Claire.

We have one more comment from someone listed as Apprenticeship Coordinator. Please state and spell your
name, give your affiliation, if any, and you may begin your comment.

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

MS. MURIMI: Thank you.

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

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

MS. MURIMI: Thank you.

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

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

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

MR. KNIGHT: Sure, Curt.

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

The design of our project does not consume water.

We require about 5 or 600-acre feet to initially charge
our reservoir and caverns. We do not consume water. We
actually produce water in our operations by condensing
water in ambient air. So depending on the ambient
conditions we are periodically a net-water producer. And
we will also take necessary measures to minimize evaporation.

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

CHAIR HOCHSCHILD: Okay.

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

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

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

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

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

CHAIR HOCHSCHILD: Great, thank you.

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

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

CHAIR HOCHSCHILD: Thank you.

We’ll turn now to Commissioner discussion
starting with Commissioner McAllister.

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

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

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

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

So I'm really -- so obviously we have a long road ahead of us. We are committed to meeting all the timelines and giving this project for full consideration. An exemption of an NOI was in no way a prejudgment on the value on the project itself. And so the AFC process will
completely vet the project, make sure that it complies with 
CEQA and has a full stakeholder process. I just want to 
make that clear publicly today.

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

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

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

COMMISSIONER McALLISTER: Yeah.

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

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

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

COMMISSIONER McALLISTER: Totally agree with that. (Overlapping colloquy.) This is not chemical storage
so it's even more diverse, and I think the various
durations and just figuring out how to mix and match
storage is a really open realm for learning and
understanding and application, so this is kind of part of
that overall landscape.

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

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

VICE CHAIR GUNDA: Yeah, Chair, thank you.
I just wanted to thank the team.

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

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

So yes, as both the Chair and Commissioner
McAllister mentioned storage is an extremely important part
of the future, so really looking forward to the progression
of this and acknowledging that this is a first step in the
process, so thank you.
CHAIR HOCHSCHILD: Great. Commissioner McAllister, would you be willing to move the item?

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

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

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

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

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

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

COMMISSIONER MONAHAN: Well one last question, I don't know if it's for Eric or Curt. But just -- and I should have asked you this, Eric, in the briefing -- but
what are the next steps after this, just really briefly?

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

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

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

COMMISSIONER MONAHAN: Great. Thank you.

MR. KNIGHT: You're welcome.

COMMISSIONER MCALLISTER: I believe we actually have this on the calendar already there, Eric. And so that
MR. KNIGHT: I’ve seen (indiscernible). Yes, there's a (indiscernible) data. I saw that. Yes, thank you.

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

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

COMMISSIONER MCALLISTER: Great. Thank you. If there are no further questions, I’m happy to move Item 5.

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

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

VICE CHAIR GUNDA: Yes, second the item.

CHAIR HOCHSCHILD: Okay. All in favor say aye.
COMMISSIONER McALLISTER: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

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

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

MS. DYER: Good morning, Chair and Commissioners.

I’m Deborah Dyer with the Chief Counsel's Office. And I’m appearing today on behalf of the committee that the Energy Commission appointed to preside over the proceeding in review of the Applicant, Microsoft Corporation's Application for Small Power Plant Exemption, which we also know as an SPPE for the proposed San Jose City Backup Generating Facility in San Jose California. The committee proposes that the Energy Commission adopt the Committee Proposed Decision.

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

The proposed decision recommends that the Energy Commission certify a final Environmental Impact Report,
also known as a Final EIR, and including the addendum to
that final EIR for the San Jose City Data Center project,
of which the San Jose City Backup Generating Facility is a
part.

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

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

The backup generating facility would consists of
224 0.45-megawatt natural gas emergency backup generators
and two Tier 4 diesel life-safety emergency generators of
1.25 megawatts and 0.5 megawatts. All the generators would
be located onsite, and no electricity generated by the
The backup generating facility would be distributed offsite. The backup generating facility would generate up to 99 megawatts of power, which would be the maximum demand of the data center.

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

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

Under the Warren-Alquist Act section 25541 the Energy Commission may grant a Small Power Plant Exemption only when it makes three separate and distinct findings.
1) that the proposed power plant has a generating capacity of up to 100 megawatts. 2) That no substantial adverse impact on the environment will result from the construction or operation of the power plant. And 3), that no substantial adverse impact on energy resources will result from the construction or operation of the power plant.

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

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

It is important to note that if the Energy Commission adopts the Committee Proposed Decision that adoption would not approve the Project. Instead, if the Energy Commission grants a Small Power Plant Exemption the Applicant would then be required to obtain permits and licenses from other local and regional agencies before the Project would be allowed to be built and operated. In this case, those agencies would include the City of San Jose and
the Bay Area Air Quality Management District. Those agencies will also conduct any other environmental analysis necessary for them to act as responsible agencies pursuant to CEQA.

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

The committee has proposed Condition of Exemption PD-1 to ensure that if the configuration of the data center were to change in a way that would increase -- that would result in an increase in the project’s electrical demand, any such alteration change or modification would be subject to the requirements set forth in the Energy Commission regulations relating to changes in project design operation or performance and amendments.
The committee has also proposed a Condition of Exemption PD-2 that precludes any of the electricity from the San Jose City Backup Generating Facility from being used for any other facility property or use, including but not limited to, delivery to the electric distribution system without the express written authorization of the Energy Commission.

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

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

Granting a Small Power Plant Exemption requires the Energy Commission to adopt a mitigation monitoring or reporting program. A recommended mitigation monitoring and reporting program for the project is attached to the proposed decision in Appendix C.
CEQA also provides that the Energy Commission may delegate reporting or monitoring responsibilities to another public agency that accepts that delegation. And for this project the City of San Jose has agreed to monitor the Applicant’s performance of the mitigation measures contained in the final EIR and addendum.

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

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

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

As usual, the public was presented with a full opportunity to participate at every stage of this proceeding. We had meaningful and substantive participation from the parties: Applicant, staff, and the two intervenors: California Unions for Reliable Energy,
which is also known as CURE, and Robert Sarvey.

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

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

On July 11th, we received comments on the Final EIR from an urban planner at the law firm of Shute, Mihaly & Weinberger on behalf of the Organización Comunidad de Alviso, which also goes by OCA. OCA has previously
participated in this proceeding. The comment letter questioned the factual sufficiency of this Final EIR, the adequacy of the analysis of the environmental impacts and the sufficiency of the environmental justice analysis. The comment requests that the EIR be revised and recirculated.

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

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

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

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

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

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

That concludes my presentation. I'm available to respond to any questions the Commissioners may have. Otherwise, the parties, including applicant, staff, and intervenor Robert Sarvey may address the Commission. Thank you.

CHAIR HOCHSCHILD: Thank you, Deborah.

Let's go to public comment on Item 6.
MS. MURIMI: Thank you, Chair. We have Timothy Jefferies from Boilermakers. Again, please state and spell your name, give your affiliation if any. And for those that are Zoom applicants you may use the raised-hand feature.

MS. GALLARDO: Dorothy?

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

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

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

MR. GALATI: Thank you very much. Members of the Commission, thank you for having this proposed decision on this meeting for us, so we can meet our very important schedule. We have participated in the process since 2019. And on behalf of Microsoft I’m proud to present that we have reviewed the proposed decision and also agree with the Hearing Officer’s characterization of the most recent comments. And we very much ask for your support and approval today so we can build this project, get over to the City of San Jose, get our permits.
So thank you very much. I’m available for any of the questions that you might have. And we have members of our team, including Jonathan Noble (phonetic) representing Microsoft if you have any additional questions.

MS. MURIMI: Thank you, Scott.

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

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

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

The power industry is what we do and, as was stated earlier, California is going in a different direction about energy. And we as a workforce of boilermakers are concerned. We would like to be a part of that going forward. And this project will also be right up the alley of Boilermakers, putting boilermakers to work
here in the Bay Area and giving them a sustainable and livable wage. And so I appreciate that. And I would ask you, I request you go ahead and pass this amendment as well, too. Thank you.

MS. MURIMI: Thank you.

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

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

And so if there are questions from the Commissioners, we do have technical staff available. But otherwise I think Hearing Officer Dyer’s synthesis was
excellent. Thank you.

MS. MURIMI: Thank you, Jared.

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

I'll hand the mic back to you.

CHAIR HOCHSCHILD: Thank you.

Okay, we'll move to Commissioner discussion starting with Commissioner Monahan.

COMMISSIONER MONAHAN: Thank you, Chair. Well, I just want to begin by saying that although I’ve participated in other Small Power Plant Exemption proceedings this was my first time as a Presiding Member.

And as Hearing Officer Dyer noted staff issued an Environmental Impact Report that found that neither the construction, nor the operation of the project would have significant adverse impacts on the environment or on energy resources. Our proposed decision finds that the Final EIR is CEQA compliant and that it thoroughly and adequately assesses potential environmental and energy resource impacts. With the implementation of the specific mitigation measures project impacts are less than significant.

The proposed decision also finds that the project will generate less than 100 megawatts of electricity, which is the qualifying line for an SPPE.

And we had a very robust public process. There
was information and comments from the applicant, staff, and intervenors. We considered written comments on the draft EIR from a series of stakeholders. We also considered written comments on the final EIR on behalf of the Organización Comunidad de Alviso and the Applicant’s response to that comment.

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

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

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

So I urge -- I'm going to support this, and I
recommend that we approve this item.

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

COMMISSIONER MONAHAN: I move Item 6.

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


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

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

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

We’ll turn now to Item --

COMMISSIONER MONAHAN: Oh, Chair?

CHAIR HOCHSCHILD: I’m sorry, go ahead.

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

So I just want to mention, I think we all know resilient power supplies are necessary in our state and
including with data centers through the pandemic. We've all become acutely aware of the role of good internet for the work that we do, and lifesaving work in some cases for some folks in the state.

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

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

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

CHAIR HOCHSCHILD: Thank you, I appreciate that.
So as I mentioned Item 7 on Offshore Wind, we’ll take up after Item 15. And we’ll turn now to Item 8, Humboldt State University Sponsored Program Foundation.

(Silence on the line.)

VICE CHAIR GUNDA: Jim, you're muted.

MS. MURIMI: Jim, you're muted.

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

MR. BARTRIDGE: Well, let's try again

CHAIR HOCHSCHILD: All right, there we go.

MR. BARTRIDGE: Okay, great. Sorry.

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

California, particularly the northern coast region, has some of the best offshore wind resources in the
country. And floating offshore wind is emerging as a promising source of renewable energy generation for California, Oregon and the West Coast. The electric system in this area is relatively isolated and additional transmission infrastructure will be needed to support the development of and deliver energy from this area in the future.

The Northern California & Southern Oregon Mission Compatibility and Transmission Infrastructure Assessment Project contract is funded by a grant from the U.S. Department of Defense Office of Local Defense Community Cooperation to assist California, Oregon and stakeholders to further assess and identify areas for offshore wind development while addressing and preventing encroachment on DOD testing, training and military operations areas. It will also support continued community economic development and enhance civilian and military communication, collaboration, and partnership. Next slide, please.

The primary goal of this project is to provide data, mapping and technical analysis to support continued partnership and promote early consultation with the DOD to prevent impacts to testing, training and operational areas. The project will develop a detailed technical analysis for transmission infrastructure limitations and
opportunities, map that existing infrastructure, and provide information that will allow California, Oregon, stakeholders, and developers to further assess and identify areas best suited for offshore wind development.

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

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

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

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

So here’s a quick look at the project structure.
The Core Steering Group will consist of the CEC, the ODOE which is the Oregon Department of Energy, and the Department of Defense, and will provide key input, data, and guidance for the project. The CSG will also help develop and maintain relationships with key stakeholders.

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

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

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

And with that staff recommends approval of the...
proposed agreement with the Humboldt State University
Sponsored Programs Foundation and adoption of staff’s
determination that the project is exempt from CEQA. I’m
happy to answer any questions.

CHAIR HOCHSCHILD: Thank you so much, Jim.
We’ll turn now to public comment on Item 8.

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

We’ll give that one moment. Again, use the
raised-hand feature to raise your hand if you're on Zoom
and press *9 if you're calling in. I see one commenter,
Doug LeMoine. Apologies if I’ve misstated your name.
Again, this is for Item 8, public comment for Item 8.

Seeing no -- oh, one moment, Chair.

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

MS. KIRSHNER-RODRIGUEZ: Yep. Thank you, Nancy
Kirschner, K-I-R-S-C-H-N-E-R, hyphen Rodriguez, R-O-D-R-I-
G-U-E-Z, Business Network for Offshore Wind. And I just
want to commend the Commission for pursuing this and the
broad group of partners and recognize how incredibly significant this study will be for the future of offshore wind in the Pacific. And I just want to mention that the Business Network, we have an ongoing grid and transmission working group and we would welcome the opportunity to be supportive. Thank you.

MS. MURIMI: Thank you for that comment.

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

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

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

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

MR. BARTRIDGE: Thank you.

CHAIR HOCHSCHILD: Thank you.

Commissioner McAllister?

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

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

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

COMMISSIONER McALLISTER: Yes, I will move Item 8.

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

VICE CHAIR GUNDA: Yes, second Item 8.

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner McAllister?

COMMISSIONER McALLISTER: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

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

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

MS. WILHELM: Good morning, Chair, Vice-Chair, Commissioners. I’m Susan Wilhelm, Technical Lead for Energy-Related Environmental Research. Today I’m here to request approval of a single agreement supported by a solicitation that brings climate science and energy system modeling to bear on electricity sector resilience planning. Next slide, please.
The proposed agreement is with Lumen Energy Strategy, a California-based microbusiness whose principal researchers each bring more than 15 years’ electricity sector consulting experience, serving regulators, utilities, bulk grid operators, and a diversity of other actors. The overarching goal of the proposed work is to advance the state’s clean energy and climate goals by supporting integration of climate resilience considerations and to state energy-planning processes.

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

Recognizing that the California joint agencies have not established a formal definition for “resilience,” Lumen will engage stakeholders in developing a working definition of “electricity supply resilience,” and a conceptual framework for resilience planning.

This framework will serve as a basis for building a resilience assessment model that enables comparison of cost and reliability tradeoffs of alternative future...
portfolios and development pathways that will help take us to our SB 100 goals.

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

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

And I would like to thank colleagues in the CEC’s
Energy Assessment Division, specifically in the Supply Analysis Branch and Demand Analysis Branch for ongoing discussions that are helping us advance research to provide timely, transparent, publicly accessible data and analytical frameworks to support climate resilient planning in the context of our rapidly evolving electricity system.

Next slide, please.

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

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

We’ll go to public comment on Item 9 at this time.

MS. MURIMI: Thank you, Chair.

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

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

CHAIR HOCHSCHILD: Okay, well, I think this is pretty straightforward, cut and dry. It's exactly the kind
of analysis we need to support resilience and reliability in a changing climate, so I'm very glad to see this. And I would open up to other colleagues. Vice Chair Gunda, please go ahead.

VICE CHAIR GUNDA: Yeah, thank you, Chair. And first of all, Susan, thank you for the presentation, but years of work on advancing the climate science at CEC. You've been a real champion of this work and I just want to acknowledge your work and thank you for everything you do in this area. So I think most of the presentation you laid out is the importance of this, as a note for the broader public, but also just as a way of conversing with the rest of the Commissioners here and colleagues.

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

I think this is an extremely important work to be done. And I'm so glad that you've built the relationships
within the agencies, but also outside -- I mean within the CEC as well as outside of the agencies to help steer this. So I just look forward to hearing more about this and thank you for your work and looking forward to supporting it.

CHAIR HOCHSCHILD: Thanks.

Let’s go to Commissioner McAllister.

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

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

And then I just wanted to point out the nexus between supply and demand climate change is stressing out, from the west-wide transmission grid, both transmission grids, all the way down to individual appliances where you have climate-based loads or climate-centric loads. And so
really great to see, I really appreciated the visual relating all of these various pieces.

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

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

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

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

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

COMMISSIONER MONAHAHAN: I second it.

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.
CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

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

We’ll turn now to Item 10, Institute of Gas Technology dba Gas Technology Institute.

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

Electrification is a primary pathway to meeting our GHG emission reduction goals. However, in some applications in large commercial buildings and the industrial sectors they can be difficult to electrify, and
it is currently a source of significant GHG emissions.

This proposed study will provide us with information on the limitations of existing equipment to handle different views, safety implications, and emissions impacts of adopting hydrogen-based fuels. As shown in the picture here, this is an example in GTI’s laboratory setup to test hydrogen-based fuels.

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

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

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

The grant agreement will focus on identifying and resolving key research and technology gaps concerning, so the following tasks. First, it’s a techno-economic
analysis to identify the specific target equipment that is hard to electrify, but could be a candidate for hydrogen substitution.

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

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

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

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

Staff recommends approval of this grant and adopt the staff’s determination that the project is exempt from CEQA. Abigail Jacob and I are available for any questions.

Dr. Kaushik Biswas from GTI is also on the line. This concludes my presentation. Thank you for your time.

CHAIR HOCHSCHILD: Thank you so much, Yu Hou.
Let's go to public comment on Item 10.

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

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

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

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

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

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

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

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

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

So I just wanted you to think about them. You don't have to answer if you don't want to at this point. But it's important that this work is treated as an important step towards our SB 100 work. And how this intersects both in the SB 100, but also the gas transition work, right? I would really encourage you to keep in touch.
with Terra Weeks, who has been taking point on thinking through the gas transition for CEC. And I appreciate your collaboration across all the particular departments in the agencies. Thank you.

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

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

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

We certainly will coordinate with the gas transition. I believe that there are other efforts addressing the transmission part. Also, I believe we
already have work in on the production side as well, so absolutely happy to coordinate. And thank you for your comment.

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

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

CHAIR HOCHSCHILD: Thank you.

Let's go to Commissioner McAllister.

COMMISSIONER MCALLISTER: Thank you Chair, Vice Chair. And thanks to you and the whole team for just developing the whole suite of projects here. I’m really impressed by your effort and just consideration and thoughtfulness, including this one.
And I appreciate -- well, a couple comments and then a question -- I appreciate the exclusion of transportation, because you have to limit the scope somehow so that it's doable in a given contract.

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

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

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

MR. HOU: Yes, so it is based on volume. And,
yes, because the nature of the hydrogen molecule 50 percent volume doesn't give you 50 percent energy and it doesn't mean it's 50 percent of emission reduction.

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

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

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

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

COMMISSIONER MONAHAN: Yeah, I wanted to just respond to some of the issues that Vice Chair Glenda and Commissioner McAllister raised around why it's this study, why not the inclusion of pipeline or eventual inclusion of pipeline. And to me it actually makes sense to start with this, because we do have questions about what the
combustion of hydrogen means in terms of NOx admissions.

We don't have that in transportation, when it's going
through a fuel cell it's zero emission. So this is a
completely different process and I think we know little
about it.

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

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

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

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

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

COMMISSIONER MONAHAN: I move Item 10.

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

COMMISSIONER MCALLISTER: I second.

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.
CHAIR HOCHSCHILD: And I vote aye as well. Item 10 passes 4-0.

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

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

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

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

Great. So in spring 2020, CEC released a final
report of research by E3 on “The Challenge of Retail Gas in California’s Low-Carbon Future.” And one of the key findings out of that was that a strategic transition of California’s gas system really is desirable. However, the data and tools available to state agencies and other stakeholders at that time, and also this time still, do not really support that spatial planning of decommissioning with consideration of cost and equity issues. And so today we are requesting about $1.5 million in funding for this grant agreement which is really intended to address this important gap and then help enhance the capacity of state agencies, IOUs, local governments, and other stakeholders to collaboratively plan. And develop policy for the gas system in California’s low-carbon future by screening for these promising sites for decommissioning our gas infrastructure.

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

So heterogeneous data types and sources that cover technological, engineering, financial and social
factors, those will be combined. Metrics that capture
risks and benefits related to economic safety and equity
impacts will be incorporated into the tool.

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

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

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

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

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

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

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

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

CHAIR HOCHSCHILD: Great, thank you.
Let's go to public comment on Item 11.

MS. MURIMI: Thank you, Chair.

For individuals on Zoom who would like to make a
comment go ahead and use the raised-hand feature, looks
like a high-five or an open palm at the bottom of your screen or device. For those coming in over the phone go ahead and press *9 to raise your hand and *6 to unmute on your end.

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

CHAIR HOCHSCHILD: Okay, thanks.

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

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

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

So one, I know as we think through decommissioning, especially, I think the geographical nature of it becomes really important. I know the words that we have in terms of socioeconomic impacts and understanding the decommissioning, from the perspectives of
not only the physical and economic and operational states, but also the socioeconomic, I think is extremely important.

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

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

CHAIR HOCHSCHILD: Thank you.

Let’s go to Commissioner McAllister.

COMMISSIONER McALLISTER: Yeah, thanks Martine and thanks Eileen, for being here. It’s really great to see collaboration here. I know that PUC is doing a lot of interesting things on the gas side as well and Commissioner
Rechtschaffen is proceeding on the sort of the gas line extension rate-basing. And this decommissioning or sort of reworking of the gas system really is a fundamental issue and it's really great.

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

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

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

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

CHAIR HOCHSCHILD: Vice Chair Gunda, would you second?

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

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

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

We’ll turn now to Item 12, Volvo Technology of America.

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

The proposed project will have multiple benefits for California. First, it will result in an accessible
electrified corridor along State Route 99 and the Interstate 5. These charging stations will increase access to charging opportunities and reduce total cost of ownership for medium- and heavy-duty zero-emission vehicles by removing the cost of infrastructure installation from fleets. And also provide them multiple locations across Northern and Central California for opportunity charging. The picture on this slide is from the Bakersfield location that will be used for charger installation.

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

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

So to address this sector on June 25, 2020, the
California Air Resources Board adopted a first-in-the-world rule requiring truck manufacturers to transition trucks and vans towards zero-emission technologies beginning in 2024. So therefore, the deployment of a zero-emission infrastructure and the operation of cleaner zero-emission trucks are expected to actually result in cleaner air for all. Next slide, please.

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

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

In addition, this project is innovative, because
this grant will provide funding for use of a mobile application that will provide a description of the charging infrastructure at each of those charging sites. There will be information on payment types that will be accepted, and there will be answers to frequently asked questions about charging. Volvo will also operate a webpage that will provide real-time updates about the charging stations.

Next slide, please.

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

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

MS. ODFUWA: Yes, yes.
CHAIR HOCHSCHILD: Okay.

MS. ODUFUWA: Basically this picture, so it’s dual cords. Yes.

CHAIR HOCHSCHILD: Got it. Thank you.

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

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

It is also possible to rethink that (indiscernible) charging during high-demand periods, either by raising prices or lowering power levels or both. So in addition, collecting data from this project will enable Volvo to actually learn what is needed and then test the various approaches to grid management. Next slide.
Now I’ll briefly discuss the market considerations for this project. So a little bit background about the CEC’s AB 2127 Report, it shows that California will need an additional 157,000 chargers to support the 180,000 medium-duty and heavy-duty vehicles that are anticipated by 2030. Thus, the chargers for this project will help reduce the charger gap. And moreover, since 180,000 medium-duty vehicles are anticipated, these chargers can be used to power many of those vehicles.

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

For example, according to Volvo, the next closest DCFC locations in Bakersfield is actually 8 miles to the south and 25 miles to the north of Volvo’s planned DCFC Bakersfield site. Volvo has also stated that the next closest DCFC location in Stockton is 8 miles to the north and 10 miles to the south of Volvo’s planned Stockton DCFC site.

So shown on this slide again is another picture view of the Bakersfield location that will be used for the
charger installation. Next slide.

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

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

CHAIR HOCHSCHILD: Thank you so much, Esther.

Let's go to public comment on Item 12.

MS. MURIMI: Thank you, Chair.

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

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

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

Thank you, Mr. Chairman, thank you Esther, and thanks to the California Energy Commission for this opportunity to comment and for funding our California
Electrified Charging Corridor Project. Volvo has successfully delivered very positive outcomes for California under state-funded projects, with the Volvo LIGHTS program being a prime example. Since Volvo LIGHTS we have commercialized production of battery electric trucks and are helping more customers transition to electric trucks every day.

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

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

The project has the full support of our partners who have embraced the risk of being leaders and invested their own capital to help make public charging for battery electric trucks a reality in California.
On behalf of the team I request you move forward with approving the project as presented, and we will work together to deliver outcomes that meet your expectations. Thank you again.

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

MS. MURIMI: Thank you. Oh yeah.

CHAIR HOCHSCHILD: Oh yeah, please, please.

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

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

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

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

MR. IPPOLITO: Yes, Mr. Chairman. That depends on the truck of course and the rate of charging, assuming that it can charge at 150 kilowatts maximum, and the load of the truck and things like that. I believe it is -- let me see if I can find that -- I believe it's on the order of
25 to 30 miles per hour.

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

MR. IPPOLITO: It is, yes.

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

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

MR. IPPOLITO: Right.

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

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

CHAIR HOCHSCHILD: Oh interesting, okay.

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

(Overlapping colloquy.)

MR. IPPOLITO: Right, it's much different than with cars. To fully charge a truck it would be a little under three hours, so at one hour you could probably get,
yeah, on the order of 50 miles. Yeah.

CHAIR HOCHSCHILD: So to fully charge a truck --

okay, so that's not 25 miles an hour, because you're not
saying the range is 75 miles. What is the typical range
for the trucks you'd expect to be charging for this?

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

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

MR. IPPOLITO: Yeah.

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

Do we have additional public comment on Item 12
Dorothy?

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

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

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

MR. JEFFERIES: Okay, thank you.

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

MR. JEFFERIES: Thank you.

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

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

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

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

I mean, these rules, the CARB regulations that are being developed around diesel vehicles means that we have to be ready with a robust infrastructure to support
the CARB regulations. And this is the first time we're looking at not just like small fleets that travel back to a central depot but vehicles that will be traveling across the state.

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

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

CHAIR HOCHSCHILD: Great.

Okay, Vice Chair Gunda, please.

VICE CHAIR GUNDA: Yeah, thank you Chair. Thank you, Esther, for your presentation. Thank you, Mike, for
adding some additional clarifications.

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

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

MS. ODUFUWA: Okay.

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

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

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

MS. MURIMI: Apologies, (indiscernible) Commissioner.

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

MR. IPPOLITO: Correct.

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

MR. IPPOLITO: Yes, indeed. And our expectation
is that these chargers will be used for what we would call “opportunity charging,” meaning that they would not stay for two or three hours to completely fill the truck. They would stop on a lunch break or some other break period and fill the truck as much as possible over the course of an hour or so, such that they could make it to their next destination which may have charging at the depot or something.

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

(Overlapping colloquy.)

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

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

Unless there’s other Commissioner comments, Commissioner Monahan, would you be willing to move the item?

COMMISSIONER MONAHAN: I move this item.

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

VICE CHAIR GUNDA: I second the item.

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

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister.

COMMISSIONER McALLISTER: Aye.

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

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

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

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

MS. MURIMI: We are live now.

CHAIR HOCHSCHILD: Are we back on, Dorothy?

MS. MURIMI: Yes, we are back on.

CHAIR HOCHSCHILD: Okay welcome back, Dorothy.

There we go, okay.

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

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

MS. JARVIS: Hello Chair, Vice Chair, and
Commissioners. My name is Madison Jarvis with the Fuels and Transportation Division. Today, staff is seeking approval for three projects that were proposed for funding under the Charging Access for Reliable On-Demand Transportation Services solicitation, also known as CARTS. Next slide, please.

The proposed projects will demonstrate replicable, scalable models for rapid deployment of charging equipment for high-mileage on-demand transportation service providers. Located throughout the state these projects demonstrate geographically diverse needs for continued EV infrastructure deployment. The proposed projects will reduce greenhouse gas emissions and criteria air pollutants, providing air quality benefits to transportation network drivers and the local community, which are often designated as disadvantaged and priority populations. Next slide, please.

Before I present these three projects, I want to provide a brief overview of the CARTS solicitation. The focus of this solicitation is to support electric vehicle charging infrastructure by providing grant funding for high mileage on-demand transportation services, including services such as ride-hailing, taxis, and meal and grocery delivery. Proposed projects must demonstrate participation...
of or written support from on-demand transportation service companies. And the charging infrastructure can be either publicly or privately available.

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

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

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

The first proposed agreement is with FreeWire Technologies. They are requesting slightly more than $600,000 with more than 50 percent in matching funds, to install five of their Boost DC Fast Chargers at two new BP stations in Central California. One in Orangevale near the Orange Tree Plaza Shopping Center. And one in Delta
Shores, Sacramento, adjacent to the Delta Shores Shopping Center. The Delta Shores site is located in a disadvantaged and low-income community. And all chargers in this project will be publicly accessible.

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

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

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

The other two chargers, one 180 kilowatt and one 350 kilowatts, will be installed in the publicly accessible parking lot of the Pico Gardens housing complex to provide...
charging for residents who are TNC drivers, or to drivers
dropping off or traveling through this disadvantaged and
low-income neighborhood.

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

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

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

AMPLY Power has received letters of support from
TNC apps like Uber and Lyft to work together for data
sharing, as well as in-app payment methods and reduced charging rates for drivers to encourage electrification.

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

Staff’s recommendation is to approve these three agreements and adopt staff’s recommendation that these actions are exempt from CEQA.

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

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

Let’s go to public comment on Item 13.

MS. MURIMI: Thank you, Chair.

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

We’ll start with Brian Kee. Go ahead and state and spell your name, give your affiliation, if any, and you
may begin your comments.

MR. KEE: Hi, this is Brian Kee, B-R-I-A-N K-E-E. And I'm with FreeWire Technologies, a provider of battery-integrated EV charging solutions. I want to thank the CEC for the funding opportunity to enable the production of carbon emissions from Transportation Network Companies. FreeWire is excited to partner with BP and Uber to expand DC fast charging access for TNC drivers. FreeWire is based in Newark, California. And CEC grant funding opportunities, such as the RACER and BRIDGE grants have played a large part in the development of our innovative charging technology.

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

MS. MURIMI: Thank you.

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

MR. KARLEN: Yes, thank you. This is Erick Karlen, that's E-R-I-C-K K-A-R-L-E-N. I'm a Senior Policy Advisor with Shell Recharge Solutions. And I just want to say that on behalf of Shell Recharge Solutions, formerly Greenlots, they want to thank the Commissioners and staff for their support and consideration.
Shell Recharge Solutions and our project partners are excited to move forward with our project to increase access to charging electric vehicles for TNC drivers in very direct service of aggressive local LACI transportation electrification goals. Thank you.

MS. MURIMI: Thank you.

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

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

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

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

I think it's fascinating actually to see the partnership with the industries that used to just be oil, BP and Shell, and it’s just great to see the investment
that companies are making in the clean energy, clean
transportation energy in the future.

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

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

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

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

I did want to share a few years ago, I was at
Stanford, and I was talking to a professor there whose name
escapes me at the moment, who was studying the trends among
Uber and Lyft drivers and the ride-hailing community. And
it turns out it's like on average 50,000 miles a year for
an Uber or Lyft driver. I drive a fair bit. I drive about
10,000 miles a year so it's about 5X.

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

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

Unless there are other Commissioners --

COMMISSIONER MONAHAN: (Indiscernible) I didn't know Brian, until you said it, that our grants, the CEC’s early development grants were part of the reason that you’re flourishing today, so that was great to know.
CHAIR HOCHSCHILD: Yeah, great. Unless there's other comments, Commissioner Monahan, would you be willing to move the item?

COMMISSIONER MONAHAN: I move this item.

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

COMMISSIONER MCALLISTER: Second.

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

Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

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

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

MS. ANTONIO: Good afternoon, Chair, Vice Chair and Commissioners. My name is Marites Antonio with the Renewable Energy Division. I’m here to request your approval of three Energy Conservation Assistance Act loan agreements with the City of Fowler, the City of Indian Wells, and the Malaga County Water District.
Please note that the Energy Conservation Assistance Act is commonly known by the acronym ECAA, and this is how I’ll refer to it for this presentation. Next slide, please.

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

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

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

The City of Indian Wells is located in Coachella Valley in Riverside County with a population of about 5,000. The City is proposing to finance an energy project using an ECAA one-percent interest loan in the amount of approximately $2.7 million.
The project will install a 647-kilowatt solar array on a carport structure to provide power to the City’s Golf Resort Clubhouse. Next slide, please.

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

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

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

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

The City of Indian Wells project is estimated to save more than a million-kilowatt hours annually resulting in annual energy cost savings projected at more than $163,000.
And the Malaga County Water District project is estimated to nearly 743,000-kilowatt hours annually resulting in energy cost savings of over $163,000 each year. Next slide, please.

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

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

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

MS. ANTONIO: Thank you.

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

MS. MURIMI: Thank you, Chair.

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

Seeing no comments, Chair, I'll hand the mic back to you.
CHAIR HOCHSCHILD: Okay. Let's go to Commissioner discussion, starting with Commissioner McAllister.

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

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

And the profile of the project really varies with utility rates and geography and the type of mounting and all that kind of stuff. And so I’ve asked staff to put together, to scope out an analysis for how to take account of all those factors and both learn what the drivers of cost and benefit actually are, and then also that will allow us to spot any outliers in terms of cost just so we're being responsible in terms of what projects we fund.

So just focusing on the PV for now, but I think there's a potential to look at our program broadly and include HVAC and other efficiency measures.

But the program is just such a shining light at
the Energy Commission, as we all know, and I’m in full
support of these particular three projects. And then
thanking the local jurisdictions: Indian Wells and Fowler
and Malaga County, for bringing those forward to us.

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

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

COMMISSIONER MCALLISTRE: Maybe I’ll jump in
quickly. We are in the process, the Renewables Division
is in the process of expanding the scope of ECAA in
response to this (indiscernible) I believe, so it would
include tribes. And sort of there's an update process happening, so perhaps we can have that discussion about the criteria, and modernizing the criteria to reflect current policy priorities like (indiscernible).

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

Okay, Vice Chair Gunda, please.

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

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

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

CHAIR HOCHSCHILD: Great, thank you.

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

COMMISSIONER McALLISTER: Move Item 14.

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

VICE CHAIR GUNDA: Second Item 14, thank you.

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner McAllister?

COMMISSIONER McALLISTER: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

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

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

MS. DROZDOWICZ: Good afternoon, Chair, Vice Chair and Commissioners. My name is Danuta Drozdowicz. I work in the Efficiency Division’s Buildings Standards Office and I’m presenting local ordinances that both meet and exceed the energy code from four jurisdiction that have
applied for review and consideration by the CEC. Joining me today is Jacqueline Moore from the Chief Counsel’s Office. Next slide, please.

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

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

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

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

The majority require all-electric or electric-preferred construction; 30 ordinances also require photovoltaics on buildings not subject to the current provisions of the Energy Code; and 27 require additional
electric vehicle infrastructure or charging. Three of the four today also require electric vehicle infrastructure.

Next slide, please.

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

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

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

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

The City of Solana Beach requires that new nonresidential buildings install photovoltaic systems.

Next slide, please.

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

And the City of Half Moon Bay requires that new nonresidential and hotel/motel buildings install
Staff determined that these local ordinances will result in a further reduction of the energy permitted by the 2019 Energy Code, and that the jurisdictions publicly adopted a finding of cost-effectiveness for their standards.

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

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

CHAIR HOCHSCHILD: Thanks so much, Danuta. Let's go to public comment on Item 15.

MS. MURIMI: Thank you, Chair.

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

We'll give that one moment. Again, that's using the raised-hand feature it looks like a high-five or open
calm at the bottom of your screen or device if you are on Zoom. And for those calling in press *9 to raise your hand.

Seeing no comments, Chair, I’ll hand the mic back at you.

CHAIR HOCHSCHILD: Thank you.

We’ll turn to Commissioner discussion starting with Commissioner McAllister.

COMMISSIONER MCALLISTER: Oh, well great. Well thank you, Danuta. I really appreciate your bringing these items and just all the work you've done on local ordinances. In the past we have lots of them, as you noted, and they are as diverse as our state is diverse. And I think it's really a great kind of representation of the integration that happens at the local government level. I support all of these. I obviously really appreciate the cities kind of getting ahead of the 2022 Building Code that will come into effect in January of next year. And we’re pretty late in the cycle at this point, so there's only six months, less than six months left in the 2019 Code. And so the 2022 will kick in here pretty soon. And we're advancing into requiring PVs in nonresidential as well with that update.

But nothing more to add, just want to thank Encinitas and Solana Beach, Emeryville and Half Moon Bay;
really get to see some live roofs in their architecture on the Half Moon Bay proposal. So with that I will support this item.

CHAIR HOCHSCHILD: Any other Commissioners wishing to comment? If not, you’ll move the item, Commissioner?

COMMISSIONER MCALLISTER: Yeah, I’ll move the item.

CHAIR HOCHSCHILD: Thank you.

Commissioner Monahan, would you be willing to second?

COMMISSIONER MONAHAN: I second this item.

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

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

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

MS. HUBER: Good afternoon, Chair, Vice Chair,
and Commissioners. My name is Elizabeth Huber and I manage the Safety and Reliability Office within the Siting, Transmission and Environmental Protection Division. With me today is Rhetta deMesa, our Offshore Wind Project Manager, and Lisa DeCarlo from the Chief Counsel’s Office. We also have with us Walter Musial, Principal Energy and Offshore Wind Lead with the National Renewable Energy Laboratory out of Colorado.

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

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

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

A year later the CEC established a project team
to identify opportunities to lower and remove possible risks associated with the development of offshore wind energy projects. The CEC also went on to sign Memorandums of Understanding with Denmark and Scotland, countries that have been paving the way for offshore wind energy.

The CEC also published multiple reports addressing California’s offshore wind energy development potential.

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

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

Understanding the long-term benefits to Californians, Assemblymember Chiu introduced AB 525 with the intent to further the state’s goal of 100 percent clean energy by 2045, by planning for the development of utility-scale offshore wind energy in California. He cited that the East Coast states have already set a total of 29
gigawatts worth of offshore wind development planning goals and was concerned that California had yet to make a significant investment in offshore wind energy.

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

As AB 525 became effective on January 1, 2022, requiring the CEC, in coordination with an array of specified local, state, and federal partners, and with
input from a variety of stakeholders where to develop a
Strategic Plan for Offshore Wind in Federal Waters off the
California Coast by one, evaluating and quantifying the
maximum feasible capacity of offshore wind to achieve
reliability, ratepayer, employment, and decarbonization
benefits.

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

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

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

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

AB 525 requires the CEC to take into account 12
statutory enumerated factors when establishing the megawatt
offshore wind energy planning goals. CEC staff assessed
all 12 factors required by the legislation and determined
that while all factors are important in establishing
megawatt planning goals for the strategic plan. The first
5 factors, which are bolded here on the slide, have greater
influence on shaping or effecting the megawatt planning
goals than the others.

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

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

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

The other NREL study describes the methodology
for the expected levelized cost of electricity for the five
BOEM-identified locations off the California coast, which includes Humboldt, Morro Bay, Diablo Canyon, Del Norte and Cape Mendocino.

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

Studies 3 through 6 will sound familiar. Studies 3 and 4 are the CPUC’s 2021 preferred system plan and modeling and substance for the 2021/2022 transmission planning process. Study 5 is the California ISO’s 20-year transmission outlook. And Study Six is California ISO’s 2021 and 2022 transmission plan.

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

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

To summarize, within the three months of AB 525 being enacted the CEC staff held their first public
workshop where the requirements of AB 525 were presented and our approach for meeting those first requirements was discussed.

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

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

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

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

We also invited representatives from environmental organizations, fisheries, workforce, industry, shipping, and members of tribal and environmental justice communities to participate in a roundtable
discussion to share their perspectives and observations to the CEC’s proposed planning goals. The variety of stakeholders suggested higher planning goals and additional studies.

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

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

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

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

This slide summarizes the elements of these new and ongoing studies’ research. The first study is the most recent NREL publication that evaluates several elements and
options for delineating potential lease areas for the two specific California Wind Energy Areas of Morro Bay and Humboldt. The study options divide these Wind Energy Areas into lease areas of approximately 1-gigawatt wind plant per lease area. This study was developed for BOEM to inform the federal offshore wind lease process, delineating the number of recommended lease areas for each of the BOEM-identified Wind Energy Areas.

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

Studies 3 and 4 are actually ongoing studies, and were presented at the June workshop and roundtable. These include a draft working paper from the University of California Berkeley’s Goldman School of Public Policy and the Nature Conservancy’s forthcoming study, “Power of Place West.”

The UC Berkley draft report discussed how the cost of offshore wind has been decreasing steadily since 2010. The authors state that approximately 45 gigawatts of
floating offshore wind are in the pipeline, and they anticipate a 40 percent cost reduction by 2030. Their analysis included offshore wind energy generation at various gigawatt sizes and included bulk transmission in inner connection in that research.

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

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

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

This concludes the informational update and we
are happy to answer any questions. And want to remind you that Walter Musial with NREL is here to address any of your technical questions. Thank you.

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

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

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

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

CHAIR HOCHSCHILD: Great, thank you.

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

COMMISSIONER MCALLISTER: Yeah, just quickly.

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

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

What I'd like to do at this point is take public comment on this, but in the form of Item 20. So folks are welcome to comment on this item as well as anything else. So we'll just go ahead and move to Item 20 and take public comment. And you can begin with that, Dorothy. Thank you.
MS. MURIMI: Thank you, Chair.
And one more thing, Walt Musial is here to make a
comment as well. Would you like to begin with Walt?
CHAIR HOCHSCHILD: Yeah, please. Let's begin
with Walt, thank you.
MS. MURIMI: Thank you. Walt, you may begin.
MR. MUSIAL: Oh, I didn't have any specific
comments prepared, but thank you to Chairman Hochschild and
Commissioners for allowing me to participate in this. I do
make myself available to answer technical questions
regarding any of the uncertainties that might have come up.
And thanks for recognizing a lot of the work that we've
done at NREL. So I will just stop there and take questions
if there are any.
CHAIR HOCHSCHILD: I do have just one question
actually for you, Walt, which is just to -- so if I’m
remembering correctly, the current density that NREL is
projecting is roughly 5 megawatts per square kilometer. Am
I remembering that correctly?
MR. MUSIAL: Yeah, I think there's some confusion
over array densities, because when we estimate area
densities we've been using conservative numbers to allow
for the possibility that site densities might be reduced
due to geohazards or potential easements that might get
imposed. But if we look at actual densities that are
resulting from projects that are being built on the East Coast and other places in Europe, we see that the densities are around 5 megawatts per square kilometer. And that's different than the 3 megawatts per square kilometer that are used in projecting the array densities. And that what BOEM had used in announcing the array densities in the current upcoming auctions.

CHAIR HOCHSCHILD: Okay. That’s great.

MR. MUSIAL: Does that answer your question?

CHAIR HOCHSCHILD: Yeah, it does. Thank you.

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

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

Okay, Dorothy, we’ll take --

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

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

We’ll start with Jean King. Please state and
spell your name, give your affiliation, if any.

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

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

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

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

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

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

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

MS. MURIMI: Thank you.

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

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

First, I want to thank all of the Commissioners for taking the time to meet with our coalition over the
past two weeks. You all were very generous with your time, and we were thrilled to have the opportunity to be able to speak with each of you.

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

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

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

Third, is that some of the state's smartest organizations, including NREL, UC Berkeley, have looked at this issue. Your staff report that was just gone through highlights much of that. We should follow their lead and go big on offshore wind.
Fourth, is that as you'll hear from other colleagues this continues to be the kind of issue that brings people together and we need that in our politics today.

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

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

MS. MURIMI: Thank you.

Next we have Nancy Rader after which we have Mark. Please state your name, give your affiliation, if any. You may begin your comment.

MS. RADER: Good afternoon, Commissioners, and
staff. This is Nancy Rader, R-A-D-E-R, from the California Wind Energy Association or CalWEA.

CalWEA applauds the Commission for delaying consideration of its draft report and viewing the new studies that were issued by NREL, UC Berkeley’s Goldman School, and others.

The Berkeley study puts offshore wind planning goals in their proper context, which is the role that offshore wind could play in meeting the state's SB 100 goals. That's the right frame. This analysis was not previously conducted to inform this process. The Berkeley study shows that a 2045 portfolio that balances solar with a complimentary production profile of offshore wind, 50 gigawatts of offshore wind would reduce our total overall SB 100 capacity needs by 60 gigawatts without increasing costs.

This massive reduction in the total amount of capacity needed is in and of itself a major benefit because it will greatly reduce pressures on land use and the need for raw materials.

Diversifying a solar-heavy portfolio with offshore wind will also reduce various types of risks, including reliability risks.

All of these things will have will help us achieve our SB 100 goals, 50 gigawatts is achievable.
The NREL report as we've discussed shows that much more offshore wind can be produced from a given area than was previously assumed. That means the areas that the federal government has already identified can support at least 30 gigawatts without counting the Diablo Call Area that the Navy objects to. We should be able to identify reasonable locations for an additional 20 gigawatts given greater power densities, and also the ability to go to greater ocean depths.

The Energy Commission really should have done this kind of analysis itself to inform its AB 525 planning goals, but thankfully we do now have these critical studies which support a planning goal of 50 gigawatts, at least as part of a range that can be further considered in the rest of the AB 525 process, as well as the SB 100 study process. To adopt a 2045 planning goal of even 20 gigawatts is to say that we can only achieve in the next 23 years what China largely installed just last year. Clearly that's not the maximum feasible planning figure for 2045 that AB 525 called for, and we urge the Commission to include 50 gigawatts in its final report. Thank you.

MS. MURIMI: Thank you.

Next we have Mark. Please state and spell your name, give your affiliation if any. You may begin your
comments. Please unmute on your end.

MR. MULLNER: Can you hear me?

MS. MURIMI: Yes, we can.

MR. MULLNER: Can you hear me?

MS. MURIMI: Yes, we can.

MR. MULLNER: My name is Mark Mullner, M-U-L-N-E-R. I’m calling on behalf of the California State Building Trades. We are in full support of this project. We've been training and working to meet all the needs for the just transition. And we are 100 percent behind the 5 and 30 and 20 and 40. And we know we can meet any needs that you need in the skilled and trained workforce. Thank you.

MS. MURIMI: Thank you.

Next we have Manley McNinch. Please state and spell your name, give your affiliation if any. You may begin.


To start out with we are in 100 percent support of the project. We'd like to see as much offshore wind being put in and produced as we possibly can get.

We fully support a much higher threshold. We'd
like at a minimum to be able to replace the energy that we're going to be losing from Diablo Canyon. Recently they're talking about keeping the canyon open longer to give the offshore wind a chance to pop, be able to get up and start supporting the needs of this state. And so Diablo Canyon, we're going to be losing around 18 gigs, so we definitely need to set our target higher for 18.

According to diablo's website they lose -- they turn out 18 gigawatts a year and that we need to set the goals for 2030 at 18 or higher.

You need to make sure that all the work is done local, local hire much as possible. On the local hire some of it's going to have skilled requirements that bring people in from out of the area, but we need to make sure all employees are being paid on a prevailing wage basis, not just the locals because it would make it where the contractors can’t compete fairly.

We also, in addition -- local hires, we need to make assurances to local communities that we're going to replace these jobs that will be lost in the general area and are going to be replaced with a skilled and trained workforce.

These projects fall in -- a lot of the projects are going to be seeking -- a lot of developers will be seeking tax credits. We'd like to make sure these tax
credits directly bring any project that’s using a tax credit into the prevailing wage parameters and definitions. And if they (indiscernible) some of the laws that are out there, they get used on tax credits. And because it's a tax credit being paid back, they don't have to put them under prevailing wage. We need to make sure that going into the start of these projects that that is not the case.

Thank you for your time.

MS. MURIMI: Thank you.

Next we have Jesse Greer. Apologies if I've misstated your name. Go ahead and state and spell your name, give your affiliation if any. You may begin your comments.

MR. GREER: Hi, can you hear me?

MS. MURIMI: Yes, we can.

MR. GREER: Oh, thank you. My name is Jesse Greer, J-E-S-S-E, Greer, G-R-E-E-R. And I am with the (indiscernible) --

(Audio cutting in and out).

MS. MURIMI: Apologies, Jesse, we are having trouble hearing you.

MR. GREER: Can you hear me now?

MS. MURIMI: Can you speak a little louder?

MS. MURIMI: Yes.

MR. GREER: Okay. So sorry about that. Did you
get my name and everything and how to spell it?

MS. MURIMI: If you can start over again.

MR. GREER: Okay sorry about that. So it’s

Jesse, J-E-S-S-E, Greer, G-R-E-E-R. And I am with the
Operating Engineers District 80. And I support the 5

gigawatts by 2030 and 20 gigawatts by 2040. These jobs in
the offshore wind industry will be a pathway to the middle
class for thousands of workers. And (indiscernible) --

CHAIR HOCHSCHILD: Jesse, we lost you there.

Should we -- Dorothy, do you want to move on to
the next, and maybe Jesse could patch back in on a

different line?

MS. MURIMI: Yes. Let's move on to Jim Jacobs.

Go ahead and state and spell your name, give your

affiliation if any, and you may begin your comment.

MR. JACOBS: Good afternoon, my name is Jim
Jacobs last name is J-A-C-O-B-S. I am with the Operating
Engineers as well. But speaking as a fifth-generation
Californian I am super-excited about the prospect of
developing offshore wind power. I 100 percent support it.
I absolutely support the 5 by 2030 and the 20 by 2040 plan.

California, I mean come on, we lead the nation.

So I'm really excited about the prospect of this. And I'm
also excited about the prospect of green jobs, green
energy, and the ability to work some Californians on this
project. Obviously, I am a construction person so that part of it is exciting to me as well.

I also have to give you guys a comment, you have mastered the Zoom meeting. I’ve never seen one done like this and I have to say I’m very impressed with how you ran today’s meeting. It’s the first one I’ve been involved in. I’m going to be involved more often.

And I’d like to thank you for your time and your hard work to all the Commission for allowing me to make a comment.

MS. MURIMI: Thank you, Jim.

Next we have V. John White. Go ahead and state and spell your name, give your affiliation if any. You may begin your comments.

MR. WHITE: Thank you, my name is V. John White, W-H-I-T-E. I am Director of the Center for Energy Efficiency and Renewable Technologies.

I want to thank the Commissioners and the staff for a particularly effective presentation and for all the time that you all have spent. As Elizabeth’s narrative reflected it really has been the CEC pushing forward and laying the foundation for where we are today, so this is a very important success for this agency.

I very much agree with Dan Jacobson and Nancy Rader about the value and importance of offshore wind to
California. As a balancing resource for our portfolio it is hugely important, both for reliability and as Dan said to help us lower costs. The price of natural gas is not going down, it's likely headed up and will likely stay there, so it costs us a lot. Clean energy is cheaper, offshore wind is particularly advantageous because of how it fits into the needs that we have.

The other aspect, CEERT was involved many years ago in the Tehachapi Study Group, which laid the foundation for accessing the wind resource in the Tehachapi area. But, as with offshore wind, transmission was the barrier and we had to build the transmission in advance of building the projects. And we’re going to have to do something similar for offshore wind.

And in the case of Humboldt, it's likely we're going to need an undersea cable to get the power down to the load-serving load entities. And the scale of that transmission is going to matter, so the bigger that we can set our goal at 20,000 in 2045 or above, it will help us drive the infrastructure needed to support this large industry. So we have port investments that are going to be needed.

I mean, as the labor folks have said, the workforce opportunities are enormous, the workforce training needs. So between transmission and workforce
training, having in mind a large goal will help advance and accelerate the planning and help us get this done in a timely fashion.

So again, I commend the Commission for its leadership and the staff for its fine work and look forward to having a leadership goal be adopted and consistent with AB 525. Thank you.

MS. MURIMI: Thank you.

And next we have Emily McCabe. Go ahead and state and spell your name, give your affiliation if any. You may begin your comments.

MS. MCCABE: My name is Emily McCabe, E-M-I-L-Y M-C-C-A-B-E. I'm a fourth-year student at UC Berkeley studying Society and the Environment. And I'm here to underscore the urgency of being bold in your plan for offshore wind development.

I grew up in Chico, Northern California, and each year it seems like the fire season was growing longer. In 2018 when I was a senior in high school, my community experienced extreme devastation. A campfire burned down an entire town 15 minutes away from my home. Four years later the community is still recovering, but will never be the same. This new normal of extreme wildfires is a result of climate change.

Last semester, I wrote a research paper that
explored the link between greenhouse gas emissions and wildfires. I discovered that there's a colloquial saying in the scientific community, “Hotter and drier equals more fire.” The scientific consensus is that climate change is driving increasing frequency and severity of wildfires in our state. Communities throughout California have already experienced the climate disaster that is wildfires, from Redding in Northern California to Montecito and SoCal. It's happening today in Yosemite National Park.

This is all to say that climate change is not far off in the future it's already here. It's not the time to hold back. We need to transition to renewable energy, including offshore wind, to prevent further warming of our planet and increasing climate disasters.

I urge you to be ambitious in your planning for offshore wind in California the Commission should plan for 5 gigawatts of offshore wind power by 2030 and 20 gigawatts by 2045. It is absolutely necessary to go big on offshore wind. Our state needs to transition to renewable energy as soon as possible. We're already seeing the consequences of what happens when we wait.

Thank you for your thoughtful work on this issue and for allowing public participation in the process.

MS. MURIMI: Thank you.

Next we have Mandy Sackett. Go ahead and state
and spell your name, give your affiliation if any. You may begin your comments.


At Surfrider, our mission is to protect our ocean waves and beaches for all people and we represent thousands of ocean and coastal recreational users across the state. We appreciate and commend the Energy staff for bringing their work forth in this plan that will help the state transition off fossil fuels. And by doing so may help avoid the most severe effects of the climate crisis looming over our coasts and planet.

Surfrider appreciates the realistic targets and goals set forth in the draft plan. An overly ambitious target could create future conflicts with existing environmental laws as federal and state agencies apply NEPA and the California Coastal Act and others during the project review and licensing process, so this is why Surfrider supported AB 525 last session. As a balanced and thoughtful approach, an incremental approach allows us to develop the sector in a responsible way. We can apply new information and avoid or mitigate impacts.
AB 525 details 12 important considerations for the definition of “feasibility.” We’re happy those are included in the draft. We urge that balanced approach to remain in the final draft and we particularly support Priority 5 which is what is now included as Priority 5, to protect coastal resources as an important part of this.

And it's important to set realistic goals, not only considering technical feasibility but also to ensure that our coastal communities, our environment, marine life, and recreational impacts are all minimized.

More information is needed, especially for large-scale offshore wind development and its potential impacts on ground swells, on ocean upwelling, currents, tides, marine life, migration corridors, and many other important details that other recent studies, like the Berkeley report, didn't necessarily consider.

And so it's tempting to champion any large-scale renewable energy at any cost, given the urgency with which we must address the climate crisis. We urge you as regulators to ensure that our path forward is carefully considered. We must learn from the mistakes of the past and carefully consider all of our energy infrastructure, moving forward. We don't want to attempt to solve one biodiversity environmental crisis by creating another, so just urge you to be moderate as the original draft.
intended. Thank you.

MS. MURIMI: Thank you.

Next we have Mandy -- no, Laura Deehan, apologies. Go ahead and state and spell your name, give your affiliation if any. You may begin your comment.

MS. DEEHAN: Thank you. Thank you, Chair Hochschild and Commissioners. My name is Laura Deehan, last name is spelled D-E-E-H-A-N. I’m the State Director for Environment California. We're a statewide environmental advocacy organization that stands up for clean air, clean water, protecting open spaces, wildlife, and a livable planet. And we're also one of the founding members of the Offshore Wind Now Coalition. And today I’m speaking up in support of our state going big on offshore wind.

California has been a leader on rooftop solar deployments when we committed to 100 percent clean energy with the passage of SB 100, with clean cars, and so much more. And we've accomplished this much because of the visionary leadership and ambitious goal-setting that allowed regulators, leaders in our state to have this guide star to help direct strategic planning and to help coordinate stakeholder engagement.

And we can do that, once again, right now with offshore wind. Offshore wind offers so much incredible
promise for our state as we've heard today from so many studies, such as the NREL report that shows that there's the capacity for over 200 gigawatts of energy that's technically possible off the California coast. And we have a huge opportunity to tap into this untapped resource with all of the cutting-edge, technological innovations. And we can use that to restore the balance of nature by using clean, renewable energy instead of oil and gas to power our lives.

And all the research is showing that is absolutely possible to do this while protecting wildlife and empowering California communities. And that's why we’ve now counted I think over 1,400 people have submitted comments to your Commission urging California to go big on offshore wind with goals of at least 5 gigawatts by 2030 and 20 gigawatts by 2045, which is eminently reasonable as well as being ambitious, considering the enormous capacity potential.

And the Offshore Wind Now Coalition, made up of labor groups, environmental groups, environmental justice groups, local elected officials, business groups, energy groups, including also the Schwarzenegger Institute are standing together in support of ambitious goal-setting now to make sure that California has a clean, renewable and resilient energy future. So thank you so much for your
work in this. And let’s go big on offshore wind.

MS. MURIMI: Thank you.

Next we have Claire Warshaw. Go ahead and state and spell your name give you affiliation, if any. You may begin.

MS. WARSHAW: Hi, my name is Claire Warshaw. I’m a member of the public and I didn't prepare to talk about offshore wind, but I do think about it. And I know the Energy Commission has been supportive of offshore wind.

The one thing I think about is the cables that these turbines will have. And hopefully there's a whale migration plan is going in place, somehow guiding things not to run into those things.

My comment is about other items on the agenda, it's kind of a mixed comment. The first thing would be with the appliance review for Agenda Items 2 and 3. I would ask the Commission to start, if they could, looking for spyware such as cameras and audio that might end up in these products that people buy. And if there is that potential to ask manufacturers to have a disclosure of that, because I do think privacy invasions have been not really talked about much, but I do think they're in many of our homes and I wish that they would be disclosed.

The next thing is for the Item Agenda 12 with Chair Hochschild had asked about the two fuel hoses from
the charging to the Volvo trucks, or whatever trucks might use those, electric trucks. Maybe they could design trucks so that they have two ports, a two-battery system so they could charge faster.

And then the bulk of my comment is about wave energy, and I have mentioned this before, but there is a company I’ve been noticing a lot on LinkedIn called Eco Wave Power. It has a female lead from I think she's Israeli, although she has combined her company with other countries so I'm not certain on that. And I would ask the Commission to possibly invite her team, or even virtually to discuss her product, because it does look successful from the different posts I’ve seen on LinkedIn.

I attended a webinar on June 30th from the United Nations, like a side event, and it featured AltaSea, which is part of, I guess the Long Beach Port of Los Angeles. And her system is apparently going to go in there for a pilot project. And since she is from a different country and she is a female leader, I think it’s especially important to try and help her be successful, because the project that she's getting involved with -- I'm not certain is that clear as to what kind of generation waves, wave generation is. It's very different from offshore wind, I don't think people should compare it at all.

Wave generation like hers could potentially go
into areas like along the piers of San Francisco and on the land edges, marina areas, and things like that. So I’m asking the Commission to maybe invite her to discuss and see what policies the state could put in place to help her. Thank you.

MS. MURIMI: Thank you for your comment.

And next we have Adam Stern. Go ahead and state and spell your name, give your affiliation if any. You may begin your comment.

MR. STERN: Thank you. I'm Adam Stern, that's S-T-E-R-N, Executive Director of Offshore Wind California, a trade group that represents the offshore wind industry.

We want to thank the Commissioners and staff for their ongoing work to finalize the Commission's report on the state's AB 525 offshore wind planning goals. And special thank-yous to Chair Hochschild and Vice Chair Gunda for spending time with us recently.

As an industry we're continuing to encourage the Commission to approve planning goals of 5 gigawatts by 2030 and at least 20 gigawatts by 2045. We believe these goals are well supported by the latest research and would fully take advantage of the many benefits that economies of scale can bring Californians from responsibly developing offshore wind.

Here are several key points to consider. First,
what the Commission is being asked to set per AB 525 are planning goals not mandates. If we want to go big, we need to plan big.

Ambitious planning goals are essential to appropriately size and scale the other key elements necessary to deploy offshore wind, including transmission, port infrastructure, workforce development, and a sustainable supply chain.

Setting goals below the state's ultimate need for offshore wind risks significant missed opportunities to right-size planning, program, and investments that will help to deliver the full benefits of this new industry.

Second, as has been discussed in today's hearing new data and analysis presented by Walt Musial at NREL at the CEC’s June 27th workshop, and restated in today's meeting, shows that 5 gigawatts by 2030 and at least 20 gigawatts by 2045 are goals that are very achievable when factoring in the industry's most likely power density scenarios. Doing the math with NREL’s new data shows these goals can be reached at the designated wind energy areas at Morro Bay and Humboldt and the other wind energy or other wind areas that are being studied for future offshore sea space planning with BOEM, the CEC and other state agencies.

Third, it's important to emphasize the industry can deploy the first 5 gigawatts by 2030 within existing
leased areas and without need for additional sea space. That's a key point to consider as the Commission strives to balance sea space user needs for the next 15 gigawatts or more to reach the 20 gigawatt or more by 2045, there's plenty of time and sea space to consider for additional offshore wind areas.

Finally, industry trends and data all point to increased U.S. and global reliance on offshore wind and growing benefits of offshore wind as part of a diverse renewables portfolio to help California meet its SB 100 clean power and climate objectives. Ambitious planning goals will send an important signal to the industry and other agencies that California is committed to moving forward as a leader on offshore wind. Thank you very much.

MS. MURIMI: Thank you next we have Kelly Boyd. Please state and spell your name, give your affiliation if any. You may begin.


I am here today to thank you, the Commission, again and thank Elizabeth Huber and the staff that was a -- the update report, everything points and trends in the right direction here. Especially based on the new studies that have provided even more information about both the wind, value of the wind resource and the technological
developments companies like ours have made.

More than that California, as has been expressed throughout the day here and over the past few years, has a reliability and climate crisis colliding. Offshore wind is part of the balanced portfolio that's going to most efficiently, most cost-effectively, and in a most climate-focused fashion address that situation.

This is a key resource. We believe the 5 gigawatts by 2030 goal is more than reasonable. We have to set a high goal to achieve a high goal, have to develop infrastructure transmission, etcetera.

As my colleague from CEERT, V. John White stated earlier we've done this before, we've planned for transmission and other attributes to bring in resources most efficiently and cost-effectively. We need to do that for offshore wind and absolutely a 20-gigawatt goal by 2040, 2045 is more than achievable and is significantly less than the footprint that has been indicated is feasible in these studies.

As technologists we're improving every day, we're improving on costs, on efficiency, deliverability scale, all of those things are going to be huge for California. And the sooner we establish goals and get moving and start developing the right footprint here regulatorily everything that we're doing for compatible uses in the ocean as well,
the sooner we'll be able to deliver this resource and help address some of the pressing issues, including our wildfire and drought problems in the state that are ongoing.

With that, I want to thank you very much and let's get moving on offshore wind.

MS. MURIMI: Thank you.

Next we have Kate Kelly. Please state and spell your name, give your affiliation if any. You may begin.

MS. KELLY: Good afternoon, Chair and Commissioners. I’m Kate Kelly, K-A-T-E K-E-L-L-Y, and I’m here on behalf of Defenders of Wildlife speaking on Item 7, the draft offshore wind report.

Defenders supports environmentally responsible offshore wind development that balances renewable energy generation, with the protection of wildlife and ecosystems. Defenders worked with the state, industry, and stakeholders on the passage of AB 525.

We appreciate the Commissioner Vaccaro and her staff’s extensive efforts are developing the draft offshore wind report and the planning goals that was released in May. We believe the planning goals in the May draft report are consistent with the provisions of AB 525 and meet the standards for maximum feasibility under 525. The word “feasible” is critical here. It's important to consider that the legislation did not use the word “possible,” nor
did the legislation insert the word “technically” before “feasible.”

In developing the May draft report, the CEC team correctly and reasonably looked at its own regulations to define what is feasible. It’s something that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. In this case the factors that influence what is feasible come from AB 525 itself as part of the 12 planning criteria and the 5 criteria that were identified as being key to the feasibility.

Importantly, it looks at the coastal resources, fisheries, Native American Indigenous peoples, National Defense, and strategies for addressing those impacts. The NREL and UC Berkeley phase did not factor in environmental or social factors, as required by AB 525. So setting a planning goal based on just technical criteria that ignores the 12 factors in 525 as not setting a peaceful offshore wind goal and would not be consistent with the letter or intent of AB 525.

The planning goals and the May draft report meet the standards for maximum feasibility under AB 525, and higher goals should not and cannot be considered until they're supported by the additional analysis from the
required, but yet to be completed, sea space analysis strategic plan and permitting roadmap.

Yes, investments in offshore wind seek certainty, thoughtful feasibility analysis and planning that considers the 12 factors, particularly environmental and social factors as we've learned with renewable energy development in other places, and particularly the desert, brings certainty.

Chasing higher goals based on states that don't include the full consideration of these factors as required by 525 will only delay meeting our renewable energy goals and undermine a fledgling industry.

Thank you for considering our comments. We look forward to continue working with the Commissioners, agency staff, and stakeholders to identify appropriate location, strategic approaches, and the permitting roadmap to achieve responsible offshore wind development. Thank you for your time today.

MS. MURIMI: Thank you.

Next we have Sarah Xu followed by Michael Ginter.

Sarah, you can please state and spell your name, give your affiliation if any. You may begin your comments.

MS. XU: Good afternoon, my name is Sarah Xu, S-A-R-A-H X-for-X-Ray U-as-in-Uniform. Thank you so much again for your time and evaluation of the subject and the
multiple workshops, public workshops.

Brightline is in support of 5 gigawatts by 2030 goals and the 20 gigawatts by 2045 goals. Offshore wind provides a really exciting opportunity as a utility scale clean energy resource and its potential to deliver strong benefits to frontline communities, open up opportunities for workforce development to generate thousands of quality, family-sustaining jobs. And, in combination with really thoughtful policies like targeted and local hire policies offshore wind has the opportunity to support local workforce development and job creation in the communities most impacted and frontline communities.

Offshore wind is an important opportunity for the state of California and the California Energy Commission is a great place to inject more equity into this process as well. Community engagement throughout the offshore wind, goal setting, and for future reports is important as is investment and partnership with local communities to determine what the right scale and placing the development is for those places. And the California Energy Commission should incorporate community benefits as part of the economic and community impact in a strategic plan.

Furthermore, equity analysis in future AB 525 reporting is key. California Energy Commission should include explicit equity analyses and discussions throughout
strategic planning process and invest in funding structures that support leadership, a frontline black, indigenous and people of color communities, and communities that are directly impacted by offshore wind development.

Brightline, in coalition with other labor, environmental organizations, strongly supports the 5 gigawatts by 2030 and the 20 gigawatts by 2040 goals through steady progress towards greenhouse gas reduction and towards an equity-based offshore wind development process. Thank you.

MS. MURIMI: Thank you.

And next Michael Ginter followed by Julia de Lamare. Michael, please state and spell your name, give your affiliation if any. You may begin.

MR. GINTER: Okay, thank you. Good afternoon, my name is Michael Ginter, G-I-N-T-E-R. I’m a Business Representative for Operating Engineers Local Union No. 3. Local 3 represents thousands of men and women in the construction industry. We support 5 gigawatts of offshore wind power by 2030 and 20 gigawatts of offshore wind power by 2040.

These jobs in the offshore wind industry will provide good-paying union jobs with benefits, providing a pathway to the middle class. Thank you for your time and have a good day.
MS. MURIMI: Thank you.

Next we have Julia de Lamare followed by Daniel Mora. Julia, please state and spell your name, give your affiliation if any. You may begin.

MS. DE LAMARE: Hi, my name is Julia. And I'm a Clean Energy Advocate at the Natural Resources Defense Council.

NRDC strongly supports responsible offshore wind development and planning goals that get California to the economy-wide decarbonization goals, while accounting for environmental concerns.

We don't oppose updating the planning goals as long as the CEC complies with AB 525 requirements, including analysis on potential impacts on coastal resources, fisheries, Native American indigenous people, and strategies for addressing those potential impacts.

The CEC must ensure that the planning goals be based on a comprehensive, cost-effectiveness analysis that accounts for environmental, social, and local economic development considerations, meaning that the final CEC report should estimate what amount of offshore wind is on the intersection of economic potential to achieve our economy-wide decarbonization goals and physical potential to account for real-world constraints, such as environmental, social, and reliability issues.
NRDC also recommends that when applying the results of the Berkeley study to determine what level of offshore wind is part of the cost-effective solution the CEC should assess detailed results of all the scenarios to figure out what amount of offshore wind helps realize the lowest cost for California cumulatively through 2045, as well as best help attain a reliable electric grid.

Then the CEC should consider environmental impacts and make sure all 12 factors required by AB 525 are accounted for. NRDC’s previous comments offer environmental factors and management practice that is essential to consider when determining planning goals. The CEC must consider, among others, the impact on benthic habitats, seabirds, marine mammals and sea turtles, as well as the cumulative effects of offshore wind development and the onshore effects of transmission, infrastructure and other land-based infrastructure.

Finally, because environmental impacts may not be completely understood without detailed monitoring and analysis which would happen at a later stage it's also appropriate for the CEC to establish a range of offshore wind planning goals. We appreciate the opportunity to present these comments and look forward to continuing to support CEC’s work on offshore wind development. Thank you.
MS. MURIMI: Thank you.

Next we have Daniel Mora followed by phone number ending in 737. Daniel, please state and spell your name, give your affiliation if any. You may begin.

MR. MORA: Good afternoon, Chair and members. My name is Daniel Mora, M-O-R-A. I'm currently a student from the University of Southern California, where I’m a rising junior studying both economics and history.

I'm calling for the Energy Commission to set a goal of 5 gigawatts of offshore wind by 2030 and 20 gigawatts by 2045. Offshore wind is a critical part to the transition to 100 percent renewable electricity. It increases grid resiliency by providing another tremendous clean energy source that can -- that -- when the sun sets.

California has some of the highest offshore wind potential anywhere in the world. We would technically produce enough energy offshore to meet the state's current entire electricity twice over according to the National Renewable Energy Lab.

However, currently there is no offshore wind anywhere on the West Coast. This is one of the renewable resources where California is way behind the East Coast and Europe.

As we electrify cars, trucks, buses, and how we cook and eat in our homes our need for more clean,
renewable electricity will grow in the coming decades. The
development of offshore wind will allow us to move to 100
percent renewable energy faster.

We also urge the state to maintain the highest
standards for environmental review to ensure we minimize
disruption to our coastal ecosystem and marine life.

Lastly, the climate crisis necessitates bold
goal-setting now to accelerate our way out of dependence on
fossil fuels that's wrecking our ocean life, as well as all
life on earth. Thank you for your time today.

MS. MURIMI: Thank you.

Next we have phone number ending in 737, followed
by Francisca Martinez. Please unmute on your end by
pressing *9 or *6, sorry. You may begin. And please state
and spell your name.

MS. BOICE: Hi, my name is Cassandra Boice, last
name B-as in boy-O-I-C-E. So I am a student at the
University of California Merced.

So first I’d like to thank the Commission for the
opportunity to speak today. As a young person I really
appreciate that I can talk to you all today. I’m from
Sacramento and I’m currently studying environmental science
at UC Merced as a fourth-year student.

I have been studying in environmental science
since my junior year of high school. And the more I
learned, the more the more concerned I get. I remember my high school teacher, Mr. Carson, telling the class that we had 12 years to reduce carbon emissions in order to stay on track for the 2015 Paris Climate Accord. Close to six years later we're still business as usual. In the U.S. we've made progress in going green, but we're still not even close to where we need to be.

We need to move away from fossil fuels as fast as we can if we want to mitigate the worst effects of climate change. These include stronger storms, hotter summers, and more intense droughts. As we know in California, these are the ingredients for record-breaking community-destroying wildfires. If we do nothing, they’ll only continue to get larger, more severe and more deadly.

I think offshore wind is a fantastic, potential sources green energy. And it makes so much sense. We have steady western winds from the Pacific Ocean on our coast that could be used to generate a lot of steady electricity at all times of the day.

I think that 20 gigawatts by 2045 should be an easy amount to achieve, and that we just need to build the infrastructure to get us there. A great start would be achieving 5 gigawatts of offshore wind by the end of the decade. The energy is there, and we just need to harness it. Once we have that ‘30 number, I know it’ll be able to
expand and generate even more.

   Additionally, offshore wind turbines have been found to increase bio diversity in an area by providing shelter and food for fish. So scientists in Belgium and the UK, so better countries that are that have already installed offshore wind farms, found that wind turbines provide mussels with habitats to grow, which resourced sea beds and increases crab and lobster populations.

   Wind farms can also create habitats for young and juvenile fish to grow until they reach adulthood. So not only are wind farms great to the atmosphere it can also be a great sustainable resource for the fishing industry by creating sheltered nurseries for fish to reproduce.

   Please go big on offshore winds. I earnestly believe it will be one of the largest sources of energy for California and that our state can lead the way to a greener, brighter future.

   My generation, and the one seven generations after, are depending on you to make the right decision today so we can still live on a clean and green earth tomorrow. I look forward to the day when I can go to any beach in the world and look out to the ocean and see not oil rigs, but offshore wind farms. Thank you.

   MS. MURIMI: Thank you.

   Next we have Francisca Martinez. Please state
and spell your name, give your affiliation if any. You may begin your comment.

MS. MARTINEZ: Hello, my name is Franciscia Martinez. That's F-R-A-N-C-I-S-C-A, Martinez M-A-R-T-I-N-E-Z. I’m the Deputy Chief of Staff at the Schwarzenegger Institute and part of the Offshore Wind Now Coalition.

We encourage the Commission to go big on offshore wind and set a 20 gigawatt by 2045 target. We believe that offshore wind has the potential to be California’s next success story, and we need it to fight the climate crisis to meet our clean energy goals, all while creating new jobs.

I look forward to continuing working together to make this happen. And I’m here, let us know if the Schwarzenegger Institute can be helpful in any way. Thank you.

MS. MURIMI: Thank you.

Next we have Angela More. Please state and spell your name, give your affiliation if any. You may begin your comment. Sorry, that’s Angel More.

MS. MORE: Hello, thank you so much. My name is Angel More, A-N-G-E-L M-O-R-E. I’m from San Mateo County and a student at UCLA. I support setting strong megawatt targets for offshore wind, specifically using 5 gigawatts by 2030 and 20 gigawatts by 2045.
Offshore wind energy can help reduce greenhouse
gas emissions and combat climate change. Also it can
provide a reliable source of clean energy and can bring
jobs and a new industry to California. Thank you so much.

MS. MURIMI: Thank you.

Next we have User UM 998. Please state and
spell your name, give your affiliation if any. You may
begin your comment. (No audible response.) That is UM
998. Please unmute and you may begin.

MR. FERRY: Hi, this is Tim Ferry, F-E-R-R-Y. I’m the U.S Offshore Wind Editor for “Recharge.” And I
have a question actually. I hope that's okay. And my
question is --

MS. MURIMI: Yes, you may proceed.

MR. FERRY: Thank you. My question is with the
multiple bottlenecks facing the industry, particularly the
supply chain and transmission vessels, etcetera. And with
multiple analytics firms not seeing much or even any
offshore wind prior to 2030, BNEF just forecast that
California will not have any offshore wind before the end
of this decade, I'm wondering if the CEC faces a
credibility gap by over-promising and under-delivering in
this sector? And I wonder if anybody would be willing to
address that?

MS. MURIMI: Thank you for your comments. And we
can connect you with staff to answer questions. Feel free
to reach out to the Public Advisor’s Office at public
advisor@energy.ca.gov.

Next we have Christa West. Please state and
spell your name, give your affiliation if any. You may
begin your comments.

MS. WEST: Hi, my name is Christa West, last name
is W-E-S-T, first names is Christa, C-H-R-I-S-T-A. I am a
big supporter of the Energy Commission setting a goal of 5
gigawatts of offshore wind by 2030 and 20 gigawatts by
2045.

I am a community member. I have been listening
to all these comments. And while joining this meeting as a
supporter initially I’ve heard a number of wonderful points
that I had not thought of, including the jobs creation.
And the fact that we will be -- we have so much space and
all these opportunities to move towards wind.

And that I also would urge the state to maintain
the highest standards of environmental review to ensure we
minimize disruption to our coastal ecosystem and marine
life. I feel like these big goals are possible and
certainly doable. So thank you for taking the time to
listen to me. And thank you for all the work that you're
doing.

MS. MURIMI: Thank you, Christa.
Next we have Sal Flores (phonetic). Please state and spell your name, give your affiliation if any. You may begin your comments.

That's Sal Flores. Please unmute on your end, state and spell your name and give your affiliation if any. And you may begin your comments. (No audible response.)

Seeing no comments we’ll go to Doug LeMoine, apologies if I’ve misstated your name. Please state and spell your name, give your affiliation if any. You may begin your comment.

MR. LEMOINE: Hi. Good afternoon, my name is Doug LeMoine. I’m a resident of Solano County and a business rep for Labor's Union Local 324. I’m calling in today to speak in support of the offshore wind plan and the hundreds if not thousands of good-paying jobs this would create.

I personally have been a part of multiple wind farm projects over the years. In my experience the standard when it comes to environmental compliance, as well as safety, quality of construction of these turbines has been set right here in California with dozens of other successful wind farm projects completed in the past. Thank you for your time.

MS. MURIMI: Thank you.

Next we have Marybeth Benton. Please state and
spell your name, give your affiliation if any. You may
begin your comments.

MS. BENTON: Hi, good afternoon. My name is
The Nature Conservancy of California.

Thank you, Chair and Vice Chair, for the
opportunity to comment. TNC appreciates the opportunity to
have presented one of the studies featured during the
recent AB 525 goals workshop.

TNC’s forthcoming Power of Place study uses TNC’s
peer-reviewed methodology and considers reliability,
affordability, and land-based and environmental protection
constraints. It suggests 15 to 16 gigawatts of the
important energy source of offshore wind across the entire
West Coast by 2050 is optimal for high electrification
scenarios, indicating that the CEC’s preliminary draft goal
of 10 to 15 gigawatts of offshore wind by 2045 for
California specifically, is an appropriate and realistic
starting place ahead of comprehensive ocean user and
stakeholder engagement in a science lab process to
understand impacts and tradeoffs.

I should also note TNC’s study took into account
power, transportation, heating, and manufacturing sector
needs, as well as a full suite of carbon-neutral
technologies deployed across the western interconnect.
Specifically, we would encourage not raising this preliminary goal for 2045 ahead of those important processes to minimize the risks of setting too high a goal that could have later implications for the assumptions used in other state planning processes and goals: our coasts, the ocean, marine mammals, seabirds, and other species, ratepayer costs, and optimal transmission prioritization.

Thank you for your consideration of these comments and to the Chair, Vice Chair, Commissioners, and to Elizabeth Huber and CEC staff for your work and leadership on this important technology for California’s energy and climate future.

MS. MURIMI: Next we have Nikit Abhyankar. Please state and spell your name, give your affiliation if any. You may begin.

MR. ABHYANKAR: My name is Nikit Abhyankar, N-I-K-I-T A-B-H-Y-A-N-K-A-R. I’m a scientist at UC Berkeley and one of the lead authors of the UC Berkeley Offshore Wind California Report that was referred to in this hearing.

So first of all thank you so much CEC for your leadership and for all the work that CEC staff has put in, and thank you NREL for all the previous groundwork that you have led.

So I am speaking to strongly support a much
higher planning goal for 2045 for three reasons of the tune of close to 50 gigawatts, and for three main reasons.

Number one is because of the technology advancements, because of how European offshore wind developers have been kind of planning their offshore wind farms. Their offshore wind farms are getting much more denser and that's why the standard assumption of 3-megawatt-per-kilometer squared of offshore wind density really needs to be updated.

Second is the depth of offshore wind farms is not really one of the binding constraints as has been confirmed by several offshore wind developers, as well as other experts in the field. And if you remove the depth as well as the added density constraints, then the overall gross resource potential for offshore wind in California goes to as high as 1,000 to 1,500 gigawatts, so even larger. And then we are really talking about exploiting close to 50 gigawatts of that by 2045.

Second, if we only limit ourselves to say 20-25 gigawatts then it doesn't really contribute much to the resource diversity. With about 20 gigawatts of offshore wind only implies a between 10 to 15 percent or even less off total electricity generation by 2045. And that doesn't necessarily enhance the resource diversity that we desperately need, particularly when we face significant
wildfire risk. So to get to about that 25 percent, 30 percent electricity generation mark we again strongly recommend 50 gigawatts of offshore wind planning goal.

    And the third reason is several other countries, particularly in Europe, have also endorsed much higher targets. For example, UK has been planning 50 gigawatts of offshoring by 2030, Germany 70 gigawatts by 2045, and so on. So we really do not want to fall behind globally and that's why I strongly, again, want to recommend over 50 gigawatts of offshore wind planning goal by 2045.

    Thank you again, CEC, for this opportunity and all the work you have been doing.

    MS. MURIMI: Thank you.

Next we have Ethan Lester. Please state and spell your name, give your affiliation if any. You may begin your comment.

    MR. LESTER: My name is Ethan Lester, Operating Engineers of Local 3 out of Burlingame, California. I strongly support the 20 gigs of offshore wind power for 2040 and 5 gigawatts for 2030. Thank you and have a great day. You guys are doing a great job.

    MS. MURIMI: Thank you.

Next we have Kalysta Barrios, apologies if I’ve misstated your name. Please state and spell your name, give your affiliation if any. You may begin your comments.
MS. BARRIOS: Hi, my name is Kalysta Barrios, B-A-R-I-O-S and I’m a third-year college student at UC Merced studying political science. The Central Valley has some of the worst air quality in California and has already caused health issues within my family and friends, such as asthma. And so we need to completely move away from fossil fuels.

And I believe that offshore wind is a critical part of the transition to 100 percent renewable energy. California also has some the highest offshore wind potential, and we could potentially produce enough offshore wind energy to meet the state's current entire electricity use twice over. This could help stop more health issues for future generations. I support the goal of 5 gigawatts of offshore wind by 2030 and 20 gigawatts by 2045. Thank you.

MS. MURIMI: Thank you.

Next we have Jacquelyn Griffith. Please state and spell your name, give your affiliation if any. You may begin your comments.

MS. GRIFFITH: Yes Jacqueline Griffith, J-A-C-Q-U-E-L-Y-N G-R-I—F-F-I-T-H. Thank you for the chance to speak today and for all the work that you’re doing on this. I support the highest that we can do, the highest amount we can do the soonest, because we do have a lot of problems.
with climate change. And so much of the country is stymied and uses of fossil fuels keeps going up. And we know there's big problems so we need to do whatever we can, but we need to do it environmentally sensitively. So that there should be input from ocean ecosystem scientists, biologists to take care of our fish and the overall balance of any area, and onshore as well.

I want to speak primarily to how we develop this in that we don't need more super-rich people. We need to have more money in the hands of everyone. We need to have a more viable society. We need to take care of the places like the last person who was speaking of, where people are getting sick from the air quality. So we need to make sure that this is a public development. It is the public that really owns the value of looking out at the ocean and will now have windmills out there, so it should be owned by the public.

Now that means we have a tremendous California surplus. We should use that in developing it. We may need further financing. We could have bonds or financing, so that people who are getting paid for the money they're giving, have a set amount that they're getting. But the overall returns come back to the California public system, so that we can continue environmentally responsible projects to take us through to this transition to 100
percent clean energy.

And so maybe we would be able to also do some other things that are good, like to make sure that this does not increase, but rather reduces pollution in BIPOC areas, low-income areas, and super-polluted areas. We also have a lot of those really dirty, toxic areas that we're going to have to take.

Oh my, I'm almost out of time. We should look at wave energy as well. And that this not be used to offset increases in dirty energy elsewhere. Thank you very much for the chance to speak.

MS. MURIMI: Thank you for your comment.

Next we have Christian Brock, EOPA. Please state and spell your name, give your affiliation if any. You may begin.

MR. BROCK: Hi. Thank you. Yes, Christian Brock, B-R-O-C-K. I'm the CEO of the Elected Officials to Protect California. On behalf of the over 65 elected officials, state and local elected officials that have signed on to our letter calling for support and development of offshore wind capability in California we'd like to encourage the Commission to vote and support the expansion of setting higher goals in association with the development of having a goal of 20 gigawatts by 2045.

We believe that this is important and is
essential to the state having the ability to achieve this
100 percent renewable energy goals as established, so thank
you again for your time and opportunity to provide input to
the Commission.

MS. MURIMI: Thank you.

MS. MURIMI: Next, we have Nancy Kirshner-
Rodriguez. Please state and spell your name, give your
affiliation if any. You may begin.

MS. KIRSHNER-RODRIGUEZ: Thank you so much. This
is Nancy Kirshner, K-I-R-S-H-N-E -Rodriguez, R-O-D-R-I-G-U-
E-Z. I am speaking on behalf of the Business Network for
Offshore Wind. And I want to thank you today for the
opportunity. We, the Business Network for Offshore Wind,
appreciates the comprehensive overview of the offshore wind
goal-setting process, thus far, and thanks Commissioners,
the many staff, and our many stakeholder colleagues for the
expanded discussions and ongoing studies that are providing
significant critical data.

We have previously provided comments and we want
to continue to emphasize the strong, economic benefits we
believe will come to the State of California as well as
Oregon and Washington, the Pacific coast, if the planning
strives for large goals and sets the state as a global
leader in floating offshore wind.

We are a national nonprofit with over 500 member
companies, labor organizations, research universities, ports, small businesses, technology experts, and truly many visionaries; you've heard some eloquently speaking on the phone today.

We are currently working on a major NREL and now our DC project to map the supply chain nationally that is providing a path forward for many domestic businesses. And we work in all the states currently pursuing and considering offshore wind. The East Coast states have now identified 40 gigawatts of need. And the West Coast wind speeds suggest that even beyond the two wind energy areas and two study areas lie many more gigawatts of potential.

We came before the SB 100 Interagency Working Group several years ago to push for offshore wind to be included in that report and maximized. It's exciting to see where we are today. However, you've already heard that China has completed 17 gigawatts of fixed bottom offshore wind this past year and is creating a massive supply chain.

We see our European partners striving for significantly greater offshore wind, and we also know that our East Coast states are looking to floating offshore wind as well.

Our organization is proud to work with these businesses across the supply chain and workforce and labor leaders to identify opportunities to establish a strong
industry. And we urge you to plan a -- to establish a planning goal that looks beyond what NREL has already shown to be within our reach. Please go big. Thank you.

MS. MURIMI: Thank you.

Next we have Umed Paliwal. Please state and spell your name, give you your affiliation, if any, and apologies If I’ve misstated your name. You may begin.

MR. PHADKE: Hi, this is Amol Phadke and Umed Paliwal. We are making our comments together. It’s A-M-O-L, Amol, Phadke is P-as in Peter-H-A-D-K-E. Both of us are the scientists at the Goldman School of Public Policy, and we are the lead authors of the 50-Gigawatt California OSW Assessment.

We would like to make three points. First, we need to look at these goals in the context of what is required for carbon neutrality by 2045 and what is required, what is in the SB 100 goals.

Our observation is that significantly additional clean power will be required beyond what is planned in SB 100 to support the green hydrogen and the direct removal of carbon identified in the net-zero CARB scoping plan. Our estimate is that is about 100 gigawatts of PV equivalent electricity.

So one of our objectives of thinking about offshore wind is to say that we want to make sure that
there is sufficient diversity, but also sufficient clean
cold power to meet those goals. So it's not the case that we
are choosing between 50 gigawatts of offshore wind or
nothing we are choosing between what to build, whether 50
gigawatts of offshore wind or 100, 150 gigawatts of solar
PV in addition to what's being planned in the grid.

So that's one of the reasons why we think that we
really need to go big on offshore wind of the scale of 50
gigawatts in the context of the additional clean power
required.

Second, we have shown multiple times that it will
come, it will not increase electricity supply costs. And
that is based on even just the current projections of a
newer technology baseline the MID (phonetic) case.

What we have seen the repeatedly is that if
California in any region goes big, economies of scale apply
in the costs fall more rapidly. The recent auction in UK
where they auctioned off 6 gigawatts of offshore wind,
offshore wind big scheme (phonetic), they undercut the cost
of even land-based solar and wind.

One wind plan auctioned off by Orsted was given
to Orsted, which was 2,800 megawatts. So imagine the kind
of economies of scale that are being deployed in offshore
wind, so there is a potential to even further reduce costs.

And we as researchers are here to help. We are
going to publish all the underlying data in an interactive dashboard of all our scenarios in a day or two. We are willing to consider -- my colleague already told me that there is 800 gigawatts of future potential. We are willing to do the analysis to identify 50 gigawatts, which is going to lead to the lowest amount of conflict.

So we are here to help, and we are thankful for CEC’s leadership. But we really need to change what is required in the context of California climate goals and go big. Thank you.

MS. MURIMI: Thank you.

And with that, Chair, there's no more public comments. I’ll hand the mic back to you.

MS. MURIMI: Oh, sorry one more --

CHAIR HOCHSCHILD: Thank you so much to -- oh sorry, was there one more?

MS. MURIMI: -- apologies, Chair. Yes, we have Jana Ganion.

CHAIR HOCHSCHILD: Okay, yeah.

MS. MURIMI: Please state and spell your name, give you your affiliation. You may begin.

MS. GANION: Hi, there. My name is Jana Ganion and I am the Sustainability and Government Affairs Director for the Blue Lake Rancheria Tribe. I want to check my sound. Okay, great.
CHAIR HOCHSCHILD: We can hear you fine, Jana.

Yep, go ahead.

MS. MURIMI: Yes. We can hear you.

MS. GANION: Thank you. So just some quick comments. In its final offshore wind planning goal targets, the Blue Lake Rancheria Tribe encourages the CEC to balance everything it's balancing: state greenhouse gas reduction goals, regional community and developer confidence, local opportunities and impacts of regional host locations for this new industry.

And as we consider increased offshore wind planning goals it's worth noting that past state greenhouse gas reduction related goals, such as the renewable portfolio standard has been exceeded early, suggesting room for more ambitious targets.

For offshore wind, ensuring the targets are set high enough to send clear signals to regions, including tribal governments and local governments, which rely on a planning backstop to conduct local development activities against, this is crucially important. So if 5 gigawatts by 2030 and 20 or more gigawatts by 2045 helps ensure accelerated greenhouse gas reductions and supports the dedication of appropriate state, federal, tribal, and regional resources to focus on responsible equity-based offshore wind development, the tribe supports planning
goals in that range.

The tribe relies on the CEC for its thought leadership, expertise, and boldness in the face of the climate crisis. And as we all carefully consider these goals the tribe relies on the CEC staff to incorporate the new studies as well as the worsening issues with the western grid, including the clear threats from the climate crisis and the mega drought to the hydropower fleet.

Offshore wind can also be the catalyst for transmission and distribution grid upgrades which can improve reliability and provide more space for new clean energy generation in addition to offshore wind, which we have incredible support for here on the north coast.

So I’ll end by saying thanks so much for the work done to date by Commissioner Vaccaro and her team. And we look forward to the next steps here. Thanks so much.

MS. MURIMI: Thank you.

Next we have Steve Black. Please state and spell your name, give you your affiliation, if any, and you may begin your comments.

MR. BLACK: Thank you. Can you hear me all right?

MS. MURIMI: Yes, we can.

MR. BLACK: All right. Chair Hochschild thank you, and Vice Chair Gunda, Commissioners. I apologize that
I’m late to the party and not with you in person, but really appreciate your leadership and the work that the Commission and its staff have done to date on this important task.

I just want to make two points. First of all, my name is Steve Black, S-T-E-V-E B-L-A-C-K. I represent Castle Wind, an offshore wind developer based in San Francisco. We do support ambitious and achievable offshore wind goals of at least 5 gigawatts by 2030 and especially a long-term goal of at least 20 gigawatts by 2045. I endorse the comments of my colleagues.

California has a vast, untapped offshore wind resource and an urgent need to diversify its carbon-free energy supply. Offshore wind can help the state meet critical reliability, resource diversity, climate and energy goals at the least cost.

I want to emphasize two things. First, as you’ve heard many times offshore wind technology is evolving rapidly. And as the record demonstrates, our planning goals should be ambitious. We cannot limit ourselves based on today’s technology or assumptions about barriers to future development, such as water depth, anchoring systems, interconnection cables and the like.

We will thoroughly evaluate impacts to marine wildlife and habitat, seabirds, and affected coastal
communities. And that will come during the NEPA and CEQA processes before projects are permitted.

We can also do a robust sea space planning, lease conflicts analysis of sea space for future offshore wind development.

But we need to plan big to achieve our goals, both in terms of infrastructure development, transmission development, and attracting the kind of investment necessary to stand up this industry.

The second point I want to make is based on my personal experience. You know me, I am the former counselor to Secretary Salazar. We partnered very closely with Governor Schwarzenegger, Governor Brown, on standing up wind and solar in the California desert. Goals matter.

In 2005, when we passed the Energy Policy Act the Senate endorsed a 10-gigawatt goal of renewable energy on public land by 2015. We met that goal early. And if you look at every Record of Decision for every solar project permitted in the California desert it references that goal.

We were motivated to work together, state and federal agencies alike, to coordinate on the permitting processes, the environmental review necessary to permit those projects. The kind of signal the Governor and the Commission sends with these goals is extremely important and should be bold and ambitious. Thank you.
MS. MURIMI: Thank you.

And for individuals who would like to make a comment, please use the raised-hand feature. It looks like a high-five or an open palm at the bottom of your screen or device.

I see Gary George. Please state and spell your name, give your affiliation if any. You may begin your comments. That’s Garry George. Please unmute on your end and you may begin your comment. (No audible response.)

MS. MURIMI: Apologies, Garry, we can't hear you.

MR. GEORGE: Can you hear me now?

MS. MURIMI: Yes, we can Garry.

MR. GEORGE: You can? Great, sorry.

My name is Garry George. I’m the Director of the Clean Energy Initiative at National Audubon Society. And I work on offshore wind across North America, and I’m a member of the Steering Committee of the Regional Wildlife Scientific Collaborative of 11 Atlantic states, federal agencies, NGOs and industry on offshore wind.

So I want to thank Commissioner Gunda and Chair Hochschild for holding this informational session today. We really appreciate it. And we were also very, very grateful to the Commission for your leadership on offshore wind, and especially to Commissioner Vaccaro and her staff, and, of course former Commissioner Karen Douglas.
We collaborated with the industry closely in writing, and not only writing but also passing AB 525 in the legislature. We thank the CEC staff that prepared the May 6th draft report, and we support the goals that they analyzed.

We also, by the way, are very grateful and excited about the testimony here today from the next generation of clean energy advocates who care about climate change.

We are in a climate crisis that is impacting our birds and may cause the extinction of 389 North American species of birds if we can't keep warming below three degrees Celsius above pre-industrial levels. So offshore wind plays a very, very important role in meeting that goal as fast as possible.

While we appreciate the technical feasibility analysis of the NREL report, and the UC Berkeley report AB 525 requires much more than that. We do not oppose raising or lowering the goals, but we remind the Commission that AB 525 and 25991.1, Chapter 231, Page 91, that in establishing the goals for 2030 and 2045, and I quote, “The Commission shall consider all of the following, and lists 12 factors for consideration.” Number 12 is, and again I quote, “potential impacts on coastal resources, fisheries, Native American indigenous peoples, and National Defense,
and strategies for addressing those potential impacts.”

So we look forward to engaging in that analysis and we remind the Commission that is the requirement of the Statute AB 525. And we look forward to working on that. Thank you very much.

MS. MURIMI: Thank you.

Seeing no more raised hands, Chair, I’ll hand the mic back to you.

CHAIR HOCHSCHILD: Thank you so much to all the members of the public for all those comments. That's extremely helpful. And this is sort of the latest chapter in what I think has been a really robust public process we've had around this issue. So my thanks to all of you for staying on so long.

With that, I will share we are tentatively planning to take up offshore wind planning goals for adoption on August 10th at our Commission meeting pending Vice Chair Gunda’s direction, so stay tuned for more information soon.

With that let's turn now to Item 16, the Minutes of the May 11th and May 24th. My recollection is that Commissioner McAllister was not able to join us at the May 11th meeting.

COMMISSIONER McALLISTER: Correct.

CHAIR HOCHSCHILD: Is that correct, so I think --
COMMISSIONER MCALLISTER: Yeah, that's correct.

So can I abstain from May 24th?

CHAIR HOCHSCHILD: Yeah, would you? Well let's first see, do we have public comment on Item 16, Dorothy?

MS. MURIMI: Thank you, Chair.

For individuals who would like to make a comment please use the raised-hand feature, it looks like an open palm or a high-five at the bottom of your screen or advice. And for those calling in press *9 to indicate that you'd like to make a comment and *6 to unmute.

Seeing no comments, Chair, I’ll hand the mic back to you.

CHAIR HOCHSCHILD: Yeah, why don't we move these two separately?

Commissioner McAllister, would you be willing to move the May 24th Business Meeting minutes?

COMMISSIONER MCALLISTER: I’ll move the May 24th minutes.

CHAIR HOCHSCHILD: And Vice Chair Gunda, would you be willing to second that?

VICE CHAIR GUNDA: Second moving this.

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?
VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: And I vote aye as well. The May 24\textsuperscript{th} Business Meeting minutes passed unanimously 4-0.

Commissioner McAllister, can you --

COMMISSIONER MCALLISTER: I'll just abstain (indiscernible).

CHAIR HOCHSCHILD: -- abstain on this, that would be great. Thank you.

CHAIR HOCHSCHILD: So Vice Chair Gunda, would you be willing to move the May 11\textsuperscript{th} Business Meeting minutes?

VICE CHAIR GUNDA: Yeah, moving May 11\textsuperscript{th} Business Meeting minutes.

CHAIR HOCHSCHILD: Great, thank you.

Commissioner Monahan, would you second?

COMMISSIONER MONAHAN: If I can unmute. I second.

CHAIR HOCHSCHILD: Thank you.

All in favor say aye.

Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: And I vote aye as well. The
May 11th business meeting minutes passed 3-0, with Commissioner McAllister abstaining.

We’ll turn now to Item 17, Lead Commissioner or Presiding Member Reports, beginning how about with Commissioner Monahan.

COMMISSIONER MONAHAN: Sure, let get my head off the offshore wind comments.

So I took a trip actually to Denmark and Norway. Just a quick summary of that was the Denmark trip was based on energy efficiency and industrial decarbonization. And Commissioner McAllister and his office really developed this very strong relationship with the Danish Energy Agency, the DEA, which is a strange acronym for the United States. And we have an MOU with them focused on EE. And the DEA invited a CEC delegation, so it wasn't just me, but also Fritz Foo, who is Commissioner McAllister’s advisor, my advisor Mona Baddie and Energy Efficiency Division’s Tiffany Mateo.

So we attended this International EIA-sponsored Energy Efficiency Symposium as well as kind of a site visit of mostly industrial facilities, but some others as well.

And some of the topics we explored were really the critical role of energy efficiency as a bedrock strategy for resilience. And this had a lot of conversations actually at this energy efficiency conference.
with energy ministers from across the world. And they are worried about winter and what is happening in the EU with Ukraine and Russia. And viewing energy efficiency as a way they're going to survive the winter. So it was really more -- often we think of energy efficiency, no offense Commissioner McAllister, but it can be a little like ho-hum but it's not ho-hum when you're facing such a big energy crisis and concerns about the winter.

We also visited an industrial symbiosis facility that uses the waste stream -- well multiple facilities -- they use the waste stream of warranted to power or to use as an input into another. And I just thought it was so interesting and something that we hopefully could explore in California. So I wanted to talk to you Andrew about that and the role of hydrogen and other things. So it was really a fascinating, inspirational visit.

And then we went to Norway. Norway is hosting this big international Electric Vehicle Symposium. And I’ve been to many of them, and this was like the biggest and the best ever because electric transportation is really evolving so much. And I was on the main stage as a keynote speaker, together with CARB’s Sydney Vergis and we -- really it was a delight to give the California clean transportation story to the world.

And after our presentation BNEF’s Colin
McKerracher -- I don't know if I’m pronouncing his name right -- but he's BNEF’s Lead for electric vehicles and been doing it for a long time. One of the things he said that really stuck with me, he was like, “The most important regulation in the world right now are the CARB truck regulations, and because those have the potential to migrate and make a huge difference from a carbon and criteria-pollutant perspective.” And he talked about how infrastructure is really critical to that.

So some of the things that we’ve approved today, kind of fit with that whole narrative of these regulations are really important. We need to do all we can to support them, and that infrastructure is a key piece of it.

We also did a tour of zero-emission technologies at ports and marine vessels, and that was just fascinating as well, lots to learn. And if the port -- with port funding for zero-emission equipment, we may be able to apply some of those lessons learned. So it was a great trip, really inspirational.

And I came back from that, like I literally flew from that into Los Angeles. And I got awarded from the Coalition for Clean Air, one of their annual clean air quality awards, for government service. And it was really -- thank you, Vice Chair -- and it was a very just sweet and nice. I mean, I feel really touched and honored to
have gotten the award. And I got to bring my younger
daughter with me, which was very fun. And so I just really
just appreciated that honor.

So on the budget we're still waiting for
direction from the Legislature and the Governor on
transportation, hydrogen, industrial decarb, so all the
areas I’m closely tracking we're in a holding pattern.

I want to say that the Fuels and Transportation
Division is working really closely with CARB. And I’m
talking with Chair Randolph and Chair Hochschild about
charger reliability and how we can have better oversight
and improve the customer experience when it comes to the
reliability of chargers. So more to come on that, I think,
we’ll share with you all what we're learning and to how
we're thinking about improving charger reliability.

There's a lot of work the team is doing to get
the federal money. And reports that are being developed to
help get federal funding and to align what some of the
criteria in the federal government with what's happening
here in California. So we're really trying to partner as
much as we can with the federal government on lots of
different issues and make sure that $364 million comes to
us to deploy charging infrastructure. So that's it.

CHAIR HOCHSCHILD: Thank you so much,
Commissioner.
Let's go to Commissioner McAllister.

COMMISSIONER McALLISTER: Well, great. So glad that Denmark trip -- we haven't had a chance to catch up, so it was great to get that feedback. No doubt I'm sure you made a big splash. And yeah, tons of important information. The Danes really are ahead of the pack in so many areas. And they are small but mighty.

COMMISSIONER MONAHAN: Yeah. Oh, can I just ask -- I forgot to mention we talked about a new MOU that would include offshore wind. And they currently have about 3 gigawatts. They have a goal of now 10ish gigawatts by 2030 and 35 by 2050. So that was one of the areas they wanted to expand an MOU to cover that, they really want to share lessons learned on offshore wind.

COMMISSIONER McALLISTER: Great. And just they have a delegation in Palo Alto that's staffed and has experts, and they bring over delegations to California. And it's just amazing that a country that's significantly smaller than California really has dedicated some resources to partnering with us. And so I think it's great that you got to go over, and Fritz as well, and the rest of our team, Tiffany and Mona. Looking forward to keeping that going.

I don't have a long report, because I was fortunate in the last month to be able to take a little bit
of time out of the office to go on a little bit of a
vacation with my kids and actually kind of two separate
mini-vacations with my kids. And that was much needed. It
had been a while. And so I will just make a few comments.

I was able to go to VerdeXchange. And again just
that annual pilgrimage is always very fruitful. And the
L.A. area is just -- it's (indiscernible) and there's so
much going on there. And it's good to be able to plug into
the nuts and bolts on what they're doing down there and
exchange ideas and just keep those relationships vital. So
I always appreciate David Jacot and his team.

And I think all of us, I think most of us at
least were down there. And they always make us work pretty
hard to get through all the panels throughout the day,
every day, which is good. But mostly, the real value is on
relationship-building, so I really appreciated that.

Well I have to respond to your comment about EE,
Commissioner Monahan, “energy efficiency.” I have always
thought it sexy, of course. You know, the nerd patrols
always thought it's sexy.

But I think we have a great opportunity to make
it much more broadly sexy as a reliability and carbon-
reduction resource much more explicitly and directly and a
cost-mitigation resource. And I think we do that by
bringing traditional energy efficiency into the digital age
and really making it much more responsive in real time.
And we've talked about that with the transportation sector.
And I think much of many of the tools that you
and I are talking about, and all of us really on the
Commission are super-excited about, are the ones that are
going to let us sort of aggregate and automate in ways that
makes sense. And it will target our load flexibility
sources, develop them, aggregate them, and target them
where they can do the most good. And where they really
cause the least amount of disruption or just they're really
behind the scenes being a reliability resource that is
really behind the curtain. And nobody's really going to
notice, but it can add up to a very large resource.

And so I think as we look at -- somebody
commented earlier -- as we look at all these new resources
coming in with sort of traditional supply resources coming
on and moving into large-scale renewables and storage that
sort of distributed resources, and within that efficiency
and flexibility are really, I think, an area where we are
leading as a state. And then with our -- I think lead to
charge globally, for being able to develop these resources
and really show what can be done. And so I'm super-excited
about that. And this modern, digital active efficiency is
even more sexy.

The last thing I wanted to do is just acknowledge
some staff. The Efficiency Division, I’d encourage folks
to ask for briefings about any of these topics, but lots of
big items moving forward. And staff in all the offices
have just been working so hard on Load Management Standards
that are really getting pretty far down the road, gearing
up for the 2025 Building Energy Efficiency Standards,
there’s the Code update, a lot of work there.

    The Flexible Demand Appliance Standards actually
have their first staff report that is, I think really well
done. And what I would encourage folks is to have a look
at that. That's about pool pump controls. And so it's
sort of setting the stage for the next series of devices,
water-heating and the light, that will be -- that will
conform this resource that we're talking about with
flexible demand.

    And let's see, and then enforcement lots of
effort there. The Compliance Office is doing a lot of
creative thinking, lots of stakeholder engagement on how we
can improve enforcement of the building standards. And not
just enforcement in the kind of policing sense, but also
enforcement in the sense of providing tools that make
compliance just a lot easier. I guess “compliance in
enforcement” is really the term I was looking for.

    So we really want to work with stakeholders to
make compliance easy and straightforward and kind of
either. And then we’d be able to understand how the marketplace is moving. And then we would use the information that we get along the way to understand the building codes and how we can develop better code going forward.

So anyway, lots of big lifts under the hood, it’s just a lot of -- some complexity but big, big payoffs. And we’ll move those rulemakings forward, so bread and butter stuff of the Energy Commission.

And I just wanted to acknowledge all the great work by Mike Sokol and Christine Collopy and their respective teams on those items. Thank you.

CHAIR HOCHSCHILD: Thank you, Commissioner.

Let's go to Vice Chair Gunda.

VICE CHAIR GUNDA: Thank you, Chair. I'm going to set expectations, I’m going to go a little longer today. And there's a lot happening since the last business meeting. We feel like we've accomplished a number of different things we were working on. But I also was able to get COVID and ride through it, so I feel like we've done a lot as an office.

So first of all, my thanks to the entire team. I really appreciated the public comment on the offshore wind and looking forward to future conversations on that. But since the last business meeting, a couple of highlights for
our colleagues and also the broader public, so we can
continue to think about these things together.

The first thing is the energy package that the
State Strategic Reliability Reserve has passed, which was a
huge lift for a number of our agencies, along with the
Governor's Office and many, the Department of Finance,
CAISO. So many people were directly and indirectly were
involved, and all the stakeholders, to help move that
forward. So that begins now.

Now that we had the vote and then the passage of
the bill, that really means our staff now has to go into
the second phase of actually implementing some of the money
that we get through that. The CEC gets about 1.3 billion
for reliability purposes. Both of them will be worked out
through the Renewables Division.

The first element of that is about $300 million
for what is called the DSGS program, or the Demand Site
Grid Support program which is complementary to the ELRP
program, or the Emergency Load Reduction Program that PUC
administers right now. And our staff have been working
diligently in an accelerated fashion to come up with
guidelines. So I want to just congratulate Deana Corrillo
from RED along with Ashley and many number of staff that
are working behind the scenes to make this happen. So I
just want to say that is moving forward with the hope that
we could get some megawatts under the belt through that program.

And my understanding is we are going to target Monday July 25th for the public workshop to go over the guidelines for the program. And it's going to be a huge lift, it's going to be adapted. It has to provide optionality, but also kind of giving ourselves a starting point on which we can innovate from.

And then going to -- so before I close the reliability side a special, a special kudos to the CCO. Linda Barrera, Lisa, they've not only worked on this, but they worked at so many other pieces to make sure the tailor to the language was done and such, so thank you CCO.

Special thanks to David Erne, Elizabeth Huber, who have been incredible as well as Damien from the admin, so there's probably 25 people. I would love to do what Andrew, Commissioner McAllister does, go over everybody, but I'm just going to (indiscernible) write them a note. But just, at least those three absolute stars in making it happen so thank you.

So going to SB 100 real quickly, SB 100 is two-and-a-half years out now, the next report. Given the attention we got for the for the scoping plan and all the discussion there, it is extremely important to ensure there's public dialogue moving forward and envisioning
this. So we've been essentially starting the process to
development of the next report. And the first thing we're
going to do, again under the capable leadership of Liz and
Alicia, we're really trying to set up some roundtables with
different stakeholders on doing an envisioning exercise.
What would we want to get out of the next SB 100 report
outside of the statute, and the intent and the spirit of
it? So we're going to work on that, just giving a heads-
up. We would love to engage your offices on specific
elements as it pertains to transportation or buildings,
especially on-demand lights (phonetic). We would love to
have you briefed on all the things we learn, and we'll
bring it to the business meeting as much as we can.

The next part is just IEPR. I continue to be
impressed with Heather and her team and the fantastic work
and labor, obviously not surprised. They continue to
excel. They have successfully organized two IEPR workshops
in June. As Commissioner McAllister and Commissioner
Monahan participated in the hydrogen, as well as
Commissioner McAllister’s participation in the regional
workshop on energy, equity, and environmental justice, so
just a big kudos for making that happen.

Commissioner McAllister and I have both attended
the VerdeXchange in L.A. Some really good conversations
that on hydrogen perfectly fit into this broader
conversation on gas transition. I would love to kind of send out a report out to you all on what some of the key points were.

But one thing of note is when we were at the Exchange, I was especially pleased with the opportunity to meet with Akira Muto who is on the Consul General of Japan in L.A. and Hiroaki Ishizuka Chair of NEDO along with Senator Hertzberg and Chair Randolph from CARB. There's a lot of interest in partnering with California to advance both hydrogen technology solutions and other clean energy technologies between Japan and California, so it was a great conversation. And Commissioner Monahan, thank you for taking points from there and kind of advancing those conversations.

So I got to mid-point, this is where I’m going to go a little bit. And I just want to give a report out at the end just on the Salton Sea visit and the IEPR workshop. And just what an amazing four days that we had down in the Imperial Valley. I really had the opportunity to not only think about these things but really feel and empathize, hold hands, give hugs, and understanding the perspectives from the communities, right.

So, a couple of points to start with. First of all, it was great the Imperial Valley hosted a workshop. That was a really valuable conversation, overall, I
thought, great framing. But I would like to highlight a few thoughts that came out of the workshop. And then Commissioner McAllister heard this, but just for the broader staff who were not able to be there and some of the colleagues who are attending, listening in today.

So I think the first one is words matter. We all know that words matter, but the way it was framed as the keynote speaker Dr. Manuel Coster (phonetic) kind of spoke about this idea of talking about the economy, the environment, the communities versus really owning it as our economy, our energy system, our environment together. It was such a profound conversation that really moved me. And I just want to share that, the importance of really moving forward and talking about this as our energy system, our transition, our state our country, and the world. So hopefully, that's helpful.

They talked about timing matters. We know the importance of engaging continuously, regularly, and key timing was important.

And also talked about how people matter, right? I mean, like so when we think about engagement, community engagement, who are we inviting and who is representing? But also who is speaking on behalf of the state policies? Who is the best representative to speak to the communities that can build trust? And then that can speak to them with
the language that is necessary and experience that is necessary? So I just thought it was important as we move forward.

And, finally, just thinking about this point was extremely important for me going into a lot of things that we're going to do which are going to be very challenging is to recognize that there will be conflict to achieve equity, period. There will be conflict, there will be perspectives, and there will be conflict. And rather than running away from it, really embrace the conflict and lean into it to help build the trust and solve it.

I thought it was incredibly helpful for me to hear that. A lot of times it's just easier to say, "I don't want to have the conversation, it's too difficult," but it's so, so, so important. And I think I am incredibly grateful for the CEC staff who lean into conflict. And I'm really grateful for the colleagues on the dais who always lean into the conflict to really help figure things out, so just thank you. But just reinforcing some of the things we do, and some of the things we can do better.

And finally, on the Salton Sea visit, thanks to Noemi and Katrina. They arranged a beautiful trip to really meet with the communities. The Salton Sea is really a beautiful and special region of California. I felt really fortunate to have had the privilege of visiting the
area and meeting with community members and tribal members from Coachella Valley, Mecca, Thermal, the North Shore. We spent four days, which was great to really kind of have and understand the pulse of the community, begin to understand the pulse of it, and then really kind of a think with the needs. It was really eye-opening for me. It was a first-hand experience of really what inequity looks like and all that we do and how much more that needs to be done.

It was also really moving for me to meet with tribal members to better understand their spiritual connection to the land and the region. The deep wisdom in seeing the world through sacred landscapes and recognizing our environment as our kid, I thought it was so beautiful and so wise. And they had a special opportunity to really reciprocate in my own native traditions. I grew up in India and being able to respect the elders as my elders and being able to do that in the ways I understood and being welcomed by them was very, very special. So just kind of going through a few pictures. We want to go to the next slide.

This is a slide we were -- pictures -- we were trying to avoid the 112 degrees heat, waking up at 5:00 in the morning. We met with Silvia Paz with the organization, Alianza Coachella Valley, to go on a sunrise hike up the Mecca Canyon. It was really beautiful but it also just
kind of gives you that depth of the beauty, but also the
harshness of the weather down there. And how do you ensure
people have reliability and resiliency and opportunities
like most of us enjoy in the rest of the state? I want to
go to the next slide.

So this is a quick visit of with IID on thinking
through their storage projects and had a wonderful visit
with the local elected members, the office of elected
members, to think through how to advance some of the
storage projects down there. Next one.

The afternoon, after the IID next day, the IEPR
workshop we just wanted to put some pictures out there.
There was a number of our staff down there, along with a
few interns. It was so awesome to see the next generation,
both were kind of leading us, but also learning and being a
part of the conversation. It was a wonderful experience to
be down there and do it in the community. Next slide.

And here's kind of the picture of our visit with
the elders from the tribes when we went to the Salton Sea.
This is Obsidian Butte we had the opportunity to visit, the
next two pictures of that. It's just, as I mention again,
the wisdom and the importance of respecting cultures,
respecting wisdom that we might not necessarily understand
because we don't have the language for it right away, is
essential. And the cultivation that happens in those
moments where you are vulnerable with each other and learning and embracing each other's differences and really learning from each other. So I feel blessed, that's the word I come up with, to share that experience with our wonderful CEC team and the elders down there. And I wanted to share that with all of you.

And in closing I met a lady, a wonderful lady who actually reminded me of my mother. She looked very much like my mother. And she makes approximately 15K a year and was paying $200 a month in electricity bills. That is not necessarily reliable. It's deeply troubling to be in the situations, people who don't have access to water in our state, in our state where we have so many resources and wealth.

And the reason I’m sharing this is not to tell people that they are not already knowledgeable of this, but to inspire, share my gratitude for the incredible work that CEC does, and the amazing people we have here. And welcoming everybody to visit these places as much as we can, for them to know that we are here for us and for us to learn what it really means to be a Californian.

So I just wanted to share that and leave those with all of you. And thank you, Chair, for giving me a little bit of time to share those.

CHAIR HOCHSCHILD: Well thank you for those
In the interest of time I’m going to forgo my update, it's been a long, long meeting. So let's turn now to Item 18, Executive Director’s Report.

MR. BOHAN: Chair, I will follow your lead but just be very, very quick. I just wanted to leave two comments.

One, on June 30th the Assembly Select Committee on Gasoline Supply and Pricing met. They invited us to present along with a number of other presenters. And I just want to give a shout-out to our staff who prepared for it. That would be Aleecia who runs EAD, and Gordon was especially helpful, one of our experts, and Amanda who is just a tremendous boss.

And then, finally the Vice Chair already talked about the strategic reliability piece of the Budget Enterprise, one of the trailer bills. Another one involves opt-in. I’d invite everybody on the dais, or the virtual dais, if you want briefings on either or both of those staff can provide those. But our jurisdiction and our sitting has expanded substantially with the passage of the opt-in legislation. Thank you.

CHAIR HOCHSCHILD: Thank you. We’ll turn now to Item 19, Public Advisor’s Report.

MS. MURIMI: Thank you, Chair, nothing to report.
from the Public Advisor’s Office.

CHAIR HOCHSCHILD: Thank you.

We already did Item 20. So we’ll turn now to Item 21, Chief Counsel’s Report.

MS. BARRERA: Good afternoon. Nothing to report Chair, thank you.

CHAIR HOCHSCHILD: All right, we're adjourned, thank you, everybody.

MS. MURIMI: Oh, Chair, apologies, we didn't take general public comment?

MS. BARRERA: Yes, we did, Dorothy.

MS. MURIMI: Oh, we did? Okay, my apologies.

COMMISSIONER MCALLISTER: Thanks all.

VICE CHAIR GUNDA: Thank you all, peace.

(The Business Meeting adjourned at 3:44 p.m.)
CERTIFICATE OF REPORTER

I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 25th day of July, 2022.

Elise Hicks

ELISE HICKS, IAPRT CERT**2176
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I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 25th day of July, 2022.

Myra Severtson
Certified Transcriber
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