

DOCKETED

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APPEARANCES

Commissioners

David Hochschild, Chair
Siva Gunda, Vice Chair
Patricia Monahan

Staff Present:

Drew Bohan, Executive Director
Linda Barrera, Chief Counsel
Dorothy Murimi, Public Advisor's Office
Matt Pinkerton, Chief Counsel's Office
Justin Delacruz, Chief Counsel's Office
Matt Chalmers, Chief Counsel's Office
Josey Crosby, Chief Counsel's Office

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<p>Pursuant to Government Code Section 11126(e), the CEC may adjourn to closed session with its legal counsel to discuss any of the following matters to which the CEC is a party:</p>	
<p>i. <i>Interlink Products International, Inc. v. Xavier Becerra, Drew Bohan, Melissa Rae King (United States District Court for the Eastern District of California, Case No. 2:20-cv-02283)</i></p>	
<p>Pursuant to Government Code section 11126(c)(3), the CEC may hold a closed session to deliberate on a decision to be reached in a proceeding required to be conducted pursuant to Chapter 5 (commencing with Section 11500) or similar provisions of law:</p>	
<p>i. <i>In the matter of Pecho Energy Storage Center (Docket No. 21-AFC-01).</i></p>	
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1 P R O C E E D I N G S

2 MAY 11, 2022

10:03 a.m.

3 (Start of Introductory Video.)

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

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

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

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

10

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

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

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

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

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

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

23 (End of Introductory Video.)

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

1 Commission. We have a little echo. Is there a way to
2 resolve that?

3 (Pause to address audio issues.)

4 CHAIR HOCHSCHILD: Let me try that. Is that
5 better? Okay.

6 Good morning, and welcome friends. Today is
7 Wednesday, May 11th. I call this meeting to order.
8 Joining me are Vice Chair Gunda and Commissioner Monahan.
9 Commissioner McAllister and Commissioner Vaccaro are out
10 today.

11 I just want to note there is something of a surge
12 going on again with COVID, unfortunately. The good news it
13 appears to be very, very few hospitalizations thanks to a
14 high vaccination rate. But I can just tell you anecdotally
15 half of my daughter's high school class got COVID last week
16 after their prom, including her. So she tested positive.
17 The other daughters tested positive only for sarcasm. And
18 we are, of course, all mindful of the continuing challenges
19 of COVID and what that presents and just wanted to urge
20 additional caution in these next few weeks to reduce the
21 spread.

22 With that, let me begin with the Pledge of
23 Allegiance, which I will lead.

24 (Whereupon the Pledge of Allegiance was recited.)

25 CHAIR HOCHSCHILD: Thank you, Commissioner.

1 So before getting to our voting items a few
2 announcements to make. Nominations are being accepted for
3 the 2022 Clean Energy Hall of Fame Awards happening on
4 December 8th, 2022. I really wanted to encourage all of you
5 who know someone who you think would be a good candidate
6 for that to submit a nomination. The Hall of Fame is an
7 annual event through the Energy Commission that started in
8 2020 to spotlight local leaders throughout our state who
9 are contributing to our goal of getting to 100 percent
10 clean energy future for all through innovative, bold work
11 that advances equity and environmental justice. The
12 nominations period ends July 1st. I encourage all of you to
13 submit a nomination if you know someone. There are six
14 different awards for this.

15 A Lifetime Achievement Award that honors someone
16 who's retired who dedicated their career to clean energy.

17 There's a Huge Game Changer Award that honor
18 someone who's influencing younger generations to advance a
19 clean energy future.

20 And there's a Tribal Champion Award carved out to
21 honor a leader doing clean energy future work for tribal
22 communities in California.

23 And then we have three Champion Awards on our
24 leaders doing innovative work that starts in their
25 communities and ripples throughout the state.

1 And finally, let me just share that today the
2 Commission is going to be seeking to approve over \$41
3 million in grants contributing to our state's economic
4 recovery. And I always want to recognize all the staff
5 who've worked on all the different programs to prepare all
6 these grants for approval.

7 With that let's turn now to the Consent Calendar.
8 Do we have any public comments, Dorothy, on the Consent
9 Calendar?

10 MS. MURIMI: Thank you, Chair. I'll just read a
11 few instructions for folks.

12 For folks that are on Zoom, go ahead and use the
13 raised-hand feature. It looks like an open palm or high-
14 five at the bottom of your screen or device. For
15 individuals that are in the room, go ahead and use the QR
16 codes that are located in the back of the room or come to
17 the podium and unmute the microphone. Give your name and
18 begin your comment.

19 No individuals on Zoom. I see no comments, and
20 no comments in the room, Chair.

21 CHAIR HOCHSCHILD: Thank you, Dorothy.

22 With that, I'd welcome a motion on Item 1 from
23 Vice Chair Gunda.

24 VICE CHAIR GUNDA: I move Item 1.

25 CHAIR HOCHSCHILD: And a second from Commissioner

1 Monahan.

2 COMMISSIONER MONAHAN: I second it.

3 CHAIR HOCHSCHILD: All in favor say aye. Vice
4 Chair Gunda?

5 VICE CHAIR GUNDA: Aye.

6 CHAIR HOCHSCHILD: Commissioner Monahan?

7 COMMISSIONER MONAHAN: Aye.

8 CHAIR HOCHSCHILD: And I vote aye as well. That
9 item passes unanimously with 3 to 0, with Commissioner
10 Vaccaro and Commissioner McAllister absent.

11 Let's turn now to Item 2, Acknowledging the
12 Contributions of Dr. Thomas Gates who recently retired with
13 a resolution, which I will now read:

14 "Whereas, Thomas Gates, known as Tom, started his
15 career during his undergraduate years at Humboldt State
16 University where he met his lifetime partner, Jenni.
17 Together, they worked and raised their children in the
18 mountains of eastern California, in the Sierras and the
19 White Mountains, as well as on the North Coast in Humboldt
20 County. Tom earned a dual degree from Humboldt in 1987, in
21 Anthropology and Philosophy, with a Minor in Art. He
22 earned his PhD in Cultural Anthropology from the University
23 of North Carolina, Chapel Hill in 1993; and

24 "Whereas, his lifelong commitment to tribes began
25 while completing his graduate fieldwork with the Yurok.

15

1 Tom continued to work for the Yurok Transition Team,
2 assisting in developing the framework for the establishment
3 of the Yurok Tribe. He continued to work for the tribe in
4 a number of capacities, centered on culture and heritage
5 preservation, until 2008; and

6 “Whereas, during his time with the Yurok Tribe
7 Tom successfully advanced several of the objectives
8 outlined in the Preamble of the Yurok Constitution. Tom
9 made invaluable contributions to the tribal government’s
10 most impactful projects, including land recovery, Klamath
11 dam removal and the California condor reintroduction. Tom
12 played a pivotal role in the development of the Yurok
13 Tribal Heritage Preservation Office. Tom was tireless in
14 his effort to preserve important Yurok religious sites
15 throughout the tribe’s ancestral histories; and

16 “Whereas, Tom, by the scope of his consulting
17 duties, had developed and conveyed justifiable veracity and
18 principled positions towards crucial environmental and
19 indigenous issues. By utilizing knowledge and acumen in his
20 numerous meetings, reviews, and written opinion for native
21 tribes, alongside other conglomerates, he would uphold the
22 integrity, ethics and unification essential to the benefit
23 of all; and

24 “Whereas, Tom was among the first duly appointed
25 Tribal Historic Preservation Officers in California as well

1 as in the country. And in this capacity, with clear vision
2 and political will forever expanding the role of Tribal
3 Historic Preservation Officers, he pushed the scope of
4 consultations beyond the NHPA Section 106 undertakings on
5 Tribal Lands to include all projects with the potential to
6 impact tribally significant cultural resources on Ancestral
7 Lands that are regulated by various local, state and
8 federal laws and jurisdictions; and

9 “Whereas, Tom joined the CEC in December of 2012,
10 he provided a constant reminder to respect and honor tribal
11 sovereignty while highlighting the importance of protecting
12 cultural resources. He developed a robust network and
13 established communication strategies that proved effective,
14 growing tribal engagement in all CEC’s programs. He gifted
15 paintings, including annual holiday cards, a symbol of his
16 gratitude, generosity, and deep connection to others. He
17 developed meaningful conferences to build relationships
18 between state agencies and tribes, working towards a
19 resilient clean energy future. We learned that energy goes
20 far beyond that which runs through our transmission lines
21 and wires; and

22 “Whereas, Tom brought an infectious enthusiasm
23 for tribal affairs and historic preservation to the
24 Cultural Resources Unit at CEC’s Siting, Transmission, and
25 Environmental Protection Division, leading documentation of

1 Native American and Euro-American cultural landscapes,
2 supporting innovations like the Cultural Resources Unit
3 Inventory System, and promoting a people-focused approach
4 to the management of our cultural environments; and

5 “Whereas, Tom, a man of many talents, quickly
6 earned the utmost respect and admiration of multiple tribal
7 communities and colleagues as an ally and lifelong friend.
8 Tom integrated Traditional Ecological Knowledge and Tribal
9 wisdom into CEC proceedings and introduced Tribal Leaders
10 and Traditional Religious Practitioners to become
11 Intervenors in accordance with the California Environmental
12 Quality Act; and

13 “Whereas, Tom was not afraid to do a site visit,
14 camp out in the field, or draw and paint to better
15 understand the cultural landscapes of California, to share
16 those understandings with others, and to create an elegant
17 Traditional Cultural Property report for the Obsidian Butte
18 in Imperial County; and

19 “Whereas, Tom has made lasting contributions to
20 the recording of Native American history. His work has
21 enhanced the knowledge of the antiquity of the record of
22 Native Americans across the vast California landscape and
23 brought forth information from the lasting impacts of
24 tribes on California history. Tom has worked tirelessly
25 with the Fort Yuma Quechan Tribe Cultural Committee, as the

1 CEC Tribal Liaison, for the protection of the Tribe's
2 history across their traditional lands. He has laid a
3 strong foundation regarding communication and coordination
4 with the Tribe that will aid his successor immensely. The
5 Fort Yuma Quechan Tribe and Cultural Committee greatly
6 appreciate Tom's commitment and dedication to the
7 preservation of the Tribe's cultural heritage. His work
8 will continue to benefit Tribes well into the future; and

9 "Whereas, Tom is a mentor and friend to many
10 tribal liaisons and has strengthened the policies and
11 practices of how the state consults and partners with
12 California Native American tribes through his leadership
13 and expertise; and

14 "Whereas, Tom will forever be appreciated by the
15 Office of the Public Advisor for incorporating them into
16 the most recent tribal conference and tribal visits, then
17 masterminding the expansion of the office to cover tribal
18 affairs. He will hold a special place in their hearts due
19 to his friendship and all he has invested in each of them
20 through his mentorship and wisdom, especially through the
21 art he created and graciously shared. The Public Advisor's
22 Office will miss him brightening up meetings with his
23 quirky jokes, reliable recipes, fascinating stories, wise
24 advice, and humble nature. The PAO also appreciates his
25 receptivity to learning a thing or two from them,

1 especially about Microsoft Office technology, which he
2 dreaded. But we all hope his transformed life will
3 continue using into retirement to help manage his vineyard;
4 and

5 "Whereas, Tom illuminated the trail for so many
6 of us, advancing the state's journey and commitment to
7 rebuilding our relationships with tribes. He was generous
8 with his time, mentoring all those he encountered with open
9 hearts and minds that were eager to learn from his profound
10 words, deep knowledge, and extensive experience. While
11 sometimes he walked in circles, his footprints have left
12 impressions at the CEC that will forever guide us in the
13 right direction.

14 "Therefore Be It Resolved, that the CEC hereby
15 recognizes and commends Thomas Gates for his great
16 contributions to the Energy Commission, California Native
17 American Tribes, the people of the state of California and
18 wishes him all the best in his future endeavors."

19 Now we'll turn to Commissioners for comments.
20 Let me just kick it off by extending my gratitude to Tom.
21 I've learned a lot from Tom about our incredible tribal
22 communities here in California. We have over 150 tribes in
23 California, more than any other state in the country. I
24 had the opportunity to do a number of tribal trips with
25 Tom, learn from him, really appreciate his insights.

1 And I think it's really an amazing legacy to have
2 to be able to lift up the tribal sovereignty issues,
3 particularly energy sovereignty. I'm really proud of the
4 work we've done, now seven tribal microgrids the Energy
5 Commission has funded. And new opportunities for funding
6 and for loans. Including the ECCA program, which will
7 include EV charging in tribal communities for the first
8 time as well as planning grants and other outreach.

9 And I think, Tom, your greatest legacy is
10 actually going to be the inspiration that you provided to
11 the younger generation. I want to again say how proud I am
12 of Katrina Leni-Konig in the Tribal Liaison role now. And
13 the mentorship you've provided to her, and to so many is
14 your greatest gift. And so my gratitude on behalf of all
15 of us.

16 Let's go to other Commissioners for comments.
17 Vice Chair Gunda.

18 VICE CHAIR GUNDA: Thank you, Chair.

19 So Tom, just recognizing that probably I haven't
20 had the pleasure of working with you a lot, but in the few
21 interactions we've had I kind of recognize the knowledge,
22 the respect that you bring to the table. Your openness and
23 taking the time to help everybody understand the importance
24 of the various aspects you were leading.

25 So from, I think from my end I just want to

1 recognize a few things. You know, public servants like you
2 make the difference in advancing the state forward in so
3 many ways, more than the things that you just touch. So
4 thank you for your incredible work. Thank you for bridging
5 the gaps and really building the bridges necessary to have
6 the dialogue necessary for bringing the tribes into the
7 energy conversation, and all that you've done. And
8 inspiring so many of our staff and really kind of being
9 that beacon of kindness, light, and inspiration for so many
10 of us to engage in that conversation, so thank you for your
11 work.

12 Congratulations to you and your family. Thanks
13 to your family for supporting you all those years as you
14 tried to advance important points. So thank you and look
15 forward to continuing that relationship.

16 CHAIR HOCHSCHILD: Commissioner Monahan?

17 COMMISSIONER MONAHAN: Well, when I first
18 started at the Energy Commission and I really was starting
19 from scratch, I met Tom and he brought a map of all the
20 Native American tribes in California. And I had this
21 conversation with him where I was so moved and I thought,
22 "If this is what state workers are like I'm in a great
23 place." And I just want to say how impressed I've been
24 with just Tom's ability to take what has (indiscernible)
25 arcane energy (indiscernible) that can be very impenetrable

1 to most people and just bring it into this very personal
2 experience with the tribes.

3 And just a couple of months ago I was in Imperial
4 County. We were at a roundtable with a Quechan Tribe
5 talking about lithium extraction. And the tribe was
6 expressing very deep reservations about what mining could
7 do to the land and what it would mean. And it was a little
8 tense and painful to hear the many deep concerns that are
9 rooted in a legacy of poor treatment, I would say, of the
10 earth that they've experienced with people mining in their
11 territory.

12 But after this long conversation at the very end
13 Manfred Scott said, "Where's Tom? Because I have a gift
14 for him." And the affection that Manfred Scott expressed
15 and that you could see reflected in the eyes of all the
16 tribal members was just really a powerful thing. And it, I
17 think, reinforces this idea that this dialogue can be -- is
18 really hard and we need to have it. And Tom created the
19 conditions for us to have that conversation, so just I want
20 to thank you for all you've done for us.

21 CHAIR HOCHSCHILD: Thank you, Commissioner, and
22 really well said. And just one or two more things I'd like
23 to add that occurred to me.

24 I don't think it's an overstatement to say that
25 most of the significant challenges our world faces today

1 are, to me, rooted in the fact that our society has
2 departed from that basic Native American wisdom of always
3 asking with every big decision, "What is the right thing,
4 like seven generations ahead," and then thinking that way.
5 We have to return to that.

6 And I guess a lot of what we're trying to do
7 right now with all of our work on sustainability and clean
8 energy is return to that and to return to a process that is
9 inclusive and restorative. One of the things that makes me
10 incredibly proud to serve in the Newsom administration, and
11 I know my colleagues join in this, is Governor Newsom's
12 apology to the tribes. I thought that was long overdue and
13 very powerful, and a really important milestone.

14 And we're going to continue this work, Tom, that
15 you've begun. And it's a priority for me personally as
16 Chair and for all the Commissioners in really focusing on
17 tribal energy sovereignty, especially where I think we can
18 do a lot.

19 I finally also wanted to say I think good things
20 happen from bringing people together. And one of the
21 things I really appreciated, we had a Tribal Energy Summit
22 a few years ago in the Eastern Sierra in the Paiute
23 Territory. And that was where I met Darcie Houck and I
24 hired her as Chief Counsel, because I met her there. And
25 then she served with great distinction here as Chief

1 Counsel for a number of years and then got tapped by the
2 Governor and now she's a Commissioner at the Public
3 Utilities Commission. And that is really from that Tribal
4 Energy Summit. So I am mindful of that and we want to
5 sustain that leadership as well.

6 So with that let's go -- I believe we had some
7 additional people who wanted to give comments?

8 MS. MURIMI: We'll start with individuals -- and
9 we'll start with individuals on Zoom. And for individuals
10 that are in the room, go ahead and fill out a blue card and
11 hand it to the Public Advisor at the back of the room and
12 she'll raise her hand.

13 For individuals that are on Zoom if you are on
14 the phone go ahead and press *9 to raise your hand and *6
15 to unmute on your end once your phone number has been
16 called.

17 We have Scott Galati. Go ahead and state and
18 spell your name and give your remarks.

19 MR. GALATI: Good morning, Commissioners. This
20 is Scott Galati, G-A-L-A-T-I. I'm with DayZen, LLC. I
21 practice in front of the Commission doing siting work. And
22 we had the pleasure to work with Tom during many of the
23 renewable projects in the desert. And I would like to echo
24 what Commissioner Monahan said, specifically Tom's calm and
25 confident ability to communicate, I think, is one of his

25

1 better skills. Both in public and in when you have a
2 private conversation.

3 And I would just like to thank Tom personally,
4 because he really was the first person to be able to
5 explain to me the complexities of indigenous peoples'
6 religious beliefs and how they may conflict with something
7 that archaeologists may be looking at; the difference
8 between study and the difference between a religious
9 belief. That was a very hard concept. I know, I had
10 worked on it on my own to try to understand that. But Tom
11 was able, because of his relationship to the Native
12 American tribes, be able to see and help broadcast a window
13 to me. And I am forever grateful. So thank you Tom for
14 that, I appreciate it very much. And I just want to make
15 sure you heard that from somebody that didn't work directly
16 with you. Thank you.

17 MS. MURIMI: Next we have Eric Knight. Go ahead
18 and come to the podium.

19 MR. KNIGHT: Good morning, I'm Erick Knight,
20 Manager of the Siting and Environmental Office in the
21 Siting, Transmission and Environmental Protection Division.
22 I had the honor of being Tom's supervisor for about seven
23 years. So I'd like to congratulate Tom, on your retirement
24 and say it was a great pleasure being your supervisor. I
25 admired your dedication and commitment to ensuring that the

1 perspectives of tribes were considered in the business of
2 the CEC.

3 I have to say you're one of the hardest-working
4 people I know. You made countless trips over the years to
5 meet with tribal representatives throughout the state,
6 building relationships and earning their trust. You
7 created an environment of teamwork in the Cultural
8 Resources Unit, developing the skills of junior staff and
9 the students. And I want to thank you for bringing
10 everybody back safely from the desert. (Laughter.) You all
11 did very important work and had a lot of fun in the
12 process.

13 Before the pandemic, when we were here in the
14 office the highlight of my day was to walk through the
15 Culture Unit, stop and chat with you and your and your
16 staff about your projects, and just learn something new.
17 Very fascinating topic area, and I always learned something
18 new, and I had quite a few laughs too, so thank you for
19 that.

20 It was a very sad day when the Cultural Resources
21 Unit mega-cube up on the fourth floor of this building had
22 to be packed up. You're going to be missed, but your many
23 contributions to the CEC will continue to live on. And now
24 it's time to focus on being a full-time farmer, not just a
25 weekend farmer or how do you spend your vacation. And I

27

1 wish you and Jenni the best in this next chapter of your
2 life.

3 MS. MURIMI: Thank you. Next, we have Shawn
4 Pittard.

5 MR. PITTARD: Hi, my name is Shawn Pittard. I'm
6 the Deputy Director for the Siting, Transmission and
7 Environmental Protection Division. Congratulations, Tom,
8 great to meet you. And I just want to touch on an aspect,
9 one aspect of his contribution that I think is exemplary,
10 and important for us to be aware of.

11 And I put Tom now among the legendary supervisors
12 of STEP right there with Jim Brownell, our Biological
13 Resources Supervisor. What Tom and Jim have in common,
14 what they've done in common, is both are PhDs. Both were
15 recognized subject matter experts, but both knew the
16 importance of training and developing staff and they had
17 the skills to do that. Both Jim and Tom provided field
18 research experience for their staff to keep them sharp and
19 seeing outside just their regulatory role.

20 So Tom, thank you so much for that approach to
21 your job and developing so many students, then junior
22 staff, and training up a really good successor for our
23 Cultural Resources Unit Supervisor. So I wish you the very
24 best and greatly appreciate the time I got to work with
25 you.

1 MS. MURIMI: Thank you.

2 Next, we have Katrina Leni-Konig.

3 MS. LENI-KONIG: Hello everyone. With Shawn's
4 words it's fitting that I'm speaking next. I spent quite a
5 bit of time with Tom in my transition into role as Tribal
6 Liaison. And I've certainly benefited from his ability to
7 teach. And I think he does that each time that he
8 encounters people as he shares stories, words, contexts so
9 gracefully and thoroughly and also in a way that it really
10 touches you, I think, and really shapes you as a person.

11 I'm just going to share a few words from a book
12 "Residence on Earth," by Pablo Neruda. And I share these
13 words because some of my greatest teachers have been my
14 uncles and they certainly learned from my grandfather, and
15 so I went out and I reached out to my uncle what's a good
16 book to share with Tom? And he said, "Neruda." So I
17 picked out a few words that I want to share with you. Tom
18 has now been added as one of my greatest teachers, so
19 joining the ranks of my uncle and my father and my
20 grandfather.

21 Okay, and these words I'm just going to share
22 prior, so you have a little bit of context. It's really
23 about how we can sort of move forward and build from the
24 ashes, the resilience that we see in tribes, that we see in
25 the State of California, that we see in all of our people

29

1 as we move through some challenging times.

2 "Again, I hear approach like fire in smoke,
3 spring up from earthly ash, light filled with petals and
4 pushing earth away, in a river of flowerheads the sun
5 reaches my mouth, like an old, buried tear that becomes
6 seed again."

7 Just with that I just want to thank Tom. I'm
8 going to share this book with you. This is one of my
9 gifts. And thank you everyone for listening and being here
10 to celebrate.

11 MS. MURIMI: Thank you. Chair, there are no
12 other comments.

13 CHAIR HOCHSCHILD: Were there any comments on
14 Zoom or anything?

15 MS. MURIMI: No other comments on Zoom.

16 CHAIR HOCHSCHILD: Tom, would you mind sharing a
17 few words?

18 MR. GATES: Well, I'm a bit flattered with all of
19 the words this morning. Thank everyone that provided their
20 insights on their experiences with me. It's quite a bit
21 for \$41 million on the table today to spend so much time on
22 me.

23 But I want to first recognize my wife who made
24 the journey this morning with me and probably for the last
25 maybe, what, 38 years or so, 40 years we've been together.

30

1 So that's first.

2 Second, thanks for the Resolution. It means more
3 than just a piece of paper, and I really appreciate that.

4 I think I'm not a terribly smart person nor --
5 and some people say I'm passionate -- nor am I really
6 passionate. I think the skillset that I bring is hard
7 work. I think Eric was the one that mentioned that. My
8 skillset is hard work and perseverance. I also have a
9 mentoring or a teaching ability. I know this, and Shawn
10 brought that up as well. Katrina brought that up.

11 I think my skillset comes from growing up on a
12 poor farm on the San Joaquin River Delta and working very
13 hard on a farm. And that skillset has taken me through my
14 career. I think for 12 years, Jenni and I, we ran a
15 watershed restoration fishery, restoration work in the High
16 Sierra including the golden trout, the state's trout and
17 state fish. I spent 18 years at a tribe as an outsider, a
18 foreigner. I eventually became like family to a number of
19 those people at that tribe in California. Eighteen years
20 is a long time for someone who's non-Indian to survive in
21 one of the biggest tribal governments in California, ten
22 years here at the Energy Commission.

23 I think in all three of those scenarios -- and
24 there have been other jobs. I worked as a timber faller
25 and worked in a mill for a bit and taught at an academic in

1 an academic way -- but in all of those three jobs I
2 mentioned: fishery restoration, working for a tribe,
3 working at the Energy Commission, my skillset of
4 perseverance and hard work is what's needed when the
5 obstacles are tremendous and actually overwhelming and
6 perhaps someone would say impossible. Restoring a native
7 fish, indigenous fish, to a place that's been trashed by
8 cattle, is it's just an incredible thing to try to do.
9 Working for a tribe, that of which the poverty levels are
10 60, 70 percent, impossible job. People that persevere are
11 those that work hard and don't give up.

12 And here at the Energy Commission our tasks are
13 huge. We look at climate change. I saw the recent report
14 about the, what, the increase of 1.5 degrees. The need to
15 change our entire energy sector; huge, insurmountable,
16 impossible people would say. But hard work, perseverance,
17 that's what will get us there. Yes, we have a lot of
18 engineers. Yes, we have a lot of attorneys. Yes, they
19 have to be smart, but going forward and not quitting.

20 So that leads me to why am I retiring now. It's
21 not that I'm leaving something, it's that I'm actually
22 moving forward into something else. My wife and I have
23 inherited some large chunk of property. I'm reentering
24 into the farming life, something I left when I was 18 years
25 old. I'm going back to that, I'm fully embracing that.

1 And you can't believe how much I wanted to get away from
2 that farm when I was 18. So now here I am back at it and
3 doing a lot of things.

4 And I think I'll leave you with the last thought
5 is "All things, big and small -- when we need to turn the
6 world to where we think it'll be a better place -- all
7 things, big and small, are important."

8 I remember a consultation on one project. And a
9 tribal person said, "Who is speaking up for the ants that
10 are going to be wrapped in this project? Who's speaking
11 out for the insects? Who's talking about the lizards?" He
12 says, "Those are all our relatives. They're all small. We
13 tend to not see them, they are just as important." And so
14 I think going forward with the property that my wife and I
15 now manage, I have an obligation there. There's probably
16 150,000 salamanders on this property. There is probably 40
17 deer, there is probably 3 or 4 bears, etcetera, etcetera.

18 And yes, I leave the Energy Commission and the
19 great work that you all will continue to do, but I move
20 forward to a piece of land, which is small compared to what
21 we have to do here at the Energy Commission. But that's, I
22 think, where I'm going to invest the next part of my
23 career.

24 And thank you for a good time here. And thanks
25 for everyone here who I've worked with over the years.

1 CHAIR HOCHSCHILD: Thank you, Tom. (Applause.)
2 Thank you to you, and your amazing wife for being there
3 with you on the journey. And congratulations.

4 All right, we'll turn now to Item 3,
5 Informational Item on Reliability Update.

6 MR. ERNE: Good morning, Chair, Vice Chair,
7 Commissioner Monahan. A very tough act to follow. Tom is
8 one of the most impressive people that I've met working
9 here in the Energy Commissioner over the last few years. I
10 really appreciate his engagement with me and those in R&D.

11 So I am David Erne. I'm in our Assessments
12 Division and I'm here to talk a little about summer
13 reliability, here to give you an overview based on kind of
14 what's coming up this next year. And give you some
15 perspective based on what's happened since we updated you
16 last year. So to the next slide.

17 Going back to 2020, which is a defining moment,
18 in August 2020 we had extreme heat events throughout the
19 west that cause rolling outages in the CAISO territory.
20 And that was a substantial impact to people and customers
21 in California.

22 As a result of that the Governor directed the
23 CEC, the CPUC and CAISO to conduct a root cause analysis.
24 One of the key findings of that root cause analysis is very
25 important, and that is climate change is upon us. It's

1 affecting us substantially and our planning processes are
2 not prepared, are not preparing us, or have not been
3 preparing us for that climate change. In part because our
4 planning for both supply and demand focuses on historical
5 performance. Historical performance in a world where our
6 future is very different than it has been in the past means
7 that our traditional ways of looking at the future need to
8 change. And so we are in a place where we need to revamp
9 our demand-and-supply analysis and thinking about how to
10 prepare for those uncertain futures. So next slide.

11 2021, not a whole lot better. 2021 we saw
12 drought increasing that caused substantial impacts to our
13 hydro capabilities in the state. We had a situation where
14 Oroville, the Hyatt Power plant went offline, and we lost
15 600 megawatts due to low water flows.

16 Additionally, we had unforeseen situations such
17 as a bootleg fire in southern Oregon that caused a loss of
18 nearly 4,000 megawatts of imports from the northwest
19 critical for our summer reliability. Those 4,000
20 megawatts, 3,000 of those were destined for CAISO
21 territory, and so again another significant impact to us
22 for last summer.

23 Additionally, what we've seen from last summer
24 and in moving forward is the energy industry is
25 particularly impacted by supply chain issues, commodity

1 prices, and tariff issues, all of which cumulatively impact
2 our ability to build out these new projects moving forward.
3 And so our reliability is dependent upon new buildout and
4 that new buildout is affected by these particular issues.

5 In addition to that, we have 6000 megawatts of
6 plants that are planned for retirement between now and
7 2025. And in part, we are building new resources to help
8 compensate for those retirements. And so it is critical
9 that those new projects come online in time before ahead of
10 when we retire those resources. Next slide.

11 So the question is what have we been doing?
12 We've been doing quite a bit. After the root cause
13 analysis, the CEC, CAISO, the Governor's Office, DWR, CPUC,
14 all worked together to take a number of actions.

15 So CEC worked on incorporating climate change
16 into our demand forecast. We had a review and approval of
17 efficiency upgrades at plants to provide more megawatts of
18 existing facilities. We had a look at identifying
19 contingency resources that could come online when we have
20 these extreme heat events or other emergencies, and
21 identifying those and working with the Governor's Office to
22 help bring those large opportunities on board.

23 The CPUC made the unprecedented procurement of
24 new resources between now and 2026 11,500 megawatts, which
25 has not been done before, called for. And it's critical

1 that those come online, as I mentioned.

2 CAISO and CPUC worked on improving our demand
3 response, so bringing load down.

4 We had an acceleration of new projects coming
5 online and, in fact, before this summer we will have 4,000
6 megawatts of energy storage online in California. That's
7 up from 200 megawatts two-and-a-half years ago, so an
8 unprecedented buildout of energy storage over the last two-
9 and-a-half years which are critical, which is a critical
10 resource, particularly during the net peak period. The
11 period where we have the most challenge on our grid, so we
12 can take solar during the height of the day and provide
13 that energy storage or provide that resource later, in the
14 afternoon, early evening, so incredibly important.

15 We installed emergency generators to provide
16 additional contingency backup and also delayed some plant
17 retirements to provide additional resources.

18 Lastly, we collectively worked together to
19 develop a Tracking Energy Development Task Force. The
20 purpose of this is we have so many projects coming online,
21 they are critical to get online in a timely fashion. We
22 needed to marshal the resources of the key agencies to
23 bring all of those capabilities together to work on these
24 new projects. So the task force includes the CPUC, the
25 CEC, CAISO, DWR, Governor's Office of Business Development,

1 all working to help address these projects and get them
2 online.

3 We first identified all the projects that are
4 coming online or are in development over the next 4 years.
5 We currently have identified 140 projects coming online.
6 That amounts to 6,000 megawatts of net qualifying capacity,
7 or a little over 11,000 megawatts of nameplate.

8 As you can see, it's critical that all of that
9 come online. And so we are working and tracking those
10 projects, working with the load-serving entities, working
11 with the developers, working with all of our resources to
12 try to overcome obstacles so those come online and come
13 online in time.

14 So what does that mean for where we are this
15 summer? So fortunately this summer we are a little better
16 off it looks like right now than we were last summer.
17 That's good. We have unprecedented procurement, which is
18 helping to put us in a good position over the next four
19 years. But we still have hurdles, and those hurdles
20 include the ones I mentioned before. We still have to
21 worry about the supply chain, commodity pricing,
22 development of new projects, we have to get those online.

23 We have to address the understanding of how we're
24 going to continue to improve our planning processes to
25 incorporate climate change. We actually have an EPIC grant

1 that will be helping us think more about new ways to
2 incorporate climate change in our planning processes.
3 That'll be important to fold in.

4 So all of this is critical to get these projects
5 online ahead of retirements.

6 So I want to point out as one last point, we have
7 a workshop coming up on May 20th. We'll be talking about a
8 number of these challenges and what the state has been
9 doing. We'll have -- go to the next slide, I'm sorry --
10 we'll have representation from CEC and CAISO about our
11 summer's assessments, looking at this summer and over the
12 next three or four years.

13 We'll have an overview of the TED Task Force. We
14 haven't really talked about that too much publicly, so this
15 will be our first opportunity to do that.

16 And we'll also have panels to talk about the
17 supply chain issues and internet connection issues. So
18 that's what our workshop is going to be covering on May
19 20th and we hope that everyone can join us. With that I
20 will pause for any questions. Next slide.

21 CHAIR HOCHSCHILD: Well thank you so much, David.
22 I want to just commend you personally for your incredible
23 work and professionalism and diligence. I know how much
24 the Vice Chair and all of us have leaned on you in this
25 critical period, so I just want to begin with that. You've

1 been stellar. And with that I'll turn it over to the Vice
2 Chair.

3 VICE CHAIR GUNDA: Thank you, Chair.

4 Thanks, David. So I think I want to just begin
5 by doing a few thank-yous. I have to bring in my inner
6 Commissioner McAllister here, just take the time and just
7 thank.

8 So reliability has been a focus for the last 20
9 months as David mentioned, in terms of making sure since
10 the outages we had in 2020, that we do not have that repeat
11 in California again. And do everything we can as agencies
12 to get us out of that hole. So the recognition in 2020 was
13 we were in the hole from the planning front, from the
14 procurement front, as well as kind of in coordination
15 fronts.

16 So it wouldn't be possible without a number of
17 people in the Energy Commission, but I want to start with
18 other agencies first. So we have CAISO, CPUC, CEC, the
19 Governor's Office and sometimes the California Air
20 Resources Board all working together in making sure we move
21 forward. And one of the additions that we had last year
22 was DWR. So there's a lot of agencies coming together in
23 coordination with the Governor's Office and the
24 Administration to ensure that we're all working well and
25 moving things forward.

1 So at CAISO, you know, just incredible
2 recognition of four people that we work with: obviously
3 Elliot Mainzer, Mark Rothleder, Neil Millar and Delphine
4 Ho, who all are vital in these efforts.

5 At CPUC, President Reynolds, Commissioner
6 Rechtschaffen, as well as Pete Skala has been incredible,
7 along with Molly that David mentioned.

8 And at DWR, Ted has been incredible with DWR
9 Director Karla Nemeth. So we have incredible partners as
10 we journey on forward here.

11 At CEC, the Chair already called out, so I just
12 want to start with David. Thank you for your contribution.
13 It's been a lot of work. And a number of our staff are
14 doing the reliability on the top of their regular work.
15 And so thank you. For you, thanks to Aleecia for your
16 leadership in the EAD and really fostering the necessary
17 movement of resources to ensure we can work on these
18 things, especially recognizing that there is a lot of
19 burnouts on staff who are the same 30, 40, 50 people we
20 lean on, on so many of these issues.

21 And I wanted to kind of shift to recognizing the
22 Executive Office and Drew, thank you for your support. And
23 Linda, not just kind of aligning the resources but also
24 bringing in, helping us learn how to kind of support the
25 staff.

1 I want to move to the Siting team, Shawn to you
2 as well, wonderful contributions -- so diligent on this
3 work. Thank you for everything your teams are doing.

4 And Justin Cochran from the Chair's Office is the
5 Nuclear Advisor.

6 From CCO, Linda as well as Dian, thank you for
7 your contributions.

8 So it's a lot of people to name, but I just
9 wanted to recognize some people who have been just going
10 beyond their work every day to kind of get this moving.

11 So just a couple of high-level points, and I want
12 to just reiterate the things that David kind of mentioned,
13 the first one I'm glad that we're in California. So there
14 is a clear understanding that climate change is real and
15 it's here. And we're kind of in the front lines dealing
16 with that and then especially the impacts of that on the
17 energy system and reliability.

18 A couple of things that we tried to do as we got
19 out to the August 2020 situation is how do we better
20 coordinate and really think about three buckets of work.

21 One is just like plan ahead of time, coordinate
22 and plan in ensuring procurement is authorized. Taking
23 into consideration climate change, taking into
24 consideration potential supply side issues, whether it's
25 more outages and so on. So we've been doing that.

1 And then the second stage, obviously, is what
2 David kind of mentioned within the Task Force realm, which
3 is how do we, once we authorize the procurement, do we have
4 enough coordination making sure that the procurement
5 actually happens? So that's with that task force.

6 And finally moving into any summer in the
7 December timeframe, where are we standing? How do we get
8 through the next summer? So those are the different pieces
9 of work we've been doing as a team.

10 But what we did not see coming after 2020 we kind
11 of said, "Okay, it's really an extreme heat situation.
12 Let's plan for very high demand that's regional so there is
13 some impact to the imports. And let's think through how we
14 can navigate through those extreme heat events where the
15 demand is high."

16 And then comes 2021 where you have this
17 incredible drought. We did not ever see a high-heat demand
18 situation coincide with the fires, but what fires kind of
19 brought to us was we lost those supply side resources;
20 4,000 megawatts is a lot. And if you lose that in about
21 half an hour or an hour's time to kind of replenish those
22 resources is incredibly hard, so you have that issue. And
23 then you have fires threatening large generation assets,
24 right? So like the Blythe Complex where we have 1,700
25 megawatts that we lost.

1 So what we are getting to is this situation of
2 compounding things. At this point we haven't experienced a
3 situation where all of them coincided, but if they were to
4 coincide it would be incredibly hard for us to keep the
5 lights on. And that's something that we need to recognize
6 and to figure out how to develop some solution or a cushion
7 to get through those times when some of these fire and heat
8 issues might coincide. So it's important. We're going to
9 continue the conversation. May 20th will be an important
10 workshop for us to continue to think through what all needs
11 to be done, but also improving the public awareness.

12 And before I pass it on, I just want to take a
13 moment to thank my office. Ben Finkelor the Chief of
14 Staff, who has been just putting in countless hours. I
15 know he came in only a couple months ago, he did not know
16 what he was getting himself into. Ben, thank you. And Liz
17 Gill from our office who focuses on reliability and Miina
18 who runs our office. So thank you so much to the entire
19 team, thanks for all the work.

20 I'm happy to answer any questions that --
21 Commissioner Monahan you haven't been directly involved in
22 of these things -- happy to answer any questions you might
23 have.

24 And finally, Chair, thank you for your
25 leadership. It's not easy to navigate these. Thanks for

1 all the things that you're doing behind the scenes, thank
2 you.

3 COMMISSIONER MONAHAN: Of course, Vice Chairs
4 Gunda, when he thanks everybody, he very rarely
5 acknowledges his role in all of this. And the fact that
6 he's had so many sleepless nights working to ensure that
7 the lights stay on, and the analysis is robust. So just
8 thank you, Vice Chair, for all you do.

9 Just a comment, which is that the confluence of
10 climate change impacts with COVID supply chain issues
11 really is, I think, tasking you, David, and the team of
12 researchers on this with unprecedented challenge. And I
13 just want to acknowledge that we need to change how we do
14 research and how we plan for our energy needs, given the
15 rapid changes that we're seeing.

16 I think none of us, I mean I've been in this
17 climate space pretty much my entire career, and the fact
18 that the changes we're experiencing are kind of on this
19 edge. Like we scientists like to plan for a conservative
20 future, but that's not what we're seeing. We're seeing
21 kind of these edge cases playing out in California.

22 And I'm sure I speak for all of us who were born
23 in California, have lived here our whole lives, the changes
24 are so profound compared to when I was a child. And that
25 is creating for researchers this really hard task. And

1 it's against our nature of scientists to want to kind of
2 explore that worst case and make sure that we're planning
3 for that worst case. So just a deep recognition that, as
4 Vice Chair Gunda said, this is a place of burnout, and it
5 can be very difficult to have to upend our processes.

6 So I just appreciate all that the team and Vice
7 Chair Gunda is doing and all the different agencies working
8 together on this, because it is all-hands on deck. We have
9 to keep the lights on, and we have to change our energy
10 systems to make sure that we have a resilient energy system
11 for the future, so just appreciation for the research.

12 This is a sober moment in California. And it's a
13 time when we really all have to work together and take care
14 of each other and do the best analysis that we possibly can
15 in this challenging situation.

16 CHAIR HOCHSCHILD: Thank you, Commissioner, for
17 those comments.

18 And let me also just say we've never had a
19 Commissioner whose principal focus was reliability until
20 last year. And I asked Vice Chair Gunda to assume that
21 responsibility. He's done it with incredible dedication
22 and distinction, and we are so much better off for it.

23 I do have a question for you, David. Just
24 looking ahead, I mean when you step back, right, it's
25 actually only a couple dozen hours of the year that we're

1 really, really concerned about reliability just from the
2 grid perspective. I'm not talking about the PSP as
3 preventive actions I'm just talking about from the threats
4 to the system.

5 And the cheapest, cleanest, fastest way to
6 address that is on the demand side when we can do that
7 well. And we've had, I think, pretty anemic results with
8 demand response up until recently. There's some really
9 promising stuff coming. And I met with a company
10 yesterday, Nostromo Energy, which is doing this technology,
11 just load shifting. So they use, when there's cheaper,
12 plentiful renewables, they use that to freeze water or
13 coolant and then they then deploy that during the peak
14 hours to run, to cool buildings. I mean, just simple
15 things like that.

16 I'm just wondering on the demand side when you
17 look ahead, what do you see? How big can that go? What
18 are the main barriers? If you could just share a little
19 bit of your thinking on the demand side, what we can do on
20 reliability.

21 MR. ERNE: Sure, thank you, Chair.

22 So in the last few years as we've been looking at
23 finding these contingency resources, I think what we have
24 found is there are a lot of opportunities out there to
25 reduce demand by calling on people and asking them would

1 they please turn something down for the price. It's not
2 just customers and consumers, it's the large facilities
3 that have tremendous potential.

4 And our DR program right now is challenging to
5 participate in. And CPUC and CEC are looking at ways to
6 make the DR program more effective. And be able to then
7 bring people in is a very complex process in California, in
8 many different programs it's hard for people to know where
9 to play, how to play. I think we need to streamline and
10 simplify that process to make it easier for customers to
11 join in, to be able to contribute more than they have been
12 contributing thus far, and be compensated for it properly.

13 VICE CHAIR GUNDA: Chair, if I may? I just want
14 to add on the one, so first of all I want to recognize
15 again David, and Tom Flynn and Erik Lyon from our office
16 who are working on this Demand Response Working Group to
17 really advance some of the core principles that we need to
18 really put in place for ensuring DR becomes a real part of
19 the solution. So I think right now to what David just
20 said, the complexity, the way the structures have been
21 built over time, and the business opportunities is it's
22 hard; sometimes it's opaque.

23 And I know we have been - really in a wonderful
24 relationship with CPUC on helping and use both the
25 strengths of CEC as a venue for a non-regulatory

1 discussion, on just framing the problem and thinking
2 through some high-level solutions. But also thinking about
3 on the other end how can we support PUC on providing some
4 of these options, so we're doing some wonderful work there.
5 So I want to recognize the team on that one.

6 But I think the bigger point I just want to raise
7 is this kind of goes to Commissioner Monahan purview as
8 well, the V2G is a humongous opportunity moving forward.
9 And I think that's something that we need to unlock. And
10 we really need to think through how do we address optimally
11 between the supply-side demand response, the demand side
12 through critical de-pricing (phonetic), but also
13 incentives.

14 And how do we develop an overall framework on
15 approaching DR? And I know the Executive Office under the
16 leadership of Drew has been beginning to think through at
17 an enterprise level how to bring our teams across all
18 divisions to think about and framing this problem. So I
19 want to just thank Drew for his leadership on that. And I
20 think it's an important problem we have to solve to ensure
21 reliability.

22 CHAIR HOCHSCHILD: Yeah, the closing thought I
23 would add is that one of the benefits of the
24 electrification that's occurring now, which is significant.
25 We're adding 900 electric vehicles a day in California and

1 that's rising fast. And of course we're seeing that in the
2 building sector and with energy storage, distributed energy
3 storage systems as well. It does give us more levers to
4 pull. And so I think this is this vision of making
5 everything that connects to the grid a good citizen of the
6 grid. That is absolutely the future.

7 I think this used to be considered something of a
8 sideshow. I think it's actually sort of the main stage in
9 many ways for where we have to go. And that's not just
10 good for reliability, it's also good for ratepayers because
11 this is just by far the most cost-effective when we're
12 getting smart on demand side, demand response. So that
13 that really is it's a good move on every level.

14 So again, my congratulations to you and the team.
15 And thanks, tremendous gratitude to the Vice Chair for your
16 leadership on this.

17 With that let's turn now to Item 4, STACK Trade
18 Zone Park.

19 MR. KNIGHT: Good morning, Chair, Vice Chair and
20 Commissioners. I'm Eric Knight, Manager of the Siting and
21 Environmental Office in the Siting, Transmission, and
22 Environmental Protection Division. I am here to present a
23 proposed order appointing a committee of two commissioners
24 to oversee a Small Power Plant Exemption proceeding for the
25 STACK Trade Zone Park. Next slide, please.

1 In a series of filings between December 10th,
2 2021, and April 11th, 2022, STACK Infrastructure filed a
3 Small Power Plant Exemption application for the STACK Trade
4 Zone Park project. The project includes a thermal power
5 plant with a generating of 50 megawatts, which would fall
6 under the CEC's licensing authority, if not exempted. Next
7 slide, please.

8 The STACK Trade Zone Park project would include
9 one four-story advance manufacturing building of about
10 135,000 square feet; two three-story data center buildings,
11 about 527,000 square feet; and a backup generating facility
12 with a capacity of 90 megawatts to provide emergency power
13 to the data center if electricity cannot be supplied by
14 Pacific Gas and Electric Company.

15 The backup generating facility would include 36
16 3-megawatt and 2 1-megawatt diesel-fired generators. The
17 generators would be equipped with emission controls to
18 comply with Tier 4 emissions standards.

19 The project is proposed on two parcels of land,
20 encompassing about 10 acres, located at 2400 Ringwood
21 Avenue and 1849 Fortune Drive in San Jose. The properties
22 are zoned "Industrial." Next slide, please.

23 The CEC has exclusive authority to certify all
24 thermal power plants, 50 megawatts and greater, proposed
25 for construction and operation in California. Pursuant to

1 Public Resources Code section 25541, applicants proposing
2 thermal power plants not exceeding 100 megawatts, may seek
3 an exemption from the CEC's jurisdiction. The CEC can
4 grant a Small Power Plant Exemption if it finds "no
5 substantial adverse impact on the environment or energy
6 resources will result from construction or operation of the
7 proposed facility."

8 The SPPE process is described in California Code
9 of Regulations, Title 20, sections 1934 through 1947. The
10 review of the application for exemption follows the
11 requirements of the California Environmental Quality Act,
12 or CEQA, and the state CEQA Guidelines. By statute the CEC
13 is the lead agency under CEQA for an SPPE.

14 Once a final environmental document is published
15 an evidentiary hearing will be held by the SPPE Committee.
16 The committee will then publish its proposed decision to
17 either grant or deny the exemption. The proposed decision
18 is then presented at a business meeting for a final
19 decision by the CEC.

20 If the exemption is granted an applicant must
21 obtain the appropriate licenses and permits from relevant
22 local, state, and federal agencies to construct and operate
23 the project. The state and local permitting agencies,
24 which in this case include the city of San Jose and the Bay
25 Area Air Quality Management District as responsible

1 agencies under CEQA, will rely on the environmental
2 document prepared by the CEC for their discretionary
3 decisions to issue permits for the project.

4 CEC Staff will coordinate its review of the
5 project with all relevant agencies. Staff's environmental
6 analysis document will address all aspects of the proposed
7 project, not just the backup generating facility, as
8 required by CEQA.

9 Staff has begun its review of the exemption
10 application. Staff is preparing its first set of data
11 requests to understand more about the project and its
12 possible effects on the environment and energy resources.
13 And staff is in the process of sending out the public
14 notices required by the CEC's regulations and CEQA. Next
15 slide, please.

16 Staff recommends approval of proposed order #22-
17 0511-4 to establish a committee of two commissioners to
18 oversee the STACK Trade Zone Park SPPE proceeding. The
19 committee would comprise of Commissioner McAllister as
20 Presiding Member and Commissioner Vaccaro as Associate
21 Member.

22 I'm available to answer any questions the
23 Commissioners may have about the SPPE process and staff's
24 role. In addition, Mr. Scott Galati, outside counsel to
25 STACK Infrastructure, is on the line. And I believe Matt

1 Bourne with STACK Infrastructure as well, are online
2 available to answer any questions about the project you may
3 have.

4 And that concludes my presentation. Thank you.

5 CHAIR HOCHSCHILD: Thank you so much, Eric.

6 Let's go to public comment on Item 4.

7 MS. MURIMI: Thank you, Chair.

8 Individuals that are in the room go ahead and see
9 the Public Advisor at the back of the room or fill out the
10 form, using the QR code in the back of the room.

11 For individuals on Zoom if you are on the phone
12 go ahead and press *9 to raise your hand and *6 to unmute
13 on your end. And if you are -- that's if you are on the
14 phone, sorry.

15 And if you're on Zoom use the raised-hand
16 feature, it looks like a high-five or an open palm at the
17 bottom of your screen or device. Again, if you're on Zoom,
18 go ahead and use the open palm or high-five at the bottom
19 of your screen or device to indicate that you'd like to
20 make a comment.

21 No comments, Chair.

22 CHAIR HOCHSCHILD: Okay. Let's go to
23 Commissioner discussion here. I would welcome a motion
24 appointing Commissioner McAllister as Presiding Member and
25 Commissioner Vaccaro as Associate for the Committee on the

1 STACK Trade Zone Park.

2 Vice Chair Gunda?

3 VICE CHAIR GUNDA: Yeah, I move Item 4 as you
4 propose.

5 CHAIR HOCHSCHILD: I'll move that motion. Okay,
6 is there a second from Commissioner Monahan?

7 COMMISSIONER MONAHAN: I second.

8 CHAIR HOCHSCHILD: All right. All in favor say
9 aye. Vice Chair Gunda?

10 VICE CHAIR GUNDA: Aye.

11 CHAIR HOCHSCHILD: Commissioner Monahan?

12 COMMISSIONER MONAHAN: Aye.

13 CHAIR HOCHSCHILD: And I vote aye as well. That
14 item passes 3 to 0. Thank you, Eric.

15 And we'll turn now to Item 5 La Paloma Generating
16 Plant, Petition to Amend. Elizabeth Huber.

17 MS. HUBER: Hello Chair, Vice Chair, and
18 Commissioners. My name is Elizabeth Huber and I manage the
19 Safety and Reliability Office of the Siting, Transmission,
20 and Environmental Protection Division, which you know
21 because I am here almost every month. And I want to put
22 into context why you see me at almost every business
23 meeting. And that is due to our power plant program,
24 leading coordination between STEP's Engineering, Siting and
25 Environmental, and Safety and Reliability Offices, along

55

1 with the Chief Counsel's Office.

2 In any given month we have been processing,
3 analyzing petitions from one third of our power plants,
4 jurisdictional power plants. And that includes the work
5 that we've honored today and Tom Gates and his staff.

6 We also work in collaboration with the Energy
7 Assessments Division and the Energy Research and
8 Development Division on projects such as reliability. I've
9 been interviewed myself by Mark Kootstra for STACK analysis
10 purposes. And then of course presentations we've done on
11 pilot projects for carbon capture and offshore wind.

12 With that said, we are here today to present to
13 you on La Paloma Generating Project's petition of the
14 installation of an emergency back-up generator at the West
15 Kern Water District pump station requiring the addition to
16 new air quality conditions to their existing CEC license.
17 Next slide, please.

18 La Paloma Generating Project is located in a
19 sparsely populated community of McKittrick in Kern County.
20 In order to operate the power plant requires nearly 1.8
21 billion gallons of water annually for cooling and
22 processing, which is supplied by the West Kern Water
23 District. The water district provides water from the
24 California Aqueduct via an 8-mile-long pipeline from the
25 pump station to the power plant. The water pump runs

1 exclusively off the grid and when the grid is interrupted
2 the pumping of water to the power plant stops and it has
3 less than 8 hours of process and cooling water to operate,
4 causing the power plant to derate or go offline.

5 Last summer, between June and October, La Paloma
6 experienced a combination of 13 derates and outages during
7 extreme heat. These events resulted in a loss of
8 generating capacity from 50 megawatts to more than 1000
9 megawatts.

10 The proposed installation of the back-up
11 generator will ensure that Los Palomas Generating Project
12 continues to receive the process and cooling water needed
13 to operate and generate electricity during grid
14 interruptions. Next slide, please.

15 The La Paloma Generating Project is a 1,048-
16 megawatt combined-cycle, natural gas power plant that was
17 certified in October 1999 and began commercial operations
18 in January 2003. The power plant consists of four
19 combustion turbine generators, four heat recovery steam
20 generators, and four steam turbines.

21 On May 28th, 2013, the CEC staff approved the
22 installation of inlet foggers to recover lost generating
23 capacity on hot days when the combustion turbines are not
24 able to operate at full capacity.

25 In February of 2022 the project owner filed the

1 petition to install an emergency back-up generator. During
2 the same month the CEC staff mailed what is known as a
3 "Notice of Receipt of the Petition for Post Certification
4 Project Change" to the power plant's mail list of
5 interested parties and property owners adjacent to the
6 power plant.

7 In April, the CEC staff sent this final staff
8 analysis cover letter to the same mail list recipients.

9 On May 3rdm the power plant owner also filed a
10 formal comment with the CEC to clarify that the San Joaquin
11 Valley Air Pollution Control District evaluated the
12 installation of the new back-up generator at the remote
13 pumping station as a separate stationary source. Next
14 slide, please.

15 The San Joaquin Valley Air Pollution Control
16 District issued La Paloma Generating Station an Authority
17 to Construct Permit to install the 1.35-megawatt backup
18 generator at the pumping station allowing for increased
19 emissions of up to 50 megawatts per year for testing and
20 maintenance.

21 The CEC staff consulted with the Air Pollution
22 Control District on the air quality analysis to confirm the
23 limited changes to emissions and concluded that new air
24 quality conditions of certification, specifically AQ-EG 1
25 through AQ-EG 16 should be added to their CEC license so

1 that these additions will be enforceable.

2 It is important to note that even though the
3 backup generator is being installed at the water district's
4 pump station and not onsite at the power plant, any
5 existing CEC license includes all related pertinent
6 infrastructure such as transmission lines to their first
7 point of interconnection, gas lines, and in this case a
8 water line. Next slide, please.

9 So to conclude, to align with the Air Pollution
10 Control District's permit the CEC staff recommends your
11 adoption of the order, adding to the existing conditions of
12 certification new air quality conditions allowing for up to
13 50 megawatts of testing and maintenance time of the
14 installed energy backup generator annually, which will
15 comply with all applicable laws, ordinances, regulations,
16 and standards. Thank you.

17 CHAIR HOCHSCHILD: Thank you. Let's go to public
18 comment on Item 5.

19 MS. MURIMI: Thank you, Chair.

20 For individuals that are in the room go ahead and
21 see the Public Advisor at the back of the room or use the
22 QR code to indicate that you'd like to make a public
23 comment.

24 For individuals on Zoom go ahead and use the
25 raised-hand feature, looks like a high-five at the bottom

1 of your screen or device. And for those on the phone go
2 ahead and press *9 to raise your hand and *6 to unmute on
3 your end.

4 No comments in the room, or on Zoom, Chair.
5 We'll give that one more moment. Yeah, no comments.

6 CHAIR HOCHSCHILD: Okay. Thank you, Dorothy.
7 With that unless there are Commissioner comments, I'd
8 welcome a motion from Vice Chair Gunda on Item 5.

9 VICE CHAIR GUNDA: Yeah, I'll move Item 5.
10 Elizabeth, thank you and all.

11 CHAIR HOCHSCHILD: Commissioner Monahan?

12 COMMISSIONER MONAHAN: I second.

13 CHAIR HOCHSCHILD: All in favor say aye. Vice
14 Chair Gunda?

15 VICE CHAIR GUNDA: Aye.

16 CHAIR HOCHSCHILD: Commissioner Monahan?

17 COMMISSIONER MONAHAN: Aye.

18 CHAIR HOCHSCHILD: And I vote aye as well. Item
19 5 passes unanimously.

20 Let's turn now to Item 6, Delegation of
21 Geothermal Certification Authority Regulations.

22 MS. WEBSTER-HAWKINS: Good morning,
23 Commissioners. My name is Renee Webster-Hawkins, Senior
24 Staff Attorney in the Chief Counsel's Office. And I am
25 presenting Item 6 for you today. This item is the proposed

1 adoption of the rulemaking in Docket Number 21-OIR-02, the
2 Delegation of Geothermal Certification Authority
3 Regulations.

4 The rulemaking before you today is the result of
5 the leadership of former Commissioner Douglas and
6 Commissioner Vaccaro, and strong collaboration between
7 staff in the Siting, Transmission and Environmental
8 Protection Division and our team in the Chief Counsel's
9 Office. Next slide, please.

10 The proposed amendments to the CEC's existing
11 regulations that are before you today will streamline and
12 accelerate the development of clean energy from geothermal
13 resources in counties that have adopted a geothermal policy
14 in their general plan, while preserving robust
15 environmental review and public participation in individual
16 project approval under CEQA.

17 Updating the CEC's procedures will eliminate
18 redundant or unnecessary administrative steps and modernize
19 the development of new electricity from California's
20 geothermal resources.

21 Approving the rulemaking has the potential to
22 accelerate California's transition to carbon-free energy as
23 called for in the Proclamation of a State of Emergency
24 issued by Governor Gavin Newsom in July 2021.

25 And also to support a June 2021 decision by the

1 California Public Utilities Commission, directing
2 utilities to procure 11,500 megawatts of new electricity
3 resources before 2026, with at least 1000 megawatts coming
4 from firm resources with zero-onsite emissions, such as
5 geothermal. Next slide, please.

6 Our existing law, at section 25540.5 of the
7 Public Resources Code, already authorizes the CEC to
8 delegate its certification authority for geothermal power
9 plants to those counties that can demonstrate an equivalent
10 certification program.

11 The CEC's regulations for delegating this
12 certification authority are currently promulgated in Title
13 20 of the California Code of Regulations in Sections 1802
14 and 1860-1870. These regulations were adopted in the
15 1970s, and have not been significantly amended since then.
16 And they include procedures which are now unnecessary or
17 duplicative, given the passage of strong laws under the
18 California Environmental Quality Act and other statutes for
19 robust environmental review and public participation in
20 permitting decisions.

21 No county has ever petitioned the CEC for
22 delegated certification authority since the passage of
23 Public Resources Code, section 25540.5. Next slide,
24 please.

25 So therefore, staff proposes these amendments

1 which eliminate the duplicative and unnecessary procedures
2 associated with counties applying to the CEC for delegated
3 authority, while not changing or undermining full
4 environmental review and public participation in individual
5 project review under CEQA at the local level.

6 These amendments will clarify the information
7 needed in petitions for delegated authority to the CEC, so
8 that counties may successfully petition for that authority
9 from the CEC. If counties are granted delegation authority
10 through this streamlined process, counties will be able to
11 review and approve permits for individual geothermal
12 powerplants under the equivalent certification program as
13 approved by the CEC.

14 Providing delegated authority to counties with
15 equivalent certification programs will enable the state to
16 accelerate the certification of geothermal power plants and
17 increase production of electricity from facilities with
18 zero-onsite emissions, while preserving robust
19 environmental review and public participation in the
20 approvals of the individual projects.

21 Key dates from this rulemaking proceeding have
22 included a 45-day public comment period, which ran from
23 February 25th through April 11th. And also the CEC held a
24 public hearing on April 14th with Commissioner Vaccaro
25 attending. All public comments that have been received

1 have been supportive of the rulemaking, without any
2 recommended changes to staff's proposed text. Last slide,
3 please.

4 So based on the rulemaking record in this
5 proceeding, the Chief Counsel's Office recommends that the
6 CEC take actions to find that the proposed regulations are
7 exempt from CEQA under the common-sense exemption, and
8 approve that resolution adopting the amendments to Sections
9 1802 and 1860-1870 of Title 20 of the California Code of
10 Regulations.

11 I am happy to answer any questions that you might
12 have.

13 CHAIR HOCHSCHILD: Well thank you so much,
14 Renee. I really appreciate your work on this.

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

16 MS. MURIMI: Thank you, Chair.

17 For individuals that are calling in press *9 to
18 indicate that you would like to make a comment. For those
19 on Zoom use the raised-hand feature, it looks like a high-
20 five or open palm at the bottom of your screen or device.
21 And for those in the room see the Public Advisor at the
22 back of the room or use the QR code.

23 First public commenter, Armando Ramirez,
24 apologies if I've misstated your name. Go ahead and state
25 and spell your name and give your public comment. Make

1 sure to unmute on your end. That's Armando Ramirez.

2 MR. RAMIREZ: I'm sorry, that was a mis-click.

3 MS. MURIMI: Armando? We lost you again.

4 COMMISSIONER MONAHAN: I think he said it was
5 mis-click. I think he didn't mean to.

6 MS. MURIMI: Oh, okay. Thank you, Armando.

7 Next, we have a commenter named Z.V. (phonetic)
8 Please state your name, give your affiliation if any and
9 give your comments. (No audible response.) Possibly
10 another mis-click.

11 I'm seeing no other comments, Chair.

12 CHAIR HOCHSCHILD: Okay. Thank you, Dorothy.

13 Yeah, I think this is terrific. I think it's in
14 the category of barrier busting for clean energy
15 deployment. And I just wanted to commend Commissioner
16 Vaccaro and all the team in the Chief Counsel's Office who
17 worked on this and Karen Douglas as well, so thank you to
18 everybody. I have no further comments unless there are
19 from my colleagues, I'd welcome a motion from Commissioner
20 Monahan on Item 6.

21 COMMISSIONER MONAHAN: I move Item 6.

22 CHAIR HOCHSCHILD: Is there a second from Vice
23 Chair Gunda?

24 VICE CHAIR GUNDA: I second.

25 CHAIR HOCHSCHILD: All in favor say aye.

1 Commissioner Monahan?

2 COMMISSIONER MONAHAN: Aye.

3 CHAIR HOCHSCHILD: Vice Chair Gunda?

4 VICE CHAIR GUNDA: Aye.

5 CHAIR HOCHSCHILD: And I vote aye as well. Item
6 6 passes unanimously. Thank you, Renee, I appreciate your
7 work.

8 We'll turn now to Item 7, Field Verification and
9 Diagnostic Testing Program. Ronnie Raxter.

10 MS. RAXTER: Hello Chair and Commissioners, my
11 name is Ronnie Raxter and I'm a supervisor in the Standards
12 Compliance Office in the Efficiency Division. I'm here
13 today to request approval to open an order instituting a
14 rulemaking for two separate, but related proceedings to
15 consider amendments to the field verification and
16 diagnostic testing requirements, some of which are
17 currently located in the Home Energy Rating System, or
18 HERS, program regulations.

19 With me today are Matt Pinkerton and Justin
20 Delacruz from the Chief Counsel's Office. Next slide,
21 please.

22 These rulemakings will benefit Californians by
23 simplifying Energy Code compliance by first aligning the
24 requirements in the Energy Code, which will provide clarity
25 to providers, raters, and builders.

1 These changes will also improve CEC program
2 oversight and program performance to enhance compliance
3 with the Energy Code, which will ensure customers will
4 receive the benefits of the energy efficiency measure, as
5 promised. Next slide, please.

6 Field verification and diagnostic testing is done
7 to demonstrate compliance with the Energy Code. Presently,
8 the verification and testing requirements are split between
9 the HERS regulations in Title 20 of the California Code of
10 Regulations and the Energy Code, which is in Title 24.

11 The purpose of the two rulemakings is to relocate
12 and update the verification and testing requirements from
13 their current location in Title 20 to the Energy Code. This
14 will sync the Energy Code's energy efficiency measure
15 requirements with the verification of installation
16 requirements.

17 Staff are considering changes to progressive
18 discipline, quality assurance procedures, conflict of
19 interest, training, and other requirements. Next slide,
20 please.

21 Staff recommendation is to approve the order
22 instituting a rulemaking for two separate, but related,
23 proceedings for the field verification and diagnostic
24 testing program.

25 Thank you for your consideration and I'm

1 available for questions.

2 CHAIR HOCHSCHILD: Thank you.

3 Let's go to public comment on Item 7.

4 MS. MURIMI: Thank you, Chair.

5 Once again, for individuals that are in the room
6 go ahead and use the QR code in the back or see the Public
7 Advisor in the back.

8 For those of you that are on Zoom go ahead and
9 use the raised-hand feature, it looks like an open palm or
10 a high-five at the bottom of your screen or device. And
11 for those of you calling in go ahead and press *9 to
12 indicate that you would like to make a comment.

13 Seeing no comments, Chair, back to you.

14 CHAIR HOCHSCHILD: Okay. Channeling Commissioner
15 McAllister here, I support this, and I think it's pretty
16 straightforward. So I'd welcome a motion from Commissioner
17 Monahan on Item 7.

18 COMMISSIONER MONAHAN: I move to approve Item 7.

19 CHAIR HOCHSCHILD: Can I have a second from Vice
20 Chair Gunda?

21 VICE CHAIR GUNDA: I'll second Item 7.

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

24 COMMISSIONER MONAHAN: Aye.

25 CHAIR HOCHSCHILD: Vice Chair Gunda?

1 VICE CHAIR GUNDA: Aye.

2 CHAIR HOCHSCHILD: And I vote aye as well. Item
3 7 passes unanimously.

4 Thank you, Ronnie, I appreciate that.

5 MS. RAXTER: Thank you.

6 CHAIR HOCHSCHILD: We'll turn now to the
7 Certification of the 2022 Energy Code Compliance Manuals,
8 Item 8.

9 MR. TSAN: Good morning, Chair, and
10 Commissioners. My name is Bach Tsan. I'm a Senior
11 Mechanical Engineer in the Building Standards Office, and
12 Project Manager for the 2022 Single-Family Residential and
13 the Nonresidential/Multifamily Compliance Manuals.

14 I'm here to seek certification of the 2022 Energy
15 Code Compliance Manuals, which are one portion of the
16 Energy Conservation Manual as required by the Public
17 Resources Code section 25402.1(e) for each updated code
18 cycle. The other tools under the Energy Conservation
19 Manual will come before the Energy Commission at the next
20 business meeting. With me today is Matt Chalmers and Josey
21 Crosby from the Chief Counsel's Office. Next slide,
22 please.

23 As a benefit to Californians, the Energy
24 Conservation Manual is designed to help the building
25 industry comply with the Energy Code and help regulators

1 enforce California's Energy Code for residential,
2 nonresidential, and multifamily buildings. Written as both
3 a reference and instructional guide the manual is helpful
4 for anyone directly or indirectly involved in the design
5 and construction of buildings in California. Next slide,
6 please.

7 On August 11th, 2021, the Energy Commission
8 adopted the 2022 Energy Code. The Warren-Alquist Act
9 requires that the CEC create and certify an energy
10 conservation manual no later than 180 days after that
11 approval. The compliance manuals before you today are part
12 of the Energy Conservation Manual, which the Energy
13 Commission certifies each code cycle.

14 The compliance manuals have been updated and
15 vetted with building industry stakeholders, including the
16 codes and standards enhancement team to reflect the changes
17 to the 2022 Energy Code.

18 The compliance manuals were posted for a 30-day
19 public comment period on the CEC website. The staff
20 received 107 comments from 7 industry stakeholders and
21 worked diligently to update the information and to
22 incorporate suggestions where appropriate.

23 Upon your certification of these items, along
24 with the remainder of the Energy Conservation Manual next
25 month, the building industry will have the tools needed to

1 demonstrate compliance with the 2022 Energy Code in advance
2 of the effective date of January 1st, 2023. Next slide,
3 please.

4 Staff recommends that you certify the 2022
5 Compliance Manuals and adopt staff's finding that the
6 Compliance Manuals are exempt from CEQA. Thank you and I
7 am available for any questions. Next slide, please.

8 Thank you to the whole team involved, in
9 particular my Code Leads to these compliance manuals. They
10 are Payam Bozorgchami, Joe Loyer, Matt Haro, Armando
11 Ramirez, Sam Cantrell, Matt Chalmers and Josie Crosby.

12 And hopefully you liked the presentation.

13 CHAIR HOCHSCHILD: Well, thank you and to the
14 whole team who worked on this. Let's go to public comment
15 on Item 8.

16 MS. MURIMI: Thank you, Chair.

17 Once again, for individuals that are in the room
18 go ahead and use the QR code in the back and see the Public
19 Advisor in the back.

20 For those of you that are on Zoom go ahead and
21 use the raised-hand feature, it looks like a high-five or
22 open palm at the bottom of your screen or device.

23 And for those of you calling in go ahead and
24 press *9 to indicate that you would like to make a comment
25 and *6 to unmute on your end. Go ahead and state and spell

1 your name and give your affiliation, if any. And you'll
2 have three minutes or less per person to give your comment.

3 Sarah Blair, you may begin.

4 MS. BLAIR: Yes, hi. This is Sally Blair, I'm
5 with NORESCO, B-L-A-I-R. I do a lot of work with the IOU
6 Compliance Improvement Program. And we support the
7 industry in complying with Part 6. And I wanted to express
8 my support for certification of the 2022 Part 6 Compliance
9 Manual.

10 The industry uses these manuals to understand how
11 the Energy Code requirements applied to their projects, so
12 the Commission providing them is much appreciated. Thank
13 you.

14 MS. MURIMI: Thank you.

15 We have Alanna Torres. Please state and spell
16 your name and give your affiliation, if any. That's Alanna
17 Torres. Go ahead and unmute on your end. State and spell
18 your name, give your affiliation if any, and you may begin
19 your comment.

20 MS. TORRES: Hi. Thank you, good morning. This
21 is Alanna Torres on behalf of the Statewide Utility Codes
22 and Standards Enhancement Team. We're supportive of the
23 California Energy Commission approving of these compliance
24 manuals and thank the Commission for working
25 collaboratively on these updates for the 2022 Code Cycle.

1 We recognize and appreciate the hard work the Commission
2 put into restructuring the multifamily compliance manual to
3 reflect the structural changes adopted in the 2022 Code.

4 Additionally, we are committed to supporting
5 market actors in code compliance. And please make sure to
6 visit energycodeace.com for tools and resources related to
7 code compliance, which are being updated now to incorporate
8 revisions for the 2022 Code Cycle. Thanks so much.

9 MS. MURIMI: Thank you.

10 And our last comment comes from Chris Ochoa,
11 Esquire, Senior Counsel for the Codes, Regulatory and
12 Legislative Affairs for the California Building Industry
13 Association.

14 The comment states, "The California Building
15 Industry Association, CBIA, is a statewide trade
16 association representing over 3000 member companies
17 involved in residential and light commercial construction.
18 CBIA member companies are responsible for over 85 percent
19 of the new homes built in California each year.

20 "Please be advised that CBIA strongly support
21 CEC's certification of the 2022 Residential Energy
22 Conservation Manual today. The Conservation Manual is key
23 to the effective implementation of the residential energy
24 efficiency building standards in the field.

25 "We would like to extend our appreciation to

1 Commissioner McAllister and the CEC staff who worked on
2 this project. It was a major undertaking and was
3 accomplished in record time.

4 :Your approval today will make this critical
5 document available to code users across the state a full
6 seven months ahead of the effective date of the standard."

7 CHAIR HOCHSCHILD: Thank you, Dorothy.

8 We'll turn now to Commissioner discussion. And I
9 just want to add my thanks as well to the whole team. I
10 saw the list you put up of all the people involved. It's
11 quite a team there and seems like that's robust support.

12 So unless there's other -- yeah, Vice Chair
13 Gunda, please go ahead.

14 VICE CHAIR GUNDA: Yeah, I just wanted to just
15 commend the team. Thank you for that clear presentation.
16 And thanks to the entire team for the wonderful work. I
17 think what I'm noting both from the public comments, but
18 also what I've heard too, just how fast and how responsive
19 it was to the needs of the industry. Thank you so much for
20 your work.

21 CHAIR HOCHSCHILD: Okay. And would you be
22 willing to move Item 8?

23 VICE CHAIR GUNDA: Yeah, I'll move Item 8.

24 CHAIR HOCHSCHILD: Is there a second from
25 Commissioner Monahan?

1 COMMISSIONER MONAHAN: I second.

2 CHAIR HOCHSCHILD: All in favor say aye.

3 Vice Chair Gunda?

4 VICE CHAIR GUNDA: Aye.

5 CHAIR HOCHSCHILD: Commissioner Monahan?

6 COMMISSIONER MONAHAN: Aye.

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

8 8 passes unanimously. Thank you.

9 We'll turn now to Item 9, National Lighting
10 Contractors Association of America, Amendment to Provider
11 Application. Daniel Wong.

12 MR. WONG: Good afternoon, Chair and
13 Commissioners. My name is Daniel Wong from the Standards
14 Compliance Office in the Efficiency Division. I am here to
15 present for your consideration approval of the National
16 Lighting Contractors Association of America, or NLCAA,
17 application amendment, which makes substantive amendments
18 to its approved acceptance test technician certification
19 provider application. With me today is Justin Delacruz
20 from the Chief Counsel's Office.

21 The Acceptance Test Technician Certification
22 Provider Program addresses training, certification, and
23 oversight of acceptance test technicians. The technicians
24 perform acceptance tests to ensure that installed
25 equipment, controls, and systems in nonresidential

1 buildings operate as required by the Energy Code. Next
2 slide, please.

3 The proposed provider application amendment
4 ensures that certified technicians continue to receive
5 adequate quality assurance and oversight through NLCAA's
6 program, and that Californians receive the benefits of
7 Energy Code compliant lighting controls. Next slide,
8 please.

9 Providers are required to perform randomly
10 selected quality assurance on-site audits of a technician's
11 completed acceptance tests. This application amendment
12 alters the on-site audit procedures included in NLCAA's
13 approved provider application.

14 The proposed changes resolve potential barriers
15 that may prevent NLCAA from scheduling and completing
16 randomly selected quality assurance onsite audits of a
17 technician's completed projects. NLCAA will continue to
18 perform onsite audits at the rate required by the Energy
19 Code while maintaining an equivalent level of oversight to
20 technicians.

21 Staff posted its evaluation of the application
22 amendment on April 25, 2022, for public comment, and no
23 comments have been received.

24 Based on staff's evaluation, the Executive
25 Director has found that NLCAA's proposed amendments meet

1 the 2019 Energy Code requirements and has issued a
2 recommendation for approval. Next slide, please.

3 Staff recommends that the CEC approve NLCAA's
4 application amendments. Thank you for your consideration
5 and I am available to answer any questions.

6 CHAIR HOCHSCHILD: Thank you.

7 We'll go to public comment on Item 9.

8 MS. MURIMI: Thank you, Chair.

9 Once again, for individuals that are in the room
10 who would like to make a public comment use the QR code
11 located in the back of the room or see the Public Advisor
12 at the back of the room.

13 For individuals that are on Zoom go ahead and use
14 the raised-hand feature, it looks like a high-five or an
15 open palm at the bottom of your screen or device. And for
16 those on the line go ahead and press *9 to indicate that
17 you would like to make a comment and *6 to unmute on your
18 end.

19 Seeing no comments, Chair, back to you.

20 CHAIR HOCHSCHILD: Okay we'll go to Commissioner
21 discussion. And again channeling Commissioner McAllister I
22 support this. I don't have any particular observations or
23 comments to make other than that. Unless there are from my
24 colleagues, I'd welcome a motion from Vice Chair Gunda on
25 Item 9.

1 VICE CHAIR GUNDA: I'll move Item 9.

2 CHAIR HOCHSCHILD: Commissioner McAllister, or
3 Commissioner Monahan, sorry. (Laughter.) We are channeling
4 you. (Overlapping colloquy.)

5 COMMISSIONER MONAHAN: I second.

6 CHAIR HOCHSCHILD: a second from Commissioner
7 Monahan. All in favor say aye.

8 Vice Chair Gunda?

9 VICE CHAIR GUNDA: Aye.

10 CHAIR HOCHSCHILD: Commissioner Monahan?

11 COMMISSIONER MONAHAN: Aye.

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

14 We'll turn now to Item 10, the United States
15 Department of Energy.

16 MR. LU: Hi. Good morning, Commissioners, folks
17 in the room, and also folk on Zoom. My name is Jeffrey Lu.
18 I'm an Air Pollution Specialist here in the Vehicle-Grid
19 Integration Unit at the CEC. I will be walking you through
20 items 10 and 11 of the agenda today. And we'll start, of
21 course, with Item 10. This is an agreement approving the
22 CEC's participation in a Memorandum of Understanding on
23 vehicle-to-everything technologies. Next slide.

24 Vehicle-to-everything technologies can provide
25 immense benefits to Californians as they become

1 increasingly available. "Vehicle-to-everything" is an
2 umbrella term describing technologies and products that
3 allow an electric vehicle to export energy from its battery
4 to power loads, buildings, other vehicles, or the grid.

5 So here's what these technologies could enable:
6 Customers can use their vehicles to absorb cheap
7 electricity when renewable generation is abundant, and then
8 discharge that energy back to their home or the grid when
9 electricity is more expensive, potentially yielding
10 significant bill savings.

11 Similarly, these technologies can help power
12 homes, buildings, or other critical loads during grid
13 outages such as public safety power shutoffs.

14 And finally, given that electric vehicles are
15 essentially huge batteries on wheels, vehicle-to-everything
16 technologies can unlock opportunities for vehicles to serve
17 California's growing energy storage needs, and this can
18 support greater grid reliability. Next slide.

19 This agreement package would ratify and approve
20 the CEC's participation in a Memorandum of Understanding
21 that aims to accelerate the availability of vehicle-to-
22 everything technologies. This MOU is led by the Department
23 of Energy, and the CEC is just one signatory among a very
24 broad range of stakeholders. This group includes
25 automakers, charging providers, labor, other public

1 agencies, and of course the U.S. DOE and its National Labs.
2 Big names include Ford and GM, as well as many California
3 entities: PG&E, Lucid Motors, Rhombus, Nuvve, even the
4 Public Utilities Commission. Next slide.

5 In participating in this MOU the CEC is agreeing
6 to explore greater data-sharing and possible technology
7 demonstrations among the participating groups.

8 In the immediate term, we're expecting a kickoff
9 meeting to be led by DOE soon, which will roadmap the
10 group's activities.

11 We have already been in close contact with staff
12 at the PUC on this matter, and we will be working to make
13 sure that California's policy, interests, and activities
14 are consistently conveyed to the group.

15 This MOU would expire in two years. Next slide.

16 I recommend that the Commission approve this
17 resolution ratifying the MOU and CEC's participation, and
18 adopt staff's determination that this agreement is not a
19 project under CEQA. I'm happy to answer any questions you
20 have. And I believe we have staff from DOE on the line as
21 well. Thank you.

22 CHAIR HOCHSCHILD: Thank you so much, Jeffrey.
23 We'll turn now to public comment on Item 10.

24 MS. MURIMI: Thank you, Chair.

25 For individuals that are on Zoom go ahead and use

1 the raised-hand feature, it should be at the bottom of your
2 screen or device to indicate that you would like to make a
3 comment. For those on the line go ahead and press *9 to
4 indicate that you would like to make a comment and *6 to
5 unmute on your end.

6 And for folks in the room go ahead and use the QR
7 codes in the back of the room or see the Public Advisor in
8 the back of the room.

9 We have Rima Oueid, apologies if I have misstated
10 your name. Go ahead and state and spell your name, give
11 your affiliation, if any, and you may begin your comment.
12 You have three minutes or less for your comment.

13 MS. OUEID: Hi, Rima Oueid with the U.S.
14 Department of Energy. I just wanted to -- I was invited to
15 come in and listen in and just wanted to applaud the CEC
16 and the CPUC in the State of California on their support.

17 I just want to mention that electric vehicles
18 and the internal combustion engine both came, were
19 discovered around the same time in the late 1800s. And it
20 is only now that we're really commercializing them in a way
21 that that is going to scale them. And bidirectional
22 capability will introduce those, the value streams
23 necessary for the electric vehicle to be able to compete
24 with the internal combustion engine.

25 And if you had asked Henry Ford his thoughts when

1 he was commercializing the internal combustion engine he
2 would have said, "If I'd asked people what they wanted,
3 they would have said faster horses." He was a champion for
4 the internal combustion engine.

5 And today the signatories for this MOU are the
6 champions for bidirectional electric vehicles that will
7 help pave the way for electrification of transportation.
8 Thank you.

9 MS. MURIMI: Thank you.

10 Chair, we have no other comments.

11 CHAIR HOCHSCHILD: Yeah, I'd just like to build
12 on that comment that was just made. And there's a
13 wonderful -- actually I use this in a lot of my
14 presentations, a picture of the, I think it's a
15 Thanksgiving Day Parade in New York City in the early 1900s
16 that shows the street completely full. But it's not a
17 parade, it's just on Thanksgiving Day, the street is
18 completely full with horses and buggies and one car. And
19 then ten years later it's all cars and one horse and buggy.
20 And I love that image, because it is just a reminder of how
21 quickly it's possible to have a transition. I think we're
22 at that moment with transportation electrification now.

23 And I just wanted to say thanks on behalf of all
24 of us to our colleagues and friends at the Department of
25 Energy. I've been so impressed with caliber of people in

1 the Biden Administration Department of Energy. I met
2 yesterday with Carolyn Snyder, who's running their building
3 decarbonization group over there. And the dedication at
4 the federal level is just phenomenal.

5 I had the opportunity to support Commission
6 Monahan at this event a few weeks ago in L.A. where the MOU
7 was discussed and kind of launched. And it's just terrific
8 to be doing this with amazing allies.

9 And also Jeffrey, I just really wanted to thank
10 you for your professionalism and sharp insights. I really
11 enjoyed our breakfast together with Commissioner Monahan a
12 few weeks ago there and just hearing your thoughts and
13 looking forward.

14 I think one observation is we have these
15 different kind of silos that we're working on: reliability
16 and R&D and transportation, (Inaudible.) But everything is
17 converging, and in a good way. And as we're rapidly
18 growing EV deployment, that has real benefits to the grid
19 if we do it the right way. I mean, there's definitely a
20 wrong way to do it and a right way to do it. And I think
21 this MOU is a great example of the right way to do it.

22 So with that I'll turn it over to Commissioner
23 Monahan for comments.

24 COMMISSIONER MONAHAN: Well, I'm going to first
25 keep on with Rima who you heard on the phone. And she was

1 really the brainchild of this, I think, has been
2 shepherding this for a long time. And pulled together an
3 amazing event with lots of speakers, including the Mayor of
4 Lancaster who's a Clean Air Champion, a Republican, and
5 really a big believer in this opportunity to use vehicles
6 to support a clean grid. And just very inspiring to see
7 how this is a nonpartisan issue. It should be a
8 nonpartisan issue. And I think that event really
9 highlighted from a perspective of business, labor,
10 environment, energy, how these can be brought together.

11 And as you said, Chair, we really need to unlock
12 this capability to make our grid more resilient. And I
13 think about our investments in school buses. There's
14 25,000 school buses in California, we have the most school
15 buses of any other state.

16 If all of those we capitalize on the V2G
17 capability of them, we would have somewhere between 2.5 to
18 3.75 gigawatt hours of energy and that would be huge at
19 this time. So the investments that we have made in the
20 200-plus electric school buses with V2G, the fact that
21 we're making investments unlock that, that's going to feed
22 into this.

23 The signatories, our national in-scope, we had
24 Ford and General Motors as Jeffrey highlighted, so big
25 automatic automakers are invested in this. And other

1 automakers that I can't say in private -- they're also
2 looking at this. And so just to be at the cutting edge and
3 learning from across the country what we can do more to
4 accelerate progress in this space, I think, is a real
5 opportunity for us.

6 And Jeffrey, thanks for your thought partnership
7 and leadership in this space.

8 I want to say one last thing, which is I want to
9 give kudos to Angelina Galiteva who is our first-ever woman
10 Chair of CAISO. And she also was a force in pulling this
11 together.

12 CHAIR HOCHSCHILD: Thank you, Commissioner.
13 Unless there are comments from the Vice Chair, I would
14 welcome a motion from Commissioner Monahan.

15 COMMISSIONER MONAHAN: I move Item 10.

16 CHAIR HOCHSCHILD: Yep. Vice Chair Gunda?

17 VICE CHAIR GUNDA: Second Item 10.

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

20 COMMISSIONER MONAHAN: Aye.

21 CHAIR HOCHSCHILD: Vice Chair Gunda?

22 VICE CHAIR GUNDA: Aye.

23 CHAIR HOCHSCHILD: And I vote aye as well. That
24 item passes unanimously, 3 to 0.

25 We'll turn now to Item 11, innos Incorporated.

1 Am I pronouncing that correctly Jeffrey?

2 MR. LU: Yeah, I think so.

3 CHAIR HOCHSCHILD: Okay.

4 MR. LU: All right, thanks everyone. Item 11 is
5 with innos Incorporation. This is an agreement package to
6 plan and host a vehicle interoperability testing symposium
7 and conference. Next slide.

8 All right, so during every charging session the
9 vehicle and charger communicate to make sure that
10 everything is safe and that the proper charging parameters
11 are being exchanged. Making sure that this data exchange
12 occurs consistently across different vehicle manufacturers,
13 charger manufacturers, and all the models between them is
14 key to ensuring that charging is easy and reliable.
15 Oftentimes, when a customer is unable to start a charge
16 today it is because this communication between the vehicle
17 and charger was not successful.

18 To help sort through these problems, industry
19 occasionally gets together at large hackathon and
20 conference-like events where different automakers test
21 their products with different charging providers and
22 everyone tries to make sure that everything is working as
23 expected. Industry has told us that these interoperability
24 testing symposia are very useful to their development and
25 interoperability work. Given that California is home to

1 many EV and charging-related companies it will be useful to
2 host one here in the state and lower the barriers for
3 participation by our local companies, for example, by
4 saving on shipping and travel costs.

5 These gatherings are an important complement to
6 the charger testing lab, ViGIL, that the CEC is already
7 funding. ViGIL will provide standardized testing
8 procedures to make sure that products meet a baseline level
9 of interoperability. And gatherings like these are good
10 for spurring collaboration among industry and for catching
11 some of those corner cases that you won't catch in lab-
12 based testing.

13 Beyond just making sure that charging works and
14 is reliable, interoperable charging communication is also
15 the foundation on which industry is building a better and
16 smarter charging experience. This includes features like
17 Plug-and-Charge, so that charging is simple and doesn't
18 require folders full of charging apps, as well as smart-
19 charging and bidirectional charging. So again, those same
20 topics that we have touched on several times today already.
21 Next slide.

22 This \$910,000 contract with innos originates from
23 a competitively bid solicitation to plan and host a Vehicle
24 Interoperability Testing Symposium in California, or what
25 we're calling VOLTS for short. VOLTS is a hackathon-like

1 event spanning multiple days and will gather industry for
2 round-robin style testing to make sure that products
3 function as expected with each other.

4 Successfully executing such a symposium requires
5 extensive logistical and electrical planning in order to
6 accommodate and power all the vehicles and chargers in
7 attendance. It also requires thoughtful program planning
8 to ensure that participants have effective testing
9 schedules.

10 Besides just this testing aspect, innos is
11 planning a conference component to disseminate learnings
12 and to discuss the state of the industry. And innos is
13 also planning a live roadshow portion which will showcase
14 the real-world benefits of communication interoperability
15 in the field. Next slide.

16 I recommend that the Commission approve this
17 contract agreement with innos and adopt staff's
18 determination that this project is exempt from CEQA. I'm
19 happy to answer any questions you have, and I think folks
20 from innos are also calling in today. Thanks for your
21 time.

22 CHAIR HOCHSCHILD: Thank you, Jeffrey.

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

24 MS. MURIMI: Thank you Chair. For individuals
25 that are in the room, go ahead and use the QR codes in the

1 back of the room or see the Public Advisor in the back of
2 the room as well.

3 For individuals that are on Zoom go ahead and use
4 the raised-hand feature, looks like a high-five or an open
5 palm at the bottom of your screen or device.

6 And for those that are calling in go ahead and
7 press *9 to indicate that you'd like to make a comment and
8 *6 to unmute on your end. You have three minutes or less
9 per speaker and one speaker per organization.

10 I see André Kaufung, and apologies if I've
11 misstated your name. Go ahead and state and spell your
12 name and give your affiliation, if any, and you may give
13 your comment.

14 MR. KAUFUNG: Yes, Hello. Good morning, my name
15 is André Kaufung. I'm the President of the innos, Inc. and
16 the Managing Director of a CharIN Association. And I would
17 like to take this opportunity to thank the Chair, the
18 Commission and the whole CEC team for this contribution.

19 And as we are executing these kinds of events on
20 global scale, already a couple of years, and we see the
21 increasing volumes of EVs and chargers coming up to market
22 it's a real benefit for the whole industry to be enabled to
23 secure interoperability.

24 So that's my comment for now. So thank you and
25 looking forward together with our CharIN North America and

1 CharIN Global Team to execute this kind of event.

2 MS. MURIMI: Thank you, Andre.

3 Seeing no more hands, Chair, back to you.

4 CHAIR HOCHSCHILD: Thank you. I did just have a
5 question, and this can be for Andre or Jeffrey, just what
6 are the outcomes that you're most hoping to get from this?

7 MR. LU: Andre, if you're still there you're
8 welcome to chime in; otherwise, I can go ahead.

9 MR. KAUFUNG: Yes, I'm happy to answer. So the
10 most value of the outcome is that you open your test
11 results. I mean we all know in that industry that there's
12 a certain development in standards and with this high speed
13 of evolving industry, you cannot have everything answered
14 by the standard, so you'll find some arrows, some mistakes,
15 you find some gaps.

16 And the big advantage of these kinds of events is
17 that not one individual EV maker is testing with one
18 individual EVSE maker, and then sharing the knowledge of
19 the tests. That you have this kind of round-robin test and
20 share in the whole group and the whole community lessons
21 learned, so a lot of these mistakes and findings are not
22 done a second time. And this increases interoperability on
23 a much larger scale than individual tests. And this is one
24 of our expected outcomes that with a good participation
25 across industry you have on one event a lot of lessons

1 learned where others do not take the same test again.

2 MR. LU: Yeah, Chair. I think that the two
3 things I would add to this are I think there are sort of
4 two buckets of outcomes that I would like to see from this.
5 One is the more basic interoperability, making sure that
6 charging works as expected. These events have already
7 proven that they're really useful for catching some of
8 these bugs, so this will continue to do that.

9 But I think just as importantly events like these
10 will help push the envelope for what charging can be and
11 what the charging experience can include. So when we want
12 EVs to good grid citizens, to do smart-charging,
13 bidirectional charging, this is the way to get that to
14 scale through standards, interoperability, and everyone
15 doing it in such a way where you don't have to be tied to a
16 certain brand or model and so forth.

17 CHAIR HOCHSCHILD: Really helpful. Let me turn
18 it over to Commissioner Monahan for comment.

19 COMMISSIONER MONAHAN: Well, I just I mean
20 building on this a question, which just occurred to me, is
21 will there be a report with major findings that could help
22 inform our grantmaking going forward?

23 MR. LU: Yeah, there is. So the specific test
24 results between individual companies, that's generally kept
25 confidential. But as part of this agreement there is a

1 reporting aspect where those results will be aggregated and
2 anonymized and then provided to CEC.

3 COMMISSIONER MONAHAN: Thank you.

4 VICE CHAIR GUNDA: Just a quick question,
5 Jeffrey? First of all thank you so much. I love the idea
6 of hackathons. I love the idea of bringing people
7 together. And, obviously, the success of that is
8 predicated on their participation. Could you or Andre kind
9 of comment on how we are ensuring robust participation and
10 really kind of maximize the impact of this?

11 MR. LU: Yeah, I think two things I'll note on
12 that.

13 The first one is in innos's application they have
14 provided a really broad range of support letters, including
15 from players like EVgo, Electrify America, Tesla and so
16 forth. So we already see that sort of broad participation
17 from the get-go.

18 But beyond that, innos partners with CharIN,
19 which is a global charging standardization organization.
20 And I think they have pretty broad reach to be able to
21 reach not only automakers and charging providers, but also
22 folks upstream in that supply chain that provide these
23 products as well.

24 VICE CHAIR GUNDA: Awesome. Just encouraging the
25 points made by both Chair and Commissioner Monahan, I think

1 just a report of that would be really helpful, but also
2 making it accessible to broader stakeholders beyond kind of
3 the -- like in the industry. How do we bring in
4 researchers to engage them on these issues as they tackle
5 the future? So how do we bring them in? So it's great,
6 I'd love to support it. Thank you.

7 CHAIR HOCHSCHILD: Great. With that, unless you
8 have other comments, I would welcome a motion from
9 Commissioner Monahan on Item 11.

10 COMMISSIONER MONAHAN: I move to approve Item 11.

11 CHAIR HOCHSCHILD: Is there a second from Vice
12 Chair Gunda?

13 VICE CHAIR GUNDA: Second Item 11.

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

16 COMMISSIONER MONAHAN: Aye.

17 CHAIR HOCHSCHILD: Vice Chair Gunda?

18 VICE CHAIR GUNDA: Aye.

19 CHAIR HOCHSCHILD: And I vote aye as well. That
20 item passes unanimously, 3 to 0.

21 We'll turn now to Item 12, Charging Access for
22 Reliable On-Demand Transportation Services.

23 MR. WENSIL: Hello, Chair.

24 CHAIR HOCHSCHILD: And (indiscernible) with -
25 sorry, just one thing, with your permission what I'd like

1 to get through this item and then we'll break for lunch.

2 (Overlapping colloquy.) Go ahead.

3 MR. WENSIL: Hello, Chair, Vice Chair,
4 Commissioners. My name is David Wensil with the Fuels and
5 Transportation Division. Today staff is seeking approval
6 for four projects proposed for funding under the Charging
7 Access for Reliable On-Demand Transportation Services
8 solicitation, also referred to as CARTS. Next slide,
9 please.

10 The proposed projects will demonstrate a
11 replicable model for rapid acceleration of EV charging
12 infrastructure, while building grid and community
13 resiliency in underserved areas. Data collected from these
14 projects will provide key insight into the future
15 scalability of charging equipment for high mileage on-
16 demand transportation services.

17 These projects will provide models and lessons-
18 learned from the Transportation Network Companies in
19 understanding the technology required for their
20 applications, routes, and environment, helping to achieve
21 California's Clean Miles standard of 90 percent electric
22 vehicle miles traveled by 2030.

23 Located throughout the state these projects
24 demonstrate the geographically diverse needs for continued
25 EV infrastructure deployment. The proposed projects will

1 reduce greenhouse gas emissions and criteria air
2 pollutants, providing air quality benefits to
3 transportation network drivers and the local community,
4 which are often designated as disadvantaged and priority
5 populations.

6 Lastly, these projects will lead to the creation
7 of green jobs and help contribute to sustainable economic
8 growth, improving the quality of life for those in the
9 surrounding areas. Next slide, please.

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

20 The four projects that I will be presenting today
21 account for roughly \$6.1 million out of the total \$16.6
22 million proposed for awards under this solicitation. The
23 rest of the agreements are expected for the June and July
24 business meeting. Next slide, please.

25 Overall, there are a total of 642,000 vehicles

1 associated with Transportation Network Companies throughout
2 California. CARB's Clean Miles Standard could raise the
3 number of zero-emission vehicles actively used in ride-
4 hailing to 400,000 by 2030.

5 AB 2127 analysis also shows that Transportation
6 Network Companies account for 30 percent of the market use
7 for DC Fast Chargers, indicating that they are and will
8 continue to be a major use for California's expanding EV
9 infrastructure network.

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

14 The first project for your consideration is an
15 agreement with the Latino Equity Advocacy and Policy
16 Institute. They are requesting a \$415,000 dollar grant and
17 will be providing match funding in the same amount to
18 support the expansion of chargers for the Green Raiteros
19 ridesharing program in the city of Huron, California. The
20 Green Raiteros program was created to provide a clean,
21 safe, and inexpensive form of transportation for community
22 members going to jobs, schools, medical appointments, and
23 social services.

24 LEAP has a fleet of seven EVs which were donated
25 to their program, with an additional three electric

1 vehicles expected through CARB's Clean Mobility Options
2 grant. However, the program does not currently have access
3 to fast-charging equipment to charge their vehicles.

4 This project will install four Direct Current
5 Fast Chargers along with a solar carport and onsite battery
6 storage, which will be managed by a Distributed Energy
7 Resource system. These Direct Current Fast Chargers will be
8 utilized by the Green Raiteros as well as the public. And
9 with the additional fast charging, the LEAP Institute
10 anticipates greater utilization of the program fleet,
11 allowing cars to be on the road for a longer portion of the
12 day. Next slide, please.

13 The next proposed agreement is with TeraWatt
14 Infrastructure. They are requesting approximately \$2
15 million and providing over \$2 million in match funding to
16 install a charging hub that will support the
17 electrification of vehicles near the John Wayne Airport.
18 TeraWatt is partnering with Kaptyn, which is a ride hailing
19 company that is expanding its operations in Santa Ana,
20 California, to include 200 electric vehicles which will
21 provide services not only to the airport, but to the
22 surrounding disadvantaged community where the site is
23 located. The funding requested from this project will go
24 towards the installation of electric vehicle infrastructure
25 to support Kaptyn's fleet. As part of the project's match

1 funding, the project team will provide 12 Level 2 electric
2 vehicle supply equipments, 7 dual-port DC fast chargers,
3 and a battery energy storage system.

4 Kaptyn expects to recruit, hire, and train 500
5 new employees with 50 percent of the new hires residing in
6 low-income and disadvantaged communities in the surrounding
7 area. The image on this slide shows an arial view of the
8 project site and indicates where the chargers will be
9 installed. Next slide, please.

10 The third proposed agreement is with KIGT. They
11 are requesting a \$2 million grant to install 180 electric
12 vehicle charging stations for low-income residents and
13 Transportation Network Company drivers, including Uber
14 drivers, in Ontario, California.

15 KIGT will also be providing over \$4.7 million in
16 match funding for this project. As a part of their proposed
17 match funding, KIGT will provide electric vehicle charging
18 equipment, as well as a microgrid with a 2-megawatt carport
19 solar array, and a 500-kilowatt-hour onsite battery
20 storage.

21 KIGT's eStation model will be located within half
22 a mile of the Ontario International Airport and will
23 provide workforce training for low-income and disadvantaged
24 community residents to train for high-paying jobs as EV
25 network technicians.

1 This model, which uses EV charging plus a
2 microgrid, will provide grid resiliency for low-income and
3 disadvantaged community members by reducing the number of
4 brownouts and blackouts during peak demand periods.

5 Their EV chargers will also be accepting credit
6 or debit cards with alternative payment options including
7 EBT and Metro Cards, helping to reduce barriers for
8 unbanked individuals. Next slide, please.

9 The final proposed agreement is with EVgo
10 Services. They are requesting a \$1.7 million grant and
11 providing over \$2.6 million in match funding to support the
12 expansion of chargers in two locations within the Bay Area.

13 The San Francisco Hub site, located in the heart
14 of Mission District will involve the installation of 26
15 Direct Current Fast Chargers. Of that total, 18 will be
16 dedicated to private charging for Cruise's autonomous ride-
17 sharing service. Cruise is committed to serving the
18 community not only through ride-sharing accessibility, but
19 also through the establishment of their FutureWorks
20 program, which offers career support to people with
21 identities that are historically underrepresented in tech
22 by providing educational and skill-building activities
23 including interview training and networking. The remaining
24 eight 8 stalls will be open to public use and available for
25 all on-demand transportation service drivers.

1 The second site, referred to as Oak Hub, will
2 install four Direct Current Fast Chargers. These chargers
3 will be available to Uber, other service providers, and the
4 general public. The site is less than four miles from
5 Oakland International Airport, making it a convenient stop
6 for the many rideshare drivers completing airport pick-ups
7 and drop-offs.

8 Finally, both San Francisco and Oak Hubs will
9 incorporate the use of high-powered 350-kilowatt charging
10 stations, which will reduce the time needed to recharge and
11 increase productivity for on-demand drivers. Next slide,
12 please.

13 Staff's recommendation is to approve these four
14 agreements and adopt staff CEQA findings. Rey Leon from
15 the LEAP Institute, Adrian (phonetic) from KIGT, David
16 Schlosberg from Terawatt and Lars Peters from EVgo are all
17 online if you have any questions. Thank you for your
18 consideration. This concludes my presentation and I'm happy
19 to answer any questions

20 CHAIR HOCHSCHILD: Thank you.

21 Let's go to public comment on Item 12.

22 MS. MURIMI: Thank you, Chair.

23 Again, for individuals that are in the room go
24 ahead and use the QR code located in the back of the room
25 or see the Public Advisor as well who is in the back of the

1 room.

2 For individuals on Zoom go ahead and use the
3 raised-hand feature, looks like a high-five or an open palm
4 at the bottom of your screen or device.

5 And for individuals that are calling in go ahead
6 and press *9 to indicate that you'd like to make a comment.

7 With that, Jatomis Stevenson, and apologies if I
8 have misstated your name. Go ahead and state and spell
9 your name, give your affiliation if any. You have three
10 minutes or less. You may begin.

11 MR. STEVENSON: Hi, my name is Jatomis Stevenson,
12 J-A-T-O-M-I-S, Stevenson like Robert Louis. I'm speaking
13 on behalf of KIGT. And I'd like to thank the CEC, Climate
14 Finance Solutions, Uber, the county of San Bernardino and
15 the city of Ontario. And KIGT is thrilled to bring such an
16 iconic project to the nation's largest county by landmass,
17 creating a mobility hub with a safe, stylish cafe supported
18 by a microgrid that was outlined in the project. It's the
19 first of its kind in our region and we are grateful for the
20 opportunity.

21 Working with Uber on this charging access for
22 reliable on-demand transportation services within a
23 disadvantaged community will provide tremendous value to
24 the Inland Empire regarding jobs, economic empowerment,
25 along with access to more affordable and clean fueling.

101

1 Collaborating with the Ontario International
2 Airport to curate a mobility option for the city along
3 Interstate 10 within a half mile from the airport and
4 within a mile from the Convention Center will help the
5 Inland Empire transition to a clean mobility future.

6 KIGT is grateful for this opportunity to shape
7 100 years of human habit in southern California. Thank
8 you.

9 MS. MURIMI: Thank you.

10 I see Rey Leon.

11 MR. LEON: Hello and good afternoon, buenas
12 tardes. I'm Rey Leon with the LEAP Institute, and I too
13 would like to thank the Commission, the Energy Commission.
14 Greetings to Chair Hochschild and Commissioner Monahan and
15 Commissioner Gunda. I don't think we've had the pleasure
16 to meet yet, Commissioner Gunda. But we are very grateful
17 for this support so we may continue the electric vehicle
18 ride-sharing in the west side of San Joaquin Valley and
19 more so in Fresno County.

20 But this is going to help us really turn around
21 our vehicles, because we'll be able to get them charged
22 quick so that they can get on the road and take another
23 farmworker family to their medical appointment, or any
24 other essential appointment that they may have.

25 Thank you very much. It's beautiful to be able

1 advance clean energy in California. We are always part of
2 the struggle with LEAP in fighting for 100 percent. And I
3 love seeing that not only is it unfolding throughout the
4 state with colleagues, partners, and allies, but that we're
5 making that happen in the farmworker community of Huron and
6 making the dream green and keeping Huron really on the top
7 in terms of EV charging infrastructure. And I hope that
8 that continues with other poverty populations as well, and
9 I work to help in making that happen. Thank you very much
10 and I salute you all.

11 MS. MURIMI: Thank you, Rey.

12 Next, we have David Schlosberg, apologies if I've
13 misstated your name. Go ahead and unmute on your end,
14 state and spell your name, give your affiliation, if any.
15 You may begin.

16 MR. SCHLOSBERG: Thank you, this is David
17 Schlosberg, D-A-V-I-D, last name Schlosberg, S-C-H-L-O-S-
18 B-E-R-G. I'm with TeraWatt Infrastructure. We're the
19 applicant for the CARTS grant in Santa Ana, California. We
20 just wanted to take a moment to give our appreciation and
21 thanks to the CEC, both the Commissioners and staff, in
22 bringing the CARTS program forward and expanding the CARTS
23 program which was really fantastic.

24 We are working with our partner Kaptyn, who's a
25 ride-hail service that's bringing its business to southern

1 California and helping to bring 200 electric vehicles to
2 provide ride services in southern California, both in
3 Orange County and the greater Los Angeles area.

4 Special thanks to the Santa Ana Airport and the
5 city of Santa Ana for helping, to date, with this project
6 and supporting this project. And we are looking forward to
7 working with Southern California Edison and bringing the
8 path, the site online and starting to electrify rides in
9 the area out of the site in Santa Ana there.

10 MS. MURIMI: Thank you, David.

11 Chair, I see no other comments.

12 CHAIR HOCHSCHILD: Well thank you for those
13 members of the public commenting. Rey Leon, great to see
14 you my friend, and thank you for all your work in Huron.
15 You know, you don't have to be a big city to make a big
16 difference. I think we've seen that again and again in
17 California's communities leading the way. And I am really
18 pleased to support this.

19 I did want to ask a question, if I could of
20 staff, just could you recap roughly the cost per charger?
21 We're talking about the fast chargers. What is the overall
22 capital cost, just ballpark, for the chargers that are
23 going in now?

24 MR. WENSIL: Are you -- for all the agreements or
25 just for the

1 CHAIR HOCHSCHILD: Well, just we heard like --
2 I'm just interested the fast charger. I'm remembering
3 roughly like 70K or so, for that. Is that ballpark about?

4 MR. WENSIL: Yeah, that's about right. Yeah,
5 that's about ballpark. And then I think for the Level 2s
6 it's around \$10, \$15, \$20,000 I want to say.

7 CHAIR HOCHSCHILD: Yeah, okay. I just wanted to
8 see that was still in the ballpark. Okay.

9 COMMISSIONER MONAHAN: Well, I think the 350-
10 kilowatt chargers are more expensive.

11 CHAIR HOCHSCHILD: Okay. What would a 350-
12 kilowatt charger be, ballpark, now?

13 COMMISSIONER MONAHAN: Do you know that, David?

14 MR. WENSIL: Off of my head, no I don't.

15 (Overlapping colloquy.).

16 COMMISSIONER MONAHAN: I think either the staff
17 can, but I can give you some data from ICCT specific to the
18 overall cost of the chargers, not necessarily the share
19 that we would be calculating.

20 CHAIR HOCHSCHILD: Yeah. Okay, that'd be really
21 helpful. I would love to see that when you have it ready.
22 Thank you.

23 So let's go to Commissioner discussion, starting
24 with Commissioner Monahan.

25 COMMISSIONER MONAHAN: Well, I want to thank you

1 Chair, you were partly the inspiration for this one. And
2 to highlight something that David said, which is a profound
3 statistic, that 30 percent of the DC fast charging is going
4 to Transportation Network Companies. I mean, that's just a
5 staggering amount of the energy from DC fast charging
6 that's being used for very specific purpose.

7 And what I love about these projects is that they
8 integrate equity, together with this, what we're seeing in
9 the real world around how Transportation Network Companies
10 are using our public charging system and how that will
11 accelerate as more with the Clean Mile Standard that CARB
12 approved, and now is going through the CPUC. That's going
13 to just increase the amount of electrification of the
14 Transportation Network Companies. And to layer equity on
15 top of that, I think, is a really critical aspect of this.

16 And Mayor Leon highlighted Green Raiteros, and
17 the fact that they're using those vehicles in a car --
18 mobility as a service, it's also a little bit car-sharing -
19 - to get people to medical appointments and critical to
20 have farmworkers be able to get to where they need to go
21 and have it be zero-emission. So Mayor Leon has been a
22 real leader in this space.

23 KIGT, if you haven't talked to the leader of
24 KIGT, Paul Francis, he's really visionary in this space as
25 well. And really working to make sure that electrification

1 is not just something for wealthy communities, but for all
2 communities. So I'm just really excited about this, I feel
3 like the fact that it was so oversubscribed too shows how
4 much appetite there is in the community for this.

5 CHAIR HOCHSCHILD: Yeah, I just wanted to build
6 on that point. And just so when you look at the population
7 of people driving for Uber and Lyft there's a lot of low-
8 and moderate-income drivers. And I tended to ask when I
9 ride just about what it would take to go electric. And I
10 found most drivers want to do that, but it needs to work
11 for their life.

12 And for them time is money. And if you're in a
13 situation where you can't charge quickly you're not going
14 to do it, because many of these folks are driving into a
15 major urban area an hour or more. And to then have to do a
16 slow charge to re -- it won't work. And so really like the
17 cost of the vehicle and the cost of these, the vehicle and
18 the ability to get a fast charge, those are negating
19 items.

20 And so I really want to commend you, Commissioner
21 Monahan and your team for leading on this and I think it's
22 a really important step forward. And it's an equity policy
23 to do this, I really believe that. So Vice Chair Gunda?
24 Yeah, please go ahead.

25 VICE CHAIR GUNDA: Yeah, I think I just want to

1 start by just noting like we have at so many business
2 meetings we have these transportation-related items that we
3 approve. Just what an incredible job FTD is doing overall,
4 just a shoutout to Hannon, but also the HR team that's
5 behind the admin team who make all this happen, so just
6 incredible.

7 And I think, and I just want to commend Chair,
8 you and Commissioner Monahan, and what (Indiscernible)
9 vision that you're all bringing to make this happen. And
10 also thanks to the administration for the support we've
11 been receiving in advancing the clean transportation goals.
12 So I mean, again to note totally every time I see a new
13 program presented or an expansion it's just a pleasure to
14 learn the thinking behind it. And thank you for commenting
15 on the equity lens on the top of the TNC need.

16 So I have a just a couple of questions, David to
17 you, first of all thank you for the presentation. And we
18 can follow up on this, but it definitely caught my eye that
19 we it's reliable services and we want to keep them reliable
20 from the grid perspective. So a couple of thoughts on when
21 we are kind of funding these, obviously we want to
22 understand better data on the charging plans, right? So I
23 want to understand what we're doing in terms of making sure
24 that CEC receives some of the data as it relates to
25 charging so we can continue to build it into our planning.

1 That's one.

2 The second element is when we are thinking about
3 funding these, to Commissioner Monahan and you, you raised
4 it too, which is there's a large appetite. What are we
5 talking about? Like what's the scale of need here? And
6 when we think about locationality and funding them, how
7 coordinated are we or the overall stakeholder group, right?
8 Like, for example, if a grantee comes in how are they
9 coordinating with the utility to ensure this long-term
10 build? Sorry, I'm throwing a lot of things there, but
11 maybe we want to start with how are we gathering data? And
12 then how are we thinking about grid capacity and the need
13 as we provide these grants?

14 MR. WENSIL: Yeah, that's a great question Vice
15 Chair Gunda. So right off the top of my head I don't know
16 the exact data that we're asking for, that we're gathering
17 for. I know part of the projects, the scope of work, we do
18 require that each recipient give data for their chargers
19 that they provide. But again like I said I'll have to get
20 back to you on the exact statistics that we were acquiring
21 for that.

22 And to, I'm sorry, what was your second question,
23 again?

24 VICE CHAIR GUNDA: Just the grid impact
25 (indiscernible) if we want to - I mean, the reliability

1 here, the way I understood is making sure there are options
2 for charging, right? But then it also has the impact on
3 the grid. How are we thinking about the reliability of the
4 grid as we kind of put this project plan and ensuring that
5 it's reliably reliable?

6 MR. WENSIL: Yeah definitely. Well, I think
7 with the microgrids and solar carports we're helping to
8 offset grid demand. And so we could use the green power,
9 green energy that's powered by the microgrids to help
10 supply those chargers. And so that helps take a
11 significant demand off of the grid.

12 And I know for one of the projects, I believe it
13 was KIGT's e-station model, I know they have a two-megawatt
14 microgrid and that's able to provide, when it's providing
15 power, to supply almost 50 percent of the needs at full
16 utilization for the site. And so that definitely also
17 significantly helps reduce its impact on the grid.

18 VICE CHAIR GUNDA: Great. So here is my kind of
19 like last kind of more of a thought, so as kind of we
20 discussed an Item 3 as we think about reliability at large,
21 I think, having the funding that we provide, whether
22 through R&D and the storage projects or transportation and
23 the charging I know we are doing a lot on combining some of
24 those opportunities. So, for example, that would be a good
25 example where if the microgrid could really island for a

1 while for the charging needs to include emergencies it's a
2 great win-win situation.

3 So I just want to encourage this opportunity of
4 how do we continue to think about these things that we're
5 funding to be more integrated, but also allow for greater
6 reliability and resiliency. And how do we provide that
7 path for integration to our programs? So just wanted to
8 share that thought.

9 COMMISSIONER MONAHAN: Yeah, I think that's a
10 great comment Vice Chair. And something we should follow
11 up on in the context of DERs, too, like we should be
12 engaging ChargePoint and EVgo and all the big providers in
13 that conversation. And because this is so much bigger than
14 this specific solicitation and these specific grants. And
15 I think it's worthy of getting to more granular with the
16 providers themselves about what activities they could do.

17 And we should be thinking, I mean we're trying to
18 learn in our grantmaking process as well, how to integrate
19 those. And I think with some grants you can see it really
20 clearly like KIGT, others you can't.

21 I will say on the TNC drivers, they tend to be
22 driving -- the peak times for the grid are also the peak
23 times for driving, which you would think, "Oh, well that
24 might cause grid stress." The theory is that it's the
25 opposite because they'll be charging before, and they'll be

1 charging after. But during those peak times they want to
2 keep driving. But that's theoretical I would say, we need
3 more data on that as well.

4 VICE CHAIR GUNDA: Great, Commissioner Monahan.
5 I love your kind of idea. I think, overall, how do we kind
6 of have maybe a roundtable sort to just think about grid
7 reliability, as you mentioned, the integration and vehicle
8 charging overall into some sort of a paradigm to continue
9 to (indiscernible).

10 COMMISSIONER MONAHAN: Yeah, and it's the
11 medium-, heavy-duty vehicles where I think that's really an
12 issue too.

13 VICE CHAIR GUNDA: Yeah, absolutely. Thank you.
14 Thank you, David, so much.

15 CHAIR HOCHSCHILD: Thank you to the whole team.
16 And with that I would welcome a motion on Item 12
17 from Commissioner Monahan.

18 COMMISSIONER MONAHAN: I move Item 12.

19 CHAIR HOCHSCHILD: Is there a second from Vice
20 Chair Gunda?

21 VICE CHAIR GUNDA: Second Item 12.

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

24 COMMISSIONER MONAHAN: Aye.

25 CHAIR HOCHSCHILD: Vice Chair Gunda?

1 VICE CHAIR GUNDA: Aye.

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

4 What we'll do is recess now for lunch. It's
5 12:20, why don't we reconvene at 1:30 here, okay.

6 (Off the Record at 12:21 p.m.)

7 (On the Record at 1:30 p.m.)

8 CHAIR HOCHSCHILD: I'm ready when you are,
9 Dorothy.

10 MS. MURIMI: And we are back

11 CHAIR HOCHSCHILD: Okay, welcome back from lunch
12 everyone.

13 My apologies, I failed to move Item 2, which was
14 the Resolution honoring Tom Gates. We took public comment
15 on that and heard from Tom directly, but I would like to
16 formally adopt that Resolution. So Vice Chair Gunda if
17 you'd be willing to move the Adoption to the Resolution for
18 Tom Gates, Item 2.

19 VICE CHAIR GUNDA: I move Item 2.

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

22 COMMISSIONER MONAHAN: I second.

23 CHAIR HOCHSCHILD: All in favor say aye. Vice
24 Chair Gunda?

25 VICE CHAIR GUNDA: Aye.

1 CHAIR HOCHSCHILD: Commissioner Monahan?

2 COMMISSIONER MONAHAN: Aye.

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

5 And we'll return to the regular agenda. I
6 believe we're on Item 13. Is that correct?

7 MS. MURIMI: That is correct.

8 Okay let's begin, San Diego Community College
9 District. Larry Rillera, welcome. Thank you.

10 MR. RILLERA: Good afternoon, Chair and
11 Commissioners, my name is Larry Rillera. I am staff with
12 the Fuels and Transportation Division. I will be
13 presenting Item Number 13 seeking approval of an amendment
14 to an existing agreement. Next slide.

15 According to CARB's Heavy-Duty Truck and Bus
16 Voucher Incentive Project, there are over 1200 zero-
17 emission trucks deployed in the United States. Over 700 of
18 those zero-emission trucks are in California with pending
19 orders over 1200, and there are 145 zero-emission truck
20 models available for purchase which is a 625 percent
21 increase since 2019.

22 Investing in a workforce for this heavy-duty
23 market segment is critical given the impact of pollution
24 reduction from this class of vehicles.

25 The benefits of investment of clean

1 transportation programs, workforce training and development
2 includes:

3 The development of ZEV and ZEV infrastructure
4 career pathways, and high road training partnerships.

5 The creation of high-quality jobs.

6 Advocacy for the ZEV industry.

7 Support for priority community solutions and
8 skills development.

9 And support for ZEV supply chains. Next slide.

10 San Diego Community College has been a long-time
11 Energy Commission workforce training-and-development
12 partner. Partnership success of the Clean Transportation
13 Program, its collaboration with the college automotive
14 programs and local dealerships.

15 This project will augment an existing agreement
16 by \$1.8 million and extend the term of the agreement by 24
17 months to accomplish specific tasks and deliverables.

18 At the core of the project will be the
19 establishment of medium- and heavy-duty ZEV maintenance and
20 service programs for trucks, buses, and other non-light-
21 duty vehicles. Curricula and training will also include
22 charging and hydrogen refueling.

23 The project will create an immediate pipeline of
24 trained, certified, and degreed public and private fleet
25 technicians.

1 Six colleges will see an investment of CEC funds
2 to establish these programs and is aligned with CARB truck
3 and bus deployments. Next slide.

4 Staff recommends approval of the San Diego
5 Community College District contract amendment. Thank you
6 for consideration of this item.

7 CHAIR HOCHSCHILD: Thank you.

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

9 MS. MURIMI: Thank you, Chair.

10 For those in the room go ahead and use the QR
11 code in the back of the room or see the Public Advisor.

12 For those that are on Zoom go ahead and use the
13 raised-hand feature, it looks like an open hand at the
14 bottom of your screen or device.

15 And for those of you calling in go ahead and
16 press *9 to indicate that you'd like to make a comment and
17 *6 to unmute on your end.

18 We'll start with Jonathan Kropp, apologies if
19 I've misstated your name. Go ahead and state and spell
20 your name, give your affiliation if any, and you have three
21 minutes or less to give your comment. Thank you.

22 MR. KROPP: Good afternoon, it's Jonathan Kropp,
23 J-O-N -- I just go by Jon -- K-R-O-P-P, and I'm
24 representing San Diego Community College District. And
25 I've been overseeing the CEC projects over the last four

116

1 years here.

2 CHAIR HOCHSCHILD: I'm sorry, Mr. Kropp, if you
3 could speak up, it's a little hard to hear you.

4 MR. KROPP: Sorry about that.

5 CHAIR HOCHSCHILD: Thank you.

6 MR. KROPP: Sure, sorry for that. San Diego
7 Community College Districts have been overseeing our CEC
8 projects for the last four years. So far, we have received
9 two rounds of funding for zero-emission vehicle training
10 enhancement program primarily supporting our light-duty
11 vehicles. And I just wanted to present some quick figures
12 from those past rounds.

13 Thus so far, we've had 22 colleges funded;
14 approximately 2,700 students a year continue to benefit
15 from the equipment, supplies, and critical modifications;
16 over 156 faculty received professional development; 260
17 incumbent transfer workers were trained; 41 ZEV training
18 vehicles were purchased; 48 courses created or modified;
19 and 7 certificates or degrees were created, which are
20 comprised of multiple courses. So as you can see the CEC
21 support has gone a long way to benefit California workforce
22 in the zero-emission space.

23 However, since the vast majority of the funding
24 has been allocated toward light-duty vehicles we'll now
25 need to start focusing on investments on medium- and heavy-

1 duty programs in order to meet California's workforce
2 demands as well as CARB's Advanced Clean Truck Program,
3 requiring all new medium- and heavy-duty vehicles sold in
4 California to be ZEV by 2045.

5 Out of approximately 26.6 million vehicles
6 registered in California there's about 1.5 medium- and-
7 heavy duty trucks. So despite this small vehicle population
8 trucks are responsible for over 70 percent of the smog
9 pollution, thus illustrating the importance of the
10 transition as well as investment in the workforce work
11 capacity.

12 The community colleges have over 20 programs
13 throughout the state that are primed to support the state
14 mandates for zero-emission medium- and heavy-duty vehicle
15 adoption. But because of the expensive nature of these
16 programs faculty find it extremely difficult to secure
17 funding for these new technologies needed to support
18 technicians in this industry.

19 So if approved, and like Larry mentioned, the
20 augmentation would provide income and worker training to
21 fleets, provide program improvement funding for up to 6
22 colleges throughout the state, which would allow them to
23 invest in new curriculum and training materials needed to
24 support that emerging market.

25 Lastly, I'd just like to thank the Commissioners

1 for their support on this item. And specifically I'd like
2 to thank Commissioner Patty Monahan for her continued
3 support in workforce training and development, and the
4 continuation of this agreement in the heavy-duty ZEV space.

5 MS. MURIMI: Thank you.

6 Seeing no other comments, Chair, back to you.

7 CHAIR HOCHSCHILD: Thank you.

8 Let's go to Commissioner discussion, starting
9 with Commissioner Monahan.

10 COMMISSIONER MONAHAN: Well, I was thinking Chair
11 on the heels of Battery Day when we heard from all these
12 battery manufacturers that one of their number one concerns
13 was lack of a skilled workforce. And when it comes to
14 zero-emission vehicles we need to make sure there is a
15 workforce ready to deal with the vehicles that are here,
16 and while creating really good jobs for people who need it.

17 So I just think this series, I mean, we got a lot
18 of strong support from our advisory committee and from
19 other stakeholders that workforce training is really
20 important, and to businesses across the state as well. So
21 I'm just very strongly supportive of the grant, the whole
22 basket of grants -- this, and the next item that Larry is
23 shepherding.

24 CHAIR HOCHSCHILD: Thank you. Any comments
25 Commissioner Gunda? Okay hearing none, I'd welcome a

1 motion on Item 13 from Commissioner Monahan.

2 COMMISSIONER MONAHAN: I move Item 13.

3 CHAIR HOCHSCHILD: Thank you. Vice Chair Gunda?

4 VICE CHAIR GUNDA: I second Item 13.

5 CHAIR HOCHSCHILD: All in favor say aye.

6 Commissioner Monahan?

7 COMMISSIONER MONAHAN: Aye.

8 CHAIR HOCHSCHILD: Vice Chair Gunda?

9 VICE CHAIR GUNDA: Aye.

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

12 Thank you, Larry. I appreciate your work. And
13 we'll turn now to Item 14, IDEAL ZEV Workforce Pilot.

14 MR. RILLERA: Great. Good afternoon, Chair and
15 Commissioners. My name is Larry Rillera. I am staff with
16 the Fuels and Transportation Division at the California
17 Energy Commission. I will be presenting Item Number 14,
18 seeking approval of nine agreements as a result of this
19 solicitation. Next slide. Thank you.

20 The IDEAL ZEV Workforce Pilot solicitation was
21 released in October of 2021 as a competitive solicitation
22 with over \$6 million in available funding. Fourteen
23 projects are proposed for award for a total of \$6.5 million
24 in funding. Nine agreements are recommended for funding
25 today.

1 The solicitation is a partnership with the
2 California Air Resources Board. CARB contributed \$1
3 million to project work and is building staff capacity for
4 clean transportation workforce training and development.

5 Benefits of the solicitation include:

6 The development of ZEV and ZEV infrastructure
7 career pathways.

8 The creation of high roads and high-quality jobs.

9 Advocate for the ZEV industry and supply chain
10 businesses.

11 And support for priority community solutions and
12 skills development. Next slide.

13 The first project is a proposed agreement with
14 Fresno City College for \$500,000. The project will
15 establish a dual enrollment program and will establish new
16 automotive programs for zero-emission vehicles at three
17 Fresno area high schools. The purpose of the project is to
18 orient lower-income communities to ZEVs and ZEV careers.

19 Fresno City College will leverage an existing
20 advisory committee structure for curricula development,
21 training, and position graduates for high-road careers.

22 Well, I would also note that this project will
23 continue past the project agreement period. Next slide.

24 The second project is with the Housing Authority
25 of the County of San Joaquin for \$500,000. This low-income

1 resident-focused trainee project will leverage existing
2 community resources and educational partners to provide
3 training on ZEV skills development. Approximately 75
4 trainees will participate in the project where the Housing
5 Authority estimates that trainees will be placed in to 70
6 jobs after the training. Next slide.

7 The third project is a proposed agreement with
8 the County of Los Angeles for \$499,530. The project will
9 train municipal electricians on EV charger installation,
10 operation, service, and end-of-life replacement.

11 The project is modeled after the Energy
12 Commission's successful partnership with the California
13 Conservation Corp launched last year.

14 A goal of the project is to provide municipal
15 electricians with Electric Vehicle Infrastructure Training
16 Program training and certification as they prepare to meet
17 the state's ZEV goals. The project anticipates
18 approximately 100 trainees and 60 jobs. Next.

19 The fourth project is a proposed agreement with
20 the National Indian Justice Center for \$500,000. The
21 project will establish the Tribal ZEV Training Project in
22 partnership with California Native American Tribes located
23 in Humboldt and San Diego Counties.

24 Project partners include the Electric vehicle
25 Infrastructure Training Program and the California Transit

1 Training Consortium.

2 The project anticipates creating 80 new jobs.

3 Next.

4 The fifth project is a proposed agreement with
5 the Cal State University Long Beach. The project will
6 establish a new ZEV Engineering Training Program comprised
7 of classroom and laboratory education, with hands-on-
8 training as well. The project will also provide tuition
9 assistance and support for lower-income students. Next
10 slide.

11 The sixth project is a proposed agreement with
12 Los Angeles Pierce College for \$500,000. The ZEV Training
13 Program will span three existing college programs for
14 automotive, electronics, and environmental disciplines.
15 Tuition assistance and support will be provided for lower-
16 income students to participate in the program.

17 The project will leverage an existing advisory
18 committee for curricula development, training, and
19 preparation for job placement, expecting approximately 130
20 jobs. Next.

21 The seventh project is a proposed agreement with
22 Cal State University Los Angeles. The California ZEV
23 Engineering Workforce Pilot will focus on hydrogen and will
24 leverage their existing hydrogen refueling station located
25 on campus for hands-on-training.

1 Tuition assistance will also be available for
2 lower-income students. Next.

3 The eighth project is a proposed agreement with
4 Green Paradigm Consulting for \$250,000. The Electric
5 Vehicle Military Service Pilot Project will train
6 California veterans, disabled veterans, and military
7 personnel transitioning out of service and active duty to
8 become EV Charging Technicians.

9 Significant project partners that will lead these
10 technicians into EV charger jobs include VetJobs, a
11 military job placement entity, and The Next Education, a
12 small, women-owned business that specializes in online
13 technical education. About 50 trainees are expected to
14 participate. Next.

15 The ninth and final project is a proposed
16 agreement with West Oakland Job Resource Center for
17 \$350,000. The Greening the Transportation, Distribution,
18 and Logistics Industry Project is a partnership with the
19 Northern California Teamsters Apprenticeship Trust that
20 will provide instruction and hands-on-training for heavy-
21 duty ZEV technologies. Training will lead to certification
22 and place trainees into good quality jobs in the freight
23 sector. The project expects about 100 trainees. Next.

24 Staff recommends approval of all nine agreements
25 as noted. Staff also recommends a determination these

1 actions are exempt from CEQA. Thank you for your
2 consideration of these items and would note that
3 representatives from a couple of the projects are present.

4 CHAIR HOCHSCHILD: Thank you, Larry.

5 We'll go to public comment.

6 MS. MURIMI: Thank you, Chair.

7 For individuals in the room, go ahead and use the
8 QR Code and the room or see the Public Advisor at the back
9 of the room.

10 For individuals on Zoom go ahead and use the
11 raised-hand feature, it looks like an open palm or a high-
12 five at the bottom of your screen or device.

13 And for those calling in go ahead and press *9 to
14 indicate that you'd like to make a comment and *6 to unmute
15 on your end.

16 Once called go ahead and unmute on your end,
17 state and spell your name, give your affiliation, if any.
18 You have three minutes or less per person, one person per
19 organization.

20 We'll start with Tarecq Amer, and apologies if
21 I've misstated your name. Go ahead and state and spell
22 your name and your affiliation.

23 MR. AMER: Good afternoon, Commissioners, my name
24 is Tarecq Amer. The first name is spelled T-A-R-E-C-Q, the
25 last name is A-M-E-R. I am the Program Director at the

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1 West Oakland Job Resource Center.

2 About three years ago, three-and-a-half years
3 ago, we started an initiative with the Teamsters, an NCTAT,
4 which is their training arm, to develop a pre-
5 apprenticeship program and an affiliated apprenticeship
6 program focusing on the transportation, distribution, and
7 logistics industry. We have since grown that program
8 considerably. And in that period have determined that
9 there is a lot that needs to be done that is specific to
10 the environmental impact of the industry itself, as I'm
11 sure everybody in the room knows.

12 TDL has been historically an industry that's
13 ignored or, even worse, has contributed to the crisis of
14 global climate change. It's also, however, right now an
15 industry that's poised to undergo fundamental change to
16 meet the challenges by shifting from energy sources that
17 are exacerbating our position to ones that are green energy
18 sources.

19 Our work in this project aims to train workers to
20 be fully competent and conversant in participating in the
21 transition to zero-emissions energy sources. Our trainees
22 will gain expertise in the use of battery electric energy
23 for a host of different port and TDL-related operations,
24 from forklifts going all the way up to trucks, battery-
25 electric trucks.

1 As the Port, and by extension its tenants -- the
2 Port of Oakland, that is -- and its tenants rise to meet
3 the challenge of global climate change, the West Oakland
4 Job Resource Center will train up a strong workforce to
5 ensure that businesses are positioned to move goods in a
6 far less detrimental way.

7 We'd like to thank the Commissioners, all of
8 them, for their support on this. And specifically, we
9 would like to thank Commissioner Monahan for her support of
10 workforce training as it pertains to the TDL industry, and
11 we look forward to doing work with you. Thank you.

12 MS. MURIMI: Thank you, Tarecq.

13 Next, we have the National Indian Justice Center.
14 Please state and spell your name, give your affiliation,
15 and give your comment. (No audible response.) Apologies,
16 yes.

17 MS. MYERS: Sorry, I hit that unmute button a
18 second time. I'll start over. The first name is Raquelle,
19 R-A-Q-U-E-L-L-E, last name is Myers, M-Y-E-R-S. I'm the
20 Executive Director for the National Indian Justice Center
21 and I'm a member of the Pinoleville band of Pomo Indians
22 located in Mendocino County in Northern California. And I
23 just want to thank everybody for supporting our proposed
24 project, which is the Tribal Zero-Emissions Vehicle
25 Training Project. And we're proposing to serve 23 tribes

1 across two counties, the county of Humboldt and San Diego,
2 over an 18-month period. The project itself is a pilot
3 that will use existing workforce training curricula. And
4 our hope is to provide a career pipeline from tribal
5 communities into the ZEV industries and occupations.

6 Tribal communities are primary champions, if you
7 will, for climate protection and making sure that clean
8 energy is available. But we often have lacked the
9 resources to participate fully. And we're hoping that this
10 project will bring training and education to tribal
11 communities and allow them to work on this important issue
12 from their communities and support the long-term goals of
13 the State of California.

14 For this project we're hoping to address the
15 short-term goal of training and developing the ZEV
16 occupations pipeline. But it's a long-term goal, so to
17 increase awareness and skills to provide a future
18 foundation for expanded tribal transit routes using zero-
19 emission vehicles to connect to existing transit routes.

20 These existing transit routes often do not reach
21 tribal communities. And the funding and resources
22 available to create those linkages between those transit
23 points is often hard to come by. So we're hoping that as
24 tribes are able to focus on those resources and bring them
25 to bear for the betterment of all communities, that they

1 can do that with ZEV vehicles.

2 So it's our hope that this project, once funded,
3 will bring a lot of multifaceted results to tribal
4 communities as well as to surrounding communities.

5 I just want to thank you all for your support for
6 this particular project, and particularly thank
7 Commissioner Monahan for your workforce training, work and
8 your support of tribes in accessing clean transportation.
9 Thank you.

10 MS. MURIMI: Thank you, Raquelle.

11 Chair, there are no more comments.

12 CHAIR HOCHSCHILD: Thank you.

13 Let's go to Commissioner discussion, beginning
14 with Commissioner Monahan.

15 COMMISSIONER MONAHAN: Well, I just really
16 appreciate the range of different grantees in this space.
17 And congratulate Larry in partnership with the Air
18 Resources Board. I think the fact that they ponied up
19 funds for this shows, also the shared commitment that we
20 have to making sure there's a trained workforce with a
21 strong focus on equity. And I mean to have a partnership
22 with tribes, with labor, the military, the transportation
23 distribution logistics -- which is hard to say, that's a
24 mouthful -- industry. And the fact that we're looking at
25 junior colleges, Cal State, just all these different -- the

1 range of different opportunities here to cultivate a ZEV
2 workforce with a kind of attentiveness to equity is really
3 just manifested by this package of grants.

4 So people who have been thanking me, I would say,
5 "Thank all the stakeholders who have informed us and
6 advised us." And Larry, his leadership in particular I
7 want to just commend for his thoughtfulness in this space.
8 So I'm strongly supportive of this series of grants.

9 CHAIR HOCHSCHILD: Thank you.

10 Yes, Vice Chair Gunda.

11 VICE CHAIR GUNDA: I just wanted to note thanks
12 and appreciation to Larry and the FTD team for the
13 workforce development work that you're doing. And Larry,
14 you've been really good at bringing a lot of different
15 voices to the table in developing these things and I just
16 really appreciate the diversity and the engagement that
17 you've been able to do in this space, so thank you for your
18 work.

19 Commissioner Monahan, thank you for your
20 leadership on this. I'm looking forward to supporting the
21 item.

22 CHAIR HOCHSCHILD: Thank you. With that I'd
23 welcome a motion on Item 14 from Commissioner Monahan.

24 COMMISSIONER MONAHAN: I move Item 14.

25 CHAIR HOCHSCHILD: Is there a second from Vice

1 Chair Gunda?

2 VICE CHAIR GUNDA: Second.

3 CHAIR HOCHSCHILD: All in favor say aye.

4 Commissioner Monahan?

5 COMMISSIONER MONAHAN: Aye.

6 CHAIR HOCHSCHILD: Vice Chair Gunda?

7 VICE CHAIR GUNDA: Aye.

8 CHAIR HOCHSCHILD: And I vote aye as well. Item
9 14 passes unanimously.

10 We'll turn now to Item 15, NORESKO, LLC.

11 Elizabeth Thomsen.

12 MS. THOMSEN: Good afternoon, Chair and
13 Commissioners. My name is Elizabeth Thomsen, and I am the
14 Contract and Grant Analyst for the Efficiency Division.
15 Today I will be presenting Items 15 and 16.

16 The first of these, Item 15, is a request to
17 approve a \$7.5 million three-year agreement with NORESKO,
18 LLC, to provide the Building Standards Office with Energy
19 Code research and analysis support and development. Next
20 slide, please.

21 This three-year NORESKO agreement will Provide
22 the highly specialized technical support essential for
23 developing, updating, and maintaining the California Energy
24 Code for nonresidential, single-family residential, and
25 multifamily buildings.

1 It will also advance two major state energy
2 efficiency goals of building decarbonization in newly
3 constructed residential and nonresidential buildings. And
4 decreasing energy consumption by 30 to 70 percent in
5 existing residential and nonresidential buildings. Next
6 slide, please.

7 Work on this three-year architectural and
8 engineering agreement will focus on the development and
9 implementation of the 2022 and 2025 Energy Code updates;
10 maintenance and enhancements to the 2019 Energy Code
11 update; and preliminary work on future Energy Code updates,
12 2028 and beyond.

13 Co-funding for this agreement is \$6 million from
14 the Energy Research Program Account, or ERPA, and \$1.5
15 million from the Cost of Implementation Account, or COIA
16 funds. Next slide, please.

17 The proposed scope of work with NORESKO includes
18 three core tasks:

19 Nonresidential and Residential Energy Code
20 Updates.

21 Measure Identification and Analyses,
22 respectively.

23 And Energy and Climate Accounting Methodologies
24 for the Energy Code.

25 Together these tasks provide the technical

1 resources needed to help the CEC develop future Energy Code
2 updates. Next slide, please.

3 I recommend approval of the NORESKO agreement to
4 provide the Efficiency Division with Energy Code research
5 and analysis support and development. Thank you for your
6 consideration. I am available for questions.

7 CHAIR HOCHSCHILD: Thank you. We'll go to public
8 comment on Item 15.

9 MS. MURIMI: Thank you, Chair.

10 For those in the room you can use the QR Code in
11 the back of the room or reach out to the Public Advisor at
12 the back of the room.

13 For those on Zoom go ahead and use the raised-
14 hand feature, it looks like a high-five or open palm at the
15 bottom of your screen or device.

16 For those calling in go ahead and press *9 to
17 raise your hand and *6 to unmute on your end.

18 Seeing no comments, Chair, back to you.

19 CHAIR HOCHSCHILD: Okay, no comments from me on
20 this. Oh yeah, go ahead Vice Chair Gunda.

21 VICE CHAIR GUNDA: Yeah, just thank you for that
22 presentation. Just one quick question, Elizabeth, if
23 you're able to answer? I see one of the tasks mentioned
24 kind of the climate impacts are into the analysis, could
25 you expand on what the task is a little bit?

1 MS. THOMSEN: Yes, I can get that for you. Let
2 me grab that. I apologize, I don't have it in front of me.

3 VICE CHAIR GUNDA: Okay, no problem. It's just
4 more of an ask to just coordinate with the Forecasting team
5 to the extent that there are climate impacts baked into the
6 building analysis. It will be helpful to coordinate what
7 the assumptions are to help with the forecasting elements,
8 so I just wanted to connect that dot. That's it. Thank
9 you.

10 CHAIR HOCHSCHILD: Unless there are other
11 Commissioner comments, I'd welcome a motion from Vice Chair
12 Gunda on Item 15.

13 VICE CHAIR GUNDA: Yeah, I'll move Item 15.

14 CHAIR HOCHSCHILD: Is there a second from
15 Commissioner Monahan?

16 COMMISSIONER MONAHAN: I second.

17 CHAIR HOCHSCHILD: All in favor say aye. Vice
18 Chair Gunda?

19 VICE CHAIR GUNDA: Aye.

20 CHAIR HOCHSCHILD: Commissioner Monahan?

21 COMMISSIONER MONAHAN: Aye.

22 CHAIR HOCHSCHILD: And I vote aye as well. Item
23 15 passes unanimously.

24 We'll turn now to Item 16, Bruce A. Wilcox, P.E.
25 Incorporated. Elizabeth.

1 MS. THOMSEN: Good afternoon, Chair and
2 Commissioners. My name is Elizabeth Thomsen, and I am the
3 Contract and Grant Analyst for the Efficiency Division. I
4 will now present Item 16. This is a request to approve a
5 \$4.5 million three-year agreement with Bruce A. Wilcox,
6 P.E. Incorporated, to provide the Building Standards Office
7 with Energy Code Compliance software support and
8 development. Next slide, please.

9 This three-year Wilcox agreement will provide the
10 highly specialized technical support essential for
11 developing, updating, and maintaining residential and
12 nonresidential compliance documents, performance modeling
13 tools, and related materials to support the California
14 Building Energy Code Compliance, or CBECC, software.

15 It will also advance two major state energy
16 efficiency goals of building decarbonization in newly
17 constructed residential and nonresidential buildings. And
18 decreasing energy consumption by 30 to 70 percent in
19 existing residential and nonresidential buildings. Next
20 slide, please.

21 Work on this three-year architectural and
22 engineering agreement will help fulfill regulatory
23 requirements associated with the Energy Code, including
24 delivery of free public domain software certified for
25 compliance with the Energy Code, also known as CBECC.

1 Energy Code supporting documents, such as
2 compliance manuals, reference manuals, and compliance
3 forms; and

4 Other tools that help provide compliance
5 flexibility, data collection, and field verification.

6 Funding for this agreement is from the Cost of
7 Implementation Account, or COIA funds. Next slide, please.

8 The proposed scope of work with Wilcox includes
9 three core tasks: Energy Standards Software Tools
10 Development and Maintenance.

11 Enhancing and Supporting Data Exchange
12 Infrastructure for the Energy Code.

13 And Software Tools Documentation and Deployment.

14 All these tasks together are essential for the
15 building industry to demonstrate compliance with the Energy
16 Code. Next slide, please.

17 I recommend approval of the Wilcox agreement to
18 provide the Efficiency Division with Energy Code Compliance
19 software support and development. Thank you for your
20 consideration. I am available for questions.

21 CHAIR HOCHSCHILD: Thank you.

22 Let's go to public comment.

23 MS. MURIMI: Thank you, Chair.

24 For those in the room, go ahead and use the QR
25 Code in the back or reach out to the Public Advisor.

1 For those on Zoom go ahead and use the raised-
2 hand feature, it looks like an open palm at the bottom of
3 your screen or device.

4 And for those calling in press *9 to raise your
5 hand and *6 to unmute.

6 We have Paul Sumal. (No audible response.) Paul
7 Sumal? He may be having technical difficulties. Please
8 reach out to the Public Advisor's Office at
9 publicadvisor@energy.ca.gov to relay your comments or give
10 your comments at the general public comment period near the
11 end of the business meeting.

12 And we'll try that once more, Paul Sumal, your
13 line is unmuted.

14 MR. SUMAL: Yeah, go ahead. Can you hear me?

15 MS. MURIMI: Yes, we can.

16 MR. SUMAL: Well, what's happened? I don't know.
17 I wasn't planning to make any comment. But I must have
18 pressed something.

19 MR. SUMAL: Thank you, Paul.

20 All right Chair, back to you.

21 CHAIR HOCHSCHILD: Thank you. We'll go to
22 Commissioner discussion. I support the item. Unless
23 there's other comments, I'd welcome a motion from Vice
24 Chair Gunda on Item 16.

25 VICE CHAIR GUNDA: I'll move Item 16.

1 CHAIR HOCHSCHILD: Is there a second from
2 Commissioner Monahan?

3 COMMISSIONER MONAHAN: I second.

4 CHAIR HOCHSCHILD: All in favor say aye. Vice
5 Chair Gunda?

6 VICE CHAIR GUNDA: Aye.

7 CHAIR HOCHSCHILD: Commissioner Monahan?

8 COMMISSIONER MONAHAN: Aye.

9 CHAIR HOCHSCHILD: And I vote aye as well. Item
10 16 passes unanimously.

11 We'll turn now to Item 17, Advancing Cost and
12 Efficiency Improvements for Low Carbon Hydrogen Production.

13 MR. LASAM: Good afternoon, Chair, Vice Chair,
14 and Commissioners. My name is Baldomero Lasam and I'm a
15 mechanical engineer in the Energy Research and Development
16 Division. This is a total of four recommended projects for
17 this solicitation, but today I'm requesting approval for
18 two agreements. The goal of this solicitation and the
19 projects recommended today is to advance emerging hydrogen
20 production technologies that achieve cost-competitiveness
21 with fossil-based steam methane reforming pathways and
22 displace the use of fossil natural gas. Next slide,
23 please.

24 As shown in the graph the vast majority of
25 hydrogen in the United States emanates from steam methane

1 reforming processes using fossil fuels, mostly natural gas.
2 The conventional steam methane reforming process produces
3 greenhouse gas emissions that do not align with the
4 decarbonization goals of California, providing an area of
5 need in which emerging renewable hydrogen production
6 technologies could provide a solution.

7 These recommended projects will reduce greenhouse
8 gas emissions in the state by developing and deploying
9 novel pathways or processes that displace the use of
10 conventional fossil-based steam methane reforming.
11 Instead, these projects utilize 100 percent renewable
12 feedstock to produce low-carbon hydrogen.

13 The research and development efforts will advance
14 approaches that will reduce costs and increase adoption of
15 low-carbon hydrogen production technologies.

16 Lastly, these projects will inform future
17 deployment strategies to support upscaling and
18 commercialization and to identify areas for further
19 technology improvement. Next slide, please.

20 The project with The Regents of the University of
21 California Los Angeles Campus will develop a bench-scale
22 technology that leverages a concentrated solar energy to
23 convert renewable biogas into low-carbon hydrogen and a
24 high value form of solid carbon that can be used for
25 multiple applications.

1 As opposed to steam methane reforming that uses
2 multiple expensive catalysts to convert natural gas into
3 hydrogen, the project's novel approach will use the
4 deposited solid carbon to serve as a catalyst to decompose
5 the biogas and convert it to hydrogen, which eliminates the
6 complexity of the process, reduce the costs and increase
7 the durability limits of the system. This method is a
8 first-of-its kind that releases zero direct greenhouse gas
9 emissions, potentially making it a carbon negative process.

10 The project with Technology and Investment
11 Solutions will develop and deploy a pilot-scale low-carbon
12 hydrogen production system that will integrate proven
13 process components consisting of a catalytic reforming
14 system, a water gas shift reactor, pressure swing
15 adsorption system, and hydrogen storage systems. These
16 components will be installed with an existing food waste
17 digester in Phelan, California, to convert waste biogas
18 into low carbon hydrogen.

19 The synergistic interaction of these components
20 will significantly reduce greenhouse gas emissions by
21 eliminating the conventional use of biogas compressors and
22 gas treatment components and increase hydrogen conversion
23 efficiency by enhancing biomethane production.

24 In addition, the proposed method will increase
25 hydrogen production and achieve high hydrogen purity

1 allowing for pipeline injection or local distribution.

2 Next slide, please.

3 Both recommended projects aim to provide cost-
4 parity with fossil-based steam methane reforming,
5 benefitting California's gas ratepayers. Staff recommends
6 approval of these grant awards and adoption of staff's
7 determination that these projects are exempt from CEQA.
8 Thank you and I'm available for any questions.

9 We'll go public comment on item 17.

10 MS. MURIMI: Thank you, Chair.

11 So individuals in the room, go ahead and use a QR
12 code or reach out to the Public Advisor.

13 For individuals on Zoom go ahead and use the
14 raised-hand feature at the bottom of your screen or device,
15 looks like an open palm or a high-five.

16 For those calling in go ahead and press *9 to
17 indicate you'd like to make a comment and *6 to unmute.

18 Giving that one moment. Seeing no comments
19 Chair, back to you.

20 CHAIR HOCHSCHILD: Unless there's -- oh well
21 sorry, Commissioner Monahan did you want to speak to this?

22 COMMISSIONER MONAHAN: Well, it's just a brief
23 comment that California has really been invested, as we all
24 know, for a long time in hydrogen for transportation. Now
25 I think the focus is expanding to exploring what it means

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1 for the grid, what it means for long duration storage, even
2 direct combustion is being considered. And yet the
3 production of the hydrogen is a key piece of this to make
4 sure that it's low carbon.

5 And I think as the state looks for ways to get a
6 hydrogen hub in California, the fact that we're ponying up
7 so much more money than any other state on the production
8 side, on the use side, and really trying to figure out how
9 we scale and how we produce truly low carbon hydrogen. The
10 RNG to hydrogen is one pathway. Electrolysis is another
11 pathway to get to really deep decarbonization of hydrogen.
12 So just I'm supportive of the ways that California is
13 really trying to advance the technology and make sure that
14 it is low carbon, truly low carbon.

15 CHAIR HOCHSCHILD: Yeah, I would just echo that
16 and say that we are, again, fully supportive of a hydrogen
17 hub in California and getting this introduction money into
18 the state and support the efforts of GO-Biz in particular
19 on that. But generally I'm still very mindful that 95
20 percent of hydrogen that's in use today does come from
21 fossil. And we've talked a lot about hydrogen, but that
22 you're not getting an environmental advantage when it's
23 from fossil, so we really have to pursue these other
24 avenues. So I'm pleased to support this today.

25 I'd welcome a motion on Item 17 from Commissioner

1 Monahan.

2 COMMISSIONER MONAHAN: I move Item 17.

3 CHAIR HOCHSCHILD: Is there a second from Vice
4 Chair Gunda?

5 VICE CHAIR GUNDA: Second Item 17.

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

8 COMMISSIONER MONAHAN: Aye.

9 CHAIR HOCHSCHILD: Vice Chair Gunda?

10 VICE CHAIR GUNDA: Aye.

11 CHAIR HOCHSCHILD: And I vote aye as well. Item
12 17 passes unanimously.

13 We'll turn now to Item 18, The Next EPIC
14 Challenge: Reimagining Affordable Mixed-Use Development in
15 a Carbon-Constrained Future. Rachel Salazar.

16 MS. SALAZAR: Hello, Commissioners. I'm Rachel
17 Salazar with the Market Facilitation Office in the R&D
18 Division. I'm here requesting approval of 3 awards,
19 totaling approximately \$3 million, and stemming from our
20 solicitation titled, "Next EPIC Challenge: Reimagining
21 Affordable Mixed-Use Development in a Carbon-Constrained
22 Future."

23 We did receive approval of the initial 9 projects
24 at the April business meeting, so these will round out the
25 last of the 12 in the design phase. Next slide, please.

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1 The expected benefits to California stemming from
2 this solicitation include providing a suite of technologies
3 and design plans for decarbonized, affordable mixed-use
4 developments that can improve grid reliability; demonstrate
5 the value of emerging grid-interactive technologies; and
6 provide economical approaches for developers.

7 And I'll provide some additional project benefits
8 later in the presentation. Next slide, please.

9 The Next EPIC Challenge seeks to address two of
10 the major issues facing California, climate today, change
11 and the shortage of affordable housing, while at the same
12 time trying to accelerate achievement of the state's
13 building decarbonization goals.

14 There are several benefits to co-locating
15 residential and commercial or office spaces, especially
16 those in more dense urban areas. However, technical and
17 economic challenges continue to stand in the way of
18 decarbonizing these buildings.

19 The Next EPIC Challenge provides a two-phase
20 competition for multi-disciplinary teams to overcome these
21 challenges to design and ultimately build a mixed-use
22 development that incorporates four primary goals: Adoption
23 of advanced clean energy technologies across onsite
24 generation, storage, and load management that leverages
25 innovations supported by the EPIC program.

1 Integration of advanced practices in the
2 planning, design, and construction to help lower the cost
3 and lead-time for these projects.

4 Development of sustainable business models to
5 ensure a good mix of market-rate and affordable housing
6 that avoids gentrifying existing neighborhoods.

7 And finally, protection against the impacts of
8 climate change and extended power outages. Next slide.

9 To ensure projects meet the solicitation goals,
10 there are several minimum requirements for the
11 development's site and design.

12 For example, the mixed-use must include
13 residential space.

14 And at least 20 percent and 10 percent of the
15 residential units must be available as affordable and
16 lower-income housing, respectively.

17 Developments must be all-electric with a
18 capability to "island" from the grid and prioritize
19 different loads that will be powered by onsite resources.

20 DER assets must be integrated with aggregation
21 platforms.

22 And finally, at least 20 percent of parking
23 spaces must include EV-charging that can respond to grid-
24 and building-signals. Next slide.

25 This slide provides a summary of how the funding

1 was allocated to different regions across the state as well
2 as the intended number of awards in both the design and
3 building phases. Again, we are concentrating on the
4 design phase today. Next slide.

5 The first project is planned for San Jose and
6 will be led by the Association of Energy Affordability, a
7 nonprofit recognized as one of the foremost advocates for
8 multifamily energy efficiency across the country. Their
9 project, Harmonized Resilience at Roosevelt Village, is a
10 proposed 100 percent affordable development with 175 units
11 per acre, which is 5 times the solicitation's minimum for
12 housing density.

13 With this, the project represents an opportunity
14 to identify cost-effective pathways to addressing the
15 unique energy generation, noise, and indoor air quality
16 challenges inherent in the planning of a dense, urban,
17 mixed-use development.

18 The project team is also seeking to contribute
19 replicable ownership models for the large amounts of
20 behind-the-meter energy assets, as well as provide dispatch
21 strategies that are appropriate for affordable housing
22 developments more broadly.

23 These will be provided in an open-source guide to
24 affordable housing projects that are intended to be
25 adaptable. And the guide will lead users through a menu of

1 available technologies and best-practice solutions based on
2 each development's unique parameters, including the
3 building height and construction type, residential
4 population and non-residential programs, and standardized
5 performance metrics that align with the housing
6 development's priorities. Next slide.

7 Next up, Self-Help Enterprises will lead the
8 design of an affordable housing complex, comprised of 120
9 rental units for low and very low-income tenants, as well
10 as a community center which will serve as a cooling center
11 and emergency response hub during power outages and natural
12 disaster incidents.

13 The team will assess a variety of Passive House
14 design elements, with a lens towards affordability.

15 Also, because drought is so prevalent in the
16 Central Valley, the team will consider different
17 landscaping designs such as using bioswales and a sand
18 filter for water reusage.

19 Finally, Self-Help is planning to use this design
20 as a new prototype for future developments. Next slide.

21 And last but not least, the SoLa Impact
22 Opportunity Zone Fund, an urban real estate fund, will lead
23 the design for approximately 75 units with community
24 support facilities on a ground-up development being planned
25 for a church-owned property in Compton. The planned

1 residential units include one-bedroom rental apartments as
2 well as three-bedroom townhomes designed to be sold to low-
3 income households to build enabling increased equity for
4 home ownership.

5 Community support facilities include a childcare
6 center, cooperative kitchen space, and social gathering
7 areas.

8 The project also plans to design for a microgrid
9 that will power a multi-purpose community room, enabling it
10 to act as a local resilience hub in the case of power
11 outages.

12 Excess power could be used by the residents to
13 power their electric vehicles, saving on the cost of
14 electricity and encouraging the adoption of electric
15 vehicles. Next slide.

16 And with that, staff recommends approval of these
17 grant agreements and staff's findings that these projects
18 are exempt from CEQA. Thank you for your consideration and
19 I'm available for comments.

20 CHAIR HOCHSCHILD: Thank you so much, Rachel.

21 We'll go to public comment on Item 18.

22 MS. MURIMI: Thank you. Thank you, Chair.

23 For individuals in the room, go ahead and use the
24 QR code or reach out to the Public Advisor.

25 For those on Zoom go ahead and use the raised-

1 hand feature, it looks like an open palm or a high-five at
2 the bottom of your screen or device.

3 And for those calling in press *9 to indicate
4 that you'd like to make a comment and *6 to unmute.

5 We have Kristin Ainley.

6 MS. AINLEY: Hi. Good afternoon, I'm Kristin
7 Ainley from Self-Help Enterprises.

8 On behalf of Self-Help Enterprises --

9 MS. MURIMI: Apologies, Kristin. We can't hear
10 you very well.

11 MS. AINLEY: Hello, can you hear me?

12 CHAIR HOCHSCHILD: Yeah, Kristin, we can hear you
13 but just barely. If you could speak up that'd be great.

14 MS. AINLEY: Okay. Hi, I'm Kristin Ainley with
15 Self-Help Enterprises. On behalf of Self-Help Enterprises
16 our project partners and the low-income families we serve,
17 we really wanted to thank the California Energy Commission
18 for this award.

19 We have a strong commitment to sustainability
20 efforts and energy conservation, but our ability to utilize
21 new and emerging technologies is often constrained by a
22 lack of funding. So this grant allows us to test a
23 building product we've constructed in over 10 rental
24 communities and analyze how we can make improvements to
25 conserve energy and be more efficient.

1 This also allows the opportunity for us to
2 develop a better community for our low-income residents,
3 including reduced operating bills, education on energy use
4 and consumption patterns, and a more sustainable-built
5 environment.

6 So we're excited and eager to move this project
7 forward in partnership with the CEC. Thank you for this
8 opportunity.

9 MS. MURIMI: Thank you, Kristin.

10 Chair, there are no more comments.

11 CHAIR HOCHSCHILD: All right. Well, let me thank
12 you Rachel and your team for the work on this. I love this
13 portfolio of projects. I love the geographic diversity. I
14 love the partnership with all these entities, all of whom
15 are highly regarded, including Self-Help in my view. And I
16 love the vision around both electrification and water
17 conservation. I think this is a grand-slam proposal, very
18 thrilled to support it. And I also I think it's just
19 comprehensive.

20 There's a few of these projects that really tie
21 together all the pressing needs for housing, for building
22 without fossil fuels in a way that conserves water. And
23 this really checks all the boxes, so I'm thrilled to
24 support.

25 I just want to recognize all the hard work. I

1 know when you get these kinds of proposals that we just
2 saw in transportation that are so comprehensive there's a
3 lot of staff work involved to line those up, so I see that,
4 we see that, thank you for all the prep, it really --

5 I just want to say, again public agencies are
6 only as good as the people in them. And these jobs do not
7 pay as well as the private sector. There are all kinds of
8 challenges. But we're hitting home runs as an agency right
9 now, I really feel that we're getting seen for that
10 progress. And we're getting the largest infusion of
11 resources, the biggest budget we've ever had in our nearly
12 50-history. And that's because of the team, that's because
13 of the staff that are working on this.

14 And executing success, I really believe success
15 begets success. And so this is exactly the kind of thing
16 that's important in its own right, but it also paves the
17 way for more. So I just really want to commend the team,
18 and this is really a broader comment than just for this
19 project. I just am sitting here, reading through this
20 whole agenda, and all the agendas we've been approving
21 lately, I mean, we're firing on all cylinders -- oh, I
22 should probably have electrification a more appropriate
23 analogy -- we're hitting the electric accelerator
24 particularly well, I would say, so I just want to commend
25 the whole team.

1 And I would welcome if there's any comments from
2 -- Vice Chair Gunda, please go ahead.

3 VICE CHAIR GUNDA: I just want to say thank you
4 and extend my gratitude. Rachel, nice to see you, thank
5 you for all the work to you and the R&D team on this. It's
6 just really important as the Chair mentioned. These are
7 the kind of projects that really allow us to think about
8 more integrated systems and really think about how we
9 transition into the future, so wonderful work. Thank you.

10 CHAIR HOCHSCHILD: Great. I would welcome a
11 motion from Vice Chair Gunda on Item 18.

12 VICE CHAIR GUNDA: Yeah, I'll move Item 18.

13 CHAIR HOCHSCHILD: Is there a second from
14 Commissioner Monahan?

15 COMMISSIONER MONAHAN: I second.

16 CHAIR HOCHSCHILD: All in favor say aye. Vice
17 Chair Gunda?

18 VICE CHAIR GUNDA: Aye.

19 CHAIR HOCHSCHILD: Commissioner Monahan?

20 COMMISSIONER MONAHAN: Aye.

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

23 MS. SALAZAR: Thank you, Commissioners.

24 CHAIR HOCHSCHILD: Let's move on to Item 19,
25 Lawrence Berkeley National Lab.

1 MR. THIND: Good morning afternoon Chair, Vice
2 Chair, and Commissioners. I am Dr. Maninder Thind. I am
3 an Air Resources Engineer in the Energy Research and
4 Development Division. Today I am requesting your
5 approval of one agreement resulting from a solicitation
6 intended to support a randomized trial study to investigate
7 the impact of kitchen electrification on children with
8 asthma in under-resourced communities within California.
9 Next slide, please.

10 The proposed agreement, "Cooking Electrification
11 and Ventilation Improvement for Children's Asthma" with
12 Lawrence Berkeley National Lab, will quantify the indoor
13 air quality and health impacts of cooking electrification
14 and other interventions on asthmatic children.

15 This research which will help guide policies
16 related to building electrification, investments in low-
17 income housing retrofits, and asthma and healthy homes
18 programs to mitigate the environmental and health impacts
19 of energy end uses in California.

20 The study findings will potentially inform the
21 CEC and other policymakers about the indoor air quality and
22 health impacts of cooking electrification when considering
23 an all-electric building standard.

24 Given the proposed schedule for the project,
25 initial results are expected by 2025 to inform the 2028

1 standards.

2 Past research has shown that natural gas-cooking
3 burners introduce air pollutants into the home in
4 quantities that can exceed health hazard thresholds.
5 Pollutants from gas burners include nitrogen dioxide and
6 particulate matter, exposure to which leads to increased
7 risk of breathing and respiratory problems. Both gas
8 cooking and household nitrogen dioxide levels are thought
9 to contribute to asthma and other breathing symptoms in
10 children. Thus, there is a potential for cost savings if
11 childhood asthma prevalence and emergency healthcare
12 utilization can be reduced through electrification and
13 other exposure mitigation interventions.

14 The project invests in three low-income and
15 disadvantaged communities in the California's Central
16 Valley, thus contributing to CEC's goal of equitable energy
17 transitions in California. Next slide, please.

18 The proposed study with \$4 million CEC funding
19 and a \$400k cash match commitment from US DOE will be
20 conducted in and around the communities of Bakersfield,
21 Fresno, and Stockton.

22 The study will use a randomized controlled trial
23 method to discern the impacts of multiple interventions in
24 the selected sample of households.

25 Interventions in the proposed research include

1 replacing natural gas with electric induction cooking
2 ranges.

3 Providing kitchen exhaust ventilation with
4 education on proper use to reduce air pollutant exposures.

5 And thirdly, displacing use of a gas cooking
6 range with 120-volt countertop, electric cooking appliances
7 as a moderate-cost and scalable intervention that could
8 reach renters and homeowners for whom gas range replacement
9 is not readily feasible.

10 Education and portable air cleaners as a
11 synergistic mitigation with countertop cooking
12 electrification will be included as well. Next slide,
13 please.

14 CEVICA is an exciting study that brings together
15 a diverse team of academic institutions, noted in blue, and
16 community-based organizations, noted in green in this flow
17 chart.

18 The study will be conducted by a very strong
19 team, led by Dr. Brett Singer at LBNL, who is a leader in
20 indoor air quality research. And the team also includes
21 Dr. John Balms, who is the Physician Member of the
22 California Air Resources Board and Professor of Medicine
23 Emeritus at UC San Francisco.

24 The team includes active participation of
25 community-based organizations representing DACs, for

1 example, the recruitment of households in this work will be
2 based on the Central California Asthma Collaborative's
3 established home-based asthma management program. Next
4 slide, please.

5 So the staff recommends approval for this
6 agreement and adoption of staff's determination that this
7 project is exempt from CEQA. Staff, including myself, are
8 available for any questions you may have. And also Dr.
9 Brett Singer is the PI and Dr. Rangie Chan is the co-PI
10 from LBNL for this project, are also online for answering
11 any questions, relevant questions. This concludes the
12 presentation and thank you for your consideration.

13 CHAIR HOCHSCHILD: Thank you, Maninder.

14 Let's go to public comment on Item 18.

15 MS. MURIMI: Thank you, Chair.

16 For those in the room you can use the QR code or
17 reach out to the Public Advisor in the back.

18 For those on Zoom go ahead and use the raised-
19 hand feature, it looks like an open palm or a high-five at
20 the bottom of your screen or device.

21 And those calling in press *9 to indicate that
22 you'd like to make a comment and *6 to unmute on your end.

23 State and spell your name. You have three
24 minutes or less per person to give your comments.

25 Giving that one moment. Chair, no comments.

1 CHAIR HOCHSCHILD: Thank you. Well, I'm thrilled
2 to see this. I think we know that indoor air pollution is
3 a major concern, as is outdoor air pollution. And so one
4 of the things that really struck me the last year is
5 looking at this issue is the disparity by income of indoor
6 air pollution. And we have seen studies that suggest up to
7 seven times higher NOx levels in homes that are low-income
8 households that have gas stoves, compared to basically
9 smaller, cheaper oven hoods that are further recessed or
10 are so cheap that they're quite loud. And so people elect
11 not to use the fan when they're cooking and that has health
12 consequences.

13 As we're working on these issues it is a climate
14 issue, that's true, and it's a significant climate issue.
15 I think the emissions from leakage and fusions emissions
16 from both the distribution and transmission of natural gas
17 are major issues. And leakage in a typical gas appliance,
18 like a hot water heater, will emit up to one half of one
19 percent of the gas that doesn't get combusted. And so that
20 is a climate issue, but this is also a health issue, and we
21 have to remember that.

22 And I think, particularly an era where air
23 quality can be really poor due to wildfires and extended
24 wildfire season, it's especially important to do everything
25 we can to clean up indoor air pollution and to study that.

157

1 And so I'm really pleased to support this one.

2 I want to thank you, Maninder, you and your
3 colleagues for moving this forward. And unless there are -
4 - Vice Chair Gunda, please go ahead.

5 VICE CHAIR GUNDA: Thank you, Maninder, thanks
6 for the presentation; very clear. Just to you or the PIs
7 on the call, just on the number of sites that are being
8 planned to recruit is there any engagement strategy? Just
9 kind of thinking through the importance of having good
10 sites for this project. I just want to understand if there
11 is any thinking on that already done

12 MR. THIND: Great, I can -- and Brett can also
13 chime in, but I can (indiscernible) that the proposal
14 mentions about 160 households in 3 different disadvantaged
15 and low-income communities. And several CBOs, including
16 CCAC, will be partners, which will help in the recruitment
17 of the households in this project.

18 Brett, if you have any anything to add you are
19 welcome.

20 MS. MURIMI: Brett Singer.

21 MR. SINGER: Hello. Can you hear me, okay?

22 CHAIR HOCHSCHILD: Yes, we can hear you.

23 MR. SINGER: Perfect, great. Well, thank you
24 very much for this opportunity. We're very excited about
25 this project, and we thank Maninder and the staff for

1 developing this solicitation.

2 A key part of the strategy work with the Central
3 California Asthma Collaborative that runs a very effective
4 and successful home asthma intervention program. So this,
5 one of the key things of this proposal is that we're going
6 to build on that program rather than trying to displace or
7 compete with it. So we're building on success. That
8 program already recruits many families in those communities
9 working with them, working with the communities themselves,
10 and healthcare providers. So they actually already have
11 contracts to provide those home asthma services. So we
12 would be recruiting from within that population where
13 there's already action and a trust. And then we're also
14 building the resources that are being used and provided by
15 the health plans for supporting those (indiscernible)
16 services.

17 So this would be the more sophisticated and
18 thorough kitchen ventilation. And thank you for pointing
19 out some of those deficiencies. The electrification, of
20 course, on the stove retrofits and then this other
21 intervention looking at sort of lower-cost cooking
22 electrification in the space, hopefully, has much better
23 gas use as possible.

24 So we have a really good (indiscernible) as part
25 of the (indiscernible).

1 VICE CHAIR GUNDA: Yeah. Thank you so much for
2 that. As the Chair mentioned that it's an extremely
3 important topic, right, as we think through the lens of
4 energy transition and equity it's important to think
5 through air quality, you know, air, water, energy, all link
6 together, so thank you so much for this project, looking
7 forward to supporting it. Thanks Maninder.

8 CHAIR HOCHSCHILD: Thank you. Unless there's
9 other -- yeah go ahead Commissioner Monahan, please.

10 COMMISSIONER MONAHAN: Just a quick comment is
11 that it's so rare that we have research that actually is
12 looking at households and tracking over time with children
13 with asthma. Like it's a really unusual study. And I
14 think it could be pretty groundbreaking.

15 And I just want to commend the team and just the
16 researchers, that this scope and the vision and really
17 helping inform the processes at the Air Resources Board and
18 the Energy Commission to mitigate harmful air pollution,
19 harmful indoor air pollution, so I think it could be a
20 really foundational study. So yeah, congratulations to the
21 team.

22 CHAIR HOCHSCHILD: And just one other point,
23 because it's also sort of an indoor air pollution story we
24 should bear in mind, I would argue one of the single
25 greatest public health success stories in our country's

1 history, is the campaign to reduce smoking.

2 So in World War II every soldier was given a pack
3 of cigarettes as part of daily rations and so you had a
4 generation of American men come home from the war as
5 smokers. And the population was about 50 percent of
6 Americans smoked and it was everywhere. President Kennedy
7 smoked, doctors smoked, Fred Flintstone used to smoke on
8 the cartoons, Johnny Carson smoked on the Tonight Show.
9 And it was just a -- and then the science came out that
10 hey, smoking causes cancer, secondhand smoke causes cancer.
11 And so that science was instrumental.

12 And then interestingly what happened next was the
13 tobacco industry in the United States went from
14 manufacturing one product, cigarettes, to manufacturing two
15 products. They manufactured cigarettes and they
16 manufactured doubt. They put \$100 million into junk
17 science to distort that basic truth that smoking causes
18 cancer. And they were coming up with all sorts of other
19 ridiculous explanations for why lung cancer was going up
20 the United States.

21 But ultimately that was beaten back by precisely
22 the kind of thing we're funding now, which is good science
23 and good research. And the result of that is that we went
24 from about half of the population smoking to today it's
25 down to close to 12 percent and falling. And it's really

1 one of the great, great public health success stories of
2 our country's history.

3 And I think this is another important source of
4 indoor air pollution that we don't talk a lot about. And I
5 think this will help shine a light on that. So thank you,
6 Maninder, for your work and your team. And I'm pleased to
7 support this.

8 I would welcome a motion on Item 19 from Vice
9 Chair Gunda.

10 VICE CHAIR GUNDA: I move Item 19.

11 CHAIR HOCHSCHILD: Commissioner Monahan, would
12 you second?

13 COMMISSIONER MONAHAN: I second.

14 CHAIR HOCHSCHILD: Second, thank you.

15 All in favor say aye. Vice Chair Gunda?

16 VICE CHAIR GUNDA: Aye.

17 CHAIR HOCHSCHILD: Commissioner Monahan?

18 COMMISSIONER MONAHAN: Aye.

19 CHAIR HOCHSCHILD: And I vote aye as well. Item
20 19 passes unanimously. Thank you.

21 MR. THIND: Thank you.

22 CHAIR HOCHSCHILD: We'll turn now to Item 20,
23 CalSEED Concept and Prototype Small Grant Awards.

24 MR. CROFT: Good afternoon, Chair and
25 Commissioners. Anthony Ng and I are here before you today

1 to present for your approval a total of 30 small grant
2 awards under the CalSEED Initiative, which is under EPIC
3 program funding. Next slide.

4 Since its inception in 2017, CalSEED has awarded
5 \$21 million to 95 clean energy startups with innovative
6 technologies. To date, these companies have garnered over
7 \$138M in various types of follow-on funding.

8 Furthermore, three companies have been acquired
9 and three have completed series A VC funding rounds. The
10 growth of these companies can also be measured in terms of
11 an increase in career opportunities, technology ownership
12 rights, advancement on the technology readiness level
13 scale, and successful small-scale validation of the unique
14 technologies.

15 In reflection of the CEC's commitment to
16 diversity, CalSEED actively conducts outreach to ensure
17 that the applicant pool is representative of all
18 Californians, including women, low-income entrepreneurs,
19 veterans, communities of color, and other underrepresented
20 groups. Next slide.

21 CalSEED provides small grants to entrepreneurs
22 with early-stage clean energy technologies. Applicants
23 first apply for a \$150,000 Concept Award, which also comes
24 with access to technical resources and business development
25 expertise. Those that receive a Concept Award are then

1 eligible to compete for \$450,000 additional dollars via a
2 follow-on CalSEED Prototype Award to further develop their
3 innovation.

4 The awards under consideration today are the
5 fifth round of those \$150,000 Concept Awards. I will be
6 presenting on these 23 recommended awardees. Anthony Ng
7 will then present on 7 additional Prototype awardees. Next
8 slide.

9 CalSEED held its fifth open application period in
10 the fourth quarter of last year and received over 150
11 applications. CalSEED directed applicants to submit
12 proposals to one of four groups based on their geographic
13 location. There are 5-6 highest ranked applications per
14 region that are up for your consideration today. Next
15 slide.

16 This application period CalSEED chose new
17 eligible technology categories and specified technologies
18 within each category that was eligible.

19 For example, the eligible technologies for
20 Renewable Electricity were:

21 Technologies to enable offshore wind.

22 Improved biomass power generation.

23 Enhanced Geothermal systems.

24 And Materials manufacturing and module assembly
25 methods for emerging thin-film solar PV, such as

1 perovskites, quantum dots, and organic semiconductors.

2 Next slide.

3 These applications spanned a wide range of
4 innovations over these technology areas. Some were at the
5 concept stage, whereas others had basic prototypes already
6 tested in the lab.

7 The applications were evaluated for long-term
8 potential impacts, including technical, environmental and
9 social impact, business strategy, and the expertise and
10 experience of the team.

11 I'll now overview each of the technology areas
12 and highlight some of the exciting small grants before you
13 today. Next slide.

14 The first technology group is energy storage. As
15 our grid adds clean generation, next generation energy
16 storage solutions hasten our journey to a carbon-free grid
17 that is consistently available and affordable. The energy
18 storage solutions before you today include a fast-charging
19 and safe, solid-state battery, recycling innovations based
20 on cell packaging, and more.

21 One interesting innovation is from RCAM
22 Technologies who is developing a long-term energy storage
23 solution for offshore wind, pumping seawater in and out of
24 3D printed concrete spheres below the ocean surface. Next
25 slide.

1 Next is EV charging and powertrain technologies.
2 This year we have small grant awards for autonomous
3 chargers, dynamic air injection for better EV trucking
4 range, and an EV charger designed for high-voltage charging
5 while avoiding grid upgrades. Next slide.

6 Next is our three water technologies. Pumping
7 and desalinating water can use a large amount of energy.
8 OmniFlow is working on more efficient irrigation.
9 SolarFlux wants to make desalination less expensive. And
10 Benchmark Labs wants to save water in our farmlands by
11 being able to better forecast how much moisture will be in
12 the soil. Next slide.

13 As we move towards 100 percent clean generation,
14 building a diverse set of technologies will help safeguard
15 against changing climate conditions.

16 One company I will highlight is Horizon PV
17 Incorporated, who is developing an environmentally friendly
18 and recyclable transparent PV technology that can be
19 laminated onto windows or a laptop cover. They will be
20 building a small prototype with their CalSEED award. Next
21 slide.

22 The last category of CalSEED Concept Awards this
23 year is Energy Efficiency. I'd like to highlight Modulium
24 Incorporated who is seeking to create a refrigeration unit
25 that uses small, modular solid-state Peltier coolers that

1 can be individually activated to enhance energy efficiency
2 based on the cooling need.

3 This cooling technology also can reduce GHG
4 emissions by eliminating the need for liquid refrigerants.

5 In areas that need hot water, this innovation
6 would pre-heat water as well.

7 All together this is a great batch of Concept
8 Awards that I'm excited to present to you today. I'll now
9 pass it on to Anthony who will present the Prototype
10 Awards.

11 MR. NG: Great. Thank you, Josh. Next slide,
12 please.

13 As mentioned earlier companies who received the
14 initial \$150,000 Concept Awards are eligible to compete
15 again for \$450,000 in follow-on funding that we call the
16 Prototype Award.

17 The competition, the business plan competition as
18 we refer to was held at the same time as Concept Award last
19 year, and I will cover the seven Prototype Awards under
20 consideration today. Next slide, please.

21 First is Tolo, who has developed a remote
22 inspection platform for utility infrastructure. The
23 technology pairs state-of-the-art cameras with unmanned
24 aerial vehicles and collects thousands of detailed photos
25 from every angle of a utility tower. Leveraging Tolo's

1 machine-learning techniques, these images are provided to
2 an inspector to give insights into the status and
3 reliability of the asset, resulting in more accurate,
4 sharable, and monitorable inspections that ultimately drive
5 better maintenance decisions and enhanced grid reliability.

6 Tolo will manufacture and field-test their field-
7 capable minimal viable product as part of their project.

8 Next slide, please.

9 RePurpose Energy has developed a technology that
10 tests, reassembles, and redeploys used EV batteries for
11 stationary storage applications.

12 RePurpose's technology is able to precisely
13 measure the health of an EV battery pack in less than 90
14 seconds using their proprietary machine learning
15 algorithms. The batteries are then reassembled and
16 optimized into new circuitry to maximize safety, efficiency
17 and longevity utilizing the company's novel battery
18 management system.

19 During the Prototype Award, RePurpose seeks to
20 achieve the necessary UL certifications for both their
21 repurposing process and their product. Next slide, please.

22 ALD Technical Solutions has developed a
23 lightweight and long-lasting, cost-effective structural
24 composite reinforcement material that, when wrapped around
25 existing transmission lines to increase can help decrease

1 sag, increase power capacity, and extend lifespan, and
2 improve overall grid. Reliability.

3 During the CalSEED award ALD seeks to fabricate a
4 robot installer for their composite wrap material and
5 perform a pilot test at a customer site. Next slide,
6 please.

7 Next is Hago Energetics, who has developed a
8 technology that uses renewable energy to convert
9 agricultural waste to green hydrogen. The technology
10 processes biogas from manure into a novel chemical reactor
11 that produces hydrogen.

12 During the CalSEED award the project team will
13 demonstrate their technology at a farm, generating data
14 regarding performance metrics and the revenue potential
15 from the generated hydrogen. Next slide, please.

16 Parthian Energy has developed a new class of
17 advanced electromagnetic sensors that detects internal
18 defects in lithium-ion battery cells by evaluating the
19 change in the battery's electromagnetic signature. This
20 process helps reduce waste in battery production and can
21 enhance safety by catching defects early in the
22 manufacturing process.

23 During the CalSEED award Parthian Energy will
24 develop a scalable prototype to demonstrate the feasibility
25 of reducing the duration and cost of battery quality

1 control, as well as performing pilot tests on battery cell
2 manufacturing lines. Next slide.

3 Leap Photovoltaics has developed a process to
4 manufacture crystalline silicon cells without wafers. This
5 additive manufacturing approach directly deposits a layer
6 of silicon microparticles on a substrate that is able to
7 absorb light and convert it into electricity, achieving the
8 same performance and reliability as traditional solar cells
9 with up to half the cost.

10 During the CalSEED award Leap Photovoltaics seeks
11 to demonstrate performance of their device and build their
12 first prototype. Next slide, please.

13 The last step is Gridware, who has developed a
14 system of low-cost, solar-powered, sensors that can be
15 deployed across a distribution grid to provide real-time
16 monitoring and fault anticipation.

17 Gridware's solution is centered around a
18 mechanical sensor package that characterizes and monitors
19 the behavior of electric distribution systems as opposed to
20 the traditional electrical monitoring that is currently
21 deployed by utilities.

22 Mechanical monitoring can reveal weakening of the
23 system as it ages, identify components that have loading
24 beyond their normal conditions, and indicating precursors
25 to critical failures.

1 During the CalSEED award Gridware seeks to work
2 with project partners to advance their analytical tool,
3 with a focus on improving fire detection capabilities.
4 Next slide, please.

5 That concludes our presentation. Staff
6 recommends approving the 30 small grants before you today
7 as well as staff's determination that the action is exempt
8 from CEQA. Staff is available for any questions you may
9 have, thank you.

10 CHAIR HOCHSCHILD: Thank you, Anthony. We'll go
11 to public comment.

12 MS. MURIMI: Thank you, Chair.

13 For individuals that are in the room go ahead and
14 use the QR code in the back or reach out to the Public
15 Advisor.

16 For individuals on Zoom go ahead and use the
17 raised-hand feature, it looks like a high-five or an open
18 palm at the bottom of your screen or device.

19 And if you're calling in press *9 to indicate
20 that you'd like to make a comment and *6 to unmute on your
21 end.

22 We'll start with Denise Rushing from New Energy
23 Nexus. Please state and spell your name, and you may
24 begin.

25 MS. RUSHING: Yes, my name is Denise Rushing, R-

1 U-S-H-I-N-G, and I am Managing Director for the California
2 Clean Energy Fund, doing business as New Energy Nexus in
3 California, the operator of a CalSEED Program.

4 I would like to thank the California Energy
5 Commission for its vision and partnership in supporting
6 early-stage innovators with this critical and timely
7 funding, with a particular shoutout to Josh Croft and
8 Anthony Ng from the CEC for their leadership in this
9 program.

10 I'd also like to recognize the CalSEED team.
11 Here today with me are Sarah Chester, who's our Director of
12 Grants Management and Compliance and Flora Kaplan who leads
13 our Impact Reporting. This team under very difficult
14 circumstances in 2021, as you can imagine, managed the
15 solicitation that rendered 23 concept awardees and a
16 business plan competition that identified the 7 prototype
17 awardees. The Commission can be proud of the impact of
18 this team and the impact of the CalSEED Program.

19 The CalSEED companies are having tremendous
20 impacts, as has been indicated by Josh and Anthony. Since
21 its inception in 2017 CalSEED has lifted up 95 early-stage
22 climate startups that were meticulously selected from over
23 1,000 applicants for the Concept Awards.

24 Over the years the good news is we've seen
25 increasingly more women, people of color, and others from

1 underrepresented groups in leadership roles in these
2 companies. For example, across the Concept awardee
3 portfolio 23 percent of companies have women in
4 leadership, and 33 percent have people of color and other
5 underrepresented groups in leadership. To date to our
6 business plan competition has identified 16 standout
7 companies for Prototype Awards from the pool of 53
8 competitors; 31 percent of prototype companies have women
9 in leadership, and 25 percent have people of color and
10 other underrepresented groups.

11 Of the reported \$139 million in follow-on funding
12 secured by all CalSEED companies, since participating in
13 the program 46 percent of that funding was obtained by the
14 16 prototype awardees, so this is all good news.

15 The CalSEED program elevates companies by
16 facilitating research, development and prototype --
17 prototyping that advances the average participant by two
18 levels on the TRL scale.

19 As for Cohort 5's solicitation, this year's
20 Prototype awardees, these two groups represent some of the
21 best of California's innovation and are supported by an
22 entire ecosystem to help them succeed.

23 We are primed and ready to welcome these 30 fresh
24 awardees and continue supporting the work of the entire
25 portfolio. And we look forward to continuing this work

1 with the California Energy Commission in the months and
2 years ahead on accelerating equitable clean energy in
3 California. Thank you.

4 MS. MURIMI: Thank you, Denise.

5 We'll go to Gabriel Falzone. Please state and
6 spell your name and give your affiliation, if any. You
7 have three minutes.

8 Mt. Falzone: Thank you. This is Gabriel
9 Falzone, F-as-in-Frank A-L Z-as-in-Zebra O-N-E, from RCAM
10 Technologies.

11 We at RCAM just wanted to express our
12 appreciation for this award and for the support from the
13 CEC, New Energy Nexus and the CalSEED team. We're really
14 excited and really grateful to have this opportunity to
15 advance our marine-pumped hydro technology for long-
16 duration energy storage, which will be installed subsea,
17 and integrate with offshore wind plants to make hybrid
18 offshore power plants.

19 We really look forward to bringing this
20 technology to market and ultimately creating more jobs in
21 California, providing and providing new long-duration
22 energy storage alternatives to help increase grid
23 resilience. So we're just really excited by our progress
24 and the progress of California towards offshore wind and
25 how we can continue to grow our company in the state. So

1 thank you all very much.

2 MS. MURIMI: Thank you, Gabriel.

3 We have Claire Warshaw.

4 MS. WARSHAW: Hi, my name is Claire Warshaw. I'm
5 a member of the public.

6 I want to mention that I noticed one of the
7 awardees is planning to use radar, a millimeter-wave radar
8 system in light switches for a building management system.
9 And I have read that radar is thermal. It's an
10 electromagnetic field that is invisible, an electric
11 magnetic field that's thermal. And I know that there's a
12 lot of radar used in society today. And I can't verify
13 that it's thermal.

14 But what I read was the Navy discovered radar was
15 heating things by candy bars that were melting in
16 personnel's pockets while they were warming themselves by
17 radar-like devices on like a ship or something. And that's
18 how they discovered that radar was warm. And that
19 discovery led to the radar range, which is now the
20 microwave oven. And so it's curious to me that we are now
21 using a lot of microwave technology, because of that kind
22 of reading. And I would encourage people that use
23 electromagnetic magnetic fields to do some more research on
24 current science come out.

25 I've read quite a lot about non-thermal

1 electromagnetic fields that cause damage like DNA damage.
2 And I can provide resources that I have found and they're
3 quite prolific on the Internet and they no longer look like
4 conspiracy theory, crazy science.

5 For instance, there's a Dr. Martin Pall -- I
6 think his last name is spelled P-A-L-L -- who has
7 discovered that ion transport changes in cell membranes
8 when exposed to electromagnetic fields that aren't
9 considered non-thermal. So when they -- we already know
10 that something is thermal, it seems like we ought to be a
11 little bit concerned about it, and more so because we
12 already know that.

13 And they've been arguing for a long time that the
14 non-thermal electric magnetic fields are not damaging. But
15 there's a lot of science and research, current science and
16 research saying that they do cause a lot of biological
17 damage. So I do think this is important. Especially in
18 terms of climate change things will get heated and dry out,
19 evaporation and things like that.

20 So just an extra kind of push for people to read
21 more about current research on EMF. Thank you.

22 CHAIR HOCHSCHILD: Thank you.

23 Can I just ask, Anthony, which application is she
24 referring to that has the radar?

25 MS. WARSHAW: Number 12.

1 CHAIR HOCHSCHILD: Do you have that in front of
2 you?

3 MS. MURIMI: Number 12.

4 CHAIR HOCHSCHILD: Is there any staff response to
5 that concern?

6 MR. NG: Yes, Chair. Yeah. So yeah, we
7 identified that as Item 12 on the agenda. So I don't think
8 I'll be able to necessarily speak to the specifics of the
9 scope of the research necessarily. But I can say that if
10 the project is looking at radar or any other
11 electromagnetic frequencies, I would expect that part of
12 the research and part of the scope of the research would be
13 to examine any deleterious or potential negative effects on
14 the environment or the impact as part of that.

15 CHAIR HOCHSCHILD: Yeah, please report back what
16 you find on that. I mean, I think radar is pretty widely
17 employed, it's on every ship virtually and airport and
18 stuff like that. But I haven't heard of health effects
19 associated with radar technologies specifically myself.
20 But if you uncover anything I'd appreciate an update on
21 that.

22 MR. NG: Absolutely.

23 CHAIR HOCHSCHILD: Were there other public
24 comments Dorothy?

25 MS. MURIMI: There are no other comments, but Dr.

1 Subarna Bhattachung (phonetic) -- and apologies if I'm
2 misstating this name -- Bhattacharyya is available for --

3 CHAIR HOCHSCHILD: -- for questions?

4 MS. MURIMI: -- questions, yeah.

5 CHAIR HOCHSCHILD: Okay, thank you.

6 Well first of all, just what a terrific group of
7 projects; really comprehensive. I remember when we created
8 the CalSEED Program and voted that into existence about
9 five years ago now, I confess I was skeptical. Not of the
10 direction of the companies we were targeting, but only of
11 the design of the program, that \$150,000 is not very much
12 money. And I really questioned at the time whether that
13 that actually made sense. And should we be doing something
14 that would be more meaningful as a grant size? I was
15 wrong.

16 Really, I think just looking back what's happened
17 is I think this program has actually served as a great
18 validator and seal of approval that's then helping these
19 companies leverage that money to raise more money from
20 investors. And then having those stage gates where you can
21 get to the \$450,000 follow-on grant has been a great
22 design.

23 So I just first just want to affirm the strategy
24 there, I think it's working. I think New Energy Nexus has
25 done a spectacular job, both on the diversity of the

1 technologies and the diversity of the awardees and the
2 geographic diversity.

3 So one request I would have going forward, as
4 there are important milestones I would really welcome sort
5 of informational updates on meetings where we have time to
6 do it. Today is a marathon meeting, we're moving \$41
7 million. But we do have some other special meetings where
8 we just hear one or two issues and that's when we can do
9 informational updates.

10 And I think it's really valuable when there are
11 certain big-stage gates that get hit or we -- because a lot
12 of grants we've done have been basically foundational
13 grants that we're giving that really actually help the
14 company happen. Without that it wouldn't happen.

15 Home Connect is an example of that, Proterra as
16 well. Commissioner Monahan and I were at Proterra a few
17 weeks ago. You know, they started with like 5 people or
18 something, and they have 1000 employees now, right? And
19 that's an Energy Commission success story as well as a
20 Proterra success story.

21 When we get to milestones that you view as
22 significant my request would to be to compile those and
23 come back. It's just great to hear feedback if there is
24 growth and progress and where. Because we recognize, look,
25 not all these grants are going to be homeruns, that is the

1 nature of innovation. You try a lot of things. You plant
2 a lot of seeds. And not everything grows, but the ones
3 that are taking off it's great to hear those, so that'd be
4 one request going forward.

5 I just want to compliment the team again, Josh,
6 Anthony, really amazing, amazing breadth and depth on the
7 projects. I'm thrilled to see this. And I'd welcome any
8 other comments.

9 Vice Chair Gunda please go ahead.

10 VICE CHAIR GUNDA: Yeah, thank you, Chair. I
11 just also want to commend Josh, Anthony, thank you for that
12 wonderful presentation. I kind of looked at the
13 information package today and I wondered how you were going
14 to present it, so many awards. Thank you for bucketing
15 them and thank you for really articulating the value
16 proposition.

17 I also want to thank Denise for your comments and
18 the work that New Energy Nexus is doing.

19 Just as the Chair is mentioning one stat that
20 really kind of presents itself is we are funding about 100
21 -- we've funded about 100,000 applications to date. This
22 is what I heard. That's like 10 percent of the interest,
23 right? Like there's so many ideas and I really liked the
24 opening slide you put in, in terms of the representation,
25 the jobs created, just really good story.

1 Five years ago, I was at UC Davis, and I remember
2 this being voted at CEC and so excited from the other end
3 of it. So just congratulations on the progress. Thank you
4 for all the work you're doing. I look forward to
5 continuing supporting your team. Thanks.

6 CHAIR HOCHSCHILD: Any comments Commissioner
7 Monahan?

8 COMMISSIONER MONAHAN: All I can say is this has
9 one of the -- there's been a lot of good names of CEC
10 funding programs, but I think CalSEED is just like really
11 is it's very appropriate for this. Like we're planting
12 seeds and some of them are going to grow and some of them
13 aren't, but this idea of just like let's really just foster
14 young -- I don't know, maybe not all the companies are
15 young, but the technologies are young and we're just trying
16 to see how many seeds will grow. So I just love the name
17 and I love the application in this program.

18 CHAIR HOCHSCHILD: Yeah, well said.

19 With that I would welcome a motion on from Vice
20 Chair Gunda this item.

21 VICE CHAIR GUNDA: Yeah, I'll move Item 20.

22 CHAIR HOCHSCHILD: Is there a second from
23 Commissioner Monahan?

24 COMMISSIONER MONAHAN: I second.

25 CHAIR HOCHSCHILD: All in favor say aye. Vice

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1 Chair Gunda?

2 VICE CHAIR GUNDA: Aye.

3 CHAIR HOCHSCHILD: Commissioner Monahan?

4 COMMISSIONER MONAHAN: Aye.

5 CHAIR HOCHSCHILD: And I vote aye as well. Item
6 20 passes unanimously. Thank you, Anthony and team.

7 MR. NG: Thanks very much.

8 CHAIR HOCHSCHILD: We'll turn now to Item 21 the
9 April 26 Business Meeting Minutes. Any public comments on
10 that, Dorothy?

11 MS. MURIMI: Thank you, Chair.

12 For individuals that are in the room, you can use
13 the QR codes in the back or reach out to the Public
14 Advisor.

15 For those on Zoom you can use the raised-hand
16 feature at the bottom of your screen or device, it looks
17 like an open palm or a high-five.

18 For those calling in go ahead and press *9 to
19 indicate that you'd like to make a comment and *6 to unmute
20 on your end.

21 Give that one moment. No comments, Chair.

22 CHAIR HOCHSCHILD: Thank you. Is there a motion
23 on Item 21 from Vice Chair Gunda?

24 VICE CHAIR GUNDA: I'll move Item 21.

25 COMMISSIONER MONAHAN: I'll second.

1 CHAIR HOCHSCHILD: Thank you. All in favor say
2 aye. Vice Chair Gunda?

3 VICE CHAIR GUNDA: Aye.

4 CHAIR HOCHSCHILD: Commissioner Monahan?

5 COMMISSIONER MONAHAN: Aye.

6 CHAIR HOCHSCHILD: And I vote aye as well. Item
7 21 passes unanimously

8 CHAIR HOCHSCHILD: We'll turn now to Item 22,
9 Lead Commissioner and Presiding Member Reports, beginning
10 with Commissioner Monahan.

11 Commissioner MONAHAN: I realized it was actually
12 pretty recent that we all -- so I would say the only
13 updates I have are that next week the EV Charging
14 Infrastructure Strike Forces is meeting in-person for the
15 first time. And the meeting is in the afternoon.

16 Actually, the members are coming earlier in the
17 day, they're going to, I think, be doing legislator visits
18 around charging infrastructure. So of course that is very
19 separate from the strike force, the strike force contains
20 public policy members as well. But I'm excited to see them
21 all in-person. I think, actually, the timing around zero-
22 emission vehicle infrastructure is pretty perfect and so it
23 should be a great convening. I think that right now
24 there's something like 40 to 50 people coming.

25 So I think that's the only thing I've noticed

1 that I wanted to really highlight right now.

2 CHAIR HOCHSCHILD: Great. Thank you,
3 Commissioner. Vice Chair Gunda.

4 VICE CHAIR GUNDA: Thank you, Chair. Yes, it's
5 been only two weeks since we met so not much other than
6 what we've already discussed today.

7 In terms of reliability just a couple of flags,
8 we have the workshop coming on May 20th, so hopefully you
9 all can make it.

10 We did have the Planning Library IEPR Workshop
11 two weeks ago right after the day after the business
12 meeting. It was a good meeting. We had a good panel
13 discussing (indiscernible) power uses of that information.
14 We got some ideas on how best to organize that. Obviously,
15 it's going to be a multiyear effort, but I think we're
16 beginning to think through the different attributes we
17 might want to apply as we organize our data and then the
18 library of products, so I'm really thankful to the staff
19 that have done that.

20 A few of us, Commissioner McAllister and myself
21 and then a number of Commissioners from CPUC, we were all
22 at the (indiscernible) CREPSI meeting last week. Really
23 kind of understanding, for me, it's beginning to understand
24 the west-wide energy planning, electricity planning, and
25 being a part of that conversation.

1 And finally, I just had one other thing I wanted
2 to mention, I'm kind of blanking. You know what, I'll keep
3 it there, thank you.

4 CHAIR HOCHSCHILD: Okay.

5 So a couple updates, I wanted to begin just --
6 she's not with us in the room today but she's listening
7 online -- and just to extend my gratitude to Noemi Gallardo
8 for agreeing to come onboard as my new Chief of Staff, big
9 shoes to fill following the past three years with Le-Quyen
10 Nguyen, who has been tremendous. Noemi has absolutely
11 distinguished herself as Public Advisor these last few
12 years. She has a law degree, she has a public policy
13 degree, she's bilingual, been a translator and, among other
14 things, worked in the environmental justice community at
15 Greenlining, worked in the solar industry at Sunrun, and
16 has just brought a level of passion to the work that's been
17 amazing to watch.

18 I think all of us who've had the chance to work
19 closely with her know what a gem she is. And I really
20 appreciate her leadership on the equity outreach,
21 especially the roundtables that she's organized, the tribal
22 engagement, the expansion of her office to include Tribal
23 Affairs. And she's just been incredibly responsive, I
24 think, to all the Commissioners on requests and projects
25 and collaboration, it's just been an amazing -- good

1 citizen of the Energy Commission and brings so much heart
2 and talent to the work. So I'm really excited to have her
3 in this new role as we build this out.

4 And I would say, as reflecting a little bit, I've
5 been at the Energy Commission, amazingly it's been nine
6 years, and I feel like there's been three distinct chapters
7 for me in this role: The first six years under Chair
8 Weisenmiller I was doing a lot of sort of seeding for the
9 policies I was really passionate on 50 percent, 100 percent
10 renewables, and seeding electrification work.

11 And then coming in as Chair, being able to focus
12 more directly on -- for the new governor on some of the
13 issues I'd discuss with him. We've got movement on Lithium
14 Valley and energy storage and offshore wind and building
15 decarbonization and reauthorizing our R&D program and some
16 others.

17 And now it feels like we're really in this
18 incredible implementation period of getting more resources
19 than we've ever had, by an order of magnitude, and
20 executing successfully on that.

21 There are going to be a few new focus areas. I
22 would point to direct air carbon capture. It's one of the
23 ones that's top of my list. Tribal engagement, taking that
24 to the next level, but a lot of what we're doing is just
25 implementing successfully. And we have an A-team. We want

1 to keep growing that. But I'm just really grateful to
2 Noemi for coming in at this stage when the stakes are
3 really high and looking forward to a really successful next
4 chapter and also communicating about it successfully.

5 And Lindsay Buckley and her amazing team, just
6 the EPIC report that came out recently, the summary, that
7 is so readable. It tells the story so successfully. And
8 that's one of the other things I'm just really proud of as
9 the group leader. I think that's half the battle. Actually
10 it's not just executing successfully, but actually
11 communicating about it.

12 So anyways, I was just sort of stepping back and
13 it's kind of becoming clear to me the different chapters of
14 the work. And I'm really charged up for this next chapter
15 and I'm really excited to have Noemi on the team.

16 The other thing I just wanted to again call out
17 is incredible work of the Efficiency team: Commissioner
18 McAllister, Mike Sokol, my advisor Ken Rider, on the LED
19 work and the Chief Counsel's Office. This was one of the
20 most significant energy efficiency teams we ever adopted at
21 the CEC. And it moved us beyond incandescent lighting
22 towards high-color rendition LEDs (phonetic). And that
23 standard was adopted recently by the Department of Energy.
24 It's a national standard now. It's going to save \$3
25 billion a year for the country for ratepayers and reduce

1 emissions.

2 And I want to be very intentional and deliberate
3 about pausing to celebrate and take in when there's
4 successes like this, because I think this model of us
5 creating a standard and having it go national, that to me
6 is the template, that's really what the exciting
7 opportunity is about being at the Energy Commission is
8 creating policies that can go national. Or even global as
9 we're seeing with our solar mandate now being actively
10 considered, and I think on a good path to adoption in the
11 International Energy (indiscernible).

12 So I'm going to be setting up an all-staff by
13 Zoom by Zoom and I've invited Linda Barrera and
14 Commissioner McAllister, Commissioner Vaccaro and some key
15 staff to just reflect a little bit on this lighting. So
16 this is a decade's worth of work to get to this and it's an
17 incredible victory. So we'll be sending that out toward
18 the end of the month. So I think that's it for me.

19 We'll turn now to Item 23, Executive Director's
20 Report.

21 MR. BOHAN: Thank you, Chair, Commissioners, just
22 a couple quick things. First on the budget, this has been
23 -- I lost count of how many budgets I've been through, but
24 this has been probably the most complicated. And I just
25 wanted to call out Rob Cook and his team. And in

1 particular Damien Mimnaugh who started from Finance, as you
2 know, with us. It seems like yesterday, but it also seems
3 like five years ago, because he's just jumped in and been
4 so incredibly helpful and just working his tail off, so
5 thank-you to him.

6 And Vice Chair, you mentioned the fact that we're
7 going to need more staff and how critical staff is. And so
8 I just want to also call attention to Lenna Ledesma and her
9 leadership. She runs our HR shop and we're going to need
10 to staff up and she and her team are going to really,
11 really be key to that effort.

12 Second, we have a second business meeting in May;
13 as you know, it's two weeks from yesterday. Hopefully
14 it'll be our last one here. We're still on track for a
15 June opening of the auditorium across the street.

16 June 10th we'll have a new building housewarming
17 and our picnic that same day.

18 And then, finally, I want to just join in the
19 kudos to Noemi. I think she'll be great at her job, she's
20 brilliant and just so capable. Thank you.

21 CHAIR HOCHSCHILD: Thank you. We'll turn now to
22 Item 24, Public Advisor's Report.

23 MS. MURIMI: The Public Advisor has nothing to
24 report.

25 CHAIR HOCHSCHILD: Thank you. We'll turn now to

1 Item 25, Public Comment.

2 MS. MURIMI: Thank you, Chair.

3 This is a period for any person wishing to
4 comment on information items or reports of the meeting
5 agenda or any other item. Each person has up to three
6 minutes to comment and comments are limited to one
7 representative per organization. We may reduce the comment
8 time depending on the number of commenters.

9 Use the raised-hand icon to indicate your
10 interest in making public comment. If you're on the phone
11 press *9 to raise your hand and *6 to unmute. We will
12 promote you to the panelists. You're welcome to turn on
13 your video box or leave it off.

14 After you're called on, please restate and spell
15 your first and last name, state your affiliation if you're
16 representing a tribe, agency, or organization. Do not use
17 the speakerphone when talking because we will not be able
18 to hear you clearly.

19 And to give that one moment. No comments, Chair.

20 CHAIR HOCHSCHILD: Thank you. We'll turn to Item
21 26, Chief Counsel's Report.

22 MS. BARRERA: Thank you, Chair. I recommend that
23 the Commissioners break for a closed session to discuss
24 Agenda Item 26i., which provides notice that the Energy
25 Commission may adjourn to a closed session with its legal

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1 counsel pursuant to Government Code section 11126(e) to
2 discussion litigation to which the California Energy
3 Commission is a party.

4 CHAIR HOCHSCHILD: Thank you. We will go into
5 closed session and come back on when we're done.

6 (Off the record at 3:11 p.m.)

7 (On the record at 3:56 p.m.)

8 MS. MURIMI: We are back on.

9 CHAIR HOCHSCHILD: Okay, thank you everyone. We
10 are adjourned.

11 (The Business Meeting adjourned at 3:56 p.m.)

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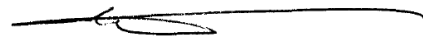
25

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I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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IN WITNESS WHEREOF, I have hereunto set my hand this 3rd day of June, 2022.



PETER PETTY
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