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BUSINESS MEETING
BEFORE THE
CALIFORNIA ENERGY COMMISSION

In the Matter of:  

Business Meeting

______________________________

REMOTE ACCESS WITH ZOOM

The California Energy Commission's June 9, 2021 Business Meeting will be held remotely, consistent with Executive Orders N-25-20 and N-29-20 and the recommendations from the California Department of Public Health to encourage physical distancing to slow the spread of COVID-19. The public is able to participate and observe the meeting consistent with the direction in these Executive Orders. Instructions for remote participation can be found in the notice for this meeting and as set forth in this agenda.

WEDNESDAY, JUNE 9, 2021

10:00 A.M.

Reported by:
Jacqueline Denlinger
APPEARANCES

Commissioners

David Hochschild, Chair
Karen Douglas
Siva Gunda
Andrew McAllister
Patricia Monahan

Staff Present:

*Noemi Gallardo, Public Advisor
*Kiel Pratt, Transportation Planning and Analysis Unit, Fuels and Transportation Division
*Drew Bohan, Executive Director
*Linda Barrera, Chief Counsel
Eric Veerkamp, Compliance Project Manager
Leonidas Payne, STEP Project Manager
Joseph Hughes, Air Resources Supervisor
*Kerry Willis, Staff Counsel
*Elizabeth Huber, Manager, Compliance Monitoring & Enforcement Office, Siting, Transmission and Environmental Protection Division
*Geoff Lesh, Manager STEP Engineering and Siting and Environmental Offices
*Eric Knight, STEP Engineering and Siting and Environmental Offices
*Ryan Eggers, Energy Assessments Division
*Jonathan Fong, Manager, School Stimulus Office, Renewable Energy Division
Mark Johnson, Fuels and Transportation Division
Larry Rillera, Fuels and Transportation Division
David Erne, Energy Assessments Division
Michael Ferreira, Energy Research and Development Division
Kevin Uy, Energy Research and Development Division
Reta Ortiz, Energy Research and Development Division
Anthony Ng, Research and Development Division
Ben Wender, Energy Research and Development Division

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Chris King, SVP eMobility, Siemens 3
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20. Public Advisor's Report

21. Public Comment

22. Chief Counsel's Report

a. 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:


ii. Communities for a Better Environment and Center for Biological Diversity v. Energy Resources Conservation and Development Commission, and California State Controller, (Alameda County Superior Court, Case No. RG13681262, Court of Appeal, First Appellate District, Division Four, Case No. A157299)
iii. State Energy Resources Conservation and Development Commission v. Electricore, Inc. and ZeroTruck (Sacramento County Superior Court, Case No. 34-2016-00204586-CU-BC-GDS)


v. Olson-Ecologic Testing Laboratories, LLC v. CEC. (Orange County Superior Court Case No. 30-2019-01115513-CU-BC-CJC)

vi. Interlink Products International, Inc. v. Xavier Becerra, Drew Bohan, Melissa Rae King (United States District Court for the District of New Jersey, Case No. 2:20-cv-10566)


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

Adjournment 212

Reporter's Certificate 213

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CHAIR HOCHSCHILD: Well, good morning friends and welcome to the California Energy Commission’s June business meeting.

Let’s begin with the Pledge of Allegiance.

Commissioner Gunda, could you please lead us in the pledge.

COMMISSIONER GUNDA: Great. Thank you, Chair.

(Whereupon the Pledge of Allegiance is recited.)

CHAIR HOCHSCHILD: Thank you, Commissioner. We are happy to share the news that our state is on track to reopen fully on June 15th, just around the corner. I want to encourage everyone to get vaccinated, if you’re able. The goal is to maximize that as quickly as we can, so we can protect as many of our citizens as possible. And I just got my second shot a few weeks ago and I’m very glad that I did. And I encourage everyone to do so.

The Governor’s Office has set up a website called MY Turn where you can schedule your appointments. For more information go to MYTURN.CA.GOV.

And I’d also like to share that, if you recall last year we did the very first California Clean Energy Hall of Fame Awards in December. It was a big success, recognizing the remarkable leaders on the front lines especially for our clean energy future.
We are accepting nominations now, again. And those are due by June 25th in the following categories, for a lifetime achievement, clean energy champion, and the youth game-changer awards. So, if you know somebody you think is deserving of a Clean Energy Hall of Fame Award please do submit the nomination. Noemi Gallardo, our Public Advisor, and her team are running this. And you can submit nominations for individuals and entities contributing to advance our clean energy future at the Commission webpage, in the Public Advisor’s Office.

So, today’s Business Meeting is being held remotely without a physical location for any participant consistent with Executive Orders N-25-20 and N-29-20 and the recommendations from the California Department of Public Health to encourage social distancing in order to slow the spread of COVID-19. The public may participate and/or observe the meeting, consistent with the direction of these executive orders. Instructions for remote participation can be found in the notice for this meeting as set forth on the agenda posted on the Commission’s website for this business meeting.

As of today we’ll be taking public comment through Zoom, instead of Verizon. If, however, for any reason Zoom shuts down we’ll shift to the Verizon phone line, which is 888-823-5065 and the passcode is business.
The Commission values public participation and stakeholder engagement. 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 as to each item be voted on today. Any person wishing to comment on a non-voting item, such as an information item or reports, shall reserve their comment for the general public comment portion of the meeting agenda and shall have three minutes or less total to state all remaining comments.

To provide public comment during the designated periods, please click on the raise hand icon at the bottom of your screen. If you’re on the phone, please *9 to raise your hand and *6 to unmute your line. The Public Advisor will call on you and open your line.

Before turning to the agenda items, I’m happy to share that during today’s business meeting the Commission is seeking to approve nearly $23 million in grants and loans, plus nearly $65 million funding to support entrepreneurs and the workforce. These investments will help accelerate California’s economic recovery.

And it’s just a, you know, remarkable thing.

It’s becoming a monthly thing where, you know, these
numbers 80, 90, 100 million dollars a meeting or more. I’m really proud of the whole Energy Commission staff for all the work to make these investments possible.

So, let’s move on now to Item 1, the Consent Calendar. We’re going to address Item 1B separately from the other consent items.

So, let’s begin with Items 1A, C, and D. Madam Public Advisor, do we have any public comments on Items 1A, C, and D?

MS. GALLARDO: This is Noemi Gallardo, Public Advisor. Just a quick reminder for folks. If anyone has a comment, please raise your hand. You can click on the raise hand icon or dial -- or press, excuse me, *9 to raise your hand by phone.

And I am not seeing anyone at the moment.

CHAIR HOCHSCHILD: Okay.

MS. GALLARDO: So, no public comment.

CHAIR HOCHSCHILD: Commissioner McAllister, would you be willing to move the item? And Commissioner Douglas, would you be willing to second?

COMMISSIONER MCALLISTER: Yes, I’ll move Items 1A, C, and D.

COMMISSIONER DOUGLAS: Second.

CHAIR HOCHSCHILD: Okay, all those in favor say aye.
Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: And I vote aye as well. Those items pass unanimously.

Now, let’s turn to Item 1B. Out of an abundance of caution I’m going to recuse myself from the discussion and vote of Item 1B, which proposes membership dues for CEC’s participation in the EV Strike Force. I serve on the Non-Voting Public Policy Advisory Committee to the EV Strike Force, which may present a perceived conflict of interest. There is no economic conflict. I do not accept or receive compensation or reimbursements for my service. However, to avoid any perception of bias I will step away from the dais for this item of business. I will mute, but leave my video on. I will return when the Public Advisor instructs me to do so.

And I’ll ask Commissioner Douglas to lead Item B. And I’ll now turn to Commissioner Monahan for her recusal as well.
COMMISSIONER MONAHAN: Thank you, Chair. So, I too serve on the Non-Voting Public Policy Advisory Committee to the EV Charging Infrastructure Strike Force. For the same reasons stated by the Chair, I’m going to recuse myself. I’m going to mute, but leave my video on, and I’ll return when the Public Advisor instructs me to do so.

CHAIR HOCHSCHILD: Thank you. Okay, I’m going to mute and turn it over to Commissioner Douglas at this time.

COMMISSIONER DOUGLAS: All right. Very good, is there any public comment on Item 1B?

MS. GALLARDO: This is Noemi Gallardo, Public Advisor. A reminder for folks, please raise your hand, *9 if you’re on by phone. I’m not seeing any hands, Commissioner Douglas, no public comment.

COMMISSIONER DOUGLAS: Okay, thank you. Commissioners, if you have any comments or questions please speak up. Otherwise, Commissioner Gunda would you be willing to make a motion? And Commissioner McAllister, if you’d be willing to second?

COMMISSIONER GUNDA: Yes, Commissioner Douglas, I move the Item 1B.

COMMISSIONER McALLISTER: I second.

COMMISSIONER DOUGLAS: All right, thank you. We’ll now take a vote.
Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

COMMISSIONER DOUGLAS: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

COMMISSIONER DOUGLAS: And I vote in favor as well. So, the vote count is three to zero, with two Commissioners not voting.

So, I think now Noemi is inviting the Chair and Commissioner Monahan to return.

MS. GALLARDO: That’s correct. I just messaged both of them, so we’ll wait for Commissioner Monahan to return.

COMMISSIONER DOUGLAS: Got it.

CHAIR HOCHSCHILD: Thank you so much for that coffee break. And let’s move on. Thank you, Commissioner Douglas.

Let’s turn now to Item 2, appointment of members to the Disadvantaged Communities Advisory Group.

MS. GALLARDO: All right. So, hello there Chair and Commissioners. This is Noemi Gallardo, Public Advisor. For the record, I will be presenting this item. Just a second.

So, this is Item 2, the appointments of three candidates to the Disadvantaged Communities Advisory Group, also known as the DACAG.
The next slide. The DACAG is a valuable resource to the Energy Commission and to the State of California. It is a diverse group of members who are helping democratize the energy space by applying community perspectives to the policies and technologies we’re developing. And, you know, the more voices from different regions, backgrounds, skills, experiences, et cetera that we bring to the table, the more we see more locally driven and beneficial energy solutions. The Commission is really fortunate to have this equity-centered group providing their expertise to us. I’m excited to tell you more about the three new members we’re seeking to approve today, but before that I’ll quickly review the context for these DACAG appointments.

The next slide. The DACAG was established pursuant to Senate Bill 350 and requires the Energy Commission and the California Public Utilities Commission to establish the DACAG. The DACAG’s charter says that the DACAG is comprised of 11 members, who service two-year terms. Earlier this year, three members decided not to renew their terms, which left three vacancies running from April 1, 2021 through March 31, 2023. The CPUC approved the three appointments at its June 3rd voting meeting. If approved today by the Energy Commission, the three candidates would be able to join their first DACAG monthly
meeting in July.

The next slide. Of the many applicants received, Commissioners Douglas and Gunda and CPUC Commissioners Rechtschaffen and Guzman-Aceves selected and recommend Jose Hernandez, Elena Krieger, and Curtis Silvers for appointment.

Jose Hernandez is a Community Engagement Manager at the Los Angeles Cleantech Incubator, also known as LACI. He spearheads community engagement efforts for the nation’s first Zero Emissions Delivery Zone pilot in Santa Monica, and will help deploy a California Air Resources Board Sustainable Transportation Equity Project in South Los Angeles later this year. Jose also helps recruitment efforts for LACI’s workforce development initiative titled the Advanced Prototyping Center Fellowship, where LACI partners with underrepresented residents that meet federal low- and median-income guidelines, and train them to become electric vehicle supply equipment technicians.

The next recommendation is Elena Krieger, the Director of Research at Physicians, Scientists, and Engineers for Healthy Energy, also known as PSE. Elena has worked in energy for the past seven years with a focus on how to simultaneously accelerate the transition to clean energy systems and design pathways that prioritize the public health, equity, environmental, and resilience...
benefits of this transition. She brings many years’ worth of experience conducting research and analysis of these various dimensions of California’s energy system.

Cutis Silvers is the third candidate. He’s the Executive Vice President of the Los Angeles Brotherhood Crusade and has led and worked with behavior-impact programs over several years. Some of these programs include the Transformation Climate Communities and the Los Angeles Department of Water and Power Ambassadors Program. He has firsthand knowledge and experience of the needs of the hard-to-reach population in the South Los Angeles region, including his experience leading a team that drove local energy efficiency and water conservation education and outreach.

The next slide. The extensive professional and lived experiences of these individuals focused on equity and environmental justice, combined with the geographic diversity and deep energy-related, and other expertise they represent make Jose, Elena, and Curtis excellent candidates for the DACAG.

For these reasons I, along with Commissioners Douglas and Gunda, recommend the Commission approve these three candidates to become members of the DACAG.

That concludes my presentation. I’m available for questions. And I believe Angela Islas, the current
Chair of the DACAG was going to try to join us to make comments. And also, Curtis Silvers, who is taking a break from his vacation wanted to say hello. So, I’m going to check to see if they’re on the line. Otherwise, I’m available for questions.

CHAIR HOCHSCHILD: Thank you so much, Noemi. And let me congratulate Jose, Elena and Curtis. Let’s turn to Commissioner discussion. Commissioner Douglas, would you like to begin?

MS. GALLARDO: Let me check for public comment, first.

CHAIR HOCHSCHILD: Oh, I apologize. Is there public comment on this?

MS. GALLARDO: No problem. Let me check. So, I was told Angela might try to join. Angela, if you’re there, please raise your hand. Press *9 if you’re on by phone. All right, I think I see her here.

All right, Angela, please feel free to begin.

MS. ISLAS: Hi. Good morning everybody and good morning to all Commissioners. This is Angela Islas, Chair for the Disadvantaged Communities Advisory Group. My pronouns are she/they.

I’m really excited to see, finally, our three candidates for the DACAG and absolutely am a hundred percent like behind all your backs to approve these three
candidates. And I’m really looking forward to really working with them and just kind of, you know, having a lot of their expertise amplify a lot of the priorities that we have on the DACAG, or even especially help amplify to shifting a lot of the priorities to align a lot better with your agendas that you have currently for the 2021-2022 period. And so, yeah, I definitely am really excited and, you know, I can’t wait to hear just a little bit about Curtis, and just hear him comment.

So, just wanted to express my absolute gratitude and support on this. And thank you guys so much for inviting me to public comment.

CHAIR HOCHSCHILD: Thank you so much.

Noemi, is there anyone else wishing to make a public comment?

MS. GALLARDO: Let me check again for Curtis. I don’t see any other hands raised. So, Curtis, if you’re on my phone press *9 to raise your hand. Okay, I don’t see him there. He was on vacation at the moment, so he was going to try to get away from there to make a comment. But I don’t think he was able to make it.

So, we can move forward. Chair, I don’t -- I do not see any other hands raised.

CHAIR HOCHSCHILD: Thank you. Let’s move on to Commissioner discussion. Commissioner Douglas?
COMMISSIONER DOUGLAS: Excellent. Well, thank you. And Angela, it’s so nice to hear from you and I’m glad you were able to join us today.

I’m excited to support the nomination of these three candidates for the DACAG. As Noemi mentioned, we invited applications to fill these seats and we received many applications from very many, you know, well-qualified individuals. We worked with the CPUC, Commissioner Gunda and I did, to review the applications and to select the three candidates who are recommended today.

I think that each one of them is going to bring a really unique and helpful perspective, and knowledge, and set of experiences that will help support us and the important work of the DACAG.

And so, I just wholeheartedly recommend the candidates and support them. And I’ll be happy to make a motion when the time arrives.

CHAIR HOCHSCHILD: Thank you so much, Commissioner Douglas.

Anyone else wishing to make a comment?

Commissioner Gunda?

COMMISSIONER GUNDA: Yeah, Chair, thank you. Thank you, Commissioner Douglas for your comments. I also want to just thank, echo my thanks to Chair Islas for being here and making public comment.
I really feel to have the three candidates, I think there is an incredible amount of, you know, work that we need to do and we incredibly benefit from the DACAG’s perspective on all the work we do. So, looking forward to the expertise and the passion that the three candidates bring, and very much looking forward to working with them.

I also just want to note my thanks to Noemi, our staff, as well as CPUC staff for putting in the amount of work helping go through the applications, and helping us with some of the background work that needed to be done. So, just thanks to everybody. I’m looking forward to supporting this motion.

CHAIR HOCHSCHILD: Unless there’s other comments, I’ll just share, you know, my thanks again to Noemi and her team. They’ve been spectacular on all the engagement here. And just, you know, to reiterate it is a core part of our mission as we advance all these clean energy policies, and clean transportation policies, and efficiency policies across the state to do so in a way that lifts up the communities that have been hit the hardest from pollution, and climate change, et cetera.

And so, this Committee is really at the heart of that effort and really, really happy to welcome this new talent to the DACAG.

Unless -- oh, yeah, sorry Patty, do you have a
comment? Go ahead, Commissioner Monahan.

COMMISSIONER MONAHAN: Yeah, just really quick.

Well, I wanted to say, yeah, thanks to Noemi, and the team, and to the folks at the CPUC.

And I just want to reiterate the importance of this DACAG and how we are listening to them in our decision making. With the Clean Transportation Program they were really instrumental in advocating for a focus more on zero emission transportation. The subcommittee that has focused on transportation has been really helpful.

Jose, with his expertise in some of the workforce development aspects of electric transportation is going to be really helpful.

So, just excited to have these three new candidates working at the DACAG and looking forward to supporting them.

CHAIR HOCHSCHILD: Thank you so much.

With that, I’d entertain a motion from Commissioner Douglas.

COMMISSIONER MCALLISTER: Can I --

CHAIR HOCHSCHILD: Oh, yeah, Commissioner McAllister.

COMMISSIONER MCALLISTER: -- just make a couple of comments?

Yeah, so I wanted to just highlight the
criticality of the DACAG for our decarbonization of our buildings. You know, obviously, I spend a lot of time on that. And we tend to focus, because our authority kind of aligns with new construction, you know, the Building Code, and appliance standards, and that’s kind of one of our core competencies, but we have been working on, you know, existing buildings for a good decade plus. And that is -- it’s more difficult, it’s a more difficult question. And it also is one that really to solve it, it has to begin with our under-resourced communities. And our DACAG is going to be -- is already, but it’s going to increasingly be a critical resource to help us think critically about how we are going to design programs and bring resources to really attack that problem in our under-resourced communities across the state, and upgrade our existing buildings.

And that is a broader effort than just energy. That has to do with general quality of life equity, economic justice, and lots of interlacing themes. And I think the diversity of our DACAG and its varied expertise is really going to be critical to finding solutions there, you know. And it’s going to be a real, you know, team effort across the board and across the state.

So, I’m really looking forward to further engagement with the DACAG. And thanks for the three new
members, really appreciate your service.

CHAIR HOCHSCHILD: Thank you, Commissioner.

With that, I’d entertain a motion. Commissioner Douglas, would you be willing to move the item?

COMMISSIONER DOUGLAS: Absolutely. I move approval of this item.

CHAIR HOCHSCHILD: Okay, and Commissioner Gunda would you be willing to second?

COMMISSIONER GUNDA: Fully second the item.

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

Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

Commissioner McAllister? You’re on mute there.

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

That item passes unanimously. Congratulations to our three new members of the DACAG. Welcome aboard.

Let’s move on now to Item 3, Assembly Bill 2127 Revised Staff Report.
MR. PRATT: Hello. Are my audio and video coming through?

CHAIR HOCHSCHILD: Yeah.

MR. PRATT: Great. Good morning Commissioners and everyone.

I’m Kiel Pratt. I supervise the Transportation Planning and Analysis Unit within the Energy Commission’s Fuels and Transportation Division.

This item, the Assembly Bill 2127 Revised Staff Report, is a result of over two years’ of work by the team and the division, our leadership, contractors who did the modeling work, other collaborators informing our analysis and providing data, and public stakeholders who participated in our workshops and gave feedback to help shape the report.

The next slide, please. Now, to state the bottom line up front, California needs a lot of electric vehicle chargers to support its clean transportation goals.

Currently, we have over 73,000 in public and shared-private locations. Our analysis indicates that by 2030 we will need over one million chargers to support California’s most ambitious policies for electrifying transportation.

It’s important to talk about charging infrastructure in the context of the energy system to show the benefits
transportation electrification promises. Clean Air, independence from petroleum, and the change to expand industries in California are some of the benefits of zero-emission vehicles, or ZEVs for short.

And ZEVs include vehicles fueled with hydrogen, so it’s important to make clear that this report, per the directive from the Legislature, addresses only infrastructure for plug-in electric vehicles. These include pure battery-electric and plug-in hybrids.

Electric vehicles can be valuable for California’s power system. They’re often plugged in for longer than they need to charge. That gives an opportunity to smart charge, to shape that energy, increase and decrease of power during the time the truck or car is plugged in to get the cheapest electricity. And it’s cheap in the first place during times the grid has extra capacity, such as when renewable power is abundant.

That smart charging, part of what’s called vehicle-grid integration, can really make the grid more economical to operate, cheaper for ratepayers, and more resilient. You say it’s one of the keys to unlocking a carbon-neutral future.

However, driving an EV has to be convenient for people and industries to adopt them. So, installing enough chargers at the right locations, with the right
capabilities is necessary to keep the experience convenient and achieve all these benefits.

That’s where this report comes in, and future reports like it, every two years. We need to keep a close eye on charging infrastructure and project what and where future needs are going to be, if we want massive transportation electrification.

The next slide. Over the coming years, as technology and industries evolve, what is likely to be needed?

In 2018, the Legislature passed AB 2127 and called for reports analyzing charging needs for all vehicle types, including heavy-duty and off-road, and other elements of planning, operating, and financing charging infrastructure. Then, in September 2020 an executive order from Governor Newsom expanded California’s ZEV goals and called for our reports to encompass them.

The next slide, please. We are talking about targets, plural. Our report addresses these two policy goals. The 5 million ZEVs by 2030 goal was enshrined in the 2018 legislation. And after the 2020 executive order, the California Air Resources Board analyzed what is likely needed to achieve its even more aggressive goals. They came up with 8 million ZEVs in 2030, which we take as an input for the report.
The next slide, please. We’re certainly not talking only about light-duty vehicles. This is a map of the scope of our report. The white boxes have elements called for in the legislation and the others are activities, work products, and models that went into our report and will continue to be worked on for future versions.

I want to give credit to our contractors who developed models in coordination with Energy Commission staff.

The National Renewable Energy Laboratory continued its work on EVI-Pro and created a model for long-distance road trips.

UC Davis developed a model investigating ride-hailing and its unique charging behavior.

And Lawrence Berkeley National Laboratory developed a new model projecting charging needs for medium- and heavy-duty vehicles.

We’ve also analyzed the off-road sector and will continue to in greater depth as the market develops.

And we’ll continue to coordinate with the Air Resources Board for their projections of off-road, heavy-duty, and other vehicle types based on their regulations and analysis.

The next slide. I won’t go into great detail...
here, but this spells out some of the methods and considerations for modeling charging infrastructure needs. You can see there are many variables. Charging behavior, where drivers go, the power levels of chargers, even access to charging at home which has a huge impact on when charging happens, and is difficult to pin down, and will change as more people start to drive electric cars. We’ve even worked on about a dozen scenarios showing the sensitivities to these different factors.

It’s important to understand their impact and the difficulty of projecting needs into the future as the market and technology change, and as driver behaviors and preferences evolve.

We also look at particular applications for charging, such as long-distance road trips. On this slide, the image on the left shows existing fast charging locations in California, and the right shows simulated locations in 2030 of fast charging stations to support long-distance travel for pure battery-electric vehicles.

The next slide, please. These next two slides show charts from the report illustrating the possible load on the power grid throughout the day in 2030.

Here are the light duty results for the most aggressive 2030 goals. You can see the green region for fast charging, which includes those stations I showed in
the previous slide for long-distance travel, plus additional fast chargers.

But we can see that most charging happens at home, in the yellow and red region. When that charging occurs also matters. If drivers set simple timers to charging when time-of-use rates become cheaper around midnight, we see this phenomenon on the right, which we call a timer spike, that could pose an issue for some local distribution grids.

Again, smart charging, vehicle-grid integration could move out that effect and still let the driver access the cheapest electricity.

The next slide, please. This shows the modeled charging power through the day of several medium- and heavy-duty vehicle segments. You can see these segments on the right, and the black lines indicating their modeled charging load throughout the day.

It’s worth mentioning that because of the wide variety of jobs these vehicles serve, their activities, charging behaviors, and locations are very diverse. It was challenging to get data on all of the uses of heavy-duty vehicles. And we’re thankful to collaborators who supplied important data and continue to coordinate.

The next slide. Let’s recap the charger numbers. Again, these are for public and shared-private locations,
not counting the chargers in single-family houses.

Under the most ambitious goals, it’s projected that California will need close to 1.2 million chargers for light-duty vehicles to ensure convenience for drivers and businesses. I should point out that this number has gone down since the January draft version of the report. That’s primarily due to improvements in modeling to incorporate stakeholder feedback from our workshops this year, and to better reflect anticipated market conditions.

These include more rapidly improving EVs with longer ranges and higher charging power. They won’t need to charge as frequently. And as you can guess, it’s likely that projections could shift in future versions of the report.

The takeaway is that for this continuing analysis we have, and are improving, groundbreaking quantitative tools informed by the best available information and an open public process.

The next slide. Beyond the light-duty total, we anticipate that a population of roughly 180,000 medium- and heavy-duty vehicles will need about 157,000 high-power chargers in 2030. We’ll continue to refine the modeling and seek more granular data for this sector.

And I must emphasize that transforming the heavy-duty and off-road sectors is vital to equity because of how
close some priority communities are to seaports and major
corridors for freight, and how these communities
disproportionately suffer the impacts of toxic diesel air
pollution.

The next slide. Beginning to wrap up, there’s a
lot to this report beyond charger numbers and load curves.
This slide alone can be five presentations. Remember the
scope of the report, the boxes I showed, the elements of
planning, operating, and financing charging infrastructure.
Our report goes into depth on each of these. And while it
is not the final word on any one topic, it takes an
inventory of programs, activities, and technologies that
will shape the future.

Equity. Remember my comments about the heavy-
duty sector and the impact of diesel pollution on
communities. Additionally, the Energy Commission, under
Senate Bill 1000, is analyzing the availability of chargers
for all Californians.

Vehicle-grid integration. Remember the promise
of using renewable energy more effectively and improving
grid resilience. That can really go into high gear with
bidirectional charging, the ability to discharge energy to
the grid to earn revenue, or to buildings and homes in case
of an outage, or to power a camping trip or work tools at
remote sites.
For example, the Ford F-150 Lightning will have this capability. This image from Ford shows its potential to power a house during an outage. It’s the first major vehicle ad campaign to promote bidirectional power. And this vehicle has serious energy, over 8 times the capacity of a typical home battery pack, enough to power a house for several days.

Connectors. Standardization is a key part of driver convenience and making the best use of our charging network.

Technology developments in communications. This was an issue that attracted different opinions from stakeholders on the best path forward. But what is clear, at least, is the need for grid-friendly charging on a massive scale, and a convenient experience for drivers and businesses.

and we can’t ignore that real estate, space constraints, grid connections, and other factors influence what the best solution is for any site. There are new products in this area, such as battery-supported or off-grid charging solutions.

The report takes an inventory of funding programs and shares stakeholder thought on the future of financing, and sustainable and innovative business models for charging.
These are all topics we’ll keep an eye on for future versions of the report.

The next slide, please. We ask for your approval of this inaugural Assembly Bill 2127 report.

This concludes my presentation and I’m happy to answer questions. Thank you for your attention.

CHAIR HOCHSCHILD: Thank you so much, Kiel, really helpful, great job.

Let’s go to public comment, first.

MS. GALLARDO: This is Noemi Gallardo, Public Advisor, for the record. I do see several hands raised.

So, we’ll start with Ethan Lipman. Ethan, your line is open. Reminder to please spell your name for the record and indicate if you have an affiliation. You may begin.

MR. LIPMAN: Hi everybody. Hello Commissioners Hochschild, McAllister, Monahan, everybody.

I grew up -- so, spelling my name. Ethan is E-T-H-A-N. The last name is L-I-P-M-A-N.

So, to set the table, I grew up in Silicon Valley. I’ve been aware of many standards over many years. Back in -- you know, we can go back to 1994, I’m in Cupertino. This is the headquarters of Apple Computer. We have standards from folks like USB that came to this world around 1994 and by 1996 this was in products. Before that we had something called the Apple Desktop Bus. Everybody
here on this call remembers plugging in a connector. It was a PC keyboard that couldn’t be used on a Mac. Then we had something called USB, but it took 15 years before we had the ability to take that connector and rotate it upside down, and plug it into our phone.

We do not have 15 years to fuck up this standard in the electric vehicle world. Today we have a vulcanized environment. I have worked in my past at Charge Point, at EVgo, and I am a consultant throughout the industry going forward.

We have problems here that can be resolved by strong regulation. If you go across, outside of this country, Tesla does not have the ability to sell their car with anything but a CCS2 connector in Europe. They use a different connector for the Chinese standard across the board in China.

In the United States we have a problem with regulation here and we can do better. I am very concerned to see this vulcanization. It is not okay for our parking lots in public, these are public pieces of infrastructure, to have a parking lot carved up into Tesla vehicles over here, Rivian vehicles over here, expectant mother parking over here. It has to be accessible for the entire public and standards are the way to do that.

These standards, ISO 15118, plug-in charge,
vehicle-to-grid, we’re on the right track. It’s very important California leads the world. We saw that with things like the Million Solar Roofs Initiative, which I was lucky to be part of for ten years of my career, coming out of UC Davis with a mechanical engineering degree.

When I look forward, though, we have an opportunity to make this better for the public. And what I want to ask and look forward to hearing from staff, or from the Commissioners with respect, is that I saw the older version of this report and I saw the newer version, and the language around ISO 15118 seems to be a little bit more vague. It’s very important to me, I don’t care about the companies, I care about the people. This is a gold rush and we need to get this right for the public. We need to regulate it. There’s a time for collaboration and there’s a time for competition. On these standards, we need collaboration.

CHAIR HOCHSCHILD: Thank you. Your point is very well taken. Very well taken. I just would ask let’s not use profanity in public meetings. We do have some young people at this meeting.

But your point is very well taken, thank you.

MR. LIPMAN: Thank you. And with respect, I did not want to do that and I did want to do that, and for two reasons.
CHAIR HOCHSCHILD: I understand that.

MR. LIPMAN: But I hear you and I will not do it again.

CHAIR HOCHSCHILD: Thank you. Thank you.

Who else is next, Noemi?

MS. GALLARDO: All right, we have several people with their hands raised. Second is Stephen Davis. A reminder to spell your name, indicate if you have any affiliation. Stephen, you’re line is unmuted and you may begin.

MR. DAVIS: Thank you very much, Noemi and Commissioners. Thank you for this opportunity. My name is Stephen Davis, S-T-E-P-H-E-N D-A-V-I-S. I’m the founder and CEO of Oxygen Initiative, formerly KN Grid. And have conducted several CEC-funded demonstration projects and development projects for the ISO 15118 standard.

One at UC San Diego where we had demonstrated plug-in charge over a three-year period. And one where we did a smart home study, and one where we used EV loads to integrate renewables.

So, let me stand on Ethan’s shoulders for just a second and thank him for the clarity and I’ll excuse the colorful language. I think it was expressed from the right place.

What I think we talk about so much is the how of
what we’re going to -- how we’re going to support electric
vehicle electrification -- excuse me, the what in terms of
the numbers. But it’s hard to come up with the how without
an interoperability standard. And I think the Commission
is really showing support in this study or the assessment
that was published.

We need a simple-always-wins approach to
revolution scale adoption and mass market uptake of these
vehicles, otherwise we really do risk some unpleasant
events where these loads, which I refer to as apex loads in
the home, can really bring down the house. And we saw that
in some of the reporting recently from the CEC, showing
distribution grid capacity limits already sort of in the
redline area.

So, Ethan’s point about the need for simplicity,
I boil it down to this. In the how, we need a simple,
safe, and seamless solution everywhere and every brand,
every time. We need dispatchable and flexible loads that
helps system operators integrate renewables, while at the
same time helping to maintain the customer’s needs for the
vehicle, and improve reliability of the electric system.

We need cybersecurity as a must have. And this
needs to be cheaper and simpler than refueling of
conventional vehicles.

The only way you ever get there is to envision a
plug-and-play future where customers get the Tesla experience, which is what Tesla has been delivering is why they have 74 percent market share, they get that everywhere and it’s every brand.

So, sort of dovetailing off of one of Ethan’s points, we can’t have every time be the first time, or it’s this brand you do it this way, it’s that brand you do it over there at that station. We need a common, unique, interoperability communication standard that’s going to do all of these magical things for firming the grid in the background without the consumer needing to know anything about it, or take any action.

And so, I am full-throated in my support for the ISO 15118 standard, which is a global standard. And I did that just in time.

MS. GALLARDO: Thank you, Stephen.

All right, so next up we have Bonnie. Bonnie, a reminder to please spell your name and indicate an affiliation if any. Your line is open.

MS. DATTA: Can you hear me?

MS. GALLARDO: Yes, we can.

CHAIR HOCHSCHILD: Yes, we can hear you. Go ahead.

MS. DATTA: Okay. Good morning Honorable Chair and Commissioners, thank you for the opportunity to
comment. My name is Bonnie Datta and I’m Advisor to the
Toloache Energy (phonetic), a California-based EV
infrastructure startup.

Today I’m representing a coalition of 34
companies and organizations, over 200 if we add the
individual members of CALSTART, and Advanced Energy Economy
organizations in the coalition. We (indiscernible) OEM
charger manufacturers, EVSPs, and other technology and
service providers.

While we do not agree with every detail in the AB
2127 report, and we look for more definitive directions
from the Commission, we support its adoption and its
recommendations. We commend the staff’s support for open
standards and interoperability for EV charging
infrastructure as essential elements to protect consumer
choice, promote competition, and enhance cost
effectiveness.

Open standards and interoperability improve the
consumer experience, a critical element in achieving
California’s 2035 EV adoption goals.

And the smart chargers recommended by staff need
to be incentivized to avoid potentially billions of dollars
of grid upgrades that can be relatively easily avoided
through VGI, and non wires (indiscernible).

A successful example noted in the report is OCPP,
open charge point protocol. OCPP has been almost universally adopted by charging software and hardware providers, and allows for virtual plug-and-play between technologies from different companies.

Another standard is ISO 15118, which enables plug-and-charge and other functionalities. Plug-and-charge allows EV drivers to simply plug in their chargers at public sites, and the charger will intelligently communicate on payment and charging details, without any driver intervention. Thus, significantly enhancing the consumer experience.

ISO 15118 is being widely adopted globally by the industry. Ford Mach-E and F-150 Lightning include the standard.

Lucid, Rivian, Arrival, Nikola, and Vonhaus are in our coalition, as is Mercedes, Daimler, Volvo and Lion Electric. The vast majority of charger manufacturers is provisioning it in response to market demand.

The adoption of these standards is happening voluntarily, the approach our coalition favors.

The importance and value of interoperability, including these specific standards, can be seen in Europe where EV drivers have far greater access to charging infrastructure and can more easily use the available charging.
We therefore continue to recommend that any publicly-funded charges be smart, interoperable, and be based on open standards. Advocating and recommending open standards isn’t always easy, due partly to the complexity of the subject and partly to priority business interests. We therefore commend staff on recognizing and highlighting their importance in AB 2127 report.

Thank you for your time, Commissioners.

MS. GALLARDO: Okay, thank you Bonnie.

Next up is Kristian Corby. Kristian, a reminder to spell your name, indicate your affiliation if any. Your line is open, you may begin.

MR. CORBY: Hello, thank you very much. My name is Kristian Corby. My name is spelled K-R-I-S-T-I-A-N. Corby is C-O-R-B-Y. And I’m the Deputy Executive Director at the California Electric Transportation Coalition.

So, I’d like to start off thanking the Energy Commission Fuels and Transportation staff and Commissioners. The 2127 report is very impressive and it provides great insights into the current state of charging infrastructure and the road ahead.

We commend the report’s findings that California will need 1.5 million chargers to support 8 million electric vehicles by 2030. CalETC’s own independent analysis also supports this target. And I’d like to thank
the staff for working so hard on the VGI sections and being responsive to our recommendations.

You know, we really appreciate that the report emphasizes the importance of keeping fueling costs low. As we all know, this will be critical to our transition away from fossil fuels and ensuring that all Californians can participate in electric transportation.

CalETC looks forward to continuing our work with the Energy Commission and reaching our infrastructure goals. So, thank you again.

MS. GALLARDO: Thanks Kristian.

Next is Patrick Kelly. Patrick, reminder to spell your name and indicate your affiliation. Your line is open, you may begin.

MR. KELLY: Great, thank you very much. Patrick Kelly, P-A-T-R-I-C-K K-E-L-L-Y. I am head of operations and commercialization for PowerFlex Solutions Systems. This is an EDF renewables company. We’ve deployed over 5,000 chargers throughout California through a lot of the programs, and really appreciate all of the support. And trying to support the real key components of where we need to be 100 percent renewable, full electrification and reliability. And those goals are very important to us.

And I am not going to talk about 15118. Actually, I’m just kidding. I love 15118, it’s such an
important standard. And I really appreciate Kiel and your entire team for putting together such a great report.

But I will echo a lot of the comments about being very disappointed in a watered-down version of -- with no teeth on what 15118 could mean. And California’s opportunity to be really a leader for the rest of the country. We have ten times more electric vehicles than any other state. We are the ones that are going to be setting the standards for the follow on and plug-and-charge, and the concepts of 15118. Everybody in the market really is asking -- really needs it to happen.

And I think the people that have made comments against it I consider the motivations for why. And in reality, everybody will be coming to the party when the standards are set, and said just get in line and follow along.

I think one of the great examples to compare it to is, you know, some of the Sun Speck (phonetic) standards that CEC has done a great job of getting their arms around an otherwise vulcanized environment with solar inverters. And it was a really necessary step to be taken. And now, that next step here is with the 15118 standards that we have to promote, we have to make sure that we get ahead of this.

We have two very unwilling dance partners right
now between -- and maybe three between vehicle OEMs, charger manufacturers and, you know, the utilities kind of pushing back on some of these. But in reality, I don’t think it is nearly as hard as the amount of time and oxygen that we’ve spent on battling this.

And in our company we refer to 15118 as the unicorn. And I really believe that it’s happening, I don’t want it to be imaginary anymore. I really want this to happen. Because right now the market is a bit constipated. And anybody that’s driven an electric vehicle knows how terribly painful it is to have 16 different apps in your phone just so that you can be ready to charge, and then you still end up getting frustrated and just quitting after you know, one attempt or two attempts.

If we make this standardized and just like OCPP then, you know, this vision of like plug in, pop up on your phone, it’s just going to be so much easier. Thank you.

MS. GALLARDO: Thank you, Patrick.

Next up is Chris King. Chris, reminder to spell your name and to indicate your affiliation if any. Your line is open, you may begin.

MR. KING: Thank you. Thank you, Commissioners.

I’m Chris King, that’s C-H-R-I-S K-I-N-G, SVP of eMobility with Siemens.

I’ll be brief. I do want to reiterate and
support the comments of my colleagues around open standards, and interoperability, and 15118. Specifically, I think Bonnie did a great job presenting all of that.

One thing I would like to add from our perspective as a global corporation, working around the world and seeing, particularly in Europe we’re seeing a real convergence around these standards which has resulted in a much better consumer experience than prior adoption. Much easier access to chargers and when the chargers -- when you get to the chargers actually being able to use the chargers.

And interestingly, when we look at California we see a missed -- an opportunity being missed. California could and should be a leader in this space and this interoperability standards is actually the one place, frankly in the world, that we are seeing where there is this huge debate about what the standards should be.

It’s voluntary adoption in Europe. It’s not mandatory, it’s not a government thing. It’s the market getting together, seeing the benefits, and implementing the technology. And again, we’re not seeing the debate that California’s having anywhere else. We’re seeing widespread adoption because there is huge consensus that we all want the market to move forward and EVs to be adopted, and consumers to have great experiences.
So, with that I thank you for the opportunity to comment.

MS. GALLARDO: Thanks Chris.

So, the next speaker is going to be Erick Karlen. Erick, reminder to spell your name and indicate your affiliation if any. Your line is open, you may begin.

MR. KARLEN: Yes, thank you and good morning, Commissioners. I’m Erick Karlen. It’s E-R-I-C-K K-A-R-L-E-N. And I’m the Senior Policy Market Development Advisor at Greenlots. And Greenlots, we’re a leading provider in EV charging software services and infrastructure based in Los Angeles.

We submitted comments directly in February in support of the staff report. More recently as part of a 30-organization coalition.

Greenlots is appreciative of the work of the staff and the Commission that went into this report, and it’s various findings. In particular, (indiscernible) goals of the 1.5 million shared chargers will be needed by 2030 for electric vehicles. And importantly, and I think community support for charger deployment is needed.

Greenlots also values and supports the report’s focus on charging management strategy beyond use of having its rate to better align with increasing renewable energy generation, and involving grid needs in particular, and
recognizing the need to take steps to prioritize charger
and VGI standardization to protect state investments, and
to provide a (indiscernible) of the market.

However, Greenlots disagrees with recent
revisions to the report that seem to mischaracterize the
market in the ways of stakeholder perspective. While
certainly there is a range of technologies and business
models in the electrification market, we have not seen a
genuine debate here, or globally, of the revisions
characterized regarding the need in the state to maximize
the value to (indiscernible) the state and the grid get
from network chargers, and the need to push towards VGI
communication standardization and broader improbability
when networked, which (indiscernible) chargers must be
unless their free for requirements from other state
agencies.

Stakeholders in fact are not as far apart as this
framing and these provisions portray. Indeed,
acknowledging that phone comments were filed more recently
in this docket, but our count some 200 plus organizations
have support for these maxims, including specifically for
VGI readiness for the charger via 15118. This includes a
significant number of automakers.

A relatively small number of organizations,
including some that later evolved their positioning,
expressed a different perspective and they notable seem to conflate advocacy for non-network chargers and VGI pathways to be (indiscernible), whether a reason to not also support VGI readiness in network chargers via the standard the industry has already coalesced around.

Unfortunately, the report’s revisions repeatedly cite or leverage the single set of comments and more so than any other set of comments, that feature that’s conflation of advocacy for additional business models and technologies, with reasons to not pursue (indiscernible) approaches that would ensure that the vast majority of deployed network chargers are capable of delivering VGI value.

We believe the market has spoken resoundingly into this market and tangibly for a multitude of product offerings and (indiscernible) and tenets. Maximizing grid integration and supporting EV drivers means putting in place infrastructure that supports VGI value and communications flow through multiple pathways to support competition and innovation, not just saying a single one, and definitely by artificially pitting one approach against another.

As the state prepares to support unprecedented investment in EV charging infrastructure necessary to reach state goals, and other parts of the world continue to
demonstrate leadership innovation, it’s critical that this state do the same to maximize the values of the state, the grid, and most importantly EV drivers.

Greenlots and allied organizations look forward to the Commission’s continued leadership in recognition of where the market currently is and where it must go. Thank you.

MS. GALLARDO: Thank you.

The next speaker is Oleg, and I don’t want to mispronounce your last name, Oleg. So, let’s see here, please restate your name in case I did pronounce it incorrectly, and spell it, and indication affiliation if any. Your line is now open.

MR. LOGVINOV: Good morning everyone. Not a problem at all. I know I have a challenging name. Oleg Logvinov. O-L-E-G L-O-G-V-I-N-O-V. I am CEO of IoTecha. IoTecha is a leading provider of components that enable smart charging infrastructure and services that support high quality, high reliability charging experience. IoTecha is also a member of CharIN Alliance, alliance of more than 200 organizations worldwide focused on driving operability and accessibility of charging enabled by combined charging system in 15118.

First of all, I would like to thank Commissioners and staff for doing a great job looking into VGI and big
picture of integration of vehicles with the grid. We have two very large ecosystems that have been developing largely independently over the last 100 plus years, power grid and transportation. Today, in order to create an organized future, we need to collaborate and come together.

That is not possible without strong communication and intelligence that will enable simple, easy, inexpensive charging experience to all of us consumers.

I would like to remind you that when we look back at the days when IBM PC became something that essentially got on every single desktop, it was enabled by Microsoft and Intel. Experience was similar to what was enabled by Apple, very good, very seamless experience.

But the cost and accessibility were enabled by open standards and the ability of market contenders to come to the market with competing solutions. We must achieve the same in electrified transportation in order to be able to drive mass adoption.

I like the report in many points. One point I disagree with. The point related to the debate on (indiscernible) -- there is no debate. The modern industry has worked together for the last ten plus years to achieve interoperability based on ISO 15118 standards.

Interoperability is tough. Remember early days of cell phones? How many of us experienced driving across the
lines of one service provider to another and not being able to make a phone call. We want to avoid the same experience with charging. It must interoperable. And interoperability takes many organizations, more than 200 of them, working together on a global scale, driving the economy of sale for both products and services to enable low-cost, reliable seamless experience.

When 15118 was created, the desire was to enable experience that is just as seamless as experience of making a phone call today on mobile methods. And we’re there. If you look at the number of vehicles today supporting 15118 in Europe and U.S., we’re getting to this point.

So, now California has an opportunity to actually lay the foundation to encourage use of interoperable technologies and help to achieve the goal that we have set at a federal government level to become leader in electrified transportation. And that leadership is not going to be possible without strong implementation.

Even if somebody says that there is a better standard, which there isn’t, it’s impossible to adopt a standard on the fly. It takes years and years of hard work on the interoperability and that has been done in 15118. So, let’s pay attention to that. Let’s embrace it and let’s help those who deploy to use them. Thank you.

MS. GALLARDO: Thank you, Oleg. And I appreciate
you being gracious with me on that pronunciation.

MR. LOGVINOV: No problem at all.

MS. GALLARDO: Okay, next up is, hold on I see hands, I believe it’s Jacqueline Piero. So, Jacqueline if you could please restate your name, spell it, and indicate your affiliation. Your line is open.

MS. PIERO: Hi, can you hear me okay?

MS. GALLARDO: Yes, we can.

MS. PIERO: Great. My name is Jacque Piero. I’m the Vice President of Policy for Nuvve. Was that all the information I’m supposed to give up front?

MS. GALLARDO: Yes, thank you. Feel free to begin your comments.

MS. PIERO: Thank you very much for taking comment today. We were very excited to see the AB 2127 report. It was incredibly well done. The model runs were really exciting to see. We are hoping to see V2G included in the model runs for the next version of this report. That’s the kind of forward looking analysis that we’re hoping to see from the analytical regulatory agency in the future. But this is definitely a great start for the first version of this report.

We do want to comment along the lines of a lot of the previous commenters. But in particular, when it comes to bidirectional functionalities we will be clear that
15118 does not currently support bidirectional power flow, even though it supports bidirectional communication.

That said, we have been able to actually work with IoTecha and with the school bus companies of Blue Bird and Lion to develop extensions to actually enable bidirectional power flow in advance of 15118 actually including that in the standard. And this kind of freedom has been really nice to be able to push forward with the industry while the standard is continuing to develop.

To be clear, we were able to do this because the CEC gave a Spec to the school bus companies to actually develop production models of V2G school buses. That decision launched a national race to actually put out V2G school buses. You launched an industry by making this one choice in your funding arrangements.

There are 300 Blue Bird buses with the CECS connector that will allow V2G functionality in California that have been sold already.

If you’re wondering where they are, we’re working through the existing utility regulatory structures to actually figure out how to make those useful as V2G resources, but they are out there. So, I wouldn’t under estimate the significance of this kind of standardization.

That said, we want to make sure that 15118 is considered as a potential solution, along with everyone
else, but we also think that other standards will arise from industry as we identify a need. The J3068 standard is in development. It is going to be an MDHD AC charging, three-phase bidirectional standard that will be a com standard and an associated connector.

I’m not saying that that is going to be the standard, just that we need to remain open to others while choosing a general path that we can see with 15118. Thank you.

MS. GALLARDO: Thank you.

The next speaker is Matthew Forrest. Matthew, a reminder to please spell your name and indicate your affiliation, if any. Your line is now open, you may begin.

MR. FORREST: Can you hear me?

MS. GALLARDO: Barely.

CHAIR HOCHSCHILD: We can hear you, just speak up.

MR. FORREST: All right, all right, let me try.

This is Matthew Forrest with Mercedes Benz. Thank you for the opportunity to make a comment today. I would like to say that we at Mercedes Benz would like to express our appreciation to the staff for all of the work that went into this AB 2127 report. It’s a very impressive report. In particular, we appreciate their engagement on the ISO 15118 topic and their openness to helping support
the implementation and deployment of this standard in the future.

We think this international standard will help ensure substantial value and customer satisfaction for ZEV customers in the future, which will be key to helping the state meet its ZEV adoption goals. So, thank you.

MS. GALLARDO: All right, that was the last hand I see raised. Let me do one last call. Anyone else have a public comment on this item, Number 3?

All right, Chair, I do not see any other hands, we can move forward.

CHAIR HOCHSCHILD: Thank you so much to everyone for those comments. I really appreciated the comments on standardization and some of the risks and costs that we avoid if we can get that right. And to me, before I turn it over to Commissioner Monahan, you know, I do think the goal here is to build a charging infrastructure system in our state that’s really ubiquitous, standardized, and affordable.

And I want just to highlight for everybody how extraordinary the May revise budget that the Governor has proposed is for this. So, for us at the Energy Commission it’s $2.1 billion of additional resources. We’re putting half of that into transportation electrification new infrastructure. And we really hope to see that deployed.
And also, the Governor has proposed extending for
the next decade AB 8, which is $100 million a year. And,
you know, that’s going to all of this stuff as well. And
so, we support fully the Governor’s proposals and look
forward to working with the Legislature on all this, if
that can get over the finish line.

But let’s turn it over now to Commissioner
Monahan to begin the Commissioner discussion.

COMMISSIONER MONAHAN: Thanks Chair. Well, I
want to thank Kiel. I thought he did a great job
presenting the 2127 report, and a great job just checkering
the project. He was project manager for this report and it
really was complicated with all the different consultants,
as Kiel elaborated with NREL, with UC Davis, and with my
former organization I think also Commissioner McAllister,
at Lawrence Berkeley National Laboratory.

There’s a big team of folks. I just want to
thank the team that managed this project, or that wrote the
analysis and managed all the contracts. That’s Matt
Alexander, Mel Christophemo (phonetic), Wendell Crell
(phonetic), Jeffrey Lieu, Roger Ramesh. You know, they all
worked really hard on this, as did the supervisors.
Charles was involved, Charles Smith, and Hannon of course
was involved in this project as well.

And the report really highlights, as the Chair
said that, you know, we need a big ramp up in charging infrastructure. You know, with the funding that we have available, we’re going to have about 200,000 -- we’ll try for 200,000 chargers. You know, we need a six fold increase by 2030. And, you know, that is just going to take a very close public/private partnership, and especially to make sure that this is an equitable -- that there’s equitable access to zero emission vehicle infrastructure.

You know, we know now that most of the people who buy these new cars, these new EVs, live in single-family homes and they can charge overnight in their driveway. But to reach all Californians, we need to make sure that when you live in an apartment building or a multifamily dwelling that you can also refuel your zero emission vehicle. And that’s the challenge. That is our challenge. And it is not easy.

So, you know, as the Chair said the Governor’s budget really doubles down on the infrastructure and we’re excited to support that. This 2127 report reinforces the need for deep investments.

I do want to thank all the folks that came and testified about the importance of standardization, and especially with issues around 15118. I’m guessing they’re not too sure like what is this you want to make?
So, if you’d like to talk about it further, I’m sure the team can tell you all about it. I will say that it has been extremely controversial. Many of the folks that came out today were highlighting the benefits of it in terms of this plug-in charge capability, and the fact that it is common place in the EU.

I will say, you know, there are stakeholders who disagree with that. They would include major car companies like GM, Ford, Nissan, Toyota, the California utilities like PG&E and SoCal Edison, consumer groups like Plug-In America, and charging companies like EVgo. So, this has been a very controversial issue. And, you know, we’re committed to listening to stakeholders and having a process of engagement to be able to flesh out some of the, you know, whether 15118 is something for the light-duty vehicle market we should really be promoting more actively. So, we want to have a stakeholder engagement process.

I think many of you also know that Air Resources Board passed regulations that require chargers to have the capability down the road to be able to just use a credit card to make it easy for consumers to charge their vehicles. But, you know, this idea that right now we have three different plugs, which is not so great on the light-duty vehicle market. We’re trying to avoid that in the medium- and heavy-duty vehicle space, and have some
investments to see if we can get a more standardized
approach in that arena.

But we strongly agree the more we can
standardize, the easier it is to make -- to drive down
prices and for consumers to have a very positive
experience.

But anyway, the bottom line really is this report
really demonstrates how we have to scale up. And we have
to do it smartly and we have to do it equitably. And so,
I’m very excited to support this and looking forward to
working with the team on continuing to refine the analysis
and improve it over time.

CHAIR HOCHSCHILD: Thank you, Commissioner.

Let’s go to Commissioner discussion. Any other
Commissioners wishing to make a comment? Commissioner
Gunda?

COMMISSIONER GUNDA: Oh, Commissioner McAllister,
I don’t know if you want to go first. Happy to defer.

So, yeah, I just wanted to I think note
Commissioner Monahan’s thanks to the entire team. Reports
like this are not easy, so Kiel thank you for your
wonderful presentation and the detail that you looked at.

I do have a couple of comments, I think of focus
as we think through this for the future. And I’m looking
through specifically the lens of SB 100 and kind of the
long-term electricity grid planning, and the intersection of how we think about the locationality of the chargers, and more broadly the grid reliability.

So, you know, a couple of observations I think, you know, we recently had under Commissioner McAllister’s leadership the building decarbonization efforts at a couple of workshops. And we’re beginning to see the movement in the peak load when it happens, both seasonally and on the hourly basis.

And similarly in this report, I know in some of the preliminary findings you showed, really kind of pushed that load into the early evening hours and in the late hours, you know.

So, as we think through the future of the grid and as we put it in the context of the western, more western outlook, and we think about the shaping of the imports, and the kind of doubling peaking that we might see, the seasonality, it’s really important to highlight your specific comments on load flexibility, and thinking about how do we optimize the resources to a broader kind of a grid asset, right.

So, I’m really glad that we’re looking at it and I just encourage you to think about locationality and seasonality more broadly as we continue this research.

Also, really appreciate the comments from
different commenters on the need for ensuring that we have a large number of chargers, but also kind of some way of standardizing in an (indiscernible) fashion and being a leader in this arena.

And I just want to thank Commissioner Monahan’s perspective and leadership, generally the way she approaches things in balancing the different points of view. And I just want to note that I hear the importance of that and I’m hoping that we resolve that as we move forward, as Commissioner Monahan continues to lead this effort. So, thank you everybody.

CHAIR HOCHSCHILD: Thank you.

COMMISSIONER MCALLISTER: Yeah, great. Thanks a lot. So, great job Kiel, I really appreciated that presentation, comprehensive and very just focused on the really important stuff. So, I really appreciate that and the whole team behind this report.

And I want to reiterate thanks to Commissioner Monahan for this leadership on this. Just your depth of knowledge really helps I think frame these issues in a way that’s incredibly productive.

And, you know, I guess I’m going to assume that we get this ramp up in charging structure, and kind of really focus on a comment to complement what Commissioner
Gunda just said. You know, the huge opportunity we have here is to understand how the loads are changing and where they are, so that we can help target investment in the distribution grid. You know, largely the distribution grid. I mean, really, all the way up to the whole western, you know, the western interconnect.

But I think the investment that’s going to be driven by the scale up in both transportation electrification and in building electrification it’s a challenge to kind of get our heads around, and we really need the data, and kind of good situational awareness as that unfolds and develops. But it’s a huge opportunity to get our grid optimized and really bring average cost of energy down over time.

And as we shift to, you know, a decarbonized electric future, in great measure that is -- just has so many upsides. And so, we really, at the Commission are in a position to shape that conversation and really actively pursue this optimization that Commissioner Gunda mentioned. So, I’m really excited about that.

You know, where are these loads? Because we’re going to have a lot of chargers everywhere, but I think we’re going to see where the -- you know, not all chargers are going to be used equally, and the locationality of where the energy itself, and the capacity is actually
needed is something we really need to keep an eye on. So, anyway, the VGI opportunity is just immense in that regard.

And then just implicitly we’re talking about load flexibility. So, you know, buildings and transportation, buildings as a platform perhaps. You know, I’m trying to think about, you know, sort of how we can integrate investments. When we invest in buildings, how we also complement that with the transportation piece so that just as a matter of public policy we can be smart about this.

So, and then finally just wanted to acknowledge all the comments about standardization. That’s a -- you know, we the agency that is positioned and has responsibility across many areas to look for opportunities to standardize and, you know, impose regulations. And we don’t do that lightly. So, I think the process to really listen to everybody and see what is the best path forward for California is really where we should go. And I have a lot of faith, obviously, in Commissioner Monahan’s leadership in that regard. So, process is really important here. So, it’s important everybody gets listened to.

So, again thanks to Kiel, and the team, and Commissioner Monahan.

CHAIR HOCHSCHILD: Thank you.

Commissioner Douglas, did you wish to make any comments?
COMMISSIONER DOUGLAS: No, not -- you know, maybe just to reiterate the appreciation for the presentation and the comments. And I know these are hard issues that we are working through. And I certainly support this item and thank Commissioner Monahan for her efforts here.

CHAIR HOCHSCHILD: Yeah, thank you.

I second the thanks to Commissioner Monahan, who just has brought so much depth in relationships, and stakeholder outreach to get us to this point. I know this report’s been eagerly anticipated by many stakeholders and the Legislature, and others.

I did want to ask, Commissioner Monahan, if you could kind of look out ahead just from a process perspective about how you see us tackling the standardization question? Because I think there is a lot of, you know, opportunity to avoid stranded assets and make sure customers have a better experience. It’s a very thorny thing to work through that and just would love your thoughts on how you see that unfolding.

COMMISSIONER MONAHAN: Yeah, I mean I think this is a workshop process that’s specific to this question. I mean it’s so important in terms of -- and it goes across agency aspects of this. So, the CPUC and the Air Resources Board need to be involved in that conversation, especially with CARB having the regulation on the books around using a
credit card. Which I think 15118 is plug-and-play, so you don’t actually need a credit card for this. There’s a lot of investments that the CPUC is making or that the CPUC is authorizing by the utilities. There’s just a lot of cross-agency in play here, so it has to be a cross-agency workshop conversation.

And I do envision bringing the stakeholders together, and especially I mean we want diverse interests represented. We want car companies, charging providers, we want some of the, you know, Nuvve and some of these companies that are doing really interesting things in terms of vehicle-grid integration. We want consumer voices. I’m particularly interested in Plug-In America, and Consumers Union as some of the lead consumer voices in this.

And I think we need to hear all these diverse stakeholders and also see if there’s any movement among these diverse stakeholders. As they hear what others are saying, does that change their position? And, yeah, we need a public process just to vet the positions, to evaluate the -- you know, how do we get to a point where it is extremely easy for anybody to charge their vehicle, and where there is the opportunity to be able to use vehicles either as, you know, a grid asset, but at most we’d love to be able to facilitate that through our infrastructure investments.
CHAIR HOCHSCHILD: Okay, very helpful. Well, I look forward to supporting you and working with you on solutions there.

And with that, I would entertain a motion, Commissioner Monahan, if you’d like to move the item.

COMMISSIONER MONAHAN: I move Item 3.

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

COMMISSIONER MCALLISTER: I second.

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

Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

That item passes unanimously.

Let’s turn now to Item 4, Solar Energy Generating Systems.

MS. HUBER: Good morning Chair and Commissioners. My name is Elizabeth Huber and I work in the Siting

With me today also includes from my staff, lead Compliance Project Manager John Heiser, my colleagues from staff’s Engineering, and Siting, and Environmental Offices, Geoff Lesh and Eric Knight, and Legal Counsel, Kerry Willis.

Also available this morning, representing the project owner, NextEra Energy Resources and Luz Solar Partners are Dexter Liu, Kenneth Stein, and Scott Galati.

The next slide, please. The decommissioning of this solar, thermal and natural gas-fired power plant illustrates another “cradle-to-cradle” opportunity in which a former power plant site is being repurposed to a facility using photovoltaics, PV, and battery energy storage that will help meet peak power needs and support California’s goals of a clean energy future.

The next slide, please. Located within the Mojave Desert, near the town of Kramer Junction, in unincorporated San Bernardino County, SEGS III – VII began operating in the beginning of 1989 providing 150 megawatts of electricity through a power purchase agreement from...
Southern California Edison.

The next slide, please. For more than 30 years, the SEGS III-VII units were part of nine solar farms representing one of the longest operating commercial solar facilities. The units supplied electricity to the California Independent System Operator on a merchant basis, having sold both local and system resource adequacy and bidding daily into the merchant energy markets until it ceased operations in the fall of 2019.

The next slide, please. In April of this year, the project owner submitted a Final Decommissioning Plan detailing their demolition and closure activities. They filed in compliance with their Condition of Certification, Requirement 1, in the Decommissioning section of the Final Commission Decision. In the staff analysis, it was identified that within the existing conditions of certification for SEGS III-VII remains applicable to decommissioning today.

As identified in the staff analysis, staff also reviewed the project owner’s proposed decommissioning conditions, referred to as Conditions of Decommissioning, and recommended these new decommissioning conditions for approval subject to modifications and additions, which are incorporated into the proposed order before you today.

The next slide, please. Staff also reviewed and
concluded that with the CEC’s adoption of all proposed
decommissioning conditions, the implementation of SEGS III-
VII Final Decommissioning Plan would result in no
significant adverse environmental impacts, and would comply
with all applicable laws, ordinances, regulations, and
standards.

In addition, the activities described in the
Decommissioning Plan would not impact any population,
including disadvantaged and environmental justice
communities.

Once decommissioning and demolition of certain
plant facilities and operational equipment is complete, the
project owner does intend to request a termination of its
CEC license so that they can move forward on repurposing
for both a PV facility and a battery energy storage system.
The new clean energy facility will be constructed and
operated under the jurisdiction of San Bernardino County.

The next slide, please. The decommissioning of
SEGS III-VII is a result of economic considerations,
maintenance costs and evolving California energy markets.

Staff requests your approval of SEGS III-VII
Final Decommissioning Plan, including the newly proposed
decommissioning conditions throughout the closure process.

The next slide, please. This concludes the
presentation. Thank you. We’d be happy to answer any
questions you may have for the entire team here today.

CHAIR HOCHSCHILD: Thank you. Let’s move on to
public comment.

MS. GALLARDO: This is Noemi, the Public Advisor.
A reminder again to click on the raise hand icon if you
would like to make a public comment. If you’re on by
phone, press *9 so that we can see your hand raised.
All right, we do have one hand raised, Scott
Galati. You may begin.

MR. GALATI: Thank you Commissioners. My name is
Scott Galati. I represent NextEra Energy Resources. Proud
to represent that company for quite some time.

This Decommissioning Plan is an important part of
reuse of the site, as staff went through in its
presentation. It’s important to understand that this
project has been fully contracted out and has some very
tight timelines that we’re meeting.

Staff has been very, very good in working with us
to get to decommissioning and get to be able to start work
out there as soon as possible. We were currently working
to be able to do that by Monday.

We’d like to thank members and staff that have
been particularly helpful in communicating with us, in
hearing our issues, in helping for us to draft -- go from a
draft Decommissioning Plan to a final Decommissioning Plan
very quickly. And specifically, I’d like to call Kerry Willis, Elizabeth Huber who you’ve heard from Eric Knight, and Geoff Lesh, Project Manager John Heiser, and finally Shawn Pittard, who we believe did the review over the holiday weekend.

We really appreciate that work. We’ve been working clearly with staff very hard in submitting all of our compliance plans. We received many comments back and were turning around those as quick as we can.

Again, we hope that we’ll be able to get the final notice to proceed on the first part of decommissioning early next week. We would like to just ask for your approval on this Decommissioning Plan.

And there’s one thing on a personal level I’d like to make sure that I say is I know some of the Commissioners know one of the persons on the phone has worked for NextEra Energy for a long time, and has represented all of the projects that I have worked on with them in from the Commission. He is retiring. His name is Kenneth Stein. It’s important I think for Commissioners to sometimes hear that there’s people on the other side in the private world that make these projects happen and Mr. Stein is one of them. And I’d just like to wish him a happy retirement. It’s a pleasure working with him. And I know the Commission will miss him as well. Thank you.
CHAIR HOCHSCHILD: Thank you.

MS. GALLARDO: And this is Noemi again. Chair, I do not see any other hands at the moment. And wanted to clarify that we brought on Scott, given his relationship and with approval of staff. So, he can stay on if you have additional questions.

CHAIR HOCHSCHILD: Thank you. Well, before I turn it over to Commissioner Douglas I’ll just say, you know, this is a big milestone. The SEGS project was an incredibly significant project in the history of renewable energy in this country. You know, the largest of its kind in the solar thermal arena. And really, I think was one of the things that helped cause people to start to think big about renewables. And so, I just want to give a tribute to all of the team, you know, that did the original project. I look at how hard, at that time when this facility was built, you know, it was to kind of build something of that scale, and I’m just amazed, and inspired. And, you know, that was kind of -- sort of opened the door to this incredible growth that we’ve seen now around the state, around the country, around the world on renewables, and a big milestone. So, this is a significant chapter in the history of renewables and I just wanted to make note of that.

But with that, let me turn it over to
Commissioner discussion, starting with Commissioner Douglas.

COMMISSIONER DOUGLAS: Well, great and thank you, Chair Hochschild for those comments. I do know that the chapter of the SEGS projects, and getting those off the ground was a really big achievement, and a big challenge, and a really impactful event for us as we look at the trajectory of renewables in California and in the world, really, when you look, as you say, at people thinking big on solar.

And thank you to Scott for mentioning Kenny Stein’s retirement. Congratulations Kenny, if you’re there and listening.

I want to say that, you know, I also appreciate the hard work, and quick and effective work, and outreach that was done by staff for this plan, and support the approval of the facility Decommissioning Plan. Staff not only did a thorough written analysis and assessment of potential impacts, as they always do, they also worked hard in the area of public engagement including holding a workshop earlier this year to ensure that nearby property owners and other interest members of the party had an opportunity to understand the decommissioning process.

I wanted to note as well the project owner’s responsiveness in making changes to the plan in response to
some of staff’s feedback.

And so, you know, I’m delighted that this site after decommissioning will, or is intended to be repurposed as a solar PV facility. And I look forward to making a motion on this item once we finish comments.

CHAIR HOCHSCHILD: Thank you. Other Commissioners wishing to make a comment on this item?

COMMISSIONER MCALLISTER: Yeah, I’d like to just very briefly.

CHAIR HOCHSCHILD: Great.

COMMISSIONER MCALLISTER: So, yeah, so I totally agree with your comments, Chair Hochschild, about just the fundamental vision shift that this plant caused. I remember early on in grad school, you know, doing a visit and then it took -- actually, international visits, there’s like road trips, you know, down to see this facility because it really made a global splash. And so, folks were paying attention from all over the world. And so, when they’d come to California it was sort of like, you know, a trip to Mecca to go down and see this big solar plant. And yeah, a really, really huge milestone. So, it’s interesting to see, you know, where we are today and how the maturation of the solar industry has just accelerated. And closing this, this is a relatively I think, you know, early chapter in a very long and thick book that we’re
closing here. So, that’s great.

    Congratulations to Scott and everyone involved.

And, you know, it’s changed over the years, you know, a number of times and, you know, had some ups and downs over the years. But it really performed and was a stalwart part of the grid. So, yeah, really, really gratifying to see this project reach its conclusion.

    CHAIR HOCHSCHILD: Well said, Commissioner.

    Any other comments? You know, if not, the only other point I’d make, you know, when you think about the evolution of renewables is that each sequential step, you know it’s not like when you do a big solar thermal project that the failure as it, you know, gets decommissioned 30 some years later actually it’s really a success. It helped unlock a lot of investment.

    And then, you know, technology moves forward.

But, you know, I don’t think that solar photovoltaics would be where they were if not for some of the early solar thermal investments. And you just get people’s minds thinking more expansively when you build anything big at scale. And so, there is this kind of beautiful technology evolution over time as we bring down costs, and mature the technology, and the efficiency and so forth. And I would just again mark this as a very significant milestone on that journey.
And a tribute to, you know, doing something first. Being the first big project of its kind, it’s always much, much harder. And, you know, just what you have to go through with any new technology. So, a real tribute to those early pioneers. And congratulations.

With that, I would entertain a motion from Commissioner Douglas, if you wanted to move the item.

COMMISSIONER DOUGLAS: Yes, I move the item.

CHAIR HOCHSCHILD: Thank you.

Commissioner McAllister, would you be willing to second?

COMMISSIONER MCALLISTER: I second the item.

CHAIR HOCHSCHILD: Okay, all in favor say aye.

Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

That item passes unanimously thanks to Scott, and staff, and everyone else.

Let’s move on now to Item 5, 2022 Title 20 Data
Collection Regulation Modifications.

MR. EGGERS: Good morning Chair, Commissioners,
I’m Ryan Eggers of the Energy Assessments Division. I’m here today to provide you an informational brief on the Energy Commission’s upcoming Phase 2 Data Rulemaking, as well as to inform you of staff’s intentions of opening formal rulemaking proceedings on June 18th, which is 9 days from now.

The next slide, please. While some of you have been directly involved in this work, to take a step and answer the question of why is staff doing this and what does California get out of this, it’s to improve the Energy Commission’s forecast and assessments. Specifically, to improve our work in ensuring energy reliability for all of California and helping advance our state energy goals.

With more detailed and complicated analysis being performed and required of the Energy Commission every year, staff additionally requires new and exceedingly granular information in order to provide the Energy Commission with the best analysis possible. Thus, Energy Commission data regulations need to change and evolve as well to meet the analytical requirements of the people of California.

The next slide, please. For this phase of data regulation changes, this rulemaking package can be broken down into two types of changes. Collecting and tracking...
new data, which there are three new asks, and cleanup of
general language.

For new data items, staff is proposing collection
of hydrogen, biodiesel, and renewable diesel production
data, which includes inventory and feedstock data as well.
This information is needed for fuel supply energy knowledge
accounting which relates to energy state or state energy
goal tracking, and fuel availability assessments for
reliability assessment work.

The second ask is property-assessed clean energy
data, also known as PACE data, will give information on
clean energy retrofit projects allowing for more precise
tracking of energy-efficient improvements throughout the
state.

The third, and finally, natural gas storage
system data will give information on operational activities
of natural gas storage facilities. This will further the
work of the Energy Commission’s Natural Gas Team in their
efforts in hydraulic modeling that is being undertaken for
contingency planning activities, and analysis of natural
gas systems vulnerability.

For general regulations cleanup, for which there
are numerous changes, they can be broken into the first
category, being data submission procedural changes.
Changes here are being made to make it easier to submit
inland filings by data reporters.

The next category is general language modernization. Here we’re moving wind reporting requirements to the code sections that contain all other generation reporting requirements, as well as standardizing water usage data requirements for generators.

Additionally, changes here are being made to update other data elements as increased understanding of the required information has been obtained.

The third and final category is confidentiality process changes. For this work, changes are being made to undertake to streamline the confidentiality processes and to make code sections consistent with the Public Request Act requirements.

The next slide, please. This has been a project long in making, but to cover some key timeline highlights staff has already held a prerulemaking workshop to gather stakeholder comments. That was held October 27th of last year.

As mentioned, our filing and posting date for this rulemaking will be June 18th of this year.

A public rulemaking hearing for this proceeding is scheduled for August 6th of this year for additional stakeholder comment.

Staff’s plan is to then get these regulations
enacted by January 1st of next year to begin data
reporting.

The next slide, please. Our next big step is
opening this rulemaking proceeding. If successful, I do
hope to be once again presenting in front of you in
September, for a vote on this regulation package.

That concludes my presentation and I’m available
to answer any questions you may have. Thank you.

CHAIR HOCHSCHILD: Thank you, Ryan. We’ll go
straight to Commission discussion since this is a non-
voting item, beginning with Commissioner Gunda.

COMMISSIONER GUNDA: Yeah, Chair, thank you. I
just have a couple of notes of thanks and highlight the
importance of this data, as Ryan mentioned. Just really
want to commend Ryan Eggers for his persistence and
continued efforts on this. It’s been, as he mildly put, a
long, long work here for over 18 months or so. So, thanks
to Ryan for all his work.

Also want to highlight the collaborative effort
between the different divisions in coming up with these
different data requests, as well as the CCO for data ports,
specifically Karen Holmes in the Chief Counsel’s Office for
all the help she provided in moving this forward.

The data is very, very key on our expanding
analytical work. We have a lot of assessments that we are
So, it’s an important step and I thank Ryan for his work and wish him luck as we go to the next phase.

CHAIR HOCHSCHILD: Thank you. Any other Commissioners wishing to make a comment on this item?

Okay, yeah, Commissioner McAllister.

COMMISSIONER MCALLISTER: Yeah, so thank you, Ryan, thanks Chair, thanks Commissioner Gunda. I just wanted to highlight, build on what Commissioner Gunda said. You know, it’s gratifying to see this move forward. You know, these -- we have very deep authority in data collection at the Energy Commission and it’s really part of our core responsibility and has been ever since the founding of the Energy Commission.

And, you know, that was an analog era and that was when the utilities really did much more data collection and, you know, it cost a lot more. You know, you had to generate more data sort of really proactively out in the field, and it was very laborious, and we had very limited, you know, many fewer data points, you know.

And so now that we’re in the digital age, you know, the Energy Commission is moving into that age at full speed. And I think, you know, we have these challenges
that we talk about every business meeting and have already
today, but huge opportunity to leverage all this data
that’s out. In particular, you know, phase one established
kind of our plan for getting AMI data, and a number of
other things. And this phase two rulemaking is going to
really push that further into some specific areas, increase
our ability to do detailed gas system analysis which is
going to be critical going forward.

And the PACE data, you know, PACE is having a
little bit of hard times these days, but it’s an area that
has financed a lot of existing building upgrades. And as
we try to get our heads around what happens there and how
we approach that sector, it’s critical to understand what’s
happening, what the costs are, and kind of understand,
really, what the energy implications of that, of those
efforts actually are. And so, collecting that data is
really key for good policymaking.

So, really, I just wanted to frame this as
underpinning the Energy Commission’s increasing sort of
seriousness and incredible competence in these analytical
arenas so we can advise the Governor, advise the
Legislature on what policy directions they may want to
take.

So, thanks Ryan for that, really appreciate it.

CHAIR HOCHSCHILD: Thank you, Commissioners.
Unless there’s other comments on Item 5, we’ll move on.

What I’d like to do, colleagues, with your permission, is take up Item 6, complete that in its entirety and then break for lunch.

So with that let’s move ahead to Item 6, California Schools Healthy Air, Plumbing and Efficiency Program.

MR. FONG: Thank you. Good morning Chair and Commissioners. I’m Jonathan Fong, Manager of the School Stimulus Office in the Renewable Energy Division. With me today from the Chief Counsel’s Office is Matthew Pinkerton and Allan Ward.

Today, staff is recommending adoption of program guidelines for the two California Schools Healthy Air, Plumbing and Efficiency, or CalSHAPE grant funding programs. Both programs established under Assembly Bill 841.

Next slide, please. CalSHAPE is comprised of two programs that provide much needed support to California schools, providing grants to improve indoor air quality and energy efficiency by ensuring HVAC systems are assessed, maintained, and operated correctly. Additionally, replacing aging plumbing fixtures and appliances will help schools conserve water.

These programs include scopes of work that
require the use of qualified testing personnel, and skilled
and trained workforces to implement these programs. This
will result in quality jobs across the state and assist in
contributing to California’s economic recovery.

The next slide, please. Assembly Bill 841 was
signed into law in September of 2020 and directed the CEC
to form and administer the School Energy Efficiency
Stimulus, or SEES Program.

Moving forward, staff will refer to the SEES
program as the CalSHAPE Program. The new program name is
more succinct, easier to remember and, hopefully, will be
easier to pronounce.

The CalSHAPE Program consists of two programs.
The ventilation program that provides grants to assess,
maintain, and repair or replace ventilation systems. And
the plumbing program that provides grants to replace aging
and inefficient plumbing fixtures and appliances. These
programs will provide assistance to schools to assess and
maintain their system, and reduce water usage through the
replacement of fixtures with water saving and Energy Star
appliances.

Next slide, please. Program funding comes from
the large gas and electric utilities’ energy efficiency
rolling portfolio funds and is based on the utilities’
annual budget advice letters, which are submitted to and
approved by the California Public Utilities Commission.

The CEC receives funds from these utilities on a quarterly basis for three years, from 2021 through 2023. The quarterly receipt of payment is important to highlight because unlike other grant programs, CalSHAPE does not receive all of the funding up front and the full amount of annual funding may not be available on the year it’s collected, nor are the funds always accrued on the same schedule.

For program year 2021, the funds available for the program is estimated to be about $266 million.

For the entire program, the overall budget is estimated to be $500 million, with the potential to be higher. We say potential because the utility budgets are approved annually, so the budgets for 2022 and 2023 are only an estimate at this point.

Additionally, although the funds are collected for three years, the statute does allow for the CEC to administer the program through December of 2026.

As required by the statute, 75 percent of the program funds are allocated to the ventilation program and 25 percent of the funds are allocated to the plumbing program.

The CEC is required to ensure that funds from each utility must be spent on projects located in the
utility service territory from which they were received.

What this means is that the CEC cannot use funds derived from one utility territory to grant a project outside of that territory.

The next slide, please. For the initial phase of the program, grants will be awarded to local education agencies, or LEAs for short. LEAs are school districts as defined in the Education Code, which includes county boards of education, county superintendents of schools, and direct instructional services by the state, and charter schools.

The initial phase of CalSHAPE awards will be limited to schools that are located in an area that meets at least one of the five criteria for designation as an underserved community as defined in the statute, which is a community with a median household income of less than 80 percent of the state average, within an area identified as among the most disadvantaged 25 percent in the state.

According to the California Environmental Protection Agency’s CalEnviroScreen tool, a community in which at least 75 percent of the public schools in the project area are eligible to receive free or reduced price meals under the National School Lunch Program, or a community located on lands belonging to a federally recognized California Indian tribe.

With such a broad definition of underserved
schools, staff estimates that nearly 60 percent of the
schools in the state will meet at least one of these five
criteria. By prioritizing schools in this initial phase,
we’re able to provide grants to schools that are in the
most need of support.

The next slide, please. As discussed, the
CalSHAPE Program has specific criteria for LEAs located in
underserved communities. To assist in screening for
program eligibility, staff has developed a web tool that
can be access from our program webpage. This tool
incorporates data layers, such as IOU service territory,
EnviroScreen data, Census data, and other pertinent data
from the Department of Education.

As we’re showing in this short video, anyone is
able to use this web tool to search for a school or LEA,
view the underserved community filters, and determine if
the school may be eligible to participate in our initial
phase of programs.

Additionally, for ease of reference, all of this
information can also be exported from this web too in an
Excel format and downloaded for future reference.

The next slide, please. The program guidelines
before you today are the result of staff’s efforts to
engage with stakeholders to better understand the
challenges LEAs face and how program guidelines can be
developed to meet our needs to successfully implement the CalSHAPE Programs.

Staff posted draft guidelines for both programs in January of this year, and held a public workshop on January 22nd to solicit feedback from stakeholders. Additionally, we posted revised staff guidelines at the end of March and hosted a second workshop in April.

Both workshops were very well attended, with over 500 attendees at each of the workshops.

Throughout the development of these guidelines staff has also worked with stakeholders from the HVAC and plumbing industry, directly with LEAs, and other interested stakeholders.

Staff has considered all public input received in the development of the final guidelines presented today for adoption.

Staff would also like to point out that a letter was filed to the CalSHAPE docket on Monday, June 7th, on behalf of the Joint Committee on Energy and Environmental Policy, the Western States Council of Sheet Metal Workers, and the California Association of Sheet Metal and Air Conditioning Contractors.

The joint letter, specific to the CalSHAPE ventilation program guidelines submitted, provided an alternative method of calculating the HVAC assessment and
maintenance maximum awards. And additionally, staff believe that representatives from those commenters are here today as well.

The next slide, please. For the CalSHAPE ventilation program, the initial phase of program awards is limited to HVAC assessment and maintenance grants and is available for planned projects or reimbursement for projects that were contracted for and performed after August 1, 2020, as consistent with the statute.

Grant awards will be equal to the amount requested by an LEA and verified by a contractor’s estimate for the reasonable cost to perform the work.

Applicants for the HVAC assessment and maintenance pathway will also receive 20 percent of the requested amount for repairs, upgrades, or replacements to make the system functional or more energy efficient. The initial grant awards will not include additional funding for repairs, upgrades or replacements above the 20 percent contingency threshold.

Those grants for larger system repair or replacement project may be available in a future phase of program awards.

The next slide, please. The CalSHAPE plumbing program will provide grants to replace aging, and inefficient plumbing fixtures and appliances with water-
conserving units. The items eligible for replacement for the plumbing program are listed on this slide.

Program grant awards will be equal to the amount request by an LEA and verified by contractor assessments for the costs directly related to the replacement of eligible plumbing fixtures and appliances.

We’ve discussed here today guidelines for both the ventilation and plumbing programs. And just to be clear, each program is separate and an LEA can apply for either program.

The next slide. As part of implementation of the CalSHAPE programs, staff have developed an online application and reporting system. The online system was designed with a focus of ease of use and a simplified process for applications to support participation from all LEAs regardless of size. And here for reference is a screen shot of the proposed online system.

Staff anticipates that registration of the portion of the tool will be available this month, which would allow for LEAs and authorized representatives to begin creating accounts. We will post notices to the CalSHAPE list serve announcing the opening of the registration. And additionally, staff will prepare user instructions and informational videos which we will also post to our program website.
There are limitations on when CEC can begin to accept and approve applications, and we’re not able to enter into agreements for program grants until after the 2021-2022 budget is enacted.

Staff anticipates opening the application period for the first funding round of applications shortly after that. And staff will issue a notice with all necessary information for initial grant applications well before the funding round opens.

The next slide, please. To wrap up, I’d like to first thank all Renewable Energy Division staff, staff from the Chief Counsel’s Office, and advisors from both Commissioners Douglas and McAllister’s offices who have all worked incredibly hard behind the scenes to implement the CalSHAPE programs and prepare the guidelines that you see before you today.

I would also like to thank our IT Division in helping to develop the online tool, and Siting Division staff for developing the GIS web tool.

Finally, I’d like to recognize and thank all of our stakeholders who have participated in this process. Without direct engagement, we could not have developed these guidelines presented here today.

With that, staff is recommending that the CEC approve the CalSHAPE ventilation program guidelines and the
CalSHAPE plumbing program guidelines. Additionally, staff is recommending that the CEC approve the determination that adoption of these guidelines is exempt from CEQA.

And this concludes staff’s presentation and I’m available to answer any questions you may have.

CHAIR HOCHSCHILD: Thank you, Jonathan, that’s a terrific presentation.

Before we move to public comment, I just want to ask really quickly, am I understanding it correctly we expect to move $261 million this year?

MR. FONG: Correct, Chair. I mean that is the program available funding and we will be releasing that funding for both the ventilation and plumbing programs.

CHAIR HOCHSCHILD: Great. Okay, thank you.

Let’s move first to public comment on Item 6.

MS. GALLARDO: This is Noemi Gallardo, Public Advisor. We do have a few hands raised. So, we’ll start with Chris Walker. Chris, a reminder to please spell your name, indicate your affiliation if any. Your line is open, you may begin. Chris, your line --

MR. WALKER: Excuse me. I’m sorry. Chris Walker on behalf of CAL SMACNA. That is C-H-R-I-S W-A-L-K-E-R, on behalf of the California Association of Sheet Metal and the Air Conditioning Contractors, otherwise known as CAL SMACNA.
CalSHAPE is an important program. It’s important for the long term health of our students and teachers. We support all the work that staff has put into it and, specifically, the work of Commissioners Douglas and McAllister through the public outreach process.

Unfortunately, the final guidelines that were provided do have one concern to us. And this was as outlined in the comment letter submitted to the docket on Monday. The primary concern is that the guidelines include current grant caps that will only address a small portion of the schools in need.

Our contractors have been increasingly bidding this work for school districts across the state. The experience has accumulated to the point where we are now getting good data on what those costs will be. It is clear that these systems are complex and each school is different when looking at elementary, middle and high schools. And there is even variation between these when accounting for age, design, and climate zone where they have been built.

We support and understand that cost containment is necessary, but the current strategy using a $40,000 cap on assessment and a $500 for installation for a CO2 device will not work. For what we assume to be almost 85 percent of the schools, it will fall above that threshold.

As referenced in the comment letter to the
docket, we do see some general patterns based upon the number of units per school. Our proposal would provide a $20,000 base, plus $1,500 per unit, and would increase the cost for CO2 to $750 from the $500 limit.

We would also include an appeal process to address the unique school systems that would fall outside this formula.

Based upon this, if the Commission is unable to change or alter the price caps in today’s hearing, we respectfully request a short delay for the Commission to consider these price caps and perhaps adopt, at a future meeting, a revised proposal.

Thank you for your time and attention today.

MS. GALLARDO: Thank you. The next comment is -- let’s see our commenter is Christopher Ruch. And Christopher, apologize if I mispronounced your name. Please restate your name, spell it, and indicate your affiliation if any. Your line is open and you may begin.

MR. RUCH: Yes. Thank you to the Chair, Commissioners and CEC staff for your work on this matter and the opportunity to speak today. My name is Christopher Ruch. That’s C-H-R-I-S-T-O-P-H-E-R Ruch, Ruch, R-U-C-H, and I represent the National Energy Management Institute, otherwise known as NEMI.

The ventilation verification process as outlined
in AB 841 is designed to verify the operation of existing heating, ventilation, and air conditioning for HVAC infrastructure. The goal is to get the maximum value out of taxpayer-funded HVAC infrastructure.

AB 841 assessment procedure was based on ASHRE recommendations, a UC Davis Western Cooling Efficiency Center white paper, and the research of previous HVAC grant projects.

It is important to note here that the assessment is not just a checklist of problems. Initially, the assessment includes a physical verification of current operation. If not meeting the minimum required operation, the assessment provides a 20 percent contingency fund for immediate repairs and adjustments that could be made to bring the system into compliance.

As a technician, which is where I spent most of my career, I’d commonly find examples of the following. Outside air dampers that had been closed completely off on a particularly hot or cold day and left that way, that just needed to be adjusted back to the minimum requirements. Gaps where air was bypassing filters. Inadequate air flow due to faulty ductwork configurations, or excessive leakage. Broken or clogged condensate drains which result in not only water damage, but poor indoor air quality.

And a big one was over time occupants may block
off ceiling registers because they are uncomfortable. And once we all get back into the office, hopefully after June 15th, I encourage you to look around and you’ll notice that there are several registers that are now covered by furniture, or people have taped or blocked closed. And this is likely because the system was never properly balanced from the beginning or, commonly, because the room use changed which is common for educational facilities.

But fundamentally, this is an indication of inadequate air distribution. Meaning that you could have a perfectly functioning unit on the roof, providing great outside air, but if air is not being distributed correctly the occupant you have a problem and they’re not getting the benefits.

As funds allow, these example issues would be repaired and adjusted during the assessment process, with the contingency funds.

Now, clearly if a unit is immediately scheduled for a replacement, the scheduled-for-replacement pathway should be used. However, if the HVAC unit is going to be depended on for adequate filtration by our teachers and our students, which includes my daughter, all steps of the assessment should be followed which includes immediate repairs and adjustments to the units can provide the minimum indoor air quality requirements.
Once again, I thank you for your time and your consideration of this matter.

MS. GALLARDO: Thank you.

Next speaker is Thomas Enslow. Thomas, reminder to spell your name and state your affiliation if any. Your line is open and you may begin.


First, we’d like to thank staff and Commissioners for the great job they’ve done in putting together these guidelines. It was a hard task with a very short time period, and limited information.

However, we echo SMACNA’s concerns and request the Commission delay approval of the ventilation program guidelines until the next meeting to allow adjustment to the maximum award threshold.

Inadequate ventilation in schools is not only a health issue, studies have also shown that it’s a barrier to student performance. The high CO2 levels that we regularly see in classrooms, and the studies have been shown to actually impair performance by up to 15 percent. And poorly maintained HVAC systems are also less efficient and waste energy. This program will address all these
issues.

Unfortunately, the thresholds proposed in the latest version of the guidelines are inadequate to allow all but the smallest schools to adequately assess and adjust their ventilation systems.

This too-low-of-a-threshold, with the function of staff not having access to hard data on this cost of this work until after the draft is (indiscernible) --

In the last couple of weeks, however, contractors have begun bidding these projects with schools to do this work during the summer recess, and we have been able to review almost 30 of these bids which have -- but they show that the current $40,000 assessment maximum would only be sufficient for the very smallest of elementary schools and specialty schools.

Over 85 percent of the schools, including all middle schools and high schools for the bids that we looked at would not be able to participate in this program at that level.

Yeah, so it is the largest of schools, with the highest student population, who are most likely to have ventilation issues and large numbers of students in classrooms where indoor air quality is really a concern. The current threshold would inequitably exclude these schools.
There is a solution, though, as SMACNA has stated in their comments. As bids have become available for review, we’ve been able to establish a more equitable formula based on the number of HVAC units in a school. SMACNA’s proposal, which we have reviewed, confirms that an assessment maximum of $20,000, plus $1,500 per unit would create a maximum that quite accurately reflects the broader range of school sizes that need to be addressed.

There will still be schools with more complex systems, such as variable air line systems that may not fit this formula. And for that reason, we recommend an appeal process being established for those few unusual circumstances.

We also ask that the maximum award for a CO2 monitor be raised from $500 to $750 per monitor, which would reflect the average cost of equipment, plus installation in the bids.

Finally, the Pipe Trades Council supports the ventilation program as well as needed to address this issue. We ask that the plumbing program be approved today. The plumbing program needs to get off the ground so that schools can replace old fixtures during the summer recess. We want to get going on this while the schools, you know, aren’t in session and we can get this work done. Thank you for your time.
MS. GALLARDO: This is Noemi, the Public Advisor again. That was the last hand raise, but let me make one last call for commenters. And those on the phone please press *9 to indicate you would like to make a comment, *6 to unmute. This is the last call for comments.

Chair, I do not see any other hands, we can move forward.

CHAIR HOCHSCHILD: Thank you, Noemi. Thank you to all the stakeholders for sharing their perspectives. Let’s move on to Commissioner discussion, starting with Commissioner Douglas.

COMMISSIONER DOUGLASS: It took me a while to find my unmute button. So, yeah, a couple thoughts. You know, I wanted to say I appreciate the excellent presentation by staff, let me start with that. And the entire Renewable Energy Division and CCO team has put a tremendous amount of work and effort into it -- into this, as have my entire office, and Commissioner McAllister’s as well. The ITT team has worked fast and hard to develop supporting program technology. And the CPUC has been deeply involved with the Energy Commission in helping us move this forward.

With its focus on upgrades to heating, air conditioning, ventilation and water efficiency systems in public schools, AB 841 created important and compelling programs that will help improve quality of life for
students and school site personnel, and increase efficiency as well.

And there are very aggressive statutory timelines for the Energy Commission to implement this program. The Energy Commission has worked hard and fast to meet these timelines, while also ensuring transparency in the work process, and conducting very extensive stakeholder outreach such as what we heard today, which came in recent comments from some of the commenters.

And so, we wanted to have a conversation at the business meeting just to have an overall check in on where we are, and when and how we hope and plan to get this done. As you heard from our commenters, particularly representatives from SMACNA, the Energy Commission received new financial data and information from stakeholders regarding the project maximum amounts that we proposed, just this week regarding the ventilation program.

As I understand it, staff had asked for this data some time ago to help the Energy Commission make fully informed funding allocations in the guidelines and SMACNA has been working for some time to obtain it and provide it. And it just so happened that they weren’t able to obtain it themselves in a format that they were prepared to provide until very, very recently.

So, you know, so we received the data after the
agenda posted. I think we were both -- I’ll let
Commissioner McAllister speak for himself. We were both
expecting and prepared to take action, and propose action
on this today. But the new information, while it came in
later than we would like, it is significant and I think it
is important for us to take a little bit of time to assess
it before we move forward to approve the guidelines.

So, I’d like to pause and let Commissioner
McAllister speak, but I do want to say that our
recommendation is going to be that we don’t act on this
item today and that we instead direct staff to evaluate
this new information, and to make corresponding guideline
changes if warranted, and bring the ventilation and
plumbing program guidelines back for our consideration at
the next business meeting with the discussion of staff’s
assessment of the new information.

So, that’s where I think we want to go on this,
but I think Commissioner McAllister should speak as well.

COMMISSIONER MCALLISTER: Thanks Commissioner
Douglas. And thanks Jonathan and the whole team, Natalie,
and the whole crew in the Efficiency Division -- or sorry,
Renewable Division, and both of our staff and advisors for
their diligence, and acknowledging the PUC as well.

I’d point out actually -- so, thanks to Chris,
and Tom, and the other commenter. I wanted to just
highlight that actually this data collection is still ongoing. We don’t actually have the full complement of data with specific project information.

And I wanted to just ask staff to describe, you know, the process by which we did receive data that did make it into the proposed guidelines just to sort of, you know, get a bit of a broader view of like what the landscape looks like from our perspective at the Commission building up to the guidelines. So, that’s one question.

You know, there’s still a few details -- so, we still have some details to work out. And I agree with Commissioner Douglas’ assessment that a short delay is warranted. Hopefully, we can get this back to the next, the June business meeting so we can take action in June. But, you know, a lot of work behind the scenes. The IT, you saw the beautiful GIS tool.

And there’s just a lot of interest in this program. This has been an (indiscernible) program, it’s complex, the slicing and dicing by geography presents challenges in terms of the ability to fund significant projects, assessments and then projects in the various parts of the state.

So, I just want to acknowledge those complexities and as sort of a context for understanding how it took a bit of time to get some of this information in.
But maybe, Jonathan, you could sort of talk about the broader landscape of the cost information that we did have for the development of the proposed guidelines.

MR. FONG: Oh, definitely Commissioner. You know, when staff paused in the end of April to host the second workshop, the idea of the maximum grant awards was one of the topics that we wanted to highlight. So, we had initiated that, reached out to different LEAs. Because as we mentioned, there’s a provision in these guidelines for reimbursement. So, we wanted to find as many LEAs who had either already started the process or even some that had completed it. So, we had a small universe of cost estimates, actual data, the physical HVAC reports from a small snippet. And that’s where we kind of developed the guideline proposal that we have before you today.

But, you know, as the commenters mentioned, the landscaping is so complex, you know, what we had available to us was probably a small sample size. So, you know, knowing 10,000 schools across the state, you know, the more information we have the better. So, you know, the new information, albeit late, is really going to help, you know, refine the information that we were able to receive already.

COMMISSIONER MCALLISTER: Great. Thanks very much for that.
So, yeah, I guess I don’t really feel the need to add much, other than just asking, you know, whether it’s feasible for us to carve off the water side and approve that separately at this meeting, and then take the HVAC program and push it to the next meeting? So, in terms of just logistics and feasibility, how does staff feel about that? And perhaps counsel as well, if we could get you to weigh in.

MR. FONG: So, sure Commissioner. Given that the guidelines are separate, you know, and stand alone, posted separately, I mean the two programs, the ventilation and plumbing are separate. So, I would also defer to the Counsel’s Office. But I think the way we posted them and are presenting them, they are separate.

COMMISSIONER MCALLISTER: Great.

CHAIR HOCHSCHILD: Does Chief Counsel have a position on that, as to whether there’s any problem with --

MS. BARRERA: Hi Chair. This is Linda Barrera, Chief Counsel of the Energy Commission. That’s correct, the Commission can choose to separate both items and move to address Item 6A at a future business meeting and vote on Item B, you know, during the business meeting -- at this business meeting.

CHAIR HOCHSCHILD: Okay. I just had a question, Jonathan, if you wanted to respond to any of the specific
points raised by any of the stakeholders during public
comment at all, anything that came up that you wanted to
address directly?

MR. FONG: Oh, thanks Chair. No, I mean both
Chris, Chris and Tom have been really huge participants
along the way. You know, as they mentioned this was
information we had asked since -- you know, for many
months. And unfortunately, because of the complexity of
the landscape that’s the late filing. But, you know, in
response to their proposal, the dollar per unit, you know,
as a metric for the maximum was one of the items we did
highlight in our April 28th workshop. You know, we
received other recommendations on like either a dollar per
student, or dollar per school.

So, there were a number of different methods that
were coming about in terms of how do we ensure those
reasonable costs. So, you know, we welcomed the filing
that we saw using that dollar per unit metric.

And, you know, as Commissioner McAllister said,
some other data is forthcoming so that we can provide, you
know, in short order back to the Commission, you know, our
full analysis, and recommendation, and revised guidelines.

CHAIR HOCHSCHILD: Okay. Any other comments?

I’m sorry, Commissioner McAllister?

COMMISSIONER MCALLISTER: No, I was just ready to
make a motion if nobody has any comments, or Commissioner Douglas.

CHAIR HOCHSCHILD: Okay. Commissioner Gunda or Commissioner Monahan, any other comments on this program?

COMMISSIONER GUNDA: Yeah, this is Siva Gunda. I just wanted to add quickly I’m glad that we landed on moving a part of the guidelines forward.

I just wanted to ask Jonathan, in terms of the delayed guidelines what is the -- I mean obviously there’s a huge upside in ensuring that we have the right numbers and moving forward with a good program. And I’m thankful to the commentators for providing that information.

Just what are the downsides in terms of actually kind of seeing the benefits to the schools? I mean does the delayed adoption -- you know, what are the impacts of that on our goals?

MR. FONG: Sure. You know, since the delay will be very short and we hope to get the data we need, and provide back to the Commission on the revised set of guidelines.

You know, as we mentioned in the short presentation, because of the timing with adoption of the budget, you know, the proposal to revise the guidelines should fall in line where we can still open these, the application period, you know, shortly thereafter. So, the
delay will be minor.

But I think, you know, as we’re saying we’re finding that method should have, you know, wide range benefits.

COMMISSIONER GUNDA: Yeah, thank you so much Jonathan. Thanks for all the work of all the divisions. I think I will just encourage our commentators and the broader stakeholders to help us with the data as you see fit, the sooner the better to help move these guidelines forward. Thank you.

CHAIR HOCHSCHILD: Okay. Just one final comment and then I’ll turn it back to Commissioner Douglas and Commissioner McAllister for their recommendation. And I’ll defer to your recommendation of you two on this.

But my view is given the urgency of the need here, if there is an opportunity to move a portion of the program forward today where we have agreement, I’m all for that.

I did want to say we’ll also -- we can schedule a special Commission meeting just to deal with this, once Jonathan and his team have resolved it.

And I also wanted to just give thanks again to our former Vice Chair, Janea Scott, who had helped launch this process back in the fall, and just our appreciation to her as well.
So, Commissioner Douglas and Commissioner McAllister, open to hearing your suggestions for how to move forward.

COMMISSIONER DOUGLAS: Okay. Well, if we’re going to split this out and it sounds like we can, which is really good news, then we could -- you know, maybe we could ask the Chief Counsel’s Office to just help us, or our Chief Counsel to just help us with the motion.

But I think we can move to postpone the vote on the CalSHAPE ventilation program and just move to adopt the plumbing program.

MS. BARRERA: Yes, and this is Linda Barrera. If I may, we can first take a vote to postpone the vote on action 6A first, and then separately vote on action 6B.

CHAIR HOCHSCHILD: Okay. Why don’t, Commissioner Douglas, would you make the motion to postpone Item 6A?

COMMISSIONER DOUGLAS: Yes. I move to postpone our vote on Item 6A.

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

COMMISSIONER McALLISTER: I second.

CHAIR HOCHSCHILD: Okay. All in favor say aye.

Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?
COMMISSIONER MCALLISTER: Aye.
CHAIR HOCHSCHILD: Commissioner Monahan?
COMMISSIONER MONAHAN: Aye.
CHAIR HOCHSCHILD: And Commissioner Gunda?
COMMISSIONER GUNDA: Aye.
CHAIR HOCHSCHILD: And then, Commissioner Douglas -- and I vote aye as well.
That item passes unanimously.
And then, Commissioner Douglas would you be willing to move Item 6B for adoption today?
COMMISSIONER DOUGLAS: Yes, so moved.
CHAIR HOCHSCHILD: Okay, Commissioner McAllister, would you be willing to second?
COMMISSIONER MCALLISTER: Second.
CHAIR HOCHSCHILD: Okay. All in favor say aye.
Commissioner Douglas?
COMMISSIONER DOUGLAS: Aye.
CHAIR HOCHSCHILD: Commissioner McAllister?
COMMISSIONER MCALLISTER: Aye.
CHAIR HOCHSCHILD: Commissioner Monahan?
COMMISSIONER MONAHAN: Aye.
CHAIR HOCHSCHILD: And Commissioner Gunda?
COMMISSIONER GUNDA: Aye.
CHAIR HOCHSCHILD: And I vote aye as well.
That item passes unanimously.
Thank you to all the stakeholders. And again, just given the size of this program we will schedule, if we need, a special Commission meeting just to take this second item once staff has worked with stakeholders and we have a proposal to talk through.

With that, thank you to everyone and let’s break for lunch, and reconvene why don’t we say 1:30 back on line, and we’ll take up Item 7.

Thanks everybody.

(Off the record at 12:24 p.m.)

(On the record at 1:30 p.m.)

CHAIR HOCHSCHILD: Thank you. Just before we move on to Item 7, I just again wanted to thank Commissioner Douglas and Commissioner McAllister, as well as Natalie Lee, and Jonathan Fong, and everyone else who worked on the program that we adopted, started to adopt, Item 6.

And to reiterate, we do have a meeting, another Commission meeting on June 25th, so my hope is we’ll be able to take up the item at that meeting.

So, with that, let’s move on to Item 7, Air Resources Board.

MR. JOHNSON: All right. Good afternoon Chair and Commissioners. My name is Mark Johnson and I’m with the Fuels and Transportation Division. I am here to
present an $850,000 proposed agreement with the California Air Resources Board to build, commission, transport, and deploy a hydrogen station testing device, also known as HyStEP 2.0.

The next slide, please. The demand for hydrogen as a transportation fuel in California is expected to increase based on auto manufacturers’ projections of vehicles with increased planned investments on medium- and heavy-duty vehicles as a response to Governor Newsom’s Executive Order N-79-20 that sets goals that all new passenger cars and trucks sold in California to be zero emission by 2035. All medium- and heavy-duty trucks and buses operated in California to be zero emission by 2045 everywhere feasible. And all drayage trucks to be zero emission by 2035.

The California Energy Commissioner is kickstarting the market for fuel-cell electric vehicles by funding hydrogen refueling stations. Currently, there are 51 hydrogen stations operating and selling retail hydrogen in California. Based on the timelines provided to the CEC by station developers, staff expects an additional 128 stations to be open within the next 5 years.

This proposed agreement with the California Air Resources Board will provide a hydrogen station testing device that collects data which confirms that stations meet
industry performance and safety standards before opening to the public. This proposed testing device will be an upgrade and a second generation to the current hydrogen station testing devices that operates in California. And the photo on the left is of the current testing device.

The second generation device will have a higher capacity that allows it to simulate back-to-back fuelings and in the future may allow for testing of medium- and heavy-duty hydrogen stations. These additional capabilities will help strengthen consumer protection when fueling their fuel cell electric vehicles.

The next slide, please. For this agreement, the California Air Resources Board will develop and release a competitive solicitation to build the proposed hydrogen station testing device. CARB will award a subcontractor who will then build the hydrogen station testing device, and have its performance verified at the National Renewable Energy Laboratory. It will be deployed, operated, and maintained by the California Air Resources Board. As part of this agreement, CARB will provide the CEC the testing data obtained from each hydrogen station fueling protocol testing.

The next slide, please. Staff recommends approval of this item and to adopt staff’s recommendation that this action is exempt from CEQA.
Staff is available to answer any questions you may have. And Andrew Martinez from CARB is on the phone to discuss as well. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s move on to public comment. Unless Mr. Martinez would like to make a few comments at this time.

MS. GALLARDO: This is Noemi, the Public Advisor. Andrew does have his hand up, so I will open up his line. Andrew, your line is open, you may begin.

MR. MARTINEZ: Thank you, Noemi. Thank you, everybody. CARB would like to thank the Commissioners for inviting us to provide these brief comments today in support of the proposed interagency agreement. We’d also like to thank the staff of the CEC for their collaboration with CARB on developing this agreement.

CARB has operated the current HyStEP device since 2016, testing new hydrogen fueling stations’ ability to follow industry standard fueling protocols that ensure customers receive a fast, safe, and reliable fill at California’s hydrogen fueling stations.

Development of a new HyStEP device will allow CARB to continue this testing and meet the needs of the large number of stations under development and funded for future builds.

The HyStEP Testing Program has played a
significant role in ensuring that today’s open retail
stations can quickly complete station testing and
commissioning based on reliable, trusted station testing
data, continuing to reinforce positive consumer experiences
as a key component to ensure future fuel cell vehicle
market growth and deployment.

The recent awards for new hydrogen fueling
stations that the Energy Commission made under GFO-19-602
put California on a path for unprecedented network growth
over the next several years. CARB’s recent estimates
project the network could grow to over 170 stations as soon
as 2026. By current estimates, 20 to 30 stations could
open each year between 2023 and 2026.

This swift pace of network growth over the coming
years will require additional resources for station
testing. In addition to the stations funded by the Energy
Commission through GFO-19-602, private industry has made
significant advancement in station developed backed by
fully private financing. These privately-funded stations
will also need station testing like HyStEP provides.

The first of these opened just last month in
Placentia and at least 14 more are expected to open in the
next few years. As development accelerates, private
interest in building new stations may continue to expand
the network even beyond CARB’s most recent projections.
With such a large expansion of the network in the years ahead, and the proven value of the HyStEP program, it is clear to CARB staff that the need for station testing will only increase in the coming years. Additional tools and resources are required to ensure that the HyStEP program continues to support station development timelines. As vehicles and stations continue to innovate, this new HyStEP device will also be more capable of testing advanced station design.

Because of these recent developments in the hydrogen fueling industry and anticipating future need, CARB staff strongly support the approval of this interagency agreement and look forward to collaborating with the CEC to bring the new HyStEP device to California. I want to thank you again for the opportunity to provide these comments. CARB staff value our collaborations with the CEC and being a trusted partner in our shared pursuit of clean transportation for all Californians.

MS. GALLARDO: Thank you, Andrew. This is Noemi, the Public Advisor, again. Chair, I’m going to check for hands, unless you wanted to make any responses to Andrew.

CHAIR HOCHSCHILD: No, no questions from me.

MS. GALLARDO: Sure.

CHAIR HOCHSCHILD: If we don’t have any
additional members of the public wishing to comment, we’ll turn it to Commissioner Monahan. Is there anyone else wanting to make --

MS. GALLARDO: Yes, let me make another call for comments. So, just a reminder, please use the raise hand icon. If you’re on by phone and would like to make a comment, press *9 to indicate you’d like to make a comment, and *6 to unmute. This is the last call for comments on Item 7 from the public.

I’m not seeing any hands, Chair, I think we can move forward.

CHAIR HOCHSCHILD: Okay, thank you. Commissioner Monahan?

COMMISSIONER MONAHAN: Well, I want to thank Mark and the Hydrogen Team for this. And also thank Andrew Martinez from CARB. I mean this is definitely, as you heard, a collaboration between the agencies.

I will say, you know, this is -- we’re really groundbreakers, California, when it comes to hydrogen station deployment. There’s only one country, I think, that has more stations open than we do, which is Japan. And, you know, the safety aspects are really important.

And I do view this, and I’d be curious Mark, and I guess Andrew can’t speak anymore, but this is more of a early market investment. And eventually, you know, when
the market is sustainable and the hydrogen industry is sustainable of course these kinds of technologies, you know, we won’t be necessarily the ones investing in these types of technologies, but it will migrate to the market, to the broader market.

But in these early days of hydrogen and especially as we are expanding to medium- and heavy-duty in our investments we want to make sure that we’re doing all we can to enhance the safety of the system.

So, I strongly support this. I think it’s a great interagency collaboration, really important as we expand out to medium- and heavy-duty, as well as light-duty infrastructure.

CHAIR HOCHSCHILD: Thank you, Commissioner. Any other Commissioners wishing to make a comment?

Seeing none, Commissioner Monahan would you be willing to move the item?

COMMISSIONER MONAHAN: I move this item.

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

COMMISSIONER GUNDA: Yes, actually second it.

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

Commissioner Monahan?
COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER McALLISTER: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

That item passes unanimously.

Let’s turn now to Item 8, also the Air Resources Board.

MR. RILLERA: Good afternoon Chair and Commissioners. My name is Larry Rillera. I am staff with the Fuels and Transportation Division. I am here to present on Item Number 8.

I am also joined by Ashley Georgiou, my counterpart from the California Air Resources Board, who is here to provide on this effort and this partnership.

This item is a proposed $1 million reimbursement agreement with the California Air Resources Board for the Energy Commission’s IDEAL ZEV Workforce Pilot Project.

The next slide, please. This project has been designed to provide critical benefits to California communities, including training for incumbent and new entrants in ZEV and ZEV related markets and industries,
embedding equity, access to good jobs and career pathway opportunities, transitioning to a clean transportation, more resilient economy, and addressing critical workforce training and development needs identified by community members through the Senate Bill 350 Low-Income Barriers report equity process.

The next slide, please. Specifically, this agreement will transfer $1 million from CARB to the CEC for a workforce training project. It identifies tasks such as project administration, the development of a solicitation, reimbursement of grant recipients, project meetings, and conducting a forum to share lessons learned and recommendations for future workforce collaboration.

One hundred percent of CARB’s transferred funds will be used for the sole purpose of project work by grant recipients. None of the funds will be used by the CEC for agreement administration in order to maximize project reach and impact.

The CEC and CARB have been deeply engaged in this collaborative venture for over a year now. Capacity building and staff sharing in this equity in workforce training and development space has been nothing short of stellar as each agency has blended fiscal priorities, policy objectives, and a strong desire to effectuate and respond to community needs in the ZEV space.
Lastly, CEC and CARB will speak and advocate from one voice, supporting the IDEAL ZEV Workforce Pilot Training and Development solicitation.

The next slide, please. In closing, staff recommends the approval of this agreement with the California Air Resources Board for $1 million in reimbursement, and approval of staff’s determination that the project is exempt from CEQA.

This concludes my presentation. I would again note that Ashley Georgiou of CARB is here to provide remarks. Thank you.

CHAIR HOCHSCHILD: Thank you. Let’s go to public comment.

MS. GALLARDO: This is Noemi, Public Advisor.

Let me check real quick.

Ashley, I see that you have joined us. Would you like to make any comments? Just want to make sure I carve out that space for you.

MS. GEORGIOU: Thank you so much Noemi and Larry. Good afternoon Commissioners. As mentioned, my name is Ashley Georgiou from the Air Resources Board, Larry’s counterpart in development of the IDEAL ZEV Workforce Pilot and the agreement discussed today.

This is really an exciting time as this project and our work together have been years in the making. I can
still remember very clearly the days of developing our partner Senate Bill 350 Low Income Barriers report, which really highlighted the need and the desire to expand workforce development investments in projects, just like we’re discussing now, to meet the most critical needs as a community.

This project can really be seen as the fruit of collective understanding and action towards mutual clean transportation equity, climate, as well as air quality goals.

So, I just want to say and take this opportunity to say thank you, particularly to Commissioner Monahan for your leadership, but also the support for this incredible endeavor and partnership. In addition, of course, to the staff and the management team in the Fuels and Transportation Division, as well as others at the Energy Commission, of course.

This project is one of many examples of where CARB and the Energy Commission have really been working to lay the foundation for deeper synergy, ongoing collaboration, as well as mutual learning. We’re committed to working with the Energy Commission, as well as our other state and local partners, in lockstep throughout this process to ensure that the zero emission vehicle workforce training and development investments that we’re making in
California’s most impacted communities support economic recovery, but also resilience.

Thank you so much for your time and having me here today.

MS. GALLARDO: Thank you, Ashley.

This is Noemi, again. So, another reminder to attendees, if you’d like to make a public comment please use the raise hand feature. If you’re on by phone press *9 and then *6 to unmute.

Chair, I am not seeing any other hands. I think we can move forward.

CHAIR HOCHSCHILD: Let’s move to Commissioner discussion. Commissioner Monahan.

COMMISSIONER MONAHAN: Well, I want to congratulate Ashley and Larry, and the legal teams that were involved in this. Neither of them mentioned that there was a lot of legal work that had to go into this because as we all know, the ARB processes and the CEC processes don’t necessarily correspond. And so, it just takes a lot of work to make sure that this looks seamless to the outside world.

And that’s our goal, right, we want to make it really easy for our grantees to view the California government as one. This is an example of that collaboration and I hope it continues as we fund projects.
that CARB is working on, and CARB funds projects that we’re working on where we see a lot of synergies and opportunities. And it really is just about accelerating the ZEV market.

So, I just want to say thank you. I know there’s like a pound of flesh that went into this by a number of different interests, including one of my advisors. And I want to say that it has to be worth it, because it really is about making it easy for our grantees. And, hopefully, the first step is the hardest one and that we’ve overcome a lot of the legal quagmire issues and it will be easier the next time around. So, just thanks to everybody who was involved in this.

CHAIR HOCHSCHILD: Great. Thank you, Commissioner.

Unless other Commissioners wish to chime in or ask questions, I think we can move to a motion Commissioner Monahan.

COMMISSIONER MONAHAN: I move to approve this item.

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

COMMISSIONER DOUGLAS: Yes, I second this.

CHAIR HOCHSCHILD: Okay, all in favor?

Commissioner Monahan?
COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

I think that’s the fastest million dollars we’ve ever approved. So, thank you and congratulations everybody. Appreciate very much the collaboration with CARB. I just want to say, you know, I’m really pleased with the collaboration generally and, you know, the transition from Chair Nichols to Chair Randolph and just keeping that relationship, you know, fully engaged and healthy is a priority for us. And just this is another example of that successful collaboration. So, thanks to all the staff on both sides.

COMMISSIONER MONAHAN: Oh, and can I just say also, another example of a good acronym is IDEAL, inclusion, diversity, equity, access and local. That’s a good one.

CHAIR HOCHSCHILD: Yeah.

COMMISSIONER MONAHAN: So, kudos to the team.

CHAIR HOCHSCHILD: We have had some terrible
acronyms here. ARFVT and all the others, so we celebrated it when we get a good one. Thank you as well, good point. Thank you, everybody.

So, let’s turn now to Item 9, California Conservation Corps.

MR. RILLERA: Great. Thank you and good afternoon again Chair and Commissioners. My name is Larry Rillera, Fuels and Transportation Division. I will also be presenting on this one, on Item Number 9 with the California Conservation Corps.

This item is a proposed $1 million agreement with the California Conservation Corps for a brand-new IDEAL Transportation Electrification Training Project.

The next slide, please. This project has been designed to provide critical benefits to California communities, including training for transportation electrification including electric vehicle charging. It will also provide ZEV-career pathways that can lead to good jobs, including pre-apprenticeship training with potential employers. It intentionally embeds equity in participation for all. It will expand the state’s investments of Greenhouse Gas Reduction Funding for energy purposes.

And lastly, I would also like to note that as an additional benefit of the project this continues partnerships in investments in the workforce component of
the AB 2127 report, as discussed earlier today.

The next slide, please. The proposed item before you today is rooted in decades long success by the California Conservation Corps to develop men and women between the ages of 18 and 25.

In 2019, the Corps was funded with Greenhouse Gas Reduction Fund money and established the Energy Corps program with the majority of funds used to benefit disadvantaged communities. The Energy Corps provides trained labor for public agency and non-profit energy efficiency and renewables projects. Energy Corps members receive energy industry level training while working on lighting retrofits, energy surveys, and solar panel installations.

For this proposed IDEAL Transportation Electrification Training Project, the Energy Commission, with the California Conservation Corps, will build on the Energy Corps Program by adding a zero-emission vehicle infrastructure-related component.

Specifically, the project will provide $1 million to the Corps to develop curriculum, classroom instructional materials, and secure project partners. It will develop and implement the Transportation Electrification Training Plan. And lastly, it will teach training on how to replace non-working chargers, construct and install new EV
changers, and commission, maintain, and service new chargers as well.

The training project is designed to initially roll out at the Norwalk Energy Corps Center. And during the term of the agreement will expand to the three other locations in the state, including Vista, Fresno, and Sacramento. Participation in the program is expected to triple in size over the course of the project.

The next slide, please. In closing, staff recommends approval of this agreement with the California Conservation Corps for $1 million and approval of staff’s determination that the project is exempt from CEQA.

This concludes my presentation.

I will also note that Juan Mercado from the Conservation Corps is here to provide supporting comments.

Thank you.

CHAIR HOCHSCHILD: Thank you. Any public comment on this item?

MS. GALLARDO: This is Noemi. Yes, we do have a hand raised. That’s Juan Mercado, as Larry just pointed out they do have comments. Juan, I am opening your line, please feel free to speak.

MR. MERCADO: Thank you, Noemi. Thank you very much. My name is Juan Mercado and I’m the District Director for the Energy Corps in Southern California, with
the California Conservation Corps.

I first want to thank all the Commissioners for moving forward and approving this project. It’s very exciting for us moving on to other different types of technology. You know, everyone knows the California Conservation Corps is a resource, we do trail work and other emergencies, but we also have a CCC Energy Corps.

Like Larry said, it was established with the -- not officially, but then it went into under GGRF, and that’s where it funded under the Air Resources Board.

We are very excited to, you know, move this project forward. It’s something that especially with the Governor’s mandate that’s building the infrastructure, and most important training the next generation of Corps members is very important.

These funds will also let us work with other partners, like Cerritos College and other colleges across the state. It also expands our program in different areas. Like Larry mentioned, our Vista location, our Norwalk, and then our Fresno, and our Sacramento location.

Our growth in scale of our program can -- you know, we can train more folks, Corps members into our program and our participants. This will be a very big job creation for us. It will create more jobs in the industry. It will create career pathways to transportation
electrification and get our Corps members ready for the
upcoming technologies that EV charging stations will bring.

And I really, myself, I’ve got to say I really
like the IDEAL, which is the inclusive, diverse, equity,
accessible and local. That’s something for us that is very
important. A lot of our work needs to be in the low-income
and disadvantaged areas. Also, our Corps members that we
serve are in low-income and disadvantaged areas.

So, we’re really excited to move this project
forward. And I want to thank all the Commissioners today
for letting me speak, and we’re very excited about this.

Thank you very much.

CHAIR HOCHSCHILD: Thank you.

Noemi, any additional members of the public
wishing to make a comment?

MS. GALLARDO: Yes, we do have another hand
raised and that’s Larry Notheis. And Larry, I apologize, I
most likely mispronounced your name. I am going to open
your line. A reminder to please restate your name, spell
it, and indicate your affiliation, if any. Your line is
open.

MR. NOTHEIS: Great, thank you. My name is Larry
Notheis and that’s okay with the name pronunciation. L-A-
R-R-Y N-O-T-H-E-I-S.

I am one of the Deputy Directors for the
California Conservation Corps and I just wanted to take a moment to say thank you to the Chair and to all the Commissioners for looking at this proposal and, hopefully, supporting it.

A special thanks to Commissioner Monahan because I hear a rumor that you would like to visit one of our projects and thank you very much for that.

And then lastly, just thank you for supporting the youth and the young adults of California who are going to become the future conservationists and energy workers through this program, and also supporting the diversity, equity and inclusion that is part of our program to help those underserved communities, like Larry and Juan said.

And then lastly, just to thank Larry for his support, his dedication, all his hard work in making this come to fruition, and being able to be in front of all of you today. So, thank you.

CHAIR HOCHSCHILD: Thank you so much.

Any further public comments, Noemi?

MS. GALLARDO: I do not see any other hands.

CHAIR HOCHSCHILD: Okay, let’s turn to Commission discussion, Commissioner Monahan.

COMMISSIONER MONAHAN: Well, I mean I think this is following a theme, collaboration with the Air Resources Board kind of building off their initial investments to
expand the California Conservation Corps to include energy, and then building on that to help train workers in the build out of zero emission vehicle infrastructure. So, it really brings everything together. I mean what we’re trying to do is foster a holistic system where we create good jobs here in California, building out the infrastructure that we’re going to need to meet our climate goals, clean the air and also, you know, expand access to transportation electrification broadly. So, this really bring sit all together.

I just want to thank Larry. He’s been such a champ in so many areas with the Clean Transportation Program, really trying to think outside the box of how do we really, truly invest in communities as we are accelerating clean transportation. I just have looked upon Larry as a partner in so many ways. He stepped up even with the ZEV Infrastructure Strike Force to help think through equity around ZEV infrastructure investments and has just been a great partner.

And, you know, I want to thank Juan and Larry from the California Conservation Corps for coming and speaking. I’ve got to say, I’m sure I’m not the only Commissioner that would like to visit a site. So, I think all of his feel, you know, our hearts expand when we see the youth, especially ones who come from poor backgrounds
and are struggling to find a good job. You know, we want
to create a more equitable system broadly and these
investments are just sort of the ones that I think we need
to make as a state. We need to expand those investments
and ensure that everyone benefits from the clean energy
economy that we’re trying to foster.

So, looking forward to supporting this
investment.

CHAIR HOCHSCHILD: Thank you, Commissioner.

You know, the only thing I would add is, as I
mentioned earlier, we have this once-in-a-generation May
revise budget, which for the Energy Commission means over a
billion dollars we’re going to be putting into electric
vehicle-related investments and infrastructure.

But on top of that there’s a very real prospect,
fingers crossed, of a massive federal infrastructure
package which would include additional funds for these
areas. So, I think this kind of training investment’s
really well timed and necessary.

Unless there are any additional comments from my
colleagues, I would entertain a motion from Commissioner
Monahan.

COMMISSIONER GUNDA: Commissioner -- Chair, can I
--

CHAIR HOCHSCHILD: Yes, go ahead.
COMMISSIONER GUNDA: Sorry, just wanted to add, you know, CCC is very close to heart. So, I had the opportunity to work with CCC when they were just about launching the Energy Corps, with Director Bill Mubarak (phonetic). In May 2000s I had the opportunity to firsthand experience training the Corps members. I, myself, taught a number of those Corps members on energy surveys. I am just incredibly gratified to see this proposal. I just completely believe in the mission of CCC and it’s kind of an important role in being a second chance program for a number of our youth. And so, I’m just really grateful to see this.

And thanks Larry, and Juan, and Larry from CCC for making your comments.

CHAIR HOCHSCHILD: Well said. Thank you so much, Commissioner.

Unless there’s any additional comments, Commissioner Monahan are you willing to make the motion for Item 9?

COMMISSIONER MONAHAN: Yes, I move to approve Item 9.

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

COMMISSIONER GUNDA: Absolutely second it.

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

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

That item passes unanimously.

Let’s turn now to Item 10, Aspen Environmental Group.

MR. ERNE: Good afternoon Chair and Commissioners. I’m Dave Erne with the Energy Assessments Division, here to request approval of a contract with Aspen Environmental Group to provide technical support to the Assessments Division.

The next slide. This technical support contract has been very valuable to the Assessments Division, particularly in allowing us to get access to specialized expertise. The contract is being awarded to Aspen. Aspen was the prior winner. Aspen provided a substantial amount of benefit to us in the recent past.

I have some examples of how this contract was used in the past. So, when Aliso Canyon leak occurred,
Aspen helped to do some seasonal gas reliability analysis and price assessments for us, to help us understand the impact of the Aliso Canyon leak.

As you know, earlier this year we published the SB 100 Joint Report. The Aspen team was helpful in bringing modeling capability to look at scenarios for the future of California’s electric system and the integration of additional renewables, and what that means to the state. And that’s very critical analysis that we had to be able to create that report.

And they’ve also been helping with improving our electricity demand forecast and are working on, now, our natural gas demand forecast and improving those as well.

So, this kind of vehicle is important in bringing that specialized expertise.

The next slide. The scope of work of this contract is very broad and we specifically made it that way so that we can continue to have access as we expand our analysis. Some things that we anticipate that we could be utilizing this contract for moving forward would be things like expanding our SB 100 reliability analysis, looking at transmission and additional renewables in the state.

For natural gas assessments to better understand the system, ways to transition the system moving forward such as understanding the reliability implications and its...
connection with the electricity system as we move towards a more -- reduced greenhouse gas emissions.

And lastly, as we get more information where data comes is, as was brought up earlier today, you know, large amounts of data coming in we have the ability to extract a tremendous amount of value from that data that we’ve never had before. And so, we anticipate looking at strategies that we can extract greater insights from that data as it comes in. So, all ways that we anticipate this contract can give us value.

The next slide. And so, staff recommends approval of the contract and I’m here to answer any questions you may have.

CHAIR HOCHSCHILD: Thank you, David.

Any public comment on this item, Noemi?

MS. GALLARDO: This is Noemi, the Public Advisor. I don’t see any hands at the moment. Let me just remind folks, especially those on the phone, you can press *9 to raise your hand, *6 to unmute.

I do not see any hands, Chair.

CHAIR HOCHSCHILD: Okay. Well, thank you, David for that presentation and for all your professionalism in this role, and your previous role, of course coming from ERDD. Great to have you on this.

Let’s go to Commissioner discussion now,
Commissioner Gunda.

COMMISSIONER GUNDA: Yes, thank you, Chair. Just wanted to reiterate what David mentioned and then what you mentioned about David. David has been an excellent colleague in EAD and bringing his fresh thinking and perspectives from ERDD, and so it’s been great.

So, I think I just want to highlight the importance of the Aspen contract. As David mentioned, we have a bunch of things coming to have this year, including the device modeling we’re thinking for SB 100, modeling of the natural gas system, and ensuring that the DER analysis is really baked into our long-term protections both on the demand, but also the supply side. I think it’s vital we have tech support.

Aspen in the past -- as Deputy Director for the Division in the past, I had a chance to work with the Aspen team. Personally had a lot of success with ensuring the products were rigorous and we got the analysis that we needed.

And so, I’m looking forward to supporting this and thank you, David, for your presentation.

CHAIR HOCHSCHILD: Are you looking forward to supporting it enough to make a motion?

CHAIR HOCHSCHILD: Thank you.

Commissioner McAllister, are you willing to second that?

COMMISSIONER MCALLISTER: I second the item.

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

Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

That item passes unanimously.

Let’s turn now to Item 11, California Clean Energy Fund, CalCEF Ventures.

MR. FERREIRA: Hello everyone, and good afternoon Chair and Commissioners. My name is Michael Ferreira and I work in the Energy Research and Development Division.

I’m here today seeing approval of a sole source agreement with the California Energy Fund for $10 million to establish and manage the CalSEED Low Carbon Gas Program which will provide Cleantech entrepreneurs with small
grants for technologies that can decarbonize the natural gas sector.

The next slide, please. One overall benefit of the CalSEED LCG program is advancing the clean energy economy by funding promising Cleantech startups in the early state of development.

Additionally, by decarbonizing the natural gas sector, this program will lead to improved health from reduced greenhouse gas emissions and criteria air pollutants, as well as greater safety from technologies that can improve natural gas infrastructure.

The next slide, please. This small grants program will be modeled after the successful CalSEED program funded under EPIC, which provides entrepreneurs starting capital in the form of $150,000 grants to develop their ideas into proof-of-concepts, as well as mentoring, technical consulting and business development services.

Entrepreneurs selected for CalSEED are also eligible to compete for $450,000 in follow-on funding through a business plan competition to scale their concepts to the prototype stage.

Since the program’s start in 2018, the EIC CalSEED program has funded 91 startups that have gone on to receive over $37 million in public funding and $28 million in private investment, with two of the companies having
since been acquired through mergers.

The next slide, please. This small grant program will fill a critical gap in cleantech finance, providing proof-of-concept funding for technologies that can decarbonize hard-to-electrify end uses such as industrial process heating, and medium- and heavy-duty transportation.

Looking at the figure on the right, this small grant program will help decarbonize end users in two sectors, representing over 60 percent of the state’s carbon emissions.

In order to successfully decarbonize these end-uses, significant innovation and entrepreneurship is needed to introduce new technology solutions to the market.

At the same California is transitioning away from natural gas, the state is focused on improving the safety of the aging natural gas infrastructure.

New technology solutions are needed that can predict, detect, and repair infrastructure vulnerabilities with greater speed and precision, thereby protecting community safety.

The next slide, please. Staff recommends approval of this contract and staff’s findings that this contract is exempt from CEQA.

This concludes my presentation. Staff is available for questions. Thank you.
CHAIR HOCHSCHILD: Thank you.

Let’s go to public comment on this item.

MS. GALLARDO: This is Noemi, the Public Advisor. I do see at least one hand raised. So, that is Joy Larson. And Joy, reminder to please spell your name and indicate your affiliation if any. Your line is open, you may begin.

MS. LARSON: Hi, good afternoon, Commissioners.

My name is Joy Larson, J-O-Y L-A-R-S-O-N. I’m the Program Director for CalSEED, at California Clean Energy Fund, New Energy Nexus. And thank you for this opportunity to make comments in support of this proposed resolution.

In the first four cohorts of CalSEED that is funded through EPIC we’ve seen some notable commercial successes, as Michael talked about. We’ve funded 97 companies and after just four years, three of those companies have been acquired, 12 have seen commercialization or reported some product sales. And taken together, the CalSEED companies have raised an additional $78 million in follow-on funding.

So, we’re grateful for this opportunity to continue a small grants program with low carbon gas technologies. Low carbon gas has had its place in the energy transition and there are a lot of new ideas out there.

For example, every year we see a lot of
applications for new green hydrogen technologies and we’ve
seen investors show increased interest in green
technologies after they’ve been de-risked. So, we have
definitely seen the need for government funding for early
stage technologies in this space.

We share the CEC’s goals to accelerate
electrification and rapid decarbonization by funding
scientific and technological breakthroughs that early stage
higher risk and higher reward.

Additionally, we will continue the equity in and
equity out framework of the CalSEED program where we
actively promote the grant opportunity to diverse
entrepreneurs and ensure that projects that are funded have
the potential to bring benefits, like increased safety, to
all of California.

We’re grateful to Michael Ferreira and the ERDD
team at the CEC for their continued partnership in
strategically accelerating the energy transition. And if
approved, we’re excited to see the projects that will be
funded through this opportunity. Thank you very much.

CHAIR HOCHSCHILD: Thank you.

Any additional public comments on this item,
Noemi?

MS. GALLARDO: Let me make one last call. Folks
on the phone, if you’d like to make a public comment
please press *9 to raise your hand, *6 to unmute. Others, if you could raise your hand using the feature on the screen.

Chair, I see no hands.

CHAIR HOCHSCHILD: Okay. Well, thank you. Let me thank everybody and the team at CalSEED for all of this work. I do think CalSEED is the right analogy, it really is a garden. And, you know, these startups that we’re trying to support I mean, you know, they are going to be better positioned to succeed with some good care, and feeding, and water, and nutrient-rich soil, and sunlight, and all the things that this grant will help accomplish. That additional support and de-risking really helps get them in a better position for follow-on funding, and acquisition, and growth.

So, just a phenomenal job so far and I’m very pleased to support this.

Let me turn to my colleagues, next starting with Commissioner McAllister.

COMMISSIONER MCALLISTER: Yeah, thank you, Chair. I’m great support of this. It’s really good to see us on multiple fronts actually, including this one, moving forward on the decarbonization of our gas system and our more difficult sectors that account -- as the electricity sector shrinks in its emissions, it accounts for a higher,
and higher percentage of our emissions. And so, I think we need all of the innovation we can get. I think your gardening analogy is great. And really excited to see what comes out of this grant and the broader innovation efforts.

CHAIR HOCHSCHILD: Thank you.

Unless there’s other Commissioners wishing to comment, Commissioner McAllister would you be willing to make the motion?

COMMISSIONER McALLISTER: Yes, I’ll move Item 11.

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

COMMISSIONER GUNDA: Second the motion.

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner McAllister?

COMMISSIONER McALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: And Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: And I vote aye as well. That item passes unanimously.

Let’s turn now to Item 12, Guidehouse.
MR. UY: Greetings Chair and Commissioners. My name is Kevin Uy with the Energy Research and Development Division. Staff is seeking approval of this agreement to develop a long-term natural gas research strategy.

Next slide, please. This study will benefit Californians by informing future natural gas decarbonization research at the CEC. This research aims to advance the state of natural gas decarbonization technologies, and ultimately contribute to achieving the state’s aggressive carbon neutrality goals.

The next slide, please. This study, requested by the CPUC as part of its approval of the CEC’s 2019 Natural Gas Budget Plan, will produce a long-term natural gas research strategy, including assessment of decarbonization technologies and research needs. The study will leverage the scenarios established in the SB 100 joint agency report, such as high electrification, high hydrogen, and zero combustion, and provide comprehensive research recommendations based on those scenarios. These recommendations will inform future research on technology development, demonstration, and deployment in the CEC’s Natural Gas Research Program and help the state transition to a net-zero carbon natural gas system.

Next slide, please. Staff recommends approval of this award, as well as staff’s determination that this
action is exempt from CEQA. I am available to answer any questions you may have. In addition, Guidehouse has prepared a written response which they would like read into record. Thank you.

CHAIR HOCHSCHILD: Thank you.

Any public comment on this item?

MS. GALLARDO: This is Noemi, the Public Advisor. I do have the public comment from Guidehouse, so I’ll read that now. This is specifically from Amul Sathe, the Director. His last name is spelled S-A-T-H-E, first name is A-M-U-L.

“Guidehouse is a leading global provider of consulting services to the public and commercial markets. We are at the forefront of R&D planning, and management, and decarbonization working with major public sector R&D organizations in North America and Europe, and assisting global utilities in developing and implementing deep carbonization strategies.

Guidehouse has supported the Commission on multiple contracts for more than two decades, including technical support for the PIER, Electric and Natural Gas, and EPIC programs, the Demand Analysis Office, and studies on electric generation, transmission, and distribution systems.

Governor Brown’s Executive Order B-55-18 set a
goal for the California economy to achieve carbon
neutrality by 2045. Critical to achieving the 2045 goal
will be decarbonizing the state’s natural gas system using
a variety of technologies and strategies for all aspects of
the supply chain. This project will help achieve this goal
by providing independent analysis to develop a long-term
natural gas research strategy. This plan is vital to
prioritizing the most impactful ways the Energy Commission
should spend its Natural Gas Research Fund.

Development of the long-term natural gas research
strategy will further send a strong signal to technology
innovators that California is serious about its
decarbonization journey. It will also show leadership to
other public agencies across the globe, who are similarly
putting forth decarbonization goals.

We thank the Commission for funding this
important work and proposing to award this to Guidehouse.
We look forward to this project and continuing our two
decades plus partnership with the Commission.”

MS. GALLARDO: That concludes the Guidehouse
comments.

And I do not see hands raised at the moment.
Reminder to folks on the phone to raise your hand by
pressing *9 and to unmute using *6.

No other hands, Chair.
CHAIR HOCHSCHILD: Okay, thank you.

Let’s move to a discussion. This is, you know, I think another terrific step in our efforts to decarbonize. I just wonder if, Commissioner McAllister, if you have any thing you’d like to add on this one?

COMMISSIONER MCALLISTER: Just quickly, yeah, we need this work to help chart the path ahead. And there are lots of different things that need to be accomplished. And I think having a clear idea of that and pro organization is really worthwhile, so support this effort.

CHAIR HOCHSCHILD: Great, thank you.

COMMISSIONER MCALLISTER: So, with that --

CHAIR HOCHSCHILD: Unless there’s other comments --

COMMISSIONER MCALLISTER: -- happy to move the item if there’s not.

CHAIR HOCHSCHILD: Yeah, that would be great, thank you. If you’d move the item, thank you.

COMMISSIONER MCALLISTER: Okay, I will move Item 12.

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

COMMISSIONER GUNDA: Second the item.

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

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Douglas?


CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

That item passes unanimously.

Let’s move on to Item 13, Strategic Pathways and Analytics for Tactical Decommissioning of Portions of Natural Gas Infrastructure.

MS. ORTIZ: Good afternoon Chair and Commissioners. My name is Reta Ortiz. I’m an Energy Commission Specialist in the Energy Research and Development Division.

Today, I’m presenting two recommended awards from our Tactical Decommissioning solicitation. This solicitation required applicants to collaborate with stakeholders to determine where natural gas infrastructure retreat is plausible, economically viable, and customer supported.

The next slide, please. These projects will support stakeholder engagement and long-term planning of
the gas system and foster collaboration with utilities, researchers, and communities to develop strategies for a more equitable and cost-effective transition of the distribution system. Assessments of different decommissioning strategies under a wide range of variables will ensure gas transition includes health, environmental, and economic benefits to ratepayers.

The next slide, please. According to the U.S. Pipeline and Hazardous Materials Safety Administration, the average age of California’s natural gas system is more than 40 years old, reaching the end of its service life. It is estimated that replacing the distribution system would cost between $1 to $5 million per mile. Before utilities invest in replacing the current infrastructure, it is important to investigate opportunities for strategic electrification and decommissioning. Applicants will develop replicable site selection criteria and decision-making frameworks for electrification and decommissioning projects. Using the developed framework, awardees will conduct a feasibility study and provide plans for three candidate pilot sites, with at least one being in a disadvantaged or low-income community.

The next slide, please. The first proposed project is with the RAND Corporation. They will develop a multi-disciplinary analytical framework to identify
candidate decommissioning locations in Southern California. Unique to this project, RAND will collaborate with two single-use utilities, SoCalGas and Southern California Edison. SoCalGas will provide the required gas infrastructure and customer data, and conduct the macro-economic modeling. Southern California Edison will provide necessary electric infrastructure data and subject matter experts. RAND will also work with the cities of Long Beach and Santa Monica, and elicit community engagement and customer support of candidate sites.

The next slide, please. The second project is led by Energy and Environmental Economics, Inc., E3, with support from Gridworks, PG&E, East Bay Community Energy, and will engage local community-based organizations. They will develop a data-driven analytical framework that will include electrification opportunities across PG&E’s service territory in the East Bay. PG&E will work with E3 and provide important customer and infrastructure data, as well as provide subject matter experts. The E3 team will engage the cities of Fremont, West Oakland, Berkeley, and Tracy and gain customer feedback and support for candidate sites. The project will engage -- this project will engage with communities to develop a deep understanding of their priorities on GHG reductions, energy costs and reliability, comfort and health, and the role of natural gas.
The next slide, please. Staff recommends approval of these two grant awards and adoption of staff’s determination that these projects are exempt from CEQA. The RAND Corporation has provided a written statement that they would like read into the record.

Thank you, and I’m available to answer any questions.

CHAIR HOCHSCHILD: Thank you.

Let’s go to public comment, now.

MS. GALLARDO: All right, this is Noemi, the Public Advisor. I do have that comment from RAND, which I’ll read now. Specifically, this is from Kelly Klima, K-E-L-Y K-L-I-M-A.

“On behalf of our team, we would like to thank the CEC for supporting our effort on strategic pathways and analytics for technical decommissioning of portions of natural gas. California’s policies for reducing emissions associated with natural gas will induce transformational changes to our fuel system. This has the potential for resulting in severe inequities both in areas with single-fuel utilities, as well as in disadvantaged or vulnerable communities.

The RAND team looks forward to conducting this policy research to both help inform decommissioning policy, and also to help identify pilot sites for decommissioning.
We feel very fortunate that the CEC is supporting this work and look forward to next steps as California continues to lead in climate change policy.”

MS. GALLARDO: That concludes the comment. And Chair, I do see a hand raised. Let me see here. So, just a reminder to folks to please spell your name and to indicate your affiliation, if any.

Tim Carmichael, you are up and I am opening your line. You may begin.

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

MS. GALLARDO: Yes.


Appreciate the opportunity to provide some brief public comments in support of the RAND Corporation’s grant proposal, or CEC’s grant to the RAND Corporation to fund research to develop a community-level, multidisciplinary, and objective analytical effort that assesses the practicalities of building electrification and identifying locations in Southern California where decommissioning can potentially occur in a just, equitable, and cost-effective manner.
Ms. Ortiz covered the project team and the in-kind matching, so I’ll just cover just a couple other points. The proposed project will pull together detailed data of the gas system, along with socioeconomic data for candidate communities to evaluate different decommissioning sites and approaches.

Functionally, the proposed project will put the SoCalGas system, with our data and hydraulic system data, under the microscope and will allow researchers to focus on requirements, as well as understanding both from a feasibility cost and rate of penetration standpoint on what electrification may mean to our system.

This, and similar proposed analysis is critically important to provide a deeper sectoral view of greenhouse gas mitigation strategies applicable to the building sector, offering a more holistic perspective that accounts for technical and engineering considerations, as well as a more granular and informed data around customer conversion challenges.

To advance the public interest in the provision of essential utility services an examination of the interaction between strategic electrification of the distribution system and decommissioning is imperative to inform and implement key policy tools as California updates legal and regulatory frameworks to support a 2045 net zero
transition.

Thank you again for the opportunity to provide comments and we urge your support for this grant.

CHAIR HOCHSCHILD: Thank you.

Any further public comments on Item 13?

MS. GALLARDO: This is Noemi, Public Advisor. I do not see any hands. But just real quick, folks on the phone press *9 to raise your hand, *6 to unmute. Others use the raised hand icon.

No more hands, Chair.

CHAIR HOCHSCHILD: Okay, than you.

Yeah, I’ll just say I think this area is really ripe for this kind of investment, and the analysis assessments, and engagements with the key stakeholders are going to bear a lot of fruit. So, very happy to support both of these grants.

Commissioner McAllister, did you want to chime in?

COMMISSIONER MCALLISTER: Just briefly, yeah. I think, I agree with you the time is perfect for this. And both of these proposals, both of these awardees I think are going to produce really critical work for our planning going forward. Also, they both complement the skills that we’re building here at the Commission on the gas side. And, you know, as we sort of build the bridges between the
gas conversation and the electric conversation under SB 100, I think that filling in all these informational and analytical gaps is really just helping. It’s going to help to propel the conversation forward in a very, I think, objective and participatory way, which is really how we’re going to get to yes on all this stuff. So, really appreciate both of these and the broader effort.

CHAIR HOCHSCHILD: Okay. Any further comments?

Commissioner Monahan, yeah.

COMMISSIONER MONAHAN: Just a quick one because I just want to complement, well, for both this item and the previous one just the thoughtfulness that went into this with the staff. I agree with everything you’ve said, Chair and Commissioner McAllister has said around the importance of these investments and really trying to understand this, you know, what does it mean to fully decarbonize our -- or, you know, zero out carbons from our overall economy. And these kinds of grants help understand the pros and cons, and the costs, and having so many different project partners. It was really just very impressive the range of stakeholders that are engaged in these analytical projects. I mean, kind of mind-blowing, actually.

So, I want to just thank everyone. And thank Jim, and Michael, and you know, just the whole diverse ecosystem of folks that are involved in these grants,
really impressive.

CHAIR HOCHSCHILD: Well, well said, thank you.

Commissioner Gunda.

COMMISSIONER GUNDA: Yeah, Chair, thank you. I think I just want to start off by thanking Kevin and Reta for their presentations. And specifically want to note Reta’s kind of comments on some of the, you know, things that we discussed yesterday she already incorporated. So, just thank you, Reta, for your responsiveness there.

I agree with Commissioner McAllister and I think CEC has an important function of ensuring that, you know, the dialogue is robust, comprehensive, and inclusive that’s really underpinned with objective and transparent, you know, information.

So, I feel like these two projects really will provide us some important data point on the opportunities, the complexities, the challenges of how we evolve the gas system, the infrastructure and assets in the policy framework of high electrification that we all see as an important strategy of decarbonization.

So, I’m just grateful that we’re beginning the conversation and funding these studies. I’m grateful and thankful to the Assessments Division for developing complementary skills, as Commissioner McAllister noted, and working closely with the PR R&D. And thank R&D staff for
including Commission staff from across the Commission and all the divisions in these important conversations.

I also want to thank the stakeholder participation in the Gas Working Group that we currently have at the Commission. Appreciate the participation of the utilities, the gas utilities in that important conversation, shaping these important policy questions and developing understanding into this data.

I think the best path for California, as we pursue our goals, is data driven that is holistic and complete in the way we understand the system. So, I just am thankful that we are beginning this conversation and doing that in partnership. So, thank you.

CHAIR HOCHSCHILD: Thank you.

Commissioner Douglas, did you want to add anything?

COMMISSIONER DOUGLAS: You know, just briefly. I had a chance to get a briefing on this item and I appreciated that. It was a nice exchange, good presentation here. And I do appreciate the strategic focus here on what it takes to achieve physical decommissioning, while also prioritizing community perspectives.

So, you know, I’m supportive of this and looking forward to seeing the results.

CHAIR HOCHSCHILD: Yeah. Well, I think sort of
the take home point is this kind of thing is much better
done when it’s planned, rather than unplanned.

COMMISSIONER DOUGLAS: Yeah.

CHAIR HOCHSCHILD: And I think it’s, you know,
also a tribute to your terrific work, Commissioner Douglas,
on planning for renewables, and transmission, and so forth.
That bears a lot of fruit. And I just really look forward
to the results of these two grants and I’m happy to
support.

Let’s see, Commissioner McAllister are you
willing to make the motion?

COMMISSIONER MCALLISTER: Yes, I’m happy to move
Item 13.

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

COMMISSIONER GUNDA: Happy to second.

CHAIR HOCHSCHILD: Okay, all in favor say aye.

Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHA: Aye.

CHAIR HOCHSCHILD: And Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.
CHAIR HOCHSCHILD: And I vote aye as well.

That item passes unanimously.

Let’s turn now to Item 14, Entrepreneurial Ecosystems.

MR. NG: Okay, good afternoon Chair and Commissioners. My name is Anthony Ng, with the Research and Development Division. And today I am here to request approval of five awards totaling just under $53 million.

These five projects comprise the foundational elements of the EPIC program’s Entrepreneurial Ecosystem which collectively provide support for early stage clean energy companies by connecting them with the funding, training, resources, and expertise needed to help turn technologies and concepts into businesses and products that can benefit ratepayers, consumers, and companies.

The next slide, please. These projects were initially approved by the CEC in 2016 and the impact these programs have had so far have been encouraging. Over 200 companies have been supported by these five programs and they have gone on to attract over $1.6 billion in follow-on public and private investments. These companies employ over 1,000 people throughout the state, they hold over 400 patents, and 4 companies have had successful exist in either acquisitions or initial public offering.

The next slide, please. Taking a step back just
to add a little bit of context, these projects were started
in response to feedback we had been hearing from
stakeholders that there was a growing gap in private sector
support for clean energy technologies. The venture capital
and investor model that had worked so well for software
startups was not translating well over to clean energy
startups. Compared to software, clean energy innovations
took far too much time and capital to reach market. The
Entrepreneurial Ecosystem was the CEC’s effort to fill that
gap.

The next slide, please. The result were these
five interconnected projects, four regional energy
innovation clusters, and the California Sustainable Energy
Entrepreneur Development Initiative.

Approval of this item today will provide the
additional time and funding for these five projects to
continue providing critical support for California’s clean
ergy entrepreneurs.

While the five projects collectively represent
one effort, I’ll spend a little bit of time talking about
each one individually.

The next slide, please. First is Cleantech San
Diego, who runs the Southern California Energy Innovation
Network. Covering the San Diego, Inland Empire and
Imperial Valley regions, Cleantech San Diego provides
customized service plans to fit entrepreneurs’ technology and business needs.

Examples of services include connections with investors and industrial partners, opportunities for pilot demonstrations, as well as consulting on business model development and customer discovery.

The next slide, please. Next is Activate Global. Activate operates the Cyclotron Road program in conjunction with Lawrence Berkeley National Lab, a two-year fellowship program focused on helping scientists bring their research to market. With a focus on hard tech, fellows can leverage the facilities at LBNL, while also going through a rigorous curriculum to turn ideas into businesses.

The next slide, please. Next is California State University Fresno who manages the Blue Tech Valley program. Covering the central valley, north state, and central coast, Blue Tech Valley covers the largest geography out of the innovation clusters. Blue Tech Valley partners with other CSU’s across the state such as Bakersfield, Monterey, and Chico to form a hub-and-spoke model to cover the large area. Blue Tech Valley specializes in agricultural and water-related energy technologies and provides unique resources such as irrigation testing laboratories, as well as farm demonstration sites.

The next slide. Our last innovation cluster is
the Los Angeles Cleantech Incubator. LACI operates several programs that provide one- to two-year support for companies ranging from precommercial products all the way to those seeking Series B investments. With a focus on technologies related to clean energy, zero emission mobility, and circular economy, LACI provides entrepreneurs with advisory services, business development support, and pilot opportunities.

The next slide. Our final project is the CalSEED Initiative. As you heard earlier from my colleague Mike, this is our small grants program focused on funding early stage concepts. Awardees receive initially $150,000 to develop promising concepts, with a chance to compete for an additional $450,000 to further develop prototypes. Additionally, CalSEED awardees are put through a business development curriculum through cleantech open, and gain access to an extensive network of potential partners and investors.

The next slide, please. That concludes my presentation. Staff recommends approval of this item and adopting staff determination that projects are exempt from CEQA.

I’m happy to answer any questions you may have.

CHAIR HOCHSCHILD: Thank you, Anthony.

Let’s move on to public comment.
MS. GALLARDO: This is Noemi, the Public Advisor. We do have several hands raised. The first one is Danny Kennedy. Danny, a reminder to please spell your name for the record, indicate your affiliation if any. I will open your line and you may begin.

MR. KENNEDY: Hello, thank you. This is Danny Kennedy, D-A-N-N-Y K-E-N-N-E-D-Y. And I am the CEO of New Energy Nexus and the California Clean Energy Fund is the organization I manage in California. And I’m so excited and pleased to speak to you and thank you for this opportunity to continue to grow this garden, as the Commissioner was talking about earlier, of entrepreneurs and this entire ecosystem that you’ve built since 2015 very intentionally, but also allowing some sort of wild edges and new ideas to pop up, and spring up from the fertile ground you’ve created.

So, I wanted to start by thanking particularly the team that Anthony works with, Eric, and Josh, and Laurie and the whole gang that help make all of these activities in the ecosystem possible. And also thanks to our team at the California Clean Energy Fund that administers CalSEED, Joy Larson, who you heard from earlier, Sara Chester, Dawn Maser, Kelly Soria, Christina Bolsom (phonetic), all incredible people that have supported these dozens and dozens of startups each year for
the last several years.

As well as the partners that we have with the CalSEED Program. The Cleantech Oakland that you’ve heard runs the accelerator for them. The Greenlining Institute that has really helped build our social equity in/social equity out outcomes. The Center for Sustainable Energy, Momentum, Lawrence Berkeley National Lab. All of them have been great. As well as the cluster organizations in the ecosystem to create this.

But most of all I want to thank the entrepreneurs and really encourage the Commission to continue to support it with this decision today.

You know, as mentioned we’ve had 90 some so far in the CalSEED Program. Most are, you know, these fantastic, ambitious young people looking to change the world, and stop the climate problem we have on earth. But also a lot of older people, and people from all walks off life on that same journey and with that struggle.

Real great successes. You know, just want to call out again the fact that we have had actual exists in sort of less than four years. When we talk about accelerating innovation, stories like Cuberg should really be highlighted. This is a team that came out of Stanford University in 2017, when we just started CalSEED, they were in the first cohort. They also wen through the CalTestBed
program which the CEC funds. They were acquired earlier this year by Northvolt. They’re a lithium metal battery component. You know, a fairly hardware, hardtech solution to sort of an industrial component that normally would not see an exit in a decade. So, we’re really seeing the fruits of this garden growing faster and getting products to market sooner.

There’s a bunch of battery startups with supported sethion (phonetic) core shell. You heard earlier from Power Flicks (phonetic) in the EV charging arena that has actually had an exit as well. And that obviously is leading to the lithium valley garden in the corner of the state, in Imperial County, which is growing with CEC support, and the startup ecosystem is overlapping strongly with that.

So, I’d really, you know, compel you to support this and continue to get behind it. I wanted to highlight the underrepresented on the teams that have been supported through CalSEED so far. Some quick numbers, 17 percent of the fund, 3 and a half million or more, have been awarded to companies located strictly in low-income, disadvantaged area communities. And over 38 percent, or $8.1 million have been awarded to entrepreneurs from underrepresented groups. So, we sort of beat our diversity inclusion numbers that we committed to at the start of the program,
but we want to do better yet in the next go-round, in the next 3 to 5 years with this support.

And we’re also collaborating very highly with all the other ecosystem organizations. I used to call CalSEED the brakes on the skids, but I think the garden analogy is a much better one. But 30 percent of our companies have been funded with companies that are also supported by Activate, or LACI, or Blue Tech Valley, and Cleantech San Diego. So, 21 percent of our companies in CalSEED are already going into the CalTestBed Program, which is a statewide with the University of California, Office of the President.

In other words, the synergies are happening, the systems working, the ecosystem is rich and diverse. I want to thank the CEC for the opportunity to build it and really excited to get on with this next five years. Shine on, thank you.

CHAIR HOCHSCHILD: Thank you, Danny.

Noemi, do we have any additional public comment on this item?

MS. GALLARDO: Yes, we do. The next person is Marty Turock. Marty, apologies if I mispronounce your name. Please restate it and spell it, and then indicate your affiliation if any. Your line is open now.

MR. TUROCK: Good afternoon Chair Hochschild,
Commissioners, and Deputy Director Laurie ten Hope. My name is Marty Turock, you got it right on. M-A-R-T-Y T-U-R-O-C-K. And I’m calling in today on behalf of Cleantech San Diego and the Southern California Energy Innovation Network.

First and foremost, I would like to thank each of you in the California Energy Commission for its visionary leadership in establishing this California Entrepreneurial Ecosystem that Cleantech San Diego is so honored to be a part of.

For the past five years I’ve had the privilege of managing the state’s southernmost cluster. That’s the Southern California Energy Innovation Network, which supports breakthrough clean energy technologies being developed in Imperial, Riverside, San Bernardino, and San Diego Counties.

The impact we’ve seen this program make on our region’s cleantech innovation industry is truly remarkable, and Cleantech San Diego is beyond grateful to the California Energy Commission for your investment in its success.

Since it’s launch in 2016, I’m proud to report that 50 energy startups have been served by our innovation cluster, 37 of which are currently active in the program. 74 percent of these companies have diverse representation
of women, minorities, and Veterans in their leadership teams. Together they employ over 320 people and have raised more than $160 million in follow-on capital investments from public and private sources since being accepted into the program. It’s worth noting that that represents a more than 30-fold return on investment, all with direct benefits to California electric ratepayers.

Over the last five years we’ve seen our entrepreneurs not only raise capital, but they’ve won highly competitive technology competitions, deployed their technologies around the world, and helped further California’s leadership in transitioning to a clean energy economy.

Clearly, the commercial successes of eMotorWerks, who was acquired by Enel X, and Nuvve, have accelerated market transformation in vehicle-grid integrated smart EV charging not only in California, but around the world.

Similarly, the fastest and most sophisticated Durham software platforms available from CleanSpark and XENDEE can guarantee the bankability of DER and microgrid projects, which is contributing to their accelerated adoption.

And this is because of your support of our program and in turn the dedicated commitment of the entrepreneurs that we’re working with.
So, in closing Mr. Chairman and Commissioners,

thank you again for your leadership and now supporting the
state’s Entrepreneurial Ecosystem for another fives years.
you’ve really created an exciting and promising path to
market for entrepreneurs through the state.

I’d also like to take this opportunity to thank
Eric Stokes, Anthony Ng, and Oliver. Our success is tied
to the support that they provide and we’re so fortunate to
have them as strong partners on our team.

It’s an absolute honor to steward this program
and to see the positive impact it’s having on the state’s
clean energy economy and climate action goals. Along with
our current member companies, we have a solid pipeline of
new startups that we look forward to supporting over the
next five years in commercializing new clean energy
technologies for the benefit of all Californians.

So, thank you so much.

CHAIR HOCHSCHILD: Thank you.

MS. GALLARDO: All right, so this Noemi, the
Public Advisor. We do have one more public comment. That
is Lauren Harper. Lauren, a reminder to please spell your
name, indicate your affiliation if any. Your line is open,
you may begin.

MS. HARPER: Good afternoon. My name is Lauren
Program Manager at the Los Angeles Cleantech Incubator.

I’m delighted to be here today and on behalf of LACI provide supportive comments for Item 14.

As a recipient of the Commission’s EPIC program since 2016, LACI has provided direct incubation services support to 54 startup companies through its Innovators Program alone. Collectively, these companies have raised over $834 million in venture capital and $46 million in follow-on funding during that time span.

With the proposed increased funding, LACI will build upon its success by serving approximately 57 startups within one year, culminating into 234 startups over the next five years, with the objective of increasing our diversity in our founders.

We appreciate the CEC’s opportunity to support and -- the CEC’s support and partnership, and we look forward to continuing to work together to help the state unlock clean energy technology break throughs, as well as build an inclusive green economy. Thank you for your consideration and opportunity to provide public comments today. And it’s a pleasure and a delight to work with your teammates and your staff every single day. Thank you.

CHAIR HOCHSCHILD: Thank you.

Noemi, is that all the public comment?

MS. GALLARDO: Yes, that’s all the public
comment, I see no more hands.

CHAIR HOCHSCHILD: Okay. Well, thank you to all
of the stakeholders for providing those comments.
Thunderous agreement from me and I think from my colleagues
on all that.

A few points I want to make. First of all, I
just really want to thank again Anthony NG, Eric Stokes,
the whole team, Laurie ten Hope, incredible work on this.
I love the geographic distribution of these hubs. I love
the comprehensive approach, the big thinking. You know,
couldn’t be more proud of the strategy and approach here.

You know, I would just say we are here at the
Energy Commission to serve these entrepreneurs. You know,
our goal is really to set the policy direction, work with
the Legislature and the Governor on the overall goals.
And, you know, we’re really here then, once those are set,
to support the success of this whole ecosystem and all the
entrepreneurs.

And if you think about where we’re at today,
right, 1.2 million solar roofs, we’re adding 400 solar
roofs a day in California, almost 900,000 electric vehicles
sold in the state. We’re adding 650 a day. Then you go
back to 15 years ago when those felt like pipe dreams, and
it was a bunch of entrepreneurs working out of their
garages to build those industries, and not they’re building
it.

And the same is going to happen, I think, with battery storage. We’ve got 40,000 systems in and adding about 40 a day. But that’s, you know, growing rapidly.

And there’s so much else that all these entrepreneurs in these various hubs are engaging in, and have huge potential for growth. And they’re better off for being part of an ecosystem that is really tending to all the needs, and sticking them together, and helping really to make use of all of the resources we have in the state. I think this program does a terrific job of that.

I especially wanted to thank Jen Martin Gallardo for filling a position which I created right after I came here, of really being our advocate and ombudsman for grant recipients to help the process go better when people are applying for grants. And they get a friction-free, and simple, and as accessible as it possibly can be. She’s done a phenomenal job working not just in this program, but across all of our programs on that to better serve applications for grants, and entrepreneurs and I’m very pleased with that progress.

So, I just wanted to say that. And I also, again, wanted to stress how many of the climate solutions that are really emerging in California run through the electric grid in one fashion or another. And as we now,
you know, approach a hundred percent clean energy, we need
everything that connects to the grid to be a good citizen
of the grid. And there’s so much happening in this space,
as well, in terms of making all these great new solutions
help support grid reliability and renewables integration.
I’m really excited by that prospect as well.

With that, let me turn it to my colleague
Commissioner McAllister for any comment.

COMMISSIONER MCALLISTER: Great.

CHAIR HOCHSCHILD: Go ahead.

COMMISSIONER MCALLISTER: Great, thank you Chair
Hochschild. I just -- I won’t repeat what you said, I
agree wholeheartedly. And, you know, this is $53 million
injected straight into the Entrepreneurial Ecosystem here
for decarbonization and that’s a big deal. So, I want to --
so, thanks Danny for your really visionary comments. And
Marty, good to hear your voice as well. And just it’s nice
to be able to leverage the diversity across our big,
beautiful state, and really get fertilizer all over the
garden, you know, it’s a big garden. So, really want to --
it’s a big, organic garden let’s say.

But yeah, so anyway wholeheartedly support this
item, clearly.

CHAIR HOCHSCHILD: Thank you.

Anyone else wishing to make a comment?
Commissioner Douglas? Okay.

All right, then I’d welcome a motion,

Commissioner McAllister, on this item.

COMMISSIONER McALLISTER: Indeed, I’ll move Item

14.

CHAIR HOCHSCHILD: Okay. Commissioner Douglas,

would you be willing to second that?

COMMISSIONER DOUGLAS: Yes, I second that.

CHAIR HOCHSCHILD: All right. All in favor say

aye.

Commissioner McAllister?

COMMISSIONER McALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?

COMMISSIONER MONAHAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

That item passes unanimously.

And that’s the biggest item we’ve approved in a

while. So, congratulations to all, thanks for all the hard

work to get us here.

All right, let’s move on to Item 15, Evaluation

of Bi-Directional Energy Transfers and Distributed Energy
MR. WENDER: Good afternoon Chair and Commissioners. My name is Ben Wender. I’m an electric generation system specialist in the Energy Research and Development Division.

Today I’m presenting two recommended awards from the EPIC solicitation of that long title you just mentioned. Two other projects from this solicitation were approved at the May business meeting and two additional projects will be brought to a future business meeting.

The next slide, please. The proposed awards will bring multiple benefits to Californians. The technologies developed through these awards will facilitate charging of large electric vehicles, like heavy-duty trucks, in ways that reduce stress on the electric grid, increase use of distributed energy resources, and reduce the cost of charging for fleets transitioning to electric vehicles. These technologies can also provide resilience benefits for sites and communities where they are deployed, while maximizing emission reductions from both the electric and transportation sectors.

The next slide. The objective of the solicitation and the projects recommended today is to develop integrated distributed energy resource packages to

Resource Integration for Medium- and Heavy-Duty Fleet Electrification.
help charge fleets of medium- and heavy-duty electric vehicles. Transportation electrification will contribute to growing requirements on California’s electricity system with three example scenarios of electric demand growth shown here. The projects will demonstrate distributed energy and high-power charging technologies to reduce the cost of charging, increase utilization of renewable electricity, and provide on-site back-up power to increase resilience.

The next slide, please. In the first project, TA Operating will deploy 200 kilowatts of solar PV, 500 kilowatts of battery storage, and a 100 kilowatt hydrogen fuel cell to power multiple 500 kilowatt fast chargers, as well as battery integrated 150 kilowatt DC fast chargers at a public access truck stop in Ontario, California. The hydrogen fuel cell, battery storage, and PV will operate together to provide long-duration backup in the event of power outages. As shown here, the site is adjacent to Interstate 10 and serves more than 15,000 medium- and heavy-duty vehicles per month, providing a highly visible and highly trafficked demonstration site.

The next slide, please. The second project, with Sysco, will deploy 1.5 megawatts of rooftop solar PV, 4 megawatt hours of stationary storage, and 1.2 megawatts of high-power chargers to charge a fleet of 40 new electric vehicles.
semi-trucks operating at a food distribution warehouse located in Riverside. The project will demonstrate integrated fleet scheduling, charger management, and distributed energy resource management to provide low-cost, high reliability, resilient charging solutions. The image on the right shows the CalEnviroScreen 3.0 scores for the demonstration site, which locates in the 95th percentile of pollution vulnerability and burden. The Inland Empire Community Foundation will facilitate engagement with local residents with an emphasis on workforce development, local employment opportunities, and local health benefits.

The next slide. Staff recommends approval of these two grant awards and adoption of staff’s determination that these projects are exempt from CEQA. I’m available for any questions, as are representatives from both of the proposed recipients.

Thank you all very much and that concludes my presentation.

CHAIR HOCHSCHILD: Thank you so much, Ben.

Let’s move on to public comment.

MS. GALLARDO: This is Noemi, the Public Advisor. I do not see any hands at the moment. So, let me give a reminder to attendees. Please raise your hand using the raise hand icon. If you’re on by phone, press *9 to raise your hand, *6 to unmute.
And now, it does look like we have a hand raised.

So, this is Brett. Brett, reminder to please restate your name, spell it, and indicate your affiliation if any. Your line is open, you may begin.

MR. HECKER: Good afternoon. My name is Brett Hecker, B-R-E-T-T H-E-C-K-E-R. I am currently Vice President of Gasoline Renewable Fuels and Pricing for TravelCenters of America, and have been with the organization for just over 17 years.

I am deeply humbled to be here today and want to thank you personally, and on behalf of Travel Centers of America for considering our project.

Under new leadership, our company is deeply committed to helping in the fight against climate change and becoming a part of the solution. This is evidenced by the fact that we have recently developed a new department within TA, called ETA, which will be led by our new Senior Vice President of Alternative Energy and Sustainability. He has years of experience and a wealth of knowledge in this space.

I will also be transferring to this new department, along with several others to show our dedication to this transformation.

This project is the first of many that we plan to deploy in the coming months and years. Our goal is to
design, deploy, and demonstrate new technologies for public access with the goal of making them scalable, cost effective, and reliable. This is extremely important for our customers as they convert their fleets to be recharged or refueled by various alternative energy sources.

Our network of sites is ideal for this initiative and others as our sites are strategically positioned along most, if not all, major interstates in both the State of California and the entire United States. We hope this project is the first of many that makes EV infrastructure more readily available, which will in turn provide confidence to fleets and others considering the necessary shift to alternative energy vehicles.

In closing, we look forward to working with you and I’m confident we will be successful partners. I just want to say thank you again, both personally and on behalf of TravelCenters of America. Thank you.

CHAIR HOCHSCHILD: Thank you.

MS. GALLARDO: Let me check. A reminder to folks, please use the raised hand feature, or press *9 if you’re on by phone to indicate you’d like to make a comment, and then *6 to unmute.

Chair, I do not see any hands, we can move
CHAIR HOCHSCHILD: Thank you. Well, let me just thank the team for putting this together. I’m really excited to support this.

As I’ve mentioned before, I think the envelope of possibilities for electrification, particularly in the transportation sector, is expanding every year. And things like medium- and heavy-duty fleet electrification even a few years ago were not seen as realistic, and now very much is going that way. And this is an important step in that direction. So, really glad to see this coming through. It’s particularly important for low-income and disadvantaged communities that have to bear the burden of pollution from medium- and heavy-duty. So, I’m really excited to support this.

I will see any of my colleagues would like to make a comment. Commissioner Monahan.

COMMISSIONER MONAHAN: Thanks Chair. And thanks, Ben, really great set of projects that have been -- you know, the ones that have been made, and now this set, and we’ll have some more coming forward.

I’ve got to say I just love that TravelCenters of America is investing in electric transportation, both for fuel cells and battery electric. I mean I just think it’s the future and the fact that we have great partners here
that are really trying to think through how do we make this
good for customers. How do we really create this ecosystem
where when you’re refueling your zero emission vehicle you
can get some food, and you can do some other things, and
you can rest. So, this idea of like charging your vehicle
isn’t the same as filling your gas vehicle. You know, it’s
you’ve got to wait a little bit longer.

And as we try to think through the best ideas for
vehicle-grid integration it just takes a more flexible
model for refueling.

So, I’m excited about this set of investment and
really give kudos to the team and to the grantees for
applying for this and being willing to take on this
challenge of developing an entirely new system for
refueling our vehicles.

CHAIR HOCHSCHILD: Thank you, Commissioner.

Unless there are other Commissioners wishing to
comment on this, let’s see, Commissioner Monahan would you
be willing to move Item 15?

COMMISSIONER MONAHAN: I move Item 15.

CHAIR HOCHSCHILD: Okay, and Commissioner
McAllister would you be willing to second?

COMMISSIONER MCALLISTER: I’ll second it.

CHAIR HOCHSCHILD: All right.

Commissioner Monahan?
COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: And Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

Item 15 passes unanimously.

We’ll go now to Item 16, the ACEE Program:

Advancing and Commercializing Energy Efficiency in California’s Industrial, Agricultural, and Water Sectors.

MR. LOZANO: Good afternoon Chair and Commissioners. My name is Michael Lozano, with the Energy Efficiency Research Office, and I am Co-Solicitation Manager for this grant funding opportunity.

I’m here today to present the GFO titled advancing and commercializing energy efficiency in California’s Industrial, Ag, and Water Sectors, and what we’re calling the ACEE program.

The next slide, please. This GFO has two groups, dairy and dairy-related operations, and wastewater treatment. The first group, California is home to 1.7 million dairy cows who produce the milk that is the foundation of a $6 billion dairy industry. This is also an
industry that can benefit from innovative ways to keep the
cows happy to produce high quality milk, and also for
digitations of its operations to allow plant operators to
optimize process operations for energy efficiency, and
increased productivity.

For dairies, the project goals are to use
artificial intelligence and machine learning, with sensors
of hardware for low-cost, but impactful solutions for
California dairies.

Group two is wastewater treatment. On average,
California treats 4 billion gallons of wastewater per day,
with an annual energy consumption of 1,700 gigawatt hours.
Most of these facilities are reaching the end of their
design life and can benefit from technologies that can
increase capacity, reduced overall footprint, and lower
energy and operational costs.

The next slide, please. The first project is
with UC Davis, group one. As part of this project UCD
will combine an existing model of spray-cooling of cows,
but with a model on cow core body temperature and related
physiological responses, including such things as increased
respiration, sweating. And that’s to get accurate real-
time cooling needs based on outdoor air temperature,
humidity, airspeed, roof temperature and climate zone.

Overall, the new control algorithm will account
for the cow’s heat gains and losses due to metabolism, respiration, water intake, all to adjust spray cooling to minimize heat stress while reducing electricity and water usage. UCD will demonstrate the technology at five dairies, three of which are listed on this slide. The project anticipates 2 percent market adoption per year, and by year 10 to save 50 gigawatt hours and 12 billion gallons of water.

The next slide, please. The second project is with the Zira Group. Zira will deploy a more advanced version of Zira’s artificial intelligence and machine learning platform that will promote comprehensive operational digitization, and generate insights and drive action based primarily on data acquired from electricity meters.

As part of this, preliminary technology will be enhanced to include installation and monitoring of electricity meters on such things as cooling systems, compressed air and major pumps at the dairy processing plants. These three areas comprise about 50 percent of electricity usage at the sites under consideration. And Zira will start with 5 dairies, 3 of which are already identified, and expand to 30 total to fully train the artificial intelligence and machine learning algorithms to reliably perform the real-time analytics, and it will
developed recommended actions on energy savings and preventative maintenance. The goal is 1-year payback with 20 percent electricity reduction.

The next slide, please. The third project and the final for Group 1 is with Enpowered Solutions. Enpowered Solutions will deploy their dairy AI and machine learning, artificial intelligence technology at 5 dairy facilities. This platform of hardware, software and sensors will measure and intelligently optimize the energy used by 3 key processes within the dairy. Namely, pasteurization, cleaning in place, and storage. These processes consume more than 80 percent of the energy used in a typical dairy.

The artificial intelligence component of DairyAI will use predictive analytics to turn raw data from their processes and control variables into actual decisions about the operations of the plant utility systems. The goal of this project is a 2-year payback, with 10 percent electricity reduction.

The next slide, please. The fourth project and the first of Group 2, is with Caliskaner Water Technologies. This project includes the design, installation, demonstration, and evaluation of three advanced primary treatment systems and three advanced secondary treatment systems.
This project will conduct baseline testing individually of the three primary treatment and the three secondary treatment technologies, and then conduct combined primary and secondary treatment combinations.

So, basically this is three primary treatment technologies in parallel and in series with that will be three secondary treatment technologies, and you can mix and match.

This is a comprehensive project that will showcase next gen wastewater treatment technologies, with the three primary and three secondary treatment technologies, and they will be evaluated individually and in combined flow.

The wastewater community will benefit from seeing such diverse methods and can choose the best fit for their application. In addition, ancillary benefits include things such as odor reduction and other quality-of-life benefits for the surrounding communities that isn’t usually included with, you know, electricity savings and water savings.

At 25 percent adoption of these primary and secondary treatment processes, and 25 percent estimated energy efficiency gain, these combined technologies are estimated to save 125 gigawatt hours per year.

The next slide, please. The last project is with
Gate 5 Energy Partners. This project will demonstrate the Gate 5 system, which is the modular advanced primary and secondary treatment system that can also turn biosolids into biofuels for on-site energy production.

We’re doing a partial funding of this project with the available solicitation funds, so we’ll only be doing the advanced primary and secondary treatment portion.

The Gate 5 system filters and diverts as much solids as possible to reduce the energy required for aeration during secondary treatment. And that’s basically what you see in this diagram here.

The project anticipates 60 percent reduction in aeration energy and 25 percent increase of treatment capacity. The work to be undertaken for this is covered in the CEQA documents prepared by the lead agency at Santa Margarita Water District in 2014, including a Mitigated Neg Dec.

The next slide, please. Staff recommendation.

Staff recommends approval of all five projects in this item, as well as staff determination that Item 16a through 16b are exempt from CEQA.

I’m going to read the next part. “With respect to 16e, Gate 5 Energy Partners, they find that based on the lead agency Santa Margarita Water District’s December 20, 2013 Final Initial Study, as revised on February 5, 2014,
their Mitigated Neg Dec, Mitigated Monitoring and Reporting Plan, and their Resolution No. 2014-02-02 approving and adopting the Mitigated Neg Dec and the Mitigating Monitoring and Reporting Plan, the proposed project presents no significant or substantially more severe environmental impacts beyond those already considered.”

This concludes my presentation. Thank you for your time. I am available to answer any questions.

CHAIR HOCHSCHILD: Thank you so much.

Let’s go first to public comment.

MS. GALLARDO: And this is Noemi, the Public Advisor. Reminder to folks to use the raised hand feature if you’d like to make a public comment. For those on the phone that would be *9 and then *6 to unmute.

Chair, I do not see any hands.

CHAIR HOCHSCHILD: Okay, thank you.

Well, these look terrific. I obviously am especially mindful of the fact that we’re in drought conditions and there’s some water savings here as well. So, really thanks to you, Michael, and the rest of the staff for putting these projects together.

Would welcome any comments, starting with Commissioner McAllister on this item.

COMMISSIONER MCALLISTER: Yes, I got a nice briefing on this and am very supportive of both of the
tranches, the dairy projects and the wastewater treatment projects. I do think both of these items, while we’re doing a lot of them, they -- you know, particularly water, you know, it weights a lot and it uses a huge amount of the energy in our state. And I think there’s just a lot of potential to dig in. I’m really happy to see these projects and this learning is really going to lead to great things, I think, with -- there are lots of wedges of opportunity in both of these sectors I think going forward. So, I’m glad to see us taking advantage of that and really moving on to these sectors that are more difficult, but are a big part of the solution. So, I’m happy to support this.

CHAIR HOCHSCHILD: Thank you.

Unless there’s other comments from my colleagues -- yeah, Commissioner Monahan.

COMMISSIONER MONAHAN: Yeah, just really briefly. I, too, got a briefing from staff, so thank you for that. And I’m really interested in how we use our grants to demonstrate to others in that sector how they could save money by reducing their energy use. And so, that idea of how we use our limited grant funds to be able to scale up and to evaluate the migration of technologies to other facilities is, I think, a really important one. And one that I give, you know, credit to the EPIC program for
really trying to track, well when we make these investments, what kinds of other investments flow as a result of them.

CHAIR HOCHSCHILD: Agreed.

Commissioner Gunda, were you going to make a --

COMMISSIONER GUNDA: Yeah, Chair, thank you.

Just quickly, I just wanted to take this opportunity to thank the entire team for all the tranches and investment, you know, projects that we just heard. And specifically, thanks to Michael for the thoughtful he provided. And thanks to all the questions and feedbacks. So, thank you so much Michael and the team.

CHAIR HOCHSCHILD: Great. And, you know, it is my hope going forward that we continue to focus on water. I think we may be in for a long drought cycle. And I visited Australia to give a talk a few years ago, and they went through this 13-year drought that really, really pushed hard on a bunch of different technologies and approaches, and they’ve ended up with some permanent improved practices on water. And I hope, really, in everything we’re doing that we’re mindful of the new era that we’re in and continue to push on all of these water conservation strategies, as well as energy.

So, with that, unless there’s any other comments, I’d entertain a motion from Commissioner McAllister on Item
COMMISSIONER MCALLISTER: Yes, for sure I wanted to just take the opportunity to congratulate the EPIC team on a huge set of projects today at the business meeting, including this one. So, lots of great stuff moving forward.

So, I will move Item 16.

CHAIR HOCHSCHILD: I thought you were going to say it’s an EPIC achievement but --

(Laughter)

COMMISSIONER MCALLISTER: I knew you would.

CHAIR HOCHSCHILD: We’re getting a little loopy here after five and a half hours of the meeting. Well said.

So, motion by Commissioner McAllister.

Commissioner Gunda, would you be willing to second.

COMMISSIONER GUNDA: I second the motion.

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: And Commissioner Monahan?
COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

That item passes unanimously.

All right, congratulations guys. Thanks everybody.

Let’s move on to Item 17, approval of the Business Meeting Minutes.

Are there any public comments on that, Noemi?

MS. GALLARDO: This is Noemi, the Public Advisor. I’m not seeing any hands at the moment. Let me just make one more call out for that. Anyone interested in making public comment on Item 17, please use the raised hand feature or press *9 if you’re on by phone.

And I do not see any hands, Chair.

CHAIR HOCHSCHILD: Okay. Unless there’s Commissioner discussion, Commissioner Douglas would you be willing to move Item 17.

COMMISSIONER DOUGLAS: So, yes I move Item 17.

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

COMMISSIONER MONAHAN: I second that.

CHAIR HOCHSCHILD: All in favor say aye.

Commissioner Douglas?

COMMISSIONER DOUGLAS: Aye.

CHAIR HOCHSCHILD: Commissioner Monahan?
COMMISSIONER MONAHAN: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: And Commissioner Gunda?

COMMISSIONER GUNDA: Aye.

CHAIR HOCHSCHILD: And I vote aye as well.

That passes unanimously.

Let’s move on to Lead Commissioner or Presiding Member Reports, starting with Commissioner Gunda.

COMMISSIONER GUNDA: Thank you, Chair. A lot of things happening and I wanted to just take a moment to highlight some, but maybe not all of it. But just want to first of all thanking the staff in EAD, Siting, and Transportation for answering a number of queries over the last, you know, month trying to help support reliability questions for the summer, as well as understanding the drought conditions, and just kind of figuring out, you know, how we’re looking for the summer and how well prepared we are. So, just wanted to extend my thanks to all the staff in all the divisions, and the management.

A few high level pieces. I want to highlight that I was part of the CPUC’s AAPI event earlier this month. You know, I wanted to thank Chair Hochschild, you again for bringing the dialogue of social justice into the Energy Commission and keeping it as a focus. And I’m just
really happy to see those discussions happening at our sister agencies and having the opportunity to speak to that, and being able to be vulnerable and talk about, you know, all the things we need to be talking about to help address, you know, the future of our great state.

So, the second one I just wanted to highlight is the SB 100 workshop. I’m sure Commissioner Douglas is going to talk about it. I’m really thankful for her leadership on kicking off this interagency work. Specifically for me, I kind of took away a number of opportunities for modeling that came out of that workshop and will continue to think through, Commissioner Douglas and I, on how best to respond to those and make it a work plan for the CEC, and engage our sister agencies.

We also have been talking to UC Riverside and other educational institutions on the opportunity for them to participate in voluntary load reduction and load flexibility, as a part of our reliability strategy for the state. In light of that, you know, Le-Quyen, you know is helping pull together a roundtable where we can think through the opportunities for educational institutions helping us be a part of the solution for this summer and beyond.

I also had an opportunity to participate in a DAP hosted natural gas discussion earlier this week, or last
week. Last week, sorry. And it really kind of informed me that, you know, a lot of the states are kind of thinking about the same questions and grappling with the same issues. And it was just kind of good to have a network of peers to think through some of the questions we’re dealing with here.

And Commissioner McAllister and I had opportunities to talk through some gas decommissioning tools and just appreciate the work that the state, the IOUs, our partners in CCS, everybody’s doing on moving the state towards decarbonization goals.

I want to just take a minute to note that I had the opportunity of having the company of Liz Gill, in the office of my advisor, second advisor. She started last week. Thanks to Liz, she will make me look better than I’m supposed to look. So, thank you, Liz. And I also have Sudhakar Konala joining the office next week. And they will be focusing on demand and supply sides.

In the interim, thank you Chair for loaning Le-Quyen and she’s continuing to be fabulous. And Nina, thank you so much for keeping us moving forward.

With all that, you know, I’m just moving along. There seems to be a lot of work and I just feel very blessed to have all four of you as colleagues and mentors to me. Thanks.
CHAIR HOCHSCHILD: Well, thank you and congratulations to Liz and Sudhakar. And I would stress that Le-Quyen, it is a loan. I would be helpless without her. So, great.

Let’s move on to Commissioner Douglas.

COMMISSIONER DOUGLAS: Thank you very much, Chair Hochschild. I had, it was probably an eventful period since the last business meeting, so I’ll keep this update brief.

But we, you know, after years of work and a lot of effort, we were able to participate with the Biden administration in an announcement that really opens up offshore wind in California on both the Central Coast, and also the North Coast. There’s going to be a quite a bit of work now going forward to get to the next stages of that. And in fact, we’re already coming up with a plan for the Energy Commission to help support the outreach effort by pulling together a quick webinar, giving stakeholders a picture of what to expect going forward, and helping tee up a task force meeting which will follow shortly thereafter.

So, I’m excited about that. I’m very excited about that.

And we also had -- we held our Tribal Energy Resiliency Conference. We try to do a conference involving California Native American Tribes just about every year to
every other year. And of course we didn’t do it last year because of the pandemic. This one was virtual. But the attendance was fantastic. And we had participation from multiple state agencies. We had federal participation. We reached a very large number of tribes and we were really -- it was really a great event. And the Governor actually joined us for part of the opening and joined the discussion with the Chair. It was really fantastic and an exciting event.

And finally, as Commissioner Gunda mentioned, we had the inaugural SB 100 build out or implementation workshop. And that was the culmination of a lot of agency discussions and a lot of stakeholder meetings, where we are really working to come to terms with what will it look like on the ground to achieve our SB 100 goals. What do we need to do to achieve the level of build out that we need, and what are the choices in front of us, and the opportunities, and the appropriate timing and sequencing of those opportunities so that we take the steps that need to be taken, and in a timely fashion.

It’s going to be a significant effort, but I think it’s always valuable to look down the road and to just assure that you’re taking the steps you need to take to get to the goals that you have. And we’re building on a tremendous amount of experience in this area that the
Energy Commission and our partner agencies have developed over, really at this point, decades. But we have a lot of work to do in this space.

So, those are my updates. I kept it to probably the big three. And thank you for letting me go a bit out of order here.

CHAIR HOCHSCHILD: No, thank you Commissioner. And also the Tribal Conference, which I had the opportunity to join was just phenomenal. I’m so glad we do that and it was a great chance to highlight all of the investments we’ve made, including these seven tribal microgrids. And just a magnificent thing.

So, congratulations to you, to Tom and everyone else who helped pull that together. And our colleague Commissioner help at PUC. So, terrific job.

COMMISSIONER DOUGLAS: Thank you. Absolutely.

CHAIR HOCHSCHILD: Let’s move on to Commissioner Monahan.

And Commissioner Douglas, you’re excused, I know you have to drop out a little early.

COMMISSIONER DOUGLAS: Thank you. Perfect.

CHAIR HOCHSCHILD: Thank you.

Let’s move on to Commissioner Monahan.

COMMISSIONER MONAHAN: Yeah, well, I’ll be brief.

A lot of my work has really focused on the Governor’s
request, the May revise. And, you know, just engaging stakeholders around support for the Governor’s proposal. And I was the representative for the CEC in front of the Senate Budget Subcommittee on the broad suite of proposed investments for the Energy Commission and not just Transportation. Originally, I was tasked because we thought the focus was going to be transportation, but then the transportation focus there was a separate conversation around that, and the Chair was doing things on reliability. There was a lot of moving parts, things happening simultaneously. So, that was a fun experience. And Tannan (phonetic) did a bang up job on the ZEV piece of that proposal. So, looking forward to see what happens on June 15th.

Did a number of public presentations I don’t want to go into, but there’s a lot of interest in transportation electrification, and a lot of cross-agency dialogue, and even international dialogue with World Bank on this. So, just interest everywhere on transportation electrification, how do we do it right to support our clean grid goals.

I’m helping pull together the Asilomar Transportation Conference that happens biannually with Dan Sperling. It also is what’s shaping up to be a really, really good one this year. So much happening on the transportation space, especially in the zero emission
vehicle arena. So, if any of you are interested, just
reach out to me around that.

I was thinking, I was touched by what
Commissioner Gunda said about blessed to have you as
colleagues and mentors and I thought, oh, I feel the same
way. So, I think and, you know, not just -- you know, with
you all I feel that way and actually with the team, the
broader team at the CEC we just have a lot of hardworking,
dedicated people. And just appreciate learning from you,
learning from them, and this experience in general. That’s
all.

CHAIR HOCHSCHILD: Well said. Well said, thank
you.

Commissioner McAllister.

COMMISSIONER MCALLISTER: All right. Well,
thanks Chair Hochschild. I’ll try to be brief here. I
would be remiss without leaving -- if I did not leave with
the updates kind of to acknowledge all of the progress
that’s been made on the Building Code update and all the
various pieces of that. I will not -- I’m not going to
acknowledge everybody. I’m not going to read out the list
because it was basically the whole Commission, almost.

But we’ve made a lot of progress on the Part 6,
which is the mandatory Building Energy Efficiency Starts,
and the EIR that goes along with that. And then also Part
11 is moving forward, CalGREEN, the energy piece of CalGREEN. So, all three of those really key pieces of the Building Code update are moving forward.

And I just have to say, you know, I mean really amplifying what Commissioners Gunda and Monahan have said about just the blessings we all have to be here. I mean this is a huge village effort to impact every building that gets built in California in a positive way.

So, and I know that our staff really internalizes that and feels that every day when they engage on this work.

So, thanks to all the divisions and all of the staff that are involved in that. And we’re not across the finish line, it’s all in process. But it’s really looking great and the quality of work has been excellent.

Also in the IEPR we did have a couple of -- well, we had a workshop on building decarbonization. We also had a building decarbonization workshop for staff to present the AB 3232 Building Decarbonization Report. So, both of those are really, I think seminal efforts as well, or the 3232 is a real seminal effort to push the envelope on our planning for decarbonization, particularly of our existing building stock.

So, we’ve gotten a lot of really positive feedback on that report and kudos to staff for that.
On the IEPR generally, and including the building decarb workshop we’re trying to -- or I’m trying, really, to make sure that we incorporate other state perspectives and the national perspective. So, just any ideas that any of you have for how to go about doing that? I mean, I know many of you talked about that today, just how wonderful it is to have colleagues that are looking at things from different perspectives. And so, I want to just reiterate we want to build -- given the fact that we have alignment with the federal government and many states, it would be great to just always keep that in mind about how we can collaborate and learn from one another to meet these big challenges.

I wanted to just highlight the fact it’s not just in this country that people are looking at California. We have a lot of, obviously, international work and all of us do a fair amount of that. But just to highlight, I gave a couple of talks to the three Yucatan States in Mexico about electricity planning and renewables integration. And it was sponsored by the U.S. State Department.

But in that realm and in many, many others the SB 100 work is just invaluable. It’s an incredibly powerful --

CHAIR HOCHSCHILD: Are you presenting in Spanish when you’re doing that?
COMMISSIONER MCALLISTER: Oh, yeah. Oh yeah, oh yeah. So, those are full on Spanish. You know, it’s almost like being there.

But people are so grateful. You know, one of these talks was to the private sector, you know the renewable developers, and all the third parties that want to be engaged. And, you know, Mexico has a state-owned electric sector. And the next was to the government officials and some of the electric folks in that sector.

So, you know they are just thirsty to learn from what we’re doing. And this message that we have that it’s possible, you have to kind of get the antennas aligned, and just you have anybody who’s just starting this has to be a manager of incredibly cheap renewables that, you know, we’ve sort of seen the progression of. So, it’s very exciting.

And also want to just call out the EU Building Efficiency event and thank Fritz and Alanna for all their work putting that together. But the governments of Belgium, and Demark, and the EU all worked together with California to put together a really nice day of presentations and dialogue.

And then finally, the Chile-California Council, we’re doing increasingly work there. You know, the hemispheric twins that are Chile and California have a lot
of similar challenges. And so, it’s really productive I think to get together periodically, which we’re doing increasingly. But again, the SB 100 work is just really great for that.

And then on the demand side, you know, all the things we’re doing with load flexibility, and building decarb that also resonates very widely. So, the two ends of the spectrum, you know, on the supply side and the demand side, really the pieces are coming together and this integration is really happening. It’s exciting to see how all these dots are being connected across the globe, really.

And then I want to just thank Noemi, finally, for your facilitating the discussion with the EJ community on all the fronts, and all the issues that we deal with. Most recently for me, building decarbonization. But I know that you work with all the Commissioner offices on that. And it’s just invaluable to have someone kind of take the lead, and organize, and just sort of make it happen. So, thanks for that. Thanks to you, Noemi.

And then, I think Commissioner Gunda’s going to leave us, so thank you.

And then, also just to point out that this meeting actually, every time we do a business meeting every month it seems to get better, and more smooth, and the
tools get better, and just the orchestration. So, Noemi
and the team, thanks for helping that happen as well.

So, anyway, that’s my comments for this month.

Thanks.

CHAIR HOCHSCHILD: Well, great. Thank you so
much, Commissioner.

And I’ll be really be brief, but I’ll just say,
you know, the June meeting is a (indiscernible) -- always
it’s the end of the fiscal year, and it’s the halfway point
of the year. And I just like to take stock a little bit.

And I just will say I am absolutely thrilled with
the progress we’re making really across the board with the
Biden administration and offshore wind, the progress we’ve
done in Lithium Valley, getting the Lithium Valley
Commission going, making the Lithium recovery grants. And
incredible moment among transportation electrification, the
May revise budget, the executive order, the renewed focus
on that.

You know, the Energy Code has landed, I think, in
a terrific place, just incredible work by the whole
Efficiency team, Commissioner McAllister, Part 11 as well
as Part 6.

And just across the board. I mean, having EPIC
extended another ten years is amazing. This set of grants
that we’re getting, you know, out the door today. And just
more generally I would say just the culture at the Energy Commission feels like we’re in a really healthy place. I just see an incredible amount of dedication, and focus, and collaboration, and talent across the board and it’s just amazing to see how many top shelf candidates we’re getting in for senior positions, now. People want to be a part of this and I feel so blessed to be able to work with this amazing team. And it’s getting stronger over time, it’s very clear.

So, just real quickly, I’ll be super brief here, but I guess just two highlights. I did a hearing on reliability before the Legislature and took a bunch of questions, along with President Batjer, and Elliot Mainzer. Commissioner Gunda joined me for that as well. It went really well. We relayed a bunch of our efforts, and strategy, and investments, and focus on supporting reliability through the summer.

And then, also had one recently before the Legislature on Lithium recovery, led on Assemblyman Eduardo Garcia. And I think I’ll just leave it at that.

So, let’s move on to Item 19, the Executive Director report.

MR. BOHAN: Thank you. Good afternoon Chair and Commissioners, I have nothing to report for June.

CHAIR HOCHSCHILD: Okay, thank you.
And Item 20, Public Advisor? Noemi, can you hear me?

MS. GALLARDO: Hello there. Yeah, apologies for that I was struggling.

So, just want to say I don’t have a report. Just want to say thank you, especially to Commissioner McAllister for that acknowledgement of the work we’re putting in to do more extensive, robust collaboration with environmental justice, and equity, and community leaders throughout the state. And, you know, I want to thank all of you for being willing to do that.

You know, your teams, your staff has invested a lot of time into it, and I think it’s really worthwhile, and will deliver even better results for us.

And I also look at all of you as mentors, and friends, and I’m grateful to be a part of this family that we have here at the Energy Commission, so thank you so much for that.

And to the audience, really appreciate your participation and want to remind you to nominate leaders for the Clean Energy Hall of Fame. This is your last chance. The deadline is June 25th, which is fast approaching. So, thank you.

And that’s it for me.

CHAIR HOCHSCHILD: Thank you, Noemi.
All right, Item 21, public comment.

MS. GALLARDO: Yes, so that’s me again. Let me review the instructions real quick. So, this is the period for any person wishing to comment on information items or reports of the meeting agenda, or any other item. Each person has up to three minutes to comment, and comments are limited to one representative per organization. We may reduce the comment time, depending on the number of commenters.

Reminder that we are now accepting public comment through Zoom. Please use the raised hand icon to indicate if you have comments. If you’re on the phone, press *9 to raise your hand, and then *6 to unmute.

After I announce that your line is open, please spell your first and last name, state your affiliation if you’re representing an organization. Do not use the speakerphone when talking because we won’t hear you clearly.

All right, so I will now look for hands. And we do have one. That first person will be Matt Drinker. Matt, reminder to please restate your name, spell it, and indicate your affiliation if any. Your line is open, you may begin. Matt, your line is open, you may begin.

MR. DRINKER: Sorry, I was on mute. This is Matt Drinker, M-A-T-T D-R-I-N-K-E-R. I’m with a company called
Aranet, A-R-A-N-E-T. We product wireless CO2 sensors and we’re used in dozens of major universities, school districts throughout the world.

The verbiage in AB 81 prohibits wireless sensors and we’ve been trying to get that changed to include our product. We sent probably, at least half-a-dozen formal letters to this effect and haven’t heard anything back as to yet. Curious as to know if that verbiage will be changed in the near future.

MS. GALLARDO: This is Noemi, the Public Advisor. So, Matt, we do not engage in dialogue during the public comment. This is your opportunity to use these three minutes to speak. Do you have anything else that you want to comment on?

MR. DRINKER: No, that’s all. Like I said, you know, we are in some of the most large and prestigious universities all over the world, major school districts in California. And we’ve had a lot of questions about if our sensors will be applicable for this grant. We don’t know how to answer those except for the letters that we’ve sent to the Commission that haven’t been answered yet. And I just wanted to state that fact. Thank you.

MS. GALLARDO: Thank you, Matt.

I don’t see any other raised hands. Let me make one last call. Folks on the phone, press *9 if you’d like
to make a comment, *6 to unmute.

All right, Chair, I do not see any other hands.

CHAIR HOCHSCHILD: Okay, thanks. And Noemi, I’d appreciate if you could follow up with that commenter offline and see what the issue is.

I think that concludes public comment. And our final item is Chief Counsel’s Report. Linda.

MS. BARRERA: Good afternoon Chair and Commissioners. I do not have a report today.

CHAIR HOCHSCHILD: That’s very merciful of you. Thanks everybody for a long day and we’ll see you soon.

(The Business Meeting Adjourned at 3:42 p.m.)
REPORTER’S CERTIFICATE

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 disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not 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 June, 2021.

Jacqueline Denlinger

______________________________

Jacqueline Denlinger
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[Signature]

Barbara Little
Certified Transcriber
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