

DOCKETED

Docket Number:	23-BUSMTG-01
Project Title:	Business Meeting Agendas, Transcripts, Minutes, and Public Comments
TN #:	250555
Document Title:	Transcript of the May 10, 2023 Business Meeting
Description:	N/A
Filer:	Liza Lopez
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	6/8/2023 1:35:34 PM
Docketed Date:	6/8/2023

CALIFORNIA ENERGY COMMISSION
BUSINESS MEETING

In the matter of,)
)
Business Meeting) Docket No. 23-BUSMTG-01
)

IN-PERSON AND REMOVE VIA ZOOM
Warren-Alquist State Energy Building
1516 Ninth Street
Art Rosenfeld Hearing Room
Sacramento, California 95614

WEDNESDAY, MAY 10, 2023

10:00 A.M.

Reported By:
Peter Petty

APPEARANCES

CEC Commissioners

David Hochschild, Chair
 Siva Gunda, Vice-Chair
 Noemi Gallardo
 Andrew McAllister
 Patty Monahan

CEC Staff

Drew Bohan, Executive Director
 Linda Spiegel, Chief Deputy Director
 Linda Barrera, Chief Counsel
 Mona Badie, Public Advisor

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P R O C E E D I N G S

1
2 May 10, 2023

10:03 A.M.

3 CHAIR HOCHSCHILD: And welcome everybody. I'm
4 David Hochschild, Chair of the California Energy
5 Commission. Today is May 10th. I call this meeting to
6 order. Joining me are Vice Chair Gunda, Commissioner
7 McAllister, Commissioner Monahan, and Commissioner
8 Gallardo. We have a quorum, and we'll begin with
9 Commissioner McAllister leading us in the Pledge of
10 Allegiance.

11 (Whereupon the Pledge of Allegiance was recited)

12 CHAIR HOCHSCHILD: Thank you Commissioner. We
13 will start with public comment and then move on to
14 agency announcements. So, Mona, over to you.

15 MS. BADIE: Good morning. My name is Mona
16 Badie. I'm the Public Advisor here at the Energy
17 Commission. The Commission welcomes public comment at
18 its business meetings. There'll be multiple
19 opportunities for public comment today. This initial
20 public comment period is for any item including
21 informational or non-voting items on the agenda. And if
22 you would like to make a comment and you are in the
23 room, we ask that you use the QR code at the public
24 comment, or Public Advisor table. You can also raise
25 your hand. And also, we will accept public comment via

1 Zoom as well.

2 Okay. Just giving that a minute.

3 Alright, we don't have anyone. Oh, sorry. We
4 don't have anyone in the room for public comment, and
5 now we will turn to Zoom. We have one raised hand, Nick
6 Josefowitz. I'm going to open your line. Uh oh, Nick,
7 we lost you. Okay, great. We have you back. I'm going
8 to open your line, Nick. Please state and spell your
9 name and announce any affiliation and you may begin your
10 comment.

11 MR. JOSEFOWITZ: Thank you very much. My name
12 is Nick Josefowitz, J-O-S-E-F-O-W-I-T-Z, and I'm the
13 Chief of Policy at SPUR, a think tank based in the Bay
14 Area, and a board member of the SolarApp Foundation.
15 Unfortunately, despite much hard work over the years, in
16 too many cities and counties across California, it can
17 take weeks, months, or even longer to receive a permit
18 for a simple residential rooftop solar or battery
19 system. That's why it can cost twice as much to install
20 a residential rooftop solar system in California than in
21 Australia or Germany. This is a huge barrier to
22 California meeting its renewable energy and climate
23 goals, and is a huge barrier to households protecting
24 themselves from the impacts of public safety power
25 shutoffs.

1 But I'm here actually to share good news.
2 Last year your Commission created a grant program,
3 CalAPP, to fix this problem and assist communities to
4 automate their permitting for residential rooftop solar
5 and battery storage systems. Local jurisdictions can
6 use free swath software developed by the National
7 Renewable Energy Labs called SolarAPP+ to do this.

8 The great news is that as of this week, over
9 298 cities and counties across California have applied
10 and received CalAPP grants to automate their residential
11 and battery storage permitting. If all these
12 jurisdictions follow through on their commitments, this
13 will increase the number of California jurisdictions
14 that have automated permitting by almost 20 times.
15 California is showing the rest of the country how to do
16 it.

17 I want to give particular credit to Chair
18 Hochschild for championing this program, and I also want
19 to thank Geoffrey Dodson and Elizabeth Giorgi for their
20 incredible work. Not only have they led a massive
21 outreach effort to local jurisdictions around the state,
22 but they also created one of the simplest grant
23 applications to state government.

24 And this simplicity really matters. For
25 instance, within two hours of us connecting with the

1 planning director of a mid-size city in San Mateo
2 County, a member of his staff had read through the
3 materials on your website, decided to apply for the
4 CalAPP program, and submitted the grant application.
5 Two hours. That's amazing.

6 But we do have more work to do. Aside from
7 helping those jurisdictions who have received the grants
8 to deploy automated permitting, there are still 157
9 cities and counties in California who have a state
10 requirement under SB 379 to automate permitting over the
11 next 18 months. Thank you for extending the grant
12 program to give these communities more time to apply.

13 We also believe that widespread adoption of
14 automated permitting, and SolarAPP in particular, by
15 hundreds of jurisdictions in California will justify
16 further investment in the software tool to add
17 functionality to SolarAPP so that it can also instantly
18 permit electric heat pumps, electric vehicle charging
19 infrastructure, electrical panel upgrades and more.

20 We look forward to working with you on this
21 vision of automated electrification permitting. Thank
22 you for your vision, your leadership, and your
23 remarkably successful execution of this program.

24 CHAIR HOCHSCHILD: Well, thank you, Nick, and
25 thanks to all the advocacy you did at SPUR along with

1 many others to get this policy in place. I really want
2 to recognize Deanna Carrillo, and I know Commissioner
3 McAllister has worked very closely with her team on many
4 of these things. We are -- you know, this is in the
5 category what I would call process innovation. We fund
6 a lot of technology innovation, but actually one of the
7 most important things we can do is make the process
8 friction free. And just a shout out to Elizabeth and
9 Geoffrey for all the work to do that. Really remarkable
10 to hear those numbers. Really a 10x increase in the
11 number of cities will be doing automated processing and
12 a great example. And I don't know if, Commissioner
13 McAllister, if you wanted to chime in?

14 COMMISSIONER MCALLISTER: So, echo all those
15 kudos and thanks to staff; I totally agree competence in
16 administration can make all the difference in terms of
17 real impacts. I also just am hoping over the coming
18 years that we can extend that kind of efficiency to a
19 vast array of building permits and help cities with heat
20 pumps for example, and just help streamline permitting
21 across the board. Because we have tens of thousand--
22 really millions of projects in the next 10 years that
23 will support our building decarbonization journey.

24 We're going to be pumping a lot of money into
25 that space, and we need to get those soft costs down if

1 we're going to have success over the long term. So
2 solar is a start, but we really need to get to all the
3 major end uses so that we can decarbonize those quickly.

4 CHAIR HOCHSCHILD: Well said. So, I think
5 we're-- no more public comments at this point? Okay,
6 well thank you so much Nick. We'll turn now an agency
7 announcements.

8 I did want to just thank all the team at the
9 Energy Commission who hosted Monday's On With the Wind
10 Symposium. We had 482 people participate in that.
11 Incredible momentum and excitement about offshore wind
12 in California as we move towards our 25-gigawatt state
13 goal. And just you know, a lot of engagement from
14 stakeholders, tribes, labor, and all the key
15 stakeholders. I was really thrilled.

16 We were fortunate to be joined by Secretary
17 Crowfoot, Lauren Sanchez and many other leaders in that
18 day. And I especially want to recognize Elizabeth Huber
19 for her terrific work, along with Kat Robinson on my
20 team, and others who helped put that together. Vice
21 Chair Gunda led a tremendous panel as well, and just all
22 around a terrific, terrific day.

23 So, any other announcements folks would like
24 to share at the outset? Yes, Commissioner Gallardo.

25 COMMISSIONER GALLARDO: Buenas dias. Good

1 morning, everyone. This is Commissioner Gallardo. I
2 wanted to let you know I'm having trouble with my Zoom,
3 so I'm not going to appear on the individual video box.
4 Definitely here. I also wanted to acknowledge that it's
5 Mexican Mother's Day today and we have US Mother's Day
6 coming up too, so feliz Dia de las Madres, Happy
7 Mother's Day to all the fellow mothers out there.

8 Thank you.

9 CHAIR HOCHSCHILD: Oh, Clean Energy Hall of
10 Fame.

11 COMMISSIONER GALLARDO: Oh, do you want me to
12 do that?

13 CHAIR HOCHSCHILD: Yeah.

14 COMMISSIONER GALLARDO: All right. Another
15 big announcement we have is that we are going to have
16 the Clean Energy Hall of Fame Awards. This is an annual
17 event that we've done since 2020, and this year it's
18 going to be December 7th. So, a wonderful way to
19 celebrate the holidays. And nominations will be due
20 June 16th. We're going to put the information on our
21 website early next week, so be on the lookout for that.

22 CHAIR HOCHSCHILD: Great. Thank you.

23 COMMISSIONER GALLARDO: Thank you.

24 CHAIR HOCHSCHILD: I did want to add also May
25 is Asian American and Pacific Islander Heritage Month,

1 so that is something else to celebrate. And also
2 altogether at today's Commission meeting, we're going to
3 be considering for approval over 25 million in grants
4 contributing to our state's economic recovery. So, with
5 that, let's move on to Item 3, the consent calendar. Is
6 there any public comment on Item 3?

7 MS. BADIE: Thank you. Again, this is Mona
8 Badie, the Public Advisor. We will take public comment
9 from in the room as well as on Zoom for Item 3 at this
10 time. If you are in the room, you can use our QR code
11 or you can raise your hand at this time and we will also
12 check Zoom. If you are on Zoom, you can use the raise-
13 hand feature to notify us you'd like to make a comment.
14 And if you're joining by phone, press star-nine to raise
15 your hand.

16 Okay. Giving that a moment. We are-- we
17 don't have any raised hands for this item. Chair.

18 CHAIR HOCHSCHILD: Okay.

19 MS. BADIE: Back to you.

20 CHAIR HOCHSCHILD: With that, unless there's
21 Commissioner discussion, I'd entertain a motion.
22 Commissioner McAllister?

23 COMMISSIONER MCALLISTER: So, moved.

24 CHAIR HOCHSCHILD: Is there a second?

25 VICE CHAIR GUNDA: Second.

1 CHAIR HOCHSCHILD: Vice Chair Gunda. All in
2 favor say aye. Commissioner McAllister?

3 COMMISSIONER MCALLISTER: Aye.

4 CHAIR HOCHSCHILD: Vice Chair Gunda?

5 VICE CHAIR GUNDA: Aye.

6 CHAIR HOCHSCHILD: Commissioner Gallardo?

7 COMMISSIONER GALLARDO: Aye.

8 CHAIR HOCHSCHILD: Commissioner Monahan?

9 COMMISSIONER MONAHAN: Aye.

10 CHAIR HOCHSCHILD: And I vote aye as well.

11 Item 3 passes unanimously. We'll turn now to Item 4.

12 Oh, sorry, Item 4 is removed from the agenda. We'll
13 turn to Item 5, Assembly Bill 525 Offshore Wind Energy
14 Permitting Roadmap.

15 MS. CHEW: Good morning, chair, Vice Chair and
16 Commissioners. My name is Kristy Chew, and I'm part of
17 the Climate Initiatives branch within the California
18 Energy Commission's Siting Transmission and
19 Environmental Protection Division. I'm presenting for
20 your approval today Assembly Bill 525 Offshore Wind
21 Energy Permitting Roadmap Report.

22 The report describes six potential approaches
23 for permitting frameworks that allow for coordinated
24 comprehensive and efficient permitting processes for
25 offshore wind energy facilities and associated

1 infrastructure off the coast of California. The report
2 also describes a stakeholder process to further develop
3 permitting approaches for offshore wind energy.

4 Next slide, please.

5 California, particularly the northern and
6 central coast regions, has some of the best offshore
7 wind resources in the country, and floating offshore
8 wind is emerging as a promising source of renewable
9 energy generation for the state. In addition to
10 providing renewable energy, the development of floating
11 offshore wind in California will diversify the state's
12 energy portfolio, and provides an opportunity for good
13 paying jobs and statewide economic benefits.

14 Next slide, please.

15 As you are aware, Assembly Bill 525 requires
16 the Energy Commission to complete three interim reports
17 that will inform the final Assembly Bill 525 Offshore
18 Wind Strategic Plan. First interim report was the
19 Maximum Feasible Capacity and Megawatt Planning Goals
20 for 2030 and 2045, which resulted in planning goals of
21 two to five gigawatts by 2030, and 25 gigawatts by 2045
22 in federal waters off California's coast. The goals
23 report was adopted at the August, 2022 business meeting.

24 The second completed interim report was the
25 Preliminary Assessment of Economic Benefits of Offshore

1 Wind Related to Seaport Investments and Workforce
2 Development, which was adopted at the February, 2023
3 business meeting. The third and final interim report on
4 a permitting roadmap process has undergone further
5 revision and inclusion of stakeholder and partner agency
6 input since the conceptual permitting paper was posted
7 by former Commissioner Vaccaro in December of 2022.
8 Since that paper was posted, the climate initiatives
9 branch has held a permitting roadmap workshop and more
10 than a dozen partner agency working group meetings,
11 tribal government consultations, and stakeholder
12 engagement meetings.

13 Next slide, please.

14 As a result, we received in-depth feedback
15 that included multiple permitting options for
16 consideration. The comment letters and discussions
17 contained many similar themes. At the forefront is the
18 importance of continued engagement with the stakeholder
19 community, as well as concurrent state and federal
20 environmental project review pursuant to the National
21 Environmental Policy Act and the California
22 Environmental Quality Act.

23 In addition to the above, specific feedback
24 from environmental organizations emphasized the need for
25 a strong mechanism for interagency coordination that

1 includes an environmental review checklist, permitting
2 process that requires mitigation, data collection as
3 part of any permit conditions, and the establishment of
4 a science entity to direct the monitoring of impacts and
5 research priorities, which they feel should be funded by
6 the developers.

7 Industry feedback includes the need for a lead
8 permitting agency and a clear identification and
9 sequencing of events, requirements, and timelines. Some
10 indicated the need for an agency coordination plan, a
11 forum to resolve issues that may arise, and adequate
12 funding for permitting agencies.

13 Comments from fishing industry groups include
14 their support for a process where the fishing industry
15 and ocean users tell the Bureau of Ocean Energy
16 Management where offshore wind facilities should be
17 located, and not the other way around. There's support
18 for a Programmatic Environmental Impact Statement for
19 the entire West Coast prepared by the Bureau of Ocean
20 Energy Management, and the need for mitigating impacts
21 and providing compensation to the fishing industry.

22 Public interest groups such as environmental
23 justice organizations and other offshore wind coalitions
24 commented that a Permitting Roadmap should clearly
25 identify and include transparent opportunities for

1 public engagement and input that go beyond what is
2 minimally required by law. They also commented that the
3 process should include strategies to protect wildlife
4 and the environment and to recognize the roles of local
5 and tribal governments. They commented on the need for
6 project impact monitoring and adaptive management
7 practices, as well as decommissioning processes to
8 ensure facilities are not abandoned. And, for the
9 identification of opportunities to decommission fossil
10 fuel infrastructure, especially near low-income and
11 disadvantaged communities. And finally, one group
12 commented that the entire process should last no more
13 than two years.

14 Next slide, please.

15 The Energy Commission's Offshore Wind Team
16 held discussions with tribal nations. The feedback from
17 these discussions included concerns regarding the
18 industrialization of the shoreline, impacts to a
19 proposed National Marine sanctuary, ensuring meaningful
20 tribal consultation based on sound science, and that
21 tribal members be included on any intergovernmental or
22 any inter-agency partnership when making decisions that
23 could potentially impact ancestral lands.

24 Next slide, please.

25 It is important to note that every offshore

1 wind turbine will be floating in federal waters. These
2 floating power plants are regulated through federal
3 lease agreements. The existing development permitting
4 processes by federal, state and local governments can
5 take years to work through. As illustrated on the
6 slide, the estimated time for planning, leasing and
7 assessing an offshore wind energy area by the federal
8 agencies could take as many as 10 years.

9 The energy generated from these turbines in
10 federal waters needs to be transmitted through state
11 waters and then onto state land. As shown in the slide,
12 when federal agencies are working through their project
13 development phases, the state agencies would continue to
14 be working on their multi-year agency and energy
15 planning processes, such as the Integrated Energy Policy
16 Report, integrated resource planning, transmission
17 planning, and energy procurement, as well as
18 coordinating with the Bureau of Ocean Energy Management
19 on lease documents, meeting Coastal Act requirements,
20 reviewing developer studies, and conducting
21 environmental reviews of specific projects. In addition
22 to federal and state review processes, permitting
23 requirements of local governmental agencies could take
24 an additional two to three years.

25 Next slide, please.

1 After consideration of the comments received
2 at the public workshop, submitted comment letters and
3 discussions with stakeholders and tribal governments,
4 the Energy Commission Offshore Wind Team believes it is
5 important to identify in the report all options and
6 approaches that should be carefully and fully evaluated
7 and vetted before deciding the best permitting pathway.
8 As a result, the report identifies six approaches to be
9 fully examined. These include three coordinated
10 approaches, two environmental review approaches, and a
11 coordinated single-agency approach.

12 Next slide, please.

13 Next steps for the Offshore Wind Permitting
14 Roadmap include continuing discussions with
15 stakeholders, tribal governments, and federal, state,
16 and local agencies to further develop the permitting
17 approaches described in the previous slide, holding a
18 public workshop in early June to discuss permitting
19 approaches, and making recommendations on the permitting
20 approaches and present them in the upcoming offshore
21 Wind energy strategic plan.

22 Next slide, please.

23 The Offshore Wind Team recommends the adoption
24 of Assembly Bill 525, Offshore Wind Energy Permitting
25 Roadmap Report. This concludes my presentation, and I'm

1 happy to answer any questions.

2 CHAIR HOCHSCHILD: Terrific job, Kristy.

3 Thank you so much. We'll go to public comment.

4 MS. BADIE: Good morning. This is Mona Badie,
5 the Energy Commission's Public Advisor. We will take
6 public comment on Item 5 now, and we can take public
7 comment from folks in the room first and then we will
8 move on to Zoom. So, if you are in the room, you can
9 use our QR code to enter the queue or you can raise your
10 hand.

11 And we have Sarah Xu from Brightline Defense
12 Project. Sarah, if you can approach the podium, make
13 sure your light is on for the mic, and please spell your
14 name for the record before you begin your comment.
15 Thank you.

16 MS. XU: Good morning, Commissioners. My name
17 is Sarah Xu, spelled S-A-R-A-H, last name X as in x-ray
18 U as in uniform. I'm the Senior Policy Associate at
19 Brightline Defense. We're an environmental justice
20 organization based out of San Francisco, but really
21 excited about offshore wind in California. I wanted to
22 thank really the CEC staff in all the work in engaging
23 communities and incorporating our public comments,
24 previous comments, into this updated permitting roadmap
25 report. And we're excited to see the incorporation and

1 the enumeration of opportunities for further engagement
2 for tribes, local communities, and others. We're
3 excited to see how this planning process continues and
4 excited to engage in the June workshop, and also to work
5 with the Commission to bring offshore wind to
6 California. Thank you.

7 MS. BADIE: Thank you. We will now move to
8 Zoom. So, we have two raised hands on Zoom. If you
9 want to make a comment, please use the raised hand
10 feature on your screen, and if you're on the phone,
11 please press star-nine to raise your hand. The person
12 by the screen name of 350 Humboldt, I'm going to open
13 your line. If you can please state and spell your name
14 for the record and any affiliation and you may begin
15 your comment.

16 MR. CHANDLER: Good morning. I'm Dan
17 Chandler, C-H-A-N-D-L-E-R, representing 350 Humboldt.
18 We're an agency like the CEC, where scientists abound.
19 It is strange to say it is not following the science,
20 but with respect to permitting offshore wind, it is
21 true. The IPCC 2023 Synthesis Report says, "Without a
22 strengthening of policies, emissions are projected to
23 rise leading to a median global warming of 2.2 degrees
24 Celsius to 3.5 degrees Celsius by 2100."

25 This implies deep, rapid, and sustained global

1 greenhouse gas emission reductions this decade. Near-
2 term actions involve high upfront investments and
3 potentially disruptive changes. The Bezos \$10 billion
4 Earth Fund CEO, Andrew Steer warned a week ago, this is
5 the decisive decade. If we don't get it right this
6 decade, actually next decade, it will be impossibly
7 expensive to do anything. Or quite frankly, too late.

8 The Revised Permitting Report projects the
9 process to take seven to 12 years before construction
10 can start, not including transmission. And that too, is
11 frankly too late. Your Commission can initiate the
12 disruptive changes that will be necessary to make
13 offshore wind relevant to climate mitigation within this
14 decade. We urge you to direct staff to prepare a final
15 strategy that includes legislation to reduce the total
16 permitting time to two years, and take other necessary
17 steps so that we generate at least five to 10 gigawatts
18 of offshore wind power before 2030.

19 Thank you very much for considering these
20 comments.

21 MS. BADIE: Thank you. We also have Azsha E-
22 D-C screen name. I'm going to open your line. Azsha,
23 please state and spell your name for the record and any
24 affiliation, and you may begin your comment.

25 MS. HUDSON: Hi, my name is Azsha Hudson, A-Z-

1 S-H-A H-U-D-S-O-N. I'm a marine analyst at the
2 Environmental Defense Center, a public interest law firm
3 that works to protect and enhance the local environment
4 through education, advocacy, and legal action. We
5 primarily work in San Luis Obispo, Santa Barbara and
6 Ventura counties.

7 We support responsible offshore wind
8 development, which offers California an important
9 opportunity to fight climate change, reduce air
10 pollution, and improve energy reliability. Offshore
11 wind must be developed in a responsible manner with
12 minimal environmental impacts, and robust community
13 engagement. We also submitted comments to the
14 California Energy Commission workshop on the Draft
15 Conceptual Permitting Roadmap for Offshore Wind Energy
16 Facilities on February 10th, 2023.

17 As the CEC constructs a permitting roadmap, we
18 at EDC encourage the agency to evaluate reasonably
19 foreseeable and cumulative impacts of offshore wind
20 development. We also encourage securing two general
21 categories of data. One, robust baseline data to
22 accurately assess and track potential risks to marine
23 species from offshore wind development, which must
24 inform project siting, design and operation. And two,
25 continuous monitoring data to allow for adaptive

1 management.

2 The Environmental Defense Center looks forward
3 to continued stakeholder engagement to support
4 sustainable offshore wind implementation into the future
5 as we look to this new energy resource to further
6 California as a leader in utilizing green energy while
7 maintaining the integrity of the environment. Thank
8 you.

9 MS. BADIE: Thank you. That is the last
10 raised hand, Chair. Back to you.

11 CHAIR HOCHSCHILD: Thank you so much.
12 Actually, if I can invite Elizabeth Huber up to the
13 podium. Just again, first of all, again, thank you for
14 the terrific work on the symposium Monday, and I
15 neglected to mention, we also had two other tremendous
16 keynotes. One by the godfather of wind, Henrik
17 Stiesdal, who actually-- the modern three blade upwind
18 rotor design was designed by him. He is got a thousand
19 patents, and he gave the keynote at the event, which was
20 terrific. In Denmark, you know, he built the very first
21 offshore wind project in the world. And we also had
22 Lieutenant Governor Kounalakis there as well who is
23 tremendous on this issue. So, thank you again,
24 Elizabeth for that.

25 But I wonder if you could just locate today's

1 vote to approve this report in the context of the four
2 deliverables we had under 525, which was adopted
3 September of the year before last. Right? And then
4 just kind of walk us through where we are and what's
5 next.

6 MS. HUBER: Oh, absolutely. And then for the
7 record, my name's Elizabeth Huber. I'm the director for
8 the division of Siting, Transmission, and Environmental
9 Protection. So, in January of 2022, AB 525 was enacted
10 and signed by the governor, and directed the Energy
11 Commission to lead through a coordination and
12 collaboration with CNRA partner agencies, the California
13 Public Utilities Commission, and the California
14 Independent System operator.

15 And this included initiating workshops. So,
16 we have had monthly workshops for almost two years with
17 our partner agencies and the energy agencies around the
18 requirements of AB 525. That is part of the work
19 product mandated by that bill.

20 And then there were three interim reports that
21 was required by that bill. Today is the third and final
22 of those three reports that you'll be voting on. And
23 these three reports will be informing a final AB 525
24 strategic plan on how we are going to meet our planning
25 goals for 2030 and 2045.

1 And that includes sea space identification,
2 transmission planning, permitting. So today you'll be
3 voting on a report that recognizes six different
4 approaches. So, you are not voting on any one approach
5 today, that will be continued to be vetted. And the
6 final approach will be part of that final Strategic
7 Plan.

8 And then we have a chapter on our sea ports
9 investment and infrastructure planning for ports, which
10 are, as we all know are very critical for deployment of
11 offshore wind success. And then a chapter as indicated
12 by several of the comments today, it's on the impacts on
13 our coastal users, on Native Americans, indigenous
14 people, also national defense. So, we're taking all
15 that into consideration, including wildlife.

16 We're looking at all the studies that are out
17 there and research available to us, including the
18 reference by the speaker, the IPFF report. Once we
19 finish these reviews, we are conducting in the next six
20 weeks five specific workshops to get us to a final draft
21 strategic plan by the end of June that will be posted.
22 And then we will have workshops in July to go over all
23 the input we've received on each chapter and then how
24 it'll align in one comprehensive strategic plan to
25 timely get us to deploy offshore wind.

1 And as you can see, it's a heavy lift because
2 our goal is to move from a 10 to 12-year process to a
3 two to three-year process. So, there's a lot of
4 coordination that's going to continue and our objective
5 is to present that final plan to you at the September
6 business meeting. Did that answer your question?

7 CHAIR HOCHSCHILD: That was perfect, thank you
8 so much and thanks to all of your team. I believe we
9 have eight people now working full-time on offshore
10 wind, which is great. Again, this is a big priority for
11 the governor. We're fulfilling his directive to go big
12 on this.

13 And I wanted to also just offer a few thank
14 yous to our sister agencies, Lands Commission, Coastal
15 Commission, Ocean Protection Council, Fish and Wildlife,
16 as well as to former Commissioner Vaccaro and former
17 Commissioner Douglas who were-- played really important
18 roles in getting this. And also, President Reynolds
19 who's been very supportive as we've gone forward. And
20 so, this is a really exciting thing to be at a moment
21 where we can bring in a new industry and new technology
22 to help support the grid. And especially wanted to
23 recognize again, Vice Chair Gunda for his role as lead
24 on SB 100 and really helping set the megawatt, or
25 gigawatt targets we adopted last summer and really get

1 this whole thing in motion.

2 So, with that, I'd open up to comments
3 starting with Vice Chair Gunda.

4 VICE CHAIR GUNDA: Thank you, Elizabeth. Just
5 a quick question. So, you had set the context. Couple
6 of things. One, what is the current gigawatt
7 opportunity under the five leases that we have, the
8 provisional leases?

9 MS. HUBER: Oh absolutely, excellent question.
10 So currently it's 4.5 gigawatts, and we are currently
11 looking at how are we going to get the additional 20 to
12 21 gigawatts. And that starts with sea space
13 identification. So, we have begun consultation with the
14 tribal nations, and we've also begun a two-part session
15 with the fishing industry that have been very
16 successful. And we have some in-person ones planned for
17 June where we'll actually go down to Morro Bay and up to
18 Humboldt. And that sea space identification is key in
19 the next step on how we can get to 25 gigawatts by 2045.

20 VICE CHAIR GUNDA: Thank you, Elizabeth. Just
21 again, thanks to you and the team. I think spectacular
22 work. I mean, I heard over the last few days the four
23 P's, right? The procurement, the permitting, ports and
24 protection and preservation of our current interests,
25 both fisheries, defense, and the marine mammals and

1 such.

2 So, you know, it takes a lot of work to
3 coordinate and make sure all interests are really well
4 established. I think the value proposition for offshore
5 wind from the perspective of clean, reliable,
6 affordable, and equitable is there. And how do we
7 operationalize that in a way that we bring all of
8 California together and making sure everybody benefits
9 from that? So, I feel like your team has taken a very
10 thoughtful approach in coordinating with the sister
11 agencies and the broad stakeholders and tribal
12 governments. So, I appreciate the work you're doing and
13 look forward to supporting it.

14 MS. HUBER: Thank you, Vice Chair.

15 CHAIR HOCHSCHILD: Any other comments?

16 Commissioner Monahan? Yeah.

17 COMMISSIONER MONAHAN: Well, I too, am every
18 business meeting, where we're getting another report on
19 that you're doing to fulfill these-- and it's just been
20 really impressive. I know you're handling a huge work
21 stream trying to do this really thoughtfully and take
22 into account all the different perspectives that I'm
23 sure are conflicting.

24 And I noted that we just got a letter from the
25 Yurok tribe from Chairman James who we all met when we

1 were signing the Tribal Energy Sovereignty Resolution.
2 And he raises the point that it's critically important
3 to have meaningful tribal consultation and offers the
4 Bear's Ear agreement as something that is a good model.
5 So, I would just suggest the team follow up with
6 Chairman James and really explore this agreement and
7 what we can-- what lessons we can learn and take with us
8 as we move forward with offshore wind.

9 MS. HUBER: Absolutely. They actually are
10 hosting an event tomorrow and Friday, and we will have
11 staff up there to participate. So absolutely, totally
12 agree with you.

13 COMMISSIONER MONAHAN: Okay, thank you.

14 CHAIR HOCHSCHILD: Yeah, and I would also note
15 we've had over 200 stakeholder meetings now around the
16 state on offshore wind, and over 30 I think public
17 meetings, and we're just getting started. A lot more--

18 MS. HUBER: More to come.

19 CHAIR HOCHSCHILD: --especially with the
20 (INDISCERNIBLE). Commissioner Gallardo?

21 COMMISSIONER GALLARDO: So, I wanted to focus
22 on that fifth P, people, and those folks who could be
23 affected by this. So, I was going to ask, I don't know,
24 Elizabeth if this is a good question for you or for
25 Kristy about the responsible agency backing mentioned

1 under the tribal engagement and outreach. I was curious
2 if you could go into that a little bit more, what
3 exactly they're seeking?

4 MS. HUBER: That's a good question. So, the
5 feedback we've gotten from our consultation is they're
6 very supportive of the work that we're doing, but
7 there's concern as we do sea space identification, that
8 we are all coming the table together. And that includes
9 face-to-face, which is why we are-- have scheduled these
10 meetings.

11 I do want to give a shout out to the
12 leadership of several tribal nations and the fishing
13 industry. They were the ones that identified locations
14 for us to meet over the next six weeks.

15 And the main issue that we are trying to
16 address through this process is the national sanctuaries
17 that are either already protected lands and waters.
18 That could be ensuring that they're not impacted by what
19 we're doing in the waters, but also you know the
20 transmission process that will come onto the shoreline,
21 correct? And then to our lands. And that we're
22 supportive of a process that if there's going to be sub-
23 sea cables, that we communicate thoughtfully and
24 coordinate and bring everybody, again, to the table.

25 And so that's what we're trying to do. So

1 far, we've had positive feedback. And we continue to
2 meet, and it's all about the coordination and
3 collaboration is the key, is what we're trying to do and
4 what the feedback has been.

5 COMMISSIONER GALLARDO: Okay. And are they
6 seeking for the agencies involved to do better
7 coordination so that then the tribes can engage them in
8 a more streamlined fashion? Is that, I was just curious
9 about the emphasis on the responsible agencies.

10 MS. HUBER: So, you know, what we're trying to
11 do is educate the roles of each of our agencies. Right?
12 I mean we were all created for specific
13 responsibilities. And so, one of the tasks we're
14 looking at is the checklist that was mentioned. So like
15 industry, they're moving toward more of a single entity
16 to make their involvement face-to-face because of their
17 limited resources. And so, we're trying to address that
18 on how that can be done in a coordinated approach versus
19 a consolidated approach because of the uniqueness. And
20 so that's what we're working through right now, and hope
21 to have that resolved before September's presentation of
22 a final strategic plan.

23 COMMISSIONER GALLARDO: Thank you, Elizabeth.
24 Appreciate that.

25 CHAIR HOCHSCHILD: Good. Commissioner

1 McAllister?

2 COMMISSIONER MCALLISTER: Thank you—

3 (Whereupon the court reporter asks a question)

4 COMMISSIONER GALLARDO: Commissioner Gallardo.

5 CHAIR HOCHSCHILD: Yeah. Her video is off,
6 but that was Commissioner Gallardo.

7 COMMISSIONER MCALLISTER: Thank you, Elizabeth
8 and Kristy. I just wanted to chime in with a kudos.
9 This is really an unprecedented effort, just the scale
10 of it. And I think you're-- each one of these turbines
11 is massive and if we multiply that by a thousand, you
12 know that's-- and just within the timeframe that we've
13 set forth with the goal, it's tremendous. And in this
14 kind of deep water with this kind of scale, really is
15 globally unique and it's going to mobilize a lot of
16 resources.

17 And I just wanted to acknowledge all the staff
18 work and the just incredible all-hands-on-deck effort to
19 balance the inclusivity and the process, you know as
20 much inclusion as possible, with urgency and the
21 timeline that AB 525 sets out, which has the strategic
22 plan really on an accelerated timeframe. So, each
23 report is just a great contribution, and looking forward
24 to the overall Strategic Plan later in the summer, and
25 just really appreciate all the work.

1 MS. HUBER: And we want to thank you for your
2 understanding of offshore wind, Commissioner. You and
3 your team have provided some good feedback on the
4 experiences that you've had around in this space, so
5 thank you for that. And if I could add to it, you know
6 the Energy Commission is successful because it's a team
7 and we collaborate together. And I may be standing
8 here, but Kristy and her colleagues within the offshore
9 wind unit, within the climate initiatives branch,
10 they're the heavy lifters here. So, I want to just give
11 kudos to the whole unit.

12 CHAIR HOCHSCHILD: Great. I wanted to just
13 make one additional point too to the Vice Chair's
14 question, which is I think actually four and a half
15 gigawatts is a conservative estimate. The industry
16 today, actually there is an 18-megawatt turbine now in
17 the market from GE. There is a 21-megawatt turbine
18 under development. And so, I think by the time we
19 actually get to putting steel in the water, the turbine
20 size will be larger. I don't know yet how much larger,
21 but we'll see. It's possible we could get as much as
22 seven or seven and a half gigawatts; we'll have to see.

23 But the technology progression is-- and this
24 is one of the reasons why us investing with other states
25 in innovation now matters. And I want to recognize the

1 ERDD team for that. We have joined the Offshore Wind
2 Research and Development Consortium with all the other
3 coastal states in the United States. And we are jointly
4 investing together right now in innovation, which will
5 help drive cost down and help us get to more efficient
6 turbines, which is a good thing for rate payers, and for
7 reducing footprint on the water. And again, so thank
8 you for all the hard work from the team. Kristy, thanks
9 to you as well.

10 And with that, I'd entertain a motion from the
11 Vice Chair on Item 5.

12 VICE CHAIR GUNDA: Yeah, move Item 5

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

15 COMMISSIONER MCALLISTER: I'll second Item 5.

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

18 VICE CHAIR GUNDA: Aye.

19 CHAIR HOCHSCHILD: Commissioner McAllister?

20 COMMISSIONER MCALLISTER: Aye.

21 CHAIR HOCHSCHILD: Commissioner Gallardo?

22 COMMISSIONER GALLARDO: Aye.

23 CHAIR HOCHSCHILD: And Commissioner Monahan?

24 COMMISSIONER MONAHAN: Aye.

25 CHAIR HOCHSCHILD: And I vote Aye as well.

1 Item 5 passes you unanimously.

2 COMMISSIONER MONAHAN: Thank you.

3 CHAIR HOCHSCHILD: Thank you. We'll turn now
4 to Item 6, Olivine, Incorporated. Am I pronouncing that
5 right? Olive-- Olivine? Okay, alright.

6 MS. CARRILLO: Good morning. My name is
7 Deanna Carrillo, and I have the pleasure to serve as the
8 Director of the Reliability, Renewable Energy, and
9 Decarbonization Division, or REDDI. Staff is seeking
10 approval today of a contract not to exceed \$5 million
11 with Olivine, Inc., to provide program support services
12 in CEC's implementation of the Demand Side Grid Support
13 Program.

14 Next slide, please.

15 The Demand Side Grid Support Program supports
16 the state's grid reliability during extreme heat events,
17 much like the one we had this past September. It's also
18 been designed to increase visibility into the state's
19 resource capacity, and prioritize the dispatch of clean
20 resources.

21 Next slide, please.

22 Before we turn to the action item, I'd like to
23 provide some context. AB 205 created the strategic
24 reliability reserve in June of last year, funded with a
25 total of \$3.4 billion, and gave authority for the DW--

1 Department of Water Resources and the Energy Commission
2 to implement three programs to provide additional
3 resources to help maintain reliability during extreme
4 heat events. The CEC is responsible for developing and
5 administering the Demand Side Grid Support Program, and
6 the Distributed Electricity Backup Assets program.

7 They serve as complimentary programs to help
8 meet the grid's needs during these events. DEBA
9 incentivizes the purchase of cleaner and more efficient
10 distributed energy assets that would serve as on-call
11 emergency supply or load reduction, whereas DSGS
12 incentivizes the use of load reduction resources during
13 those events.

14 Next slide, please.

15 Last summer, the Strategic Reliability Reserve
16 was authorized on June 30th. CEC staff worked quickly
17 to establish the program, which was launched in August,
18 and our first provider application was approved on
19 August 31st. AB 209 also passed during this time, which
20 opened the program beyond POU territories, or Publicly
21 Owned Utility territories, into Investor Owned Utility
22 or CPUC jurisdictional territories here in California.

23 And we worked fluidly to address this
24 emergency event, ultimately enrolling 315 megawatts and
25 making it available this past year. Resources were

1 predominantly backup generation, but also included load
2 shifting with the help from water agencies and our
3 universities and other demand response.

4 Next slide, please.

5 There were many lessons learned from last
6 summer. We talked about smoothing operations earlier
7 during this meeting, and that's something that we'll be
8 looking to do for this summer. Staff has been working
9 with stakeholders to incorporate and revise our
10 guidelines, which will be brought to you in the coming
11 weeks.

12 Specific lessons learned were-- are that we
13 need flexibility to respond to unanticipated elements of
14 emergency events. Given the speed that we launched, our
15 administrative processes and communication were manual
16 and can be streamlined. In addition, the California
17 Independent System Operator and other balancing
18 authorities, as well as our host utilities need
19 additional visibility into our anticipated load
20 reduction.

21 And as I mentioned, after the program was
22 initially authorized last summer, it was subsequently
23 expanded to include customers in IOU territories with a
24 caveat that customers cannot be enrolled in similar
25 programs. CEC staff has been working with our

1 colleagues at the California Public Utilities Commission
2 to identify specific use cases to target as we slowly
3 expand and thoughtfully and incrementally grow the
4 program and test alternative approaches.

5 Next slide, please.

6 Which brings us to the action today to support
7 the CEC in administering DSGS, staff sought to identify
8 a third-party aggregator and an entity that could
9 provide services to support program implementation, as
10 well as data sharing with the IOU's to verify customer
11 eligibility. After surveying other similar programs in
12 the state, CEC staff identified Olivine, Inc., which is
13 uniquely qualified to support these services. Olivine,
14 Inc. supports PG&E, Southern California Eddison, and
15 SDG&E in the implementing of their emergency load
16 reduction programs and are very experienced.

17 Under this contract, Olivine will support
18 program enrollment and eligibility verification,
19 communicate and report to participants and our partners,
20 and monitor and validate performance. The budget for
21 the contract is not to exceed \$5 million. Again, that's
22 a not to exceed amount.

23 Next slide, please.

24 With that, staff recommends the approval of
25 the contract with Olivine, Inc. not to exceed \$5

1 million, and adoption of staff's determination that this
2 action is exempt from CEQA. And I'm available to answer
3 any questions.

4 CHAIR HOCHSCHILD: Thank you so much. We'll
5 turn to public comment on Item 6.

6 MS. BADIE: Hello, this is Mona Badie again,
7 the Public Advisor at the Energy Commission. The
8 Commission now welcomes public comment on Item 6. We
9 can take public comment from folks in the room and on
10 Zoom online, and Zoom via phone. If you are in the
11 room, we ask that you use the QR code located at the
12 Public Advisor table. You can also raise your hand.
13 And if you are on Zoom we ask that you use the raised
14 hand feature on your screen. If you're calling by
15 phone, press star-nine to raise your hand.

16 Not seeing anyone in the room for Item 6, and
17 we have one hand raised on Zoom. Leslie Purcell, I'm
18 going to open your line. Please spell your name for the
19 record, and you may begin your comment. Oops. Leslie,
20 if you want to comment please raise your hand again.
21 Oh, okay. That might have been an error. So that was
22 the only raised hand. Back to you, Chair.

23 CHAIR HOCHSCHILD: Okay, thank you. Well, I
24 first just want to recognize what you showed in that
25 slide, the trajectory, the ramp-up during the summer was

1 extraordinary. And I know the heavy lift involved in
2 getting that off the ground in that kind of timeframe,
3 and I just want to say again that that's remarkable and
4 I think it very meaningfully contributed to keeping the
5 lights on during the severe heat storm we had last
6 September. So, with that we'll go to Commissioner
7 discussion starting with the Vice Chair.

8 VICE CHAIR GUNDA: Yeah, thank you Chair.
9 Just wanted to first of all, Deanna, thank you. Thank
10 you on a few fronts. I think I just want to publicly
11 acknowledge this has been an incredibly difficult
12 program to pull together in such a short amount of time,
13 and meaningfully contribute to last year. And I think
14 it needs a very steady hand in terms of leadership that
15 both, it's like you need to get the things done, but
16 bringing people along and I think you've done it really
17 well. A very collaborative front, you know, through
18 your own way of personality you seem to bring people
19 along. So, I just wanted to make sure that I publicly
20 recognize how amazing of a job you're doing as a leader.
21 And also cultivating a really good team; to your team
22 with Ashley and all just a wonderful team that you're
23 building together on this.

24 And finally, the impact. Right? I mean some
25 of the impact happened because of your calls to

1 stakeholders over and over to help, and trying to be as
2 flexible as possible to ensuring those enrollments
3 happened in a very timely fashion. So, I just wanted to
4 start with like a really big thank you to your
5 leadership and your entire theme for that.

6 I want to take this opportunity to just frame
7 a couple things for our fellow Commissioners here and
8 the direction makers, and really seek your guidance and
9 help as we move forward. The good part of the story
10 there was we got 300 megawatts in less than a week. You
11 know, we were able to keep the lights on. The other
12 side of the story is there were bugs. There were diesel
13 bugs, running mostly in disadvantaged communities, low-
14 income communities. And it's the reality we are right
15 now in, which is we are boldly moving towards our
16 climate goals, ambitious goals -- but also the climate
17 impacts are so huge.

18 And I think I mentioned a number of times, we
19 were 7,000 megawatts off kilter last year from what we
20 were expecting. That's two LADWP's on the top of CAISO.
21 And for us to get through that, I think there will be
22 some suboptimal days here. But how do you bring people
23 along and be able to compensate, mitigate? I mean we
24 are actually furthering the burden on disadvantaged
25 communities and low-income communities through this

1 extraordinary transition.

2 We know we want to keep equity as the center
3 of our work, but I just want to make sure that I
4 recognize the inequity in keeping the lights on and you
5 know, recognize that we need a credible pathway forward.
6 So, one of the answers we talk about is demand
7 flexibility, the opportunity with V2G, the opportunities
8 with buildings. We have not yet demonstrated that we
9 can do it well. The last couple of years we've -- you
10 know, on one end we see this flex alert going out, or
11 sorry, the amber alert, and we got 2000 megawatts of
12 production.

13 But if you look at programmatic DR values and
14 other values, there isn't enough yet. Right? So, we
15 really need a new paradigm on how to maximize the
16 opportunity with load flexibility.

17 Really, you know, heartened and always
18 inspired by Commissioner McAllister's work on the MIDAS
19 system. I think that is close to the perfect solution,
20 is the demand flexibility and how do we optimize that?
21 But we are not there and I want to publicly acknowledge
22 that we are doing this sub-optimally. We are doing this
23 at the expense of communities, keeping the lights on.
24 There is a greater benefit, there is a net positive
25 impact potentially for the state. So just want to

1 acknowledge on how do we this? And how do we keep
2 asking the same communities to shoulder the burden over
3 and over.

4 So just want to, you know, that's the sobering
5 part of this entire exercise. You know, incredible
6 kudos for the work we are doing diligently with the
7 spirit of togetherness. But the impacts are going to be
8 more for our low-income, disadvantaged communities and
9 that's a reality at this moment.

10 Would love to figure out solutions that could
11 be better. You know? So, whether if it's a linear
12 generator or if it's a fuel cell that's running on
13 natural gas, and would that be a better option for a
14 little while than turning on a diesel gen set? Is OTC
15 power plant better than the diesel gen set? I mean, how
16 do we have this conversation openly together because
17 this is-- there is no one pathway and I feel like the
18 conversations-- there's a fear of even having the
19 conversation that is suboptimal. And if we don't have
20 it, we could do the worst. And I just request your help
21 on having those conversations with the people that you
22 have good trust with so we can build a trusting forward
23 journey here over the next five to 10 years. So, thank
24 you.

25 CHAIR HOCHSCHILD: Commissioner McAllister?

1 COMMISSIONER MCALLISTER: Great. I want to
2 second the kudos, Deanna, to you and the team. Just the
3 leadership is tremendous, and I think you're really
4 burnishing the Commission's brand as a sort of can-do
5 roll up the sleeves, but also collaborative and really
6 sort of transparent, and bringing a lot of people on
7 across the marketplace. So, you know, this doesn't
8 happen without supply resources of some flavor coming
9 into the table and actually agreeing to participate.
10 Right? And so that takes cajoling and soft power as
11 well as our regulatory authority, and the trust that the
12 legislature's given us. So, resources across the board.
13 And it's just, you're building capital on all these
14 different buckets, and I really appreciate that.

15 So, I'll also just want to acknowledge Vice
16 Chair Gunda for your leadership in this space and
17 particularly just your nuanced, kind of, your
18 appreciation of all the trade-offs and just the danger
19 of making the perfect the enemy of the good in terms of
20 this next 10 to 15 years that we have to get to the
21 point B, that I think we all agree is cleaner and better
22 and more equitable. But how we get from here to there
23 has trade-offs, and we have to acknowledge those.

24 I tend to sort of be a long-view kind of
25 member of the Commission I guess, and wanted to sort of

1 build on what you said about some of the infrastructure
2 we're building to really solve this problem and build
3 the solutions that can scale. And so, the management
4 standards and MIDAS is definitely one of these and I
5 know Olivine is a leader in some of those issues as
6 well. And I think this is an opportunity to help.

7 You know, clearly they have a big lift just in
8 this contract or in this effort for the program to build
9 it, to build that infrastructure. I also think it's a
10 platform that we can build, we can leverage to build
11 this long-term infrastructure that's really going to
12 help us harvest. Yesterday there was a nice-- the
13 interconnection workshop that Commissioner Monahan is
14 leading in the IEPR. And Cliff Rechtschaffen, former
15 Commissioner moderated a panel, and he said we're going
16 to have tens of thousands of electric devices coming on
17 the grid.

18 Well, it's actually tens of millions and each
19 one of those has a little bit of flexible load
20 associated with it. And you know, part of that 10 to
21 15-year horizon is that we have, in addition to this
22 sort of emergency driven, event driven supply site kind
23 of approach that this program is mostly focusing on,
24 event driven, it can also help us build that platform to
25 do day in, day out load shaping.

1 And so that infrastructure is shared across
2 that whole continuum of load flexibility, and I think
3 we're doing you know, a half dozen major initiatives to
4 help that happen. And I wanted to just put this
5 contract in context because it's one important
6 initiative to help really move the market towards these
7 automated digitized solutions.

8 And so, it's not going to happen tomorrow, but
9 as the flexible appliances work their way into the
10 marketplace, as the building code impacts what equipment
11 people actually install, as the use cases emerge, as the
12 innovation happens out there in the business model and
13 the third-party aggregators, we're really going to see a
14 lot of innovation. And this is a new resource, nobody's
15 mobilized at this scale. But it's sort of like the
16 offshore wind. We are building this thing and others
17 are going to see it and replicate what we're doing much
18 more broadly.

19 I did have one question actually, so thanks
20 for bearing with me on some of the commentary. But I
21 did want to ask about the monitoring and verification,
22 sort of what that looks like. You know, one thing that
23 we hear from third parties, particularly CCA somewhat,
24 is just the difficulty of understanding what happened in
25 the immediate past in terms of, you know, when a call

1 happens, what the impacts are, and data sharing from the
2 utilities and getting sort of triangulating between all
3 the actors here and these transactions. What does that
4 look like in terms of this program to sort of make that
5 efficient? I think there's a big public benefit in
6 reducing those transaction costs and kind of speeding up
7 those transactions, and wanted to just see how this
8 program might fit in there?

9 MS. CARRILLO: Good question, Commissioner.
10 This last year was very manual as we worked quickly to
11 launch, and also very flexible. And when you have
12 manual plus flexible, it does become a little more
13 administrative and cumbersome of Excel spreadsheets and
14 identifying baselines. That process does exist. We do
15 ask customers, we had 44 participants this last year.
16 This next year we'll be expanding into aggregators that
17 will be working with our customers, with customer
18 release data from their utilities to help formalize
19 that.

20 We probably won't get to automation until next
21 year to really formalize or establish any API contracts.
22 As Vice Chair Gunda shared, we're working to bring on
23 cleaner resources and also test some options to see how
24 we can bring DR and demand response into the market.
25 That is the gold ring that we're shooting for. And so

1 that will become more automate, simpler hopefully, and
2 more streamlined as the program matures. But it really
3 is kind of a phased incremental approach as we look to
4 push some appropriate boundaries and test within the
5 sandbox to bring on those clean resources.

6 VICE CHAIR GUNDA: Great. Yeah, Commission,
7 I just want to add to Deanna's point. I think given the
8 load flexibility goal and the DSGS money and the DEBA
9 money, I think you know, the workshop that the staff put
10 out, I think to your point at the higher level, there is
11 a unique opportunity for CEC to develop a standardized
12 and streamlined, you know, M&V methodology--

13 COMMISSIONER MCALLISTER: Absolutely.

14 VICE CHAIR GUNDA: -- for value, for valuing
15 load flex. And then at that point we can say this is
16 how we can treat RA versus emergency resources.

17 COMMISSIONER MCALLISTER: Exactly. A lot of
18 great work going on at the staff level, developing the
19 load shift goal report. And I think that's, as you're
20 suggesting, that's a great opportunity to kind of reset
21 this conversation. You know, DG has kind of ebbed and
22 flowed, but in general it's been a little bit more
23 abundant. And as we expand the definitions and really
24 appreciate all the different kinds of load shaping, I
25 think we can appropriately categorize and bucket these

1 resources and really mobilize them. And so very happy
2 to have that opportunity.

3 And I appreciate your mentioning MIDAS. I
4 think that is a platform that is really going to be the
5 infrastructure for having rates publicly accessible and
6 automatable, and really mobilizing load flexibility just
7 day in day out. It also to the-- more relevant for this
8 program, the CAISO can send a flex alert signal through
9 MIDAS. And so, to the extent that we have more
10 occasional load shaping that we could be funding with
11 this in other programs, the CAISO could actually target
12 a congestion related signal to specific parts of the
13 grid, and automate load shaping on an event driven
14 basis, which is huge. You know?

15 And so, we're just building this
16 infrastructure and it's a little bit under the radar.
17 It's a little bit-- it's a long haul, sort of a, you
18 know, I got to get away from using the diesel locomotive
19 as it's kind of an analogy here, but it's a metaphor.
20 But it, it's gaining steam I guess, and really going to
21 serve us well for the long term.

22 And so again, it's one of these sort of-- we
23 need near term, there's a lot of urgency, but we also
24 need these solutions for the long term. And so, we
25 really need to do it all at once. So really happy to

1 have this kind of bridging program to be able to do bits
2 of both, so thanks. Very supportive, obviously.

3 CHAIR HOCHSCHILD: Yeah. Commissioner
4 Monahan?

5 COMMISSIONER MONAHAN: Well, Deanna, I want to
6 give you credit for probably rolling out the fastest
7 program in CEC history. I'm looking to our-- to Drew
8 Bohan to see if that is correct, but-- is that a
9 nod? He's like--

10 MR. BOHAN: It's right up there.

11 COMMISSIONER MONAHAN: Well, it was really
12 impressive and so important for keeping the lights on.
13 And Vice Chair Gunda, I mean, we were all worried about
14 you not getting any sleep last summer and for the last
15 several summers; hoping this summer brings some sleep.
16 But the energy agencies, not just us and Vice Chair
17 Gunda, but collectively were working very hard to keep
18 the lights on and develop strategies to do so. And you
19 were a critical part of that, and your team were a
20 critical part of that narrative, so just thank you.

21 And I also want to just say thank you Vice
22 Chair Gunda for really transparently calling out the
23 challenges we're facing. And I think we all take that
24 really to heart. You know, we're trying so hard to get
25 to a 100 percent clean energy system. And in the short

1 term there are trade-offs, and we need to be transparent
2 about them. We need to acknowledge that there's
3 community impacts, work to mitigate those impacts, work
4 to develop strategies where we're focusing on cleaner
5 technologies that are available, but also keeping the
6 lights on. And sometimes that means a diesel generator.
7 So, I just appreciate that transparency.

8 And I would suggest in-- as we're moving
9 forward to be more-- if we could all be really clear
10 about what strategies we're considering in terms of
11 being able to address the community impacts, I think
12 that would help us all. And we're facing this in the
13 energy-- I'm trying to figure out what a new name for
14 the IEPR will be, but we don't have it yet-- that there
15 are near term trade-offs. And as we electrify more and
16 more with the grid and we face some barriers in terms of
17 being able to do that swiftly, what does that mean in
18 terms of providing electric power to new uses? So
19 that's a trade-off I think we're facing at large as we
20 accelerate electrification broadly.

21 So just want to say I-- you're speaking from
22 the heart, and I think we all feel that, and the head,
23 as we try to really develop strategies that are going to
24 be best for moving California forward.

25 CHAIR HOCHSCHILD: Well said. Commissioner

1 Gallardo?

2 COMMISSIONER GALLARDO: Yeah. I also want to
3 applaud you, Deanna, for all the work you've done, your
4 leadership. And then also from what I understand, the
5 STEP Division was also helpful to you. And so, I want
6 to also celebrate the collaboration among divisions,
7 it's good for us to support each other that way.

8 And all of you mentioned, Siva, you started
9 with the importance of considering these trade-offs and
10 engaging with people to inform them about these trade-
11 offs potentially, and also getting solutions from them
12 directly. So, it's good to make informed decisions.
13 Maybe we can make even smarter decisions if we're
14 engaging.

15 So, I would just offer up, you know, we have
16 the Disadvantaged Communities Advisory Group as an
17 immediate forum where we can talk to people who are, you
18 know, engaging with disadvantaged communities, low-
19 income communities on a daily basis and could help us
20 think through that. And then also we've had really
21 great equity and environmental justice round tables in
22 the past. So, I think that would be a perfect topic for
23 one of those round tables. And our phenomenal Public
24 Advisor I know is thinking about what the next one, when
25 the could be and what that could look like. So, I would

1 offer up this topic for one of those round tables.

2 VICE CHAIR GUNDA: Yeah, just thank you
3 Commissioner Gallardo, I think that's an excellent idea.
4 Would love to have the opportunity to share what's
5 happening and get some guidance from Start leaders in
6 the community. Thank you.

7 CHAIR HOCHSCHILD: Well, finally, I also want
8 to just, Deanna, thank you. In addition to the program
9 ramping up so quickly, you have ramped up very quickly.
10 You came here from CAEATFA not so long ago and now feels
11 like you've been here 20 years, you've been doing so
12 much and getting all these critical programs stood up.
13 So, thanks to you and your terrific team. Really,
14 really. I know everyone's been working super hard.

15 MS. CARRILLO: So now I'm uncomfortable. I
16 just want to note, I appreciate the gratitude, but just
17 to echo Elizabeth's comment earlier, this was a team
18 effort. And you know, our branch manager of this
19 program was maybe three weeks in, and really rolled up
20 her sleeves. So, shout out to Ashley Emery.

21 And also, Vice Chair, you know, your
22 leadership, your transparency, and the willingness to
23 have those tough questions. You know, that week was--
24 that 10 days was all in from everyone, and just a
25 demonstration of the public servants that we have here

1 in the state and your office and team.

2 CHAIR HOCHSCHILD: Yeah.

3 MS. CARRILLO: So, thank you.

4 CHAIR HOCHSCHILD: Well said. And Vice Chair
5 to your points, you know that really resonated for me.
6 The way I would put it is, you know, electric
7 reliability, it is paramount and we have to hold
8 ourselves accountable to that. None of what we're
9 trying to do on electrifying transportation, the
10 building sector, none of that succeeds if there's an
11 outage or that comes to be a regular thing and people
12 don't have faith in the grid. So that is paramount and
13 there are trade-offs.

14 But there are also, the way I'd put it is
15 there's justice issues associated with energy. And my
16 hometown in San Francisco the whole time I was grow up,
17 we had a diesel peaker plant in the Bayview Hunters
18 point, low-income African American community. You know,
19 and that was an incredible sore point for that
20 community. And it would never be placed in Pacific
21 Heights or any of the wealthy neighborhoods 'cause they
22 wouldn't stand for it.

23 And so that is the case across the state, and
24 40 percent of our generation fleet is in low-income,
25 disadvantaged communities. And that's what we're trying

1 to move beyond. And that is the goal. I think we're
2 all committed to that, but it's a hard road this next
3 few years because, you know, we can't do everything all
4 at once. But we have to keep that in mind. And we
5 have, just to your point, we have to hold ourselves
6 accountable. And when we're falling short on that, we
7 have to be transparent about it. I think that's the way
8 forward and just lean in on this.

9 And I think this to me also highlights again,
10 one of the most important things we can do is land
11 federal money in California for all these programs we're
12 doing on storage and microgrids and all the rest, you
13 know, to put that to work here, it's needed. So, thank
14 you again for leading us in this critical effort and
15 with that I'd welcome a motion on the item from you.

16 VICE CHAIR GUNDA: Yep. Move Item 6.

17 CHAIR HOCHSCHILD: Is there a second,
18 Commissioner McAllister?

19 COMMISSIONER MCALLISTER: Second Item 6.

20 CHAIR HOCHSCHILD: All in favor say aye. Vice
21 Chair Gunda?

22 VICE CHAIR GUNDA: Aye.

23 CHAIR HOCHSCHILD: Commissioner McAllister?

24 COMMISSIONER MCALLISTER: Aye.

25 CHAIR HOCHSCHILD: Commissioner Gallardo?

1 COMMISSIONER GALLARDO: Aye.

2 CHAIR HOCHSCHILD: Commissioner Monahan?

3 COMMISSIONER MONAHAN: Aye.

4 CHAIR HOCHSCHILD: And I vote aye as well.

5 Item 6 passes unanimously. We'll turn now to Item 7,
6 Ample.

7 MS. MAGANA: Good morning Chair, Vice Chair
8 and Commissioners. I'm Pilar Magana with the Fuels and
9 Transportation Division. Staff is seeking approval for
10 a project with Ample, Inc., in Brisbane, California,
11 which is being proposed for funding under the zero-
12 emission transportation manufacturing solicitation.

13 Next slide, please.

14 As of January, 2023, the Notice of Proposed
15 Awards 13 projects are recommended for funding under
16 this solicitation for a total of \$197.9 million. This
17 is the eighth of 13 projects being proposed for funding
18 under this solicitation with seven already approved at
19 previous business meetings, and five to be proposed at
20 future business meetings.

21 Next slide, please.

22 Ample's proposed manufacturing expansion will
23 support the increased production of swappable battery
24 packs by building out and optimizing their battery
25 manufacturing line. Their initial target market will be

1 ridesharing fleets transitioning to zero-emission
2 vehicles, and will demonstrate the viability of an
3 efficient and sustainable solution to support the growth
4 of California's electric vehicle swap enabled vehicle
5 supply.

6 By 2024, Ample's Brisbane manufacturing
7 facility will build swappable battery modules for
8 roughly 14,000, ve-- 14,400 vehicles every year. And by
9 2031, the Brisbane facility will produce battery modules
10 cumulatively for over 127,000 vehicles.

11 Modular battery swapping is an alternative
12 cost-effective solution for individuals and fleets who
13 are interested in EV's but don't have access to reliable
14 charging, or for those looking to save time such as long
15 distance travelers that need a quick recharge, or ride
16 share drivers. It can also strengthen the grid by
17 leveling demand and providing flexible energy storage
18 for renewables, while also curtailing energy consumption
19 when desirable, or feed energy back into the grid when
20 demand peaks.

21 At installed capacity, the Brisbane factory
22 will result in approximately 866 million gallons of
23 gasoline savings and associated criteria emission
24 reductions, and 5.8 million metric tons of CO2 emission
25 reductions by 2031. The CEC-funded Brisbane plant will

1 employ 12 workers during construction and approximately
2 31 employees during operations. Ample is working with
3 JobTrain and the San Mateo County Economic Development
4 Association to train and recruit workers from Brisbane
5 and surrounding communities to work for Ample.

6 Next slide, please.

7 Under this agreement, Ample will expand their
8 manufacturing facility for the production of vehicle
9 agnostic battery swap related technology and modules to
10 support the growth of market for battery swapping
11 electric vehicles in California. Ample is currently
12 focused on fleet vehicle electrification, with emphasis
13 on deployment through ride-share vehicles that are
14 driven much more than individually owned cars.

15 Through this approach, Ample will demonstrate
16 improved economics for fleets transitioning to electric
17 vehicles by simplifying the operational logistics of EV
18 repowering, and reducing energy costs. Uber drivers in
19 San Francisco's Ample deployment have switched to swap
20 enabled EV's, while Lyft has also expressed their
21 interest and support for this effort to expand
22 demonstration for battery swapping.

23 Furthermore, based on their 2031 goals for
24 battery production at this facility, there is potential
25 to displace over 22 billion miles of internal combustion

1 engine driving. This agreement is for approximately
2 \$14.7 million, with \$15 million in match funding being
3 provided.

4 Next slide, please.

5 Staff is seeking your approval for this
6 agreement as well as adoption of staff's findings that
7 this project is exempt from CEQA. We have Matt McGovern
8 in attendance in person, and Levi Tilleman from Ample in
9 attendance via Zoom who will be happy to answer any
10 questions. That is the end of my presentation, and I'm
11 happy to answer any questions you may have.

12 CHAIR HOCHSCHILD: Thank you. Let's go to
13 public comment on Item 7.

14 MS. BADIE: Hello, this is Mona Badie, the
15 Public Advisor. The Commission welcomes public comment
16 on Item 7 at this time. If you are in the room, we ask
17 that you use our QR code or raise your hand. And if you
18 are on Zoom you can use the raise-hand feature online or
19 press star-nine if you are on the phone to notify us
20 you'd like to make a comment.

21 Just giving that a moment. Alright, I don't
22 see anyone who would like to make a comment on this
23 item, so back to you chair.

24 CHAIR HOCHSCHILD: Okay, we'll go to
25 Commissioner discussion starting with Commissioner

1 Monahan.

2 COMMISSIONER MONAHAN: So, thanks Pilar, and
3 to the team. So, this is part of the \$250 million
4 manufacturing grants. You guys have seen these in the
5 past. We really want to keep California at the
6 forefront of zero-emission vehicle manufacturing. So,
7 we want to pass the policies, create the jobs, have the
8 vehicles built here, have the vehicles used here as
9 well.

10 And I want to say battery swapping is novel
11 here in the United States. It's not novel in China. I
12 think it's something like 25 percent of the med-- of the
13 trucks that are being sold in China that are battery
14 electric are battery swappable. And it deals with some
15 of our grid issues, potentially, because you could
16 charge them at night, swap them during the day, or swap
17 them at peak times. And I think it's-- but it, it's
18 been sort of untested in the United States.

19 There's one manufacturer called NIO in China,
20 they are planning to have thousands of EV swapping sites
21 by the end of this year. So, it's just an interesting
22 kind of innovation in this space. So, I think this
23 fits, this grant fits in the kind of like we're testing
24 new technologies, new strategies to see how we get to a
25 100 percent zero emission vehicle future.

1 CHAIR HOCHSCHILD: Can I ask you a question?
2 I did actually have a chance to see a battery-swapping
3 operation in China with Lauren Sanchez --

4 COMMISSIONER MONAHAN: Oh you did?

5 CHAIR HOCHSCHILD: -- a few years ago, yeah.
6 And it was quite remarkable. It's very fast. You see
7 the car go in, get lifted up, they swap it, it's you
8 know two minutes, probably. Where-- but also, I know
9 fast charging is coming. We've heard up to 600 kw,
10 which is, that's 200 miles of charge in three minutes,
11 right? And so where do you actually see this going?
12 What niche? Would this be more for fleets? Or how do
13 you see this application kind of unfolding?

14 COMMISSIONER MONAHAN: I mean-- I would say
15 that for transportation network companies, this could be
16 a good model. For fleets that are used really
17 frequently, this is a good model. And I do struggle
18 with this. Like, how do we make sure that EVs are good
19 citizens of the grid? I love your quote, Chair. I use
20 it all the time, now it's mine. So, there is--

21 CHAIR HOCHSCHILD: Plagiarism is a good thing.

22 COMMISSIONER MONAHAN: You know, and
23 especially-- I mean there's light duty vehicles and then
24 there's trucks. And I wonder more on the truck side,
25 too that-- I mean that's not this grant but just in the

1 future, that might be something to test as well.
2 They're going to be such big draws on the grid and
3 especially if they're used-- big vehicles used all the
4 time, this would be a way to make sure that EV's are
5 charged at optimal times so we can run them on sunshine
6 and we can keep these trucks moving, you know, many
7 hours a day.

8 CHAIR HOCHSCHILD: Okay, that's helpful. Any
9 other comments? If not, I welcome a motion on Item 7
10 from Commissioner Monahan.

11 COMMISSIONER MONAHAN: I move to Approve Item
12 7.

13 CHAIR HOCHSCHILD: Commissioner Gallardo,
14 would you be willing to second?

15 COMMISSIONER GALLARDO: I Second Item 7.

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

18 COMMISSIONER MONAHAN: Aye.

19 CHAIR HOCHSCHILD: Commissioner Gallardo?

20 COMMISSIONER GALLARDO: Aye.

21 CHAIR HOCHSCHILD: Commissioner McAllister?

22 COMMISSIONER MCALLISTER: Aye.

23 CHAIR HOCHSCHILD: Vice Chair Gunda?

24 VICE CHAIR GUNDA: Aye.

25 CHAIR HOCHSCHILD: And I vote Aye as well.

1 Item 7 passes unanimously. Thank you. We'll turn now
2 to Item 8, Food Production Investment Program. Did we
3 change the name of this program? I thought it was a
4 Food Production Improvement Program. Oh, okay. Maybe I
5 misremembered. Okay. Who is presenting? Who is
6 presenting item--?

7 MS. BADIE: We have Eleanor online.

8 CHAIR HOCHSCHILD: Eleanor's online, okay.

9 MS. BADIE: Yeah.

10 CHAIR HOCHSCHILD: Eleanor, can you hear us?

11 MS. OLIVER: Yes, I can. Can you hear me?

12 CHAIR HOCHSCHILD: Yeah, we can hear you now.

13 Go ahead.

14 MS. OLIVER: Perfect. Good morning, Chair,
15 Vice Chair and Commissioners. My name is Eleanor Oliver
16 and I am staff under the Energy Research and Development
17 Division. Today I will be providing a presentation on
18 the current accomplishments of the Food Production
19 Investment Program, followed by a recommendation to
20 approve four awards resulting from our most recent
21 solicitation.

22 Next slide.

23 Food production is a key economic factor in
24 California, but it is also a large contributor to
25 greenhouse gas emissions with about 3.2 million metric

1 tons of CO2 equivalently yearly emissions. Since the
2 program start in 2018, FPIP has awarded \$117.8 million
3 across five funding opportunities to 56 projects
4 resulting in a little over 151,000 metric tons of CO2
5 equivalent annual reductions in emissions.

6 The program has funded a variety of facilities
7 including animal feed and ethanol, beverage breweries
8 and wineries, dairy processing, prepared foods, meat and
9 rendering, and fruits, vegetables, and nuts. The number
10 of awards to each type of facility is provided on the
11 right-hand side of this slide.

12 Next slide.

13 These facilities are located all across
14 California in 54 unique project sites. And that I am
15 happy to reflect that 85 percent of those sites are
16 located and benefiting disadvantaged and or low-income
17 communities.

18 Next slide.

19 The Food Production Investment Program, or
20 FPIP, funds drop-in energy technologies at food
21 production facilities in California with the goal of
22 reducing GHG emissions. FPIP is part of California's
23 climate investment, a statewide initiative that puts
24 billions of cap-and-trade dollars to work, reducing
25 greenhouse gas emissions, strengthening the economy, and

1 improving public health in the environment, particularly
2 in disadvantaged communities.

3 This solicitation had a total of \$10.1 million
4 available, with a 35 percent match requirement. Out of
5 the 18 applications received, we will be recommending
6 eight of those projects for awards for today, and four
7 at the June business meeting.

8 Next slide.

9 So, our first two projects recommended for
10 awards are electrifying coffee roasting at their
11 facilities located in downtown Oakland. Traditionally,
12 natural gas-powered coffee roasters have been the
13 primary equipment used in the bean roasting process, but
14 the need to replace these types of roasters are
15 necessary. Because not only do they require fossil fuel
16 to operate, but they are also the main source of
17 pollutants in the coffee process, contributing to around
18 15 percent of the overall carbon footprint of coffee.

19 America's Best Beverage will use a little over
20 1.2 million to purchase and install 16 electric coffee
21 roasters to reduce close to 560 metric tons of CO2 per
22 year at their Heirloom Coffee Roaster facilities. Red
23 Bay Coffee Company will use a little under \$650,000 to
24 purchase and install eight fully electric coffee
25 roasters to reduce about 340 metric tons of CO2 per year

1 at the Red Bay Coffee roaster facility.

2 In addition, both facilities are proposing
3 Bellwether's fully ventless electric coffee roasters as
4 the replacement equipment, which does not require gas
5 lines, ventilation, or special permitting for operation.
6 These unique components can reduce CO2 emissions from
7 the coffee cycle by 92 percent compared to traditional
8 roasters.

9 Next slide.

10 Next, we have Pacific Coast Producers, who
11 will upgrade their steam condensate recovery system at
12 their tomato processing facility in Woodland. The
13 cookers and boilers at this facility are critical to
14 their operations, but currently the steam supply from
15 the boilers is not efficiently being captured, losing
16 valuable steam condensate. And the cookers are not
17 efficiently sealed so the steam would be lost due to the
18 cooker leaks.

19 To solve both the leakage and the efficiency
20 issues of the system, Pacific Coast producers will use a
21 little over \$890,000 to implement a heat recovery system
22 to capture and repurpose that wasted steam created
23 during the canning-sterilization stage. This new system
24 is estimated to provide great reductions for the
25 facility, including reducing GHG emissions by about

1 2,400 metric tons of CO2 per year, natural gas by about
2 450,000 therms per year, and savings 16.5 million
3 gallons of water per year.

4 Next slide.

5 Finally, our last recommended project for
6 award today is E & J Gallo Winery, which is tackling
7 energy issues at three of its facilities, all located in
8 disadvantaged or low-income communities. These
9 facilities are integral in their beverage making process
10 because the wine grapes are received, crushed,
11 fermented, chilled, and stored at these facilities
12 before being transported to another Gallo facility where
13 the wine is bottled and blended.

14 At their Fresno location, they're looking to
15 remove and replace a 33-year-old inefficient evaporator
16 condenser that's currently running at an elevated
17 temperature using a little over 100,000 kilowatts hours
18 of energy than necessary. At their Modesto facility,
19 they're looking to convert their high GWP refrigerant
20 system to a low GWP refrigerant. And finally at their
21 Livingston facility they will replace 8 62-year-old
22 inefficient refrigerator compressors with two highly
23 efficient compressors. With these upgrades, they are
24 looking to removing the use of about 400 pounds of high
25 GWP refrigerant and save close to 350,000 kilowatts of

1 energy per year.

2 Next slide.

3 So, with that, we are asking for the approval
4 of all four projects as well as the adoption of staff
5 finding that these projects are exempt from CEQA. This
6 concludes my presentation, and I thank you for your
7 time. Staff is available for questions.

8 CHAIR HOCHSCHILD: Thank you so much, Eleanor.
9 I have one request to you. If you could email this deck
10 to me, I'd like to share that with Secretary Ross who
11 was very, very supportive when we got this program
12 launched. With that we'll go to public comment.

13 MS. BADIE: Hello, this is Mona Badie, the
14 Public Advisor at the Energy Commission. The Commission
15 now welcomes public comment on Item 8. If you are in
16 the room, you can use our QR code or raise your hand at
17 this time to let us know you'd like to make a comment in
18 the room. And if you are on Zoom, use the raise hand
19 feature on your screen, and if you're on phone, please
20 press star-nine to raise your hand.

21 I'm not seeing anyone in the room and we will
22 move now to Zoom. We do have one hand raised, Hovik
23 Azadkhanian. Please when you-- I'm going to open your
24 line. Please spell your name for the record and make
25 your comment.

1 MR. AZADKHANIN: Hi, my name is Hovik
2 Azadkhanian, H-O-V-I-K A-Z-A-D-K-H-A-N-I-A-N. I'm the
3 CEO of America's Best Beverage and Heirloom Coffee
4 Roasters. We're the first regeneratively sourced coffee
5 brand in America, and we're one of the largest specialty
6 coffee roasters in California, based in Oakland. I want
7 to thank the California Energy Commission for this
8 opportunity. By offering this grant, California has
9 positioned itself as a leader in clean energy in
10 manufacturing for small business.

11 The FPIP funds will jumpstart the future of
12 clean, natural gas-free coffee manufacturing, as well as
13 community development and job training for the local
14 population by allowing us to begin to shift our natural
15 gas dependency to clean renewable energy. If this grant
16 is approved, the impact to the future of clean
17 manufacturing will be significant, and will pioneer the
18 clean energy future for coffee. Special thanks to the
19 Energy Research and Development Division, particularly
20 to Eleanor Oliver whose hard work helped us navigate
21 this process. Thank you all.

22 MS. BADIE: That concludes public comment.
23 Back to you, Chair.

24 CHAIR HOCHSCHILD: Great. Well first of all,
25 congrats to the staff for putting this package of grants

1 together and to all the innovators. I have had a chance
2 to visit Bellwether. And, you know it's interesting.
3 This sort of mirrors distributed generation in a way,
4 because the way the coffee industry works now, the
5 farmers ship their coffee beans to a facility to be
6 roasted, and then it's sent to the stores.

7 This basically allows the farmers to ship
8 directly to the coffee shop, and then it's a machine;
9 it's about the size of a vending machine. And I watched
10 it, you put the beans in, it takes two minutes and then
11 they're roasted right there. So, you're eliminating an
12 entire step and destination. And so, there's emissions
13 reductions from the reduced travel as well as using
14 clean electricity instead of natural gas to do the
15 roasting.

16 So great to see this innovation and progress.
17 And I just really wanted to thank Secretary Ross as well
18 for the partnership we've had with her on this program,
19 and as well as on our-- when we have the Renewable
20 Energy and Agriculture Program. And these all look like
21 a wonderful set of grants. So, I'd open it up to any
22 comments. Commission, McAlister?

23 COMMISSIONER MCALLISTER: Yeah, I just wanted
24 to echo your positivity on this group of projects.
25 Thank you, Eleanor. Really enjoyed the briefing that we

1 had on this. Also wanted to call out, in addition to
2 Secretary Ross, Laurie ten Hope who really helped stand
3 up FPIP program back in the day, and it's just been an
4 incredibly successful model that serves us well as we
5 get industrial hydrogen and other market transformation
6 programs queued up.

7 And this is just such a signature, a
8 California program just given our agricultural base.
9 And just FPIP has done so much good and will continue to
10 do good. And coffee is a really interesting commodity,
11 being a global commodity, that has all sorts of touches
12 across the supply chain. And the closer you roast it to
13 the end user, the better the flavor is anyway. So, you
14 know, I think this is a distributed generation, you
15 know, has all sorts of benefits.

16 And as we all know, coffee keeps us going in a
17 lot of ways in our economy, so it's a pretty-- a
18 different kind of fuel, but one that's important, just
19 the same. So anyway, just wanted to express my support.

20 CHAIR HOCHSCHILD: Thank you. Any other comm-
21 yeah, Vice Chair Gunda?

22 VICE CHAIR GUNDA: Thank you Eleanor, for the
23 presentation. Just a quick add-- I mean question. In
24 the design of the FPIP program, given the demand
25 flexibility goals that Commissioner McAllister laid out

1 earlier, in the grant making process, are we explicitly
2 thinking about the opportunity for demand flexibility
3 and reliability and grid friendliness? Or is it
4 something that you will continue to look toward?

5 CHAIR HOCHSCHILD: Can you hear us? That was
6 a question to Eleanor. Yeah, can you hear us, Eleanor?

7 MS. OLIVER: Yes. So, since this was funded
8 with the California Climate Investment Fund, the cap-
9 and-trade dollars, it wasn't a huge focus for the
10 program when they were creating it. But going forward,
11 since we will be refunded using the general funds, we
12 are trying to incorporate that focus as a priority going
13 forward. So, we did do a public workshop, I believe
14 last month, where we got a lot of input on what that
15 would look like in our solicitation form.

16 VICE CHAIR GUNDA: Great. Thank you.

17 CHAIR HOCHSCHILD: Great. Yeah, and I just
18 wanted to close by saying I'm really happy to see this
19 set of projects moving forward and primed to work. I
20 know there has been some fits and starts. I remember we
21 funded one electrification effort, I think for Sun-Maid
22 Raisins, which was doing a natural gas process, and we
23 were trying to electrify and that didn't pan out. But
24 glad to see this moving forward, and hopefully we
25 continue to build up the record of successes here.

1 So, thank you Eleanor for you and your team,
2 all the work on this. And we welcome a motion from
3 Commissioner McAllister--

4 COMMISSIONER MCALLISTER: Move Item 8

5 CHAIR HOCHSCHILD: --on Item 8. Is there a
6 second, Vice Chair Gunda?

7 VICE CHAIR GUNDA: Second Item 8.

8 CHAIR HOCHSCHILD: All in favor say Aye.
9 Commissioner McAllister?

10 COMMISSIONER MCALLISTER: Aye.

11 CHAIR HOCHSCHILD: Vice Chair Gunda?

12 VICE CHAIR GUNDA: Aye.

13 CHAIR HOCHSCHILD: Commissioner Monahan?

14 COMMISSIONER MONAHAN: Aye.

15 CHAIR HOCHSCHILD: Commissioner Gallardo?

16 COMMISSIONER GALLARDO: Aye.

17 CHAIR HOCHSCHILD: And I Vote Aye as well.

18 Item 8 passes unanimously. We will turn now to Item 9,
19 realizing accelerated manufacturing and production for
20 Clean Energy Technologies.

21 MR. FERREIRA: Morning, Chair and
22 Commissioners. My name is Michael Ferreira from the
23 Energy Research and Development Division. Today I'm
24 requesting approval for two grant agreements from the--
25 selected from the Realizing Accelerated Manufacturing

1 and Production for Clean Energy Technologies
2 Solicitation, also known as RAMP. This funding will
3 help clean energy entrepreneurs advance their technology
4 to the pilot production stage at California
5 Manufacturing facilities.

6 Next slide, please.

7 Benefits of the agreements being discussed
8 today include support for clean energy entrepreneurs,
9 increased electricity service reliability, lower-cost
10 electric vehicles, and the creation of an estimated 34
11 new jobs.

12 Slide please.

13 The RAMP program is the last step in the
14 entrepreneurial ecosystem developed by the Market
15 Facilitation Branch to propel clean energy entrepreneurs
16 to the initial production phase for their technology.
17 The RAMP program provides the means to guide
18 entrepreneurs from the end of the prototype phase to
19 navigating through the world of initial production scale
20 up in manufacturing.

21 Next slide, please.

22 Startups usually find it hard to scale up
23 production because of a series of design or economic
24 issues that can impact an emerging technology's progress
25 towards commercialization. Some of the challenges

1 startups face during this transition includes securing
2 the necessary funds for activities like buying
3 equipment, product testing and certification, adapting
4 their emerging technology to fit the scope of
5 established manufacturing processes. And finally,
6 companies may lack the required knowledge and expertise
7 in the manufacturing field.

8 The purpose list-- the purpose of this
9 solicitation is to help clean energy companies advance
10 their technologies to the low-rate initial production
11 stage known as LRIP. LRIP is the first step in making
12 the transition from highly customized and hand-built
13 prototypes, which are used for performance testing and
14 vetting the production process, to the mass-produced end
15 product in the full rate production phase.

16 Next slide, please.

17 The first agreement proposed for approval
18 today is with American Lithium Energy Corporation or
19 ALE, to build a pilot manufacturing line for high
20 capacity and high-performance silicon anode batteries.
21 ALE's technology eliminates the need for trade-offs
22 between energy density, lifecycle, and safety by
23 delivering all three. The substitution of a silicon
24 based alloy for the typical pure graphite anode provides
25 30 percent higher energy density and potential for lower

1 cost as compared to conventional graphite based lithium
2 ion batteries.

3 Silicon anode batteries developed in this
4 project also have improved safety and a wider operating
5 temperature than current lithium ion technology. Over
6 the course of this project ALE will increase production
7 from 40 to 500 cells per day, and will validate proof of
8 manufacturing quality at their facility in Carlsbad,
9 California.

10 Next slide, please.

11 Second agreement is with ElectricFish Energy
12 to build a new assembly facility for their plug and play
13 EV infrastructure. Their containerized unit integrates
14 EV chargers with batteries to support ultra-fast EV
15 charging without being a liability for the grid. This
16 technology accelerates interconnection of high-powered
17 EV charging in grid constrained locations without
18 trenching or grid transformer upgrades. It also
19 supports local grid resiliency with bidirectional energy
20 capabilities. This funding will help ElectricFish
21 reduce assembly time for their units from three months
22 to around 40 hours.

23 Next slide, please.

24 Staff recommends approval of these two grant
25 agreements and staff's findings that these projects are

1 exempt from CEQA. This concludes my presentation, and
2 thank you for your consideration. Staff is available
3 for questions.

4 CHAIR HOCHSCHILD: Well terrific technology.
5 Thank you for that. We'll go to public comment.

6 MS. BADIE: Hello, this is Mona Badie, the
7 Public Advisor. We will now take public comment on Item
8 9. If you are in the room please use the QR code, or
9 raise your hand. And if you are on Zoom, please use the
10 raised hand feature. If you are on phone, please press
11 star-nine to notify us you'd like to make a comment.

12 We have Vince Wong from ElectricFish in the
13 room who would like to make a comment. Vince, if you
14 can approach the podium, make sure your-- the mic is on
15 and please spell your name before starting your comment.
16 Thank you.

17 CHAIR HOCHSCHILD: Vince, you got to touch the
18 button there. Yep.

19 MR. WONG: First time. Vince Wong, V as in
20 Victor, I as in ice cream, N as in Nancy, C as in
21 Charlie, E as in Edward; Wong W as in-- oh that's part
22 of my time -- W-O-N-G.

23 Good Commissioners. I'm Vince Wong, co-
24 founder and COO of ElectricFish, a climate tech company
25 based in Fremont. We build resilient and flexible EV

1 charging infrastructure to accelerate decarbonization
2 and support community adaptation to climate risks.
3 Today, ElectricFish is excited to be present for the
4 Energy Commission's review of our CEC RAMP grant
5 approval to ramp a production of the 350 Squared, our
6 containerized battery storage integrated DC fast
7 charging infrastructure, which also doubles as a
8 resilient resource for the grid.

9 Just like how EVs should be good citizens for
10 the grid, so should our EV chargers. Seamless
11 deployment of DC fast charging infrastructure is
12 critical to helping California achieve its roadmap of
13 phasing out sales of new gasoline vehicles by 2035.
14 However, grid infrastructure challenges continue to
15 bottleneck installation.

16 According to a report from UC Davis ITS
17 earlier this year, deployment of DC fast charging can
18 cost well into the six-figure range due to transformer
19 upgrades required, and can easily take 14 to 24 months
20 for permitting. At the same time, grid resiliency due
21 to threatens to impact economic viability for
22 Californians, especially for small businesses and
23 disadvantaged communities dealing with aging grid
24 distribution, distribution grid infrastructure.

25 We believe that our project will unlock mass

1 EV adoption while supporting ubiquitous, resilient and
2 equitable electrification for the next chapter of our
3 state's energy transition. Our project will also
4 advance inclusive economic opportunities through
5 workforce development and on-the-job training, expecting
6 to create 15 high paying jobs by the end of 2024.
7 Commissioners, we're very grateful for your leadership
8 in developing the important funding programs and
9 innovation ecosystem which have helped clean energy
10 entrepreneurs like us launch the technologies needed to
11 tackle climate change. Thank you.

12 CHAIR HOCHSCHILD: Thank you. Yeah, Vince
13 don't--

14 COMMISSIONER MONAHAN: Oh Vince, before you
15 go--

16 CHAIR HOCHSCHILD: --don't go anywhere. We
17 have a few questions for you. Yeah.

18 COMMISSIONER MONAHAN: Oh, is it not just me?
19 You too?

20 CHAIR HOCHSCHILD: Yeah, go ahead.

21 COMMISSIONER MONHAN: Okay. First, I have to
22 know why -- where'd you get the name?

23 MR. WONG: The name? Yeah. So, we were
24 inspired by nature and thought of which sorts of animals
25 can discharge power really quickly. And naturally we

1 thought of the eel, but my co-founder, Anurag, was
2 working on this idea as Eel Motors a few years back and
3 we decided to basically start fresh with a new brand.
4 And I was for the record, very, very much opposed to the
5 name early on, but we realized that it's quite catchy
6 and if nothing else it starts a conversation. So, I'm a
7 big fan of it now.

8 COMMISSIONER MONAHAN: Thank you for that. I
9 was really curious when I got the briefing on this one.
10 So, what's the permitting time that you estimate with
11 your 350 Square storage plus charging?

12 MR. WONG: Yeah, so we have yet to actually do
13 this in Californian sort of IOUs, but with Con Edison
14 for instance in New York City, they have an
15 interconnection threshold where if you're above 50
16 kilowatts it's around nine months. If you're below that
17 it's 10 business days for the electrical connection.
18 So, we are estimating similar efficiencies for utilities
19 such as PG&E.

20 VICE CHAIR GUNDA: Vince, thank you. That
21 says-- seems like a super cool technology. Just we just
22 are coming off of these workshops that Commissioner
23 Monahan is leading on the distribution side, and just
24 one of the things that we heard is supply chain issues.
25 So, could you frame the conversation on how this could

1 mitigate some of the supply chain issues like
2 transformer substation upgrades? But also how you are
3 planning for your value chain, how you're integrating
4 your process?

5 MR. WONG: Yeah so across the board in
6 California, but even across the country, we're hearing
7 that basically lead times for transformers to make it to
8 sites is around 12 months, optimistically in many cases.
9 And so, our ability to tap into low-voltage existing
10 grid infrastructure, typically single phase 2A 240 volt,
11 allows us to basically largely bypass those grid upgrade
12 that are needed.

13 And from our own supply chain standpoint, we
14 have secured a supply chain that-- with some
15 redundancies to the next hundred units. Beyond there we
16 are continuing to evaluate strategic partners that can
17 help us scale. We recognize that there are some of
18 these constraints even from the sort of vendor
19 standpoint, which we are actively looking to mitigate.

20 But with the RAMP program, we're really
21 excited to basically get us out of this small-scale
22 manufacturing capacity of around one to two systems per
23 month to, you know, 15 to 20 per month when this
24 facility is at full maturation. And we're really
25 excited to work with our partners like Apri and Manix to

1 help build out the facility, and also to understand sort
2 of these blind spots around the supply chain for us.

3 VICE CHAIR GUNDA: Yeah, I think one piece, I
4 think it would be really good to think about regulatory
5 evolution, right? Whether it's tariff structures,
6 interconnection, energization, and how to safeguard the
7 product in terms of being flexible with different modes
8 of regulatory structures I think would be a helpful
9 thing to think about. Thanks.

10 MR. WONG: Thank you.

11 CHAIR HOCHSCHILD: Yeah, so first of all,
12 fantastic technology. Really, really, I think it fills
13 a sort of missing piece of the puzzle. We had an event
14 here about three weeks ago with the governor just a
15 block away where we commemorated reaching California's
16 one and a half million zero emission vehicle goal, which
17 has been a goal for over a decade. And we had BEAM
18 showed up, which was a-- you're familiar with those guys
19 down in San Diego. They have a tracking solar PV system
20 connected to a 40-kilowatt hour battery, which provides
21 two level two chargers, and is not connected to the grid
22 at all. This is kind of the next step up from that. It
23 looked like just from the image that you showed there
24 and the slide deck, that this can fit inside a single
25 parking space more or less if you were going to deploy

1 it that way?

2 MR. WONG: Yeah, we're designing and such that
3 you can fit two within one parking spot.

4 CHAIR HOCHSCHILD: Two. And then how many
5 vehicles could that charge? Is that designed to charge
6 vehicles on either side?

7 MR. WONG: Yeah, exactly. So, each system has
8 350 kilowatt hours of storage capacity, and we've
9 designed it such that we can do around 25 to 30 rapid
10 top-off sessions. So as OEM technology is continuing to
11 improve very rapidly, we're seeing more demand for 250
12 kilowatt and above. And so, with our system, which can
13 do up to 350 kilowatts, we're looking at around these
14 10-minute sort of top-off sessions where you can get up
15 to 200 miles in that amount of time.

16 CHAIR HOCHSCHILD: Okay. And how big is the
17 battery capacity?

18 MR. WONG: 350 kilowatt hours per system. So,
19 within one parking spot, if you have you had two units
20 deployed side by side, or daisy chained rather, that's
21 700 kilowatt hours of aggregate capacity in one
22 parking spot.

23 CHAIR HOCHSCHILD: Got it. Okay. That's
24 fantastic. So, let's be in touch because there are some
25 other things if you look to manufacture including the

1 CAEATFA tax credits and Cal Competes grants and so on,
2 you know we would love to help support that scaling in
3 California. And I really, again, I feel like if we need
4 fast charging. Now for where we are in the market
5 adoption curve with electric vehicles, still a lot of
6 momentum there obviously, but we're really through
7 completely sort of the sort of early adopter passionate
8 EV advocate type customers and we're really into the
9 mainstream market now, and people need to have
10 confidence that they can charge a vehicle easily and
11 that it's not laborious to get a charge and to get a
12 fast charge. So that is, you know, really paramount.
13 And you know, Commissioner Monahan's working on that
14 every day.

15 So anyway, so congratulations, what an
16 exciting technology. And I don't know if Commissioner
17 McAllister--

18 COMMISSIONER MCALLISTER: Yeah.

19 CHAIR HOCHSCHILD: -- wanted to --

20 COMMISSIONER MCALLISTER: Yeah, very cool.

21 And I think this load flexibility theme is, you know,
22 one that's going to be with us for a while and we need
23 these sort of solutions. And peak smoothing and valley
24 filling kind of, you know, element here is super
25 compelling.

1 I did have a-- I did want to just remind us
2 that energy efficiency still matters. And so, I wanted
3 to just ask, you know, certainly there is a lot of value
4 in the time of use and the charge matching cycles with
5 you know making those more compatible with the grid's
6 needs. But what sort of-- how do you think about
7 roundtrip efficiency and kind of the losses associated
8 with multiple charges, you know, at the site and cycling
9 two sets of batteries instead of just the one in the
10 vehicle? What are the-- what issues are you thinking
11 about, and how are you developing the technology to be
12 as efficient as possible?

13 MR. WONG: Just to clarify round trip
14 efficiency of the charging infrastructure? Or of
15 vehicles who are charging?

16 COMMISSIONER MCALLISTER: Yeah. So, you're
17 taking from the grid, you're charging a battery and
18 you're cycling a battery that's stationary.

19 MR. WONG: Yes.

20 COMMISSIONER MCALLISTER: So how did-- that
21 round trip efficiency I guess I'm mostly talking about

22 MR. WONG: Oh, I see. Yeah, so you know we
23 are, as a baseline, looking to basically mitigate peak
24 demand. And so, from that standpoint we do have the
25 opportunity with our battery storage controls to take

1 power off-peak and then sort of opportunistically
2 trickle charge our systems throughout the day. We
3 demonstrated this through a pilot with LADWP actually
4 about a year ago, where we were tapping into a five-
5 kilowatt connection. And so obviously that takes a lot
6 longer to replenish and wouldn't be very representative
7 of a typical scenario which would be around 40 kilowatts
8 typically.

9 COMMISSIONER MCALLISTER: Mmm hmm.

10 Mr. WONG: But it does show that we are, you
11 know, really designing the system to be plug-and-play
12 for maximal sort of deplorability. From a round trip
13 efficiency standpoint, we have power inverter technology
14 in the system itself. So, we're able to basically step
15 up from low voltage to high voltage without impacting
16 the local grid. But also through the OCPP protocol,
17 communicating with vehicles so that we are matching the
18 appropriate voltage that their systems are requesting.

19 COMMISSIONER MCALLISTER: Mmm hmm.

20 MR. WONG: And so we're, you know, doing our
21 best and that's a big reason why we introduced this sort
22 of time-capped sort of experience where you can get a
23 very maximal amount of power in a very short amount of
24 time. In that sense, we're also able to help stave off
25 some of the typical battery degradation concerns as you

1 get to the higher seats of charge. And so, you know, in
2 10 minutes you can get, depending on the vehicle maybe
3 up to 80 percent your range, but maybe 40 to 60. And
4 you know, at those levels it-- you'll see very much less
5 in terms of battery degradation.

6 COMMISSIONER MCALLISTER: So, all that's
7 great. And yeah, I mean the-- power electronics make a
8 lot of things possible and you're using those, which is
9 awesome. I guess maybe the question is, just to be sort
10 of as specific as possible, like for every kilo hour
11 into your battery--

12 MR. WONG: Yes?

13 COMMISSIONER MCALLISTER: --how many kilowatt
14 hours do you get out?

15 MR. WONG: Oh, I see. Yeah, so our goal is
16 to, you know, I think right now we're benchmarking
17 somewhere around 97 percent is coming up--

18 COMMISSIONER MCALLISTER: Oh.

19 MR. WONG: --but that is something that, you
20 know we're--

21 CHAIR HOCHSCHILD: Wait, what? That's really
22 high.

23 COMMISSIONER MCALLISTER: That's the highest
24 I've ever heard.

25 CHAIR HOCHSCHILD: That's usually like 85

1 percent. The lithium-- you using lithium ion?

2 MR. WONG: Yeah, we're using an NMC chemistry
3 today and--

4 CHAIR HOCHSCHILD: But you're able to
5 discharge 97 percent of what goes in?

6 MR. WONG: You mean back in to the vehicle?

7 CHAIR HOCHSCHILD: Your roundtrip efficiency
8 is 97 percent?

9 COMMISSIONER MCALLISTER: That would be the
10 highest I've ever heard.

11 CHAIR HOCHSCHILD: That's the highest
12 I've ever heard.

13 MR. WONG: Okay, so maybe I'm
14 misunderstanding, but--

15 CHAIR HOCHSCHILD: So typically, you lose--
16 like with lithium ion is about you know 80 to 85-- 80 to
17 85 percent roundtrip efficiency.

18 COMMISSIONER MCALLISTER: Yeah. So, you lose
19 10 to 15 percent of the energy. So, you're charging
20 slowly and you're discharging quickly--

21 MR. WONG: Yeah.

22 COMMISSIONER MCLLISTER: Which is the, you
23 know, that's the load smoothing.

24 MR. WONG: Right.

25 COMMISSIONER MCALLISTER: But you don't get a

1 hundred percent of the energy out that you put in. So,
2 I think that's really the question is sort of where some
3 of that-- what that roundtrip efficiency is. But it--you
4 know, I don't want to belabor the point.

5 MR. WONG: Yeah. And we can certainly follow
6 up. You know, we are using a DC-to-DC power inverter
7 technology--

8 COMMISSIONER MCALLISTER: Uh huh.

9 MR. WONG: --which is able to more efficiently
10 sort of transfer power.

11 COMMISSIONER MCALLISTER: Mmm Hmm.

12 MR. WONG: It is in sort of the 90 percent
13 range.

14 COMMISSIONER MCALLISTER: Okay.

15 MR. WONG: I don't want to misquote the
16 number. But yes, we designed the architecture to be
17 very power efficient in that sense.

18 COMMISSIONER MCALLISTER: Okay, great.

19 MR. WONG: Yeah.

20 COMMISSIONER MCALLISTER: Great. Thanks a
21 lot.

22 CHAIR HOCHSCHILD: Any other?

23 COMMISSIONER MCALLISTER: Yeah, I would
24 like that follow up though.

25 MR. WONG: Yeah.

1 CHAIR HOCHSCHILD: We actually-- would be
2 great to know what the round trip is too.

3 MR. WONG: Yeah.

4 CHAIR HOCHSCHIOD: Yeah. Great.

5 MR. WONG: Absolutely.

6 CHAIR HOCHSCHILD: Any other comments or
7 questions?

8 MS. BADIE: We have another comment on Zoom.

9 CHAIR HOCHSCHILD: Oh, we do? I'm sorry.

10 MS. BADIE: Sorry, Chair.

11 CHAIR HOCHSCHILD: I'm sorry. Go ahead, Mona,
12 sorry.

13 MS. BADIE: Thank you. Gabriela Taxman,
14 American Lithium Energy. I'm going to open your line,
15 and please unmute on your end, spell your name for the
16 record and make your comment. We ask that you limit
17 your comment to two minutes, although we don't have a
18 timer on the screen at this time.

19 MS. TAXMAN: Okay. Can you hear me now?

20 MS. BADIE: Yes.

21 MS. TAXMAN: Okay, thank you. Hi, Gabriela
22 Taxman, the financial controller of American Lithium
23 Energy. And on behalf of our team, I want to say-- you
24 know, take a moment to express how grateful we are for
25 this great opportunity that provide Cali-- that's

1 provided by California Energy Commission.

2 We're going to have a chance to revolutionize
3 the battery industry with our innovative technologies.
4 And the support of this grant will undoubtedly help us
5 achieve significant growth and value creation. We'd
6 like to commend the California Energy Commission for
7 their dedication to fostering innovation and clean
8 energy solutions. The grant will undoubtedly help us to
9 move closer to our mission of driving sustainable energy
10 advancements, and we're very excited to contribute to
11 the state's energy goals and be part of the California's
12 clean energy future.

13 I also have here with me our VP of
14 Manufacturing, Chantal Yu, and if you have-- we're you
15 know, open for any questions that you may have. But
16 again, thank you for this opportunity.

17 MS. BADIE: Thank you. That concludes our
18 public comment. Back to you, Chair.

19 CHAIR HOCHSCHILD: Okay, thank you. Well,
20 congrats to the team for these terrific grants and I
21 welcome a motion. Commissioner Monahan, would you be
22 willing to move Item 9?

23 COMMISSIONER MONAHAN: I move Item 9.

24 CHAIR HOCHSCHILD: Vice Chair?

25 VICE CHAIR GUNDA: Second, Item 9?

1 CHAIR HOCHSCHILD: All in favor say Aye.

2 Commissioner Monahan?

3 COMMISSIONER MONAHAN: Aye.

4 CHAIR HOCHSCHILD: Vice Chair Gunda?

5 VICE CHAIR GUNDA: Aye.

6 CHAIR HOCHSCHILD: Commissioner Gallardo?

7 COMMISSIONER GALLARDO: Aye.

8 CHAIR HOCHSCHILD: Commissioner McAllister?

9 COMMISSIONER MCALLISTER: Aye.

10 CHAIR HOCHSCHILD: And I vote Aye as well.

11 Item 9 passes unanimously. We'll turn now to item 10,

12 minutes. We'll take up these minutes separately in two

13 separate votes cause there's some recusals. We'll begin

14 -- oh, is there any public comments, sorry, on item 10?

15 MS. BADIE: Thank you. This is Mona Badie,

16 the Public Advisor. We'll now take public comment on

17 Item 10, the March 2nd, 2023 minutes and the April 12th,

18 2023 business meeting minutes. And if you're in the

19 room you can raise your hand or use the QR code. If you

20 are on zoom, please use the raise-hand feature by

21 clicking on the open palm, or pressing star-nine if

22 you're joining us by phone. And I don't see anyone that

23 has raised their hand for this item. So back to you,

24 Chair.

25 CHAIR HOCHSCHILD: Thank you. Unless there's

1 Commissioner discussion, I'd entertain a motion from
2 Commissioner Gallardo for the March 2nd business meeting
3 minutes first.

4 COMMISSIONER GALLARDO: This is Commissioner
5 Gallardo. I move to approve the Item 10 minutes from
6 the March 2nd, 2023 business meeting.

7 CHAIR HOCHSCHILD: Is there a second from
8 Commissioner Monahan?

9 COMMISSIONER MONAHAN: I second.

10 CHAIR HOCHSCHILD: All in favor say aye.
11 Commissioner Gallardo?

12 COMMISSIONER GALLARDO: Aye.

13 CHAIR HOCHSCHILD: Commissioner Monahan?

14 COMMISSIONER MONAHAN: Aye.

15 CHAIR HOCHSCHILD: Vice Chair Gunda?

16 VICE CHAIR GUNDA: Aye.

17 CHAIR HOCHSCHILD: And Commissioner

18 McAllister?

19 COMMISSIONER MCALLISTER: Aye.

20 CHAIR HOCHSCHILD: We'll turn now to the April
21 12th business meetings. And I believe we're both --
22 Commissioner McAllister and Vice Chair Gunda will
23 recuse, abstain. And would you make that motion for the
24 April 12th minutes Commissioner Gallardo?

25 COMMISSIONER GALLARDO: This is Commissioner

1 Gallardo, I move to approve Item 10 minutes from the
2 April 12th, 2023, business meeting.

3 CHAIR HOCHSCHILD: Is there a second from
4 Commissioner Monahan?

5 COMMISSIONER MONAHAN: I second.

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

8 COMMISSIONER GALLARDO: Aye.

9 CHAIR HOCHSCHILD: Commissioner Monahan?

10 COMMISSIONER MONAHAN: Aye.

11 CHAIR HOCHSCHILD: And I vote Aye as well,
12 with Vice Chair Gunda and Commissioner McAllister
13 abstaining. We'll turn now to Item 11, Lead
14 Commissioner and Presiding Member Reports starting with
15 Commissioner McAllister.

16 COMMISSIONER MCALLISTER: All right. Briefly,
17 just a couple things to highlight. There is so much
18 going on and it's just impossible to catalog everything,
19 but I did want to highlight a couple of items. Just
20 again, kudos to Commissioner Monahan for the IEPR, a
21 couple of great workshops on interconnection, and that--
22 there a lot of excitement. I think that's really just a
23 timely, kind of very-- just timely set of topics that
24 are really the right themes at the right time as we sort
25 of ramp up into summer, hopefully a more manageable

1 summer than the last few. So, kudos to that, and also
2 to Vice Chair Gunda who's providing a lot of leadership
3 there as well. So, appreciate all that.

4 Wanted to just highlight that the draft
5 guidelines for the Equitable Building Decarbonization
6 Direct Install Program are on the street. Lots of staff
7 effort, lots of discussion, lots of sort of stakeholder
8 engagement in all sorts of different formats. Started
9 with a workshop earlier in the year. And the-- it's a
10 compact document, but I think it's really well done.

11 I want to just call out really Mike Sokol,
12 Deanna Carrillo and the whole team, but in particular
13 Diana Maneta who has spearheaded the development of
14 those. And just really the team has taken a thoughtful
15 approach to how we're going to ensure as much as we
16 possibly can, the success of the programs. Not only the
17 state ones, and that's what we're talking about here is
18 the state funded equitable building decarb program
19 focused on disadvantaged communities. And you know
20 these guidelines are really critical sort of setting the
21 stage for this program. It's-- that I think we have to
22 assume and certainly do everything we can to make them--
23 make these programs here with us for the long haul as
24 just program infrastructure that's really with us for
25 the next 15 to 20 years.

1 And then hopefully if we can get the federal
2 government to sort of be flexible with the states, we
3 can slot the federal IRA funding into building decarb,
4 into these same programs seamlessly. So, a lot of
5 jockeying and trying to anticipate what's going to
6 happen, but really trying to lay a solid foundation for
7 the equitable building decarb.

8 Six-week period to gain feedback. We're going
9 to-- staff is organizing workshops around the state.
10 Certainly would love to just make sure that Commissioner
11 Gallardo, you're tuned in to that. And I think we'll be
12 gathering a lot of input from disadvantaged communities
13 and different stakeholder groups that we want to serve.

14 Also proposing a set aside for tribes. And
15 really, in parallel, having substantive tribal
16 engagement to figure out how best to serve the tribes.
17 That's part of the statute. And it's also I think a
18 focused effort that will have its own kind of cadence,
19 and that's appropriate. And sort of as we move forward
20 to select an implementer for all these pieces,
21 implementers, plural, for all these pieces, we really
22 need to make sure to select implementers that have the
23 right relationships on the ground. So that's a top-
24 level commitment.

25 So anyway, excited to get that train rolling

1 down the tracks and hopefully, you know, expeditiously
2 bring those guidelines to you all at some point in the
3 summer, mid-late summer. And then move on to get some
4 implementers and get those programs rolling.

5 And second, I just wanted to-- don't think
6 we've, well, we missed the last business meeting. So
7 certainly, the Mexico trip has happened in the meantime.
8 And the trip to Mexico down to the Casa de California,
9 big event on clean energy. Generally UC Davis, UC
10 system, Casa de California is a beautiful facility in
11 Mexico City that's owned by the University of
12 California. And just a really great multi-day set of
13 events and just anybody who is anybody in Mexico really
14 was there.

15 And we took advantage to sign a renewed MOU
16 with SEDEMA, which is the environmental agency of Mexico
17 City, together with Secretary Yana Garcia and the
18 Secretary Robles of SEDEMA in a signing ceremony. So,
19 it's great to have that renewed MOU in place. I know
20 our staff, many of you may not know how engaged our
21 staff has been with Mexico. There's been, particularly
22 on buildings and energy efficiency, there's been a lot
23 of interchange. And I would just bring back that the
24 staff in the Mexico City government is so grateful to
25 our staff for helping orient them and help open their

1 eyes to some possibilities of how they might really go
2 put in place policies for you know what's one of the
3 largest urban areas in the hemisphere. Huge
4 jurisdiction, extensive land area, and a very small
5 staff in their city government dealing with energy and
6 environmental issues.

7 And so they've done amazing things in terms of
8 biodiversity and really improving air quality. The
9 track record in Mexico City is just tremendous, and
10 we're contributing substantively to their policy
11 development. So really, really proud of staff for that.

12 Lots more to talk about on what we're doing in
13 Mexico, but just a lot of positive momentum there,
14 particularly at the state level with Mexico City,
15 Jalisco, and Baja California. Want to thank Brian
16 Early, my Chief of Staff who is the Chair's lead also on
17 Mexico issues. And he's just been the glue that's
18 holding a lot of these efforts together, and just really
19 tremendous effort on his part in just building
20 relationships that helps sustain our joint work and
21 collaboration with Mexico. So, thanks to Brian.

22 And then finally, just this morning, just
23 wanted to note for people that the Air Resources Board
24 just opened up, just kicked off their rulemaking on zero
25 emissions space and water heating. So, the scoping

1 plan, well the state implementation plan and the scoping
2 plan have set out goals to get to zero emission
3 appliances and they're starting with space and water
4 heating. So that's water heaters and HVAC systems. And
5 essentially zero emission means heat pumps.

6 And so, they're kicking off a rule making
7 process in a very inclusive way, trying to get to all
8 the stakeholders across the state over time and really
9 trying to build on the leadership of the Air Quality
10 Management Districts, particularly Bay Area, that has
11 already moved forward with a regulation on decarbonizing
12 space and water-- or water heating first. So that's a
13 big lift to essentially-- with the goal of essentially
14 by 2030, having only zero-emission space and water
15 heaters sold in the state. So that basically means heat
16 pumps.

17 And so, our programs are going to provide a
18 really important market development push to try to get,
19 kind of really get that set of technology is fully
20 centralized in the marketplace for space and water
21 heating, really to give a platform that allows a minimum
22 regulation that ARB will be developing the legs to stand
23 on.

24 So really, really excited about that. And
25 Steve Cliff setting a good sort of example at the

1 executive level. And of course, Chair Randolph as well.
2 And but just the staff over at the ARB is very
3 collaborative and involving us, the PUC, and HCD, and a
4 bunch of other agencies in making sure that they're
5 covering all the bases in the process side of things.
6 So, I'm excited to see that kicked off and we'll be
7 collaborating over time. So that's-- those are the
8 things I wanted to--

9 CHAIR HOCHSCHILD: Commissioner, did you want
10 to share anything about the October building decarb--

11 COMMISSIONER MCALLISTER: Oh sure.

12 CHAIR HOCHSCHILD: --symposium?

13 COMMISSIONER MCALLISTER: Yeah. So, looking
14 forward to October, we are developing a building
15 electrification symposium in collaboration with EPRI.
16 And the idea is really to elevate building
17 decarbonization. And in California that really does
18 mean electrification to-- as a top-level policy
19 priority. And just send the message, develop the vision
20 and send the message to across the land to, you know I
21 use the word marketplace, but really it's broader than
22 that. It's really putting a stake in the ground to say
23 we are doing this, and that we're going to invest what
24 it takes and we're going to work with all the
25 stakeholders that have to be involved over the coming

1 decade-plus to get to zero emission buildings because
2 our success depends on it.

3 And so, this is a big lift. You know, I think
4 I really appreciate the Chair's support on this. And in
5 particular the metaphors, the sort of analogs that we
6 have already in the state from early days from solar in
7 the early two thousands where solar was a nascent
8 technology and still very expensive. What has happened
9 in the EV space and is now we're seeing the benefits of
10 that, the hockey stick is really ramping up. And now we
11 have these good problems that we kind of wished on
12 ourselves of having the charging infrastructure have to
13 come up to speed and the grid to be able to support it.

14 And now you know, now in real time, sort of
15 the offshore wind push that's catching, I guess catching
16 fire is the wrong metaphor, but we got to update our
17 metaphors here. But combustion, we-- combustion really
18 has permeated our culture, and we really have to give
19 beyond that.

20 So -- and we really need to do the same with
21 buildings. We have the technologies, it's really a
22 policy and sort of economic and cultural. Those
23 elements need to come along with the technologies.

24 So, California is in a perfect position to
25 lead. We have the will, we have a large economy, we can

1 move markets, and the idea is to get the thought leaders
2 from the highest levels across the country in the state
3 into the room to develop next level policies that can
4 really-- and commit to those policies-- that can really
5 move the building's conversation.

6 And of course, this will be infused with load
7 flexibility and just all the other elements of this that
8 today and today's day and age and going forward, we have
9 to bring along. You know, and with a strong, strong
10 equity focus as with all of our programs. So really
11 excited about that, and it'll-- more to come and as we
12 build out the agenda and collaborate with EPRI and
13 really figure out how to have the biggest impact. But
14 it'll be a two-day event on October the 10th and 11th.
15 And at the new--

16 CHAIR HOCHSCHILD: In the new--

17 COMMISSIONER MCALLISTER: -- in the new
18 resource building.

19 CHAIR HOCHSCHILD: --resource building.

20 COMMISSIONER MCALLISTER: So really looking
21 forward to that.

22 CHAIR HOCHSCHILD: Great. Terrific. Thank
23 you so much. Commissioner Gallardo?

24 COMMISSIONER GALLARDO: I do have a report,
25 but I have some images to go with my report. I'll be

1 quick though. All right. So, I feel like I was on a
2 whirlwind touring California, mostly the southern part.
3 But I'll start with a visit that we did, Commissioner
4 Monahan and I, with the Disadvantaged Communities
5 Advisory Group, DACAG.

6 So, we're trying-- we've been wanting for a
7 while to visit the locations of, you know, where our
8 DACAG members live and work and you know, just get a
9 better sense of the communities that they're engaging
10 with so that our work at the Energy Commission is better
11 informed because we're meeting with those communities
12 directly.

13 So, we had our first engagement of that sort
14 this year in the San Diego border region. That's where
15 the DACAG chair Roman Partida-Lopez lives. So, he
16 hosted us there. It was a wonderful visit. We had a, I
17 guess it was a walking tour of a little town called San
18 Ysidro. Georgette Gomez from Casa Familiar, which is a
19 community-based organization out there, led us. And
20 it's just incredible what this community-based
21 organization does. They're small but mighty. They do
22 advocacy, community development, affordable housing,
23 cultural cultivation. So, it was really nice to get
24 that full view there.

25 And then we'll go to the next slide.

1 We also were able to do a meeting with
2 Caltrans. And they showed us a lot of the areas that
3 they're working to decongest traffic that's happening
4 between California and Mexico.

5 CHAIR HOCHSCHILD: You look like you're--

6 COMMISSIONER GALLARDO: So here is
7 Commissioner Monahan--

8 CHAIR HOCHSCHILD: --the meaning of traffic
9 here.

10 COMMISSIONER GALLARDO: There we go. That was
11 the-- that's what was happening here. So, you know,
12 just looking at all that traffic that happens, how much
13 pollution there is, and how this pollution isn't
14 contained and we need to do something about it and be
15 collaborative. So, and the other thing here was that
16 struck me is how much that porous activity between our
17 countries happens. And Patty, that's the word you used,
18 and it really captured what's going on there and the
19 needs of our countries to depend on each other.

20 And I'll let you, if you wanted to make any
21 comment, feel free. But that just also, it meant a lot
22 to me that you noticed that and how families need to--
23 families in Mexico a lot of times feel like they have to
24 get, come over to the United States and are willing to
25 make these treks in order to get those opportunities to

1 not just thrive, but just survive.

2 All right. And then we also were able to
3 visit, in the next slide you'll see, the Port of San
4 Diego. This was a really exciting visit. One of the
5 Commissioners, Danielle Moore, who's standing between
6 Mona and me there, she joined us. We had a fantastic
7 conversation with them. They consider themselves the
8 "port of firsts." So, they've done first electric
9 crane, first electric tugboat, they have an electric
10 fleet of trucks, they have microgrids. Just really
11 exciting what they're doing there.

12 And this photo here is our energy Commission
13 staff. And Roman is there, Elena Krieger, who also is
14 part of the DACAG, joined us. Staff that's located in
15 San Diego also joined us. So, it's really fun. And
16 this trek was supported by a CEC grant. So, it was just
17 helpful to see those investments in person.

18 And then we'll go to the next slide.

19 This is just showing quickly, you know, we had
20 a DACAG meeting in San Diego there. Andres Ramirez, who
21 also is a DACAG member, joined us there at that meeting.
22 And you'll also see Eddie Price there who is with Grid
23 Alternatives, was on a panel, and was one of our 2020
24 Hall of Fame winners. So, it was just nice to be able
25 to have that reunion there with those folks.

1 And we're hoping to do more of those away
2 meetings with DACAG. It's a big lift. So, I wanted to
3 thank our Public Advisor team for helping ensure that it
4 was a really good trip. And I know it was hard, so
5 thank you for all you put into it. Mona, Dorothy,
6 Sierra(PHONETIC) and others, public Utilities Commission
7 was able to join us there as well. So, we got to see
8 Commissioner Douglas, Commissioner Houk, and staff.

9 All right. We'll go to the next slide.

10 So, you'll hear-- I went off a little bit
11 further east now to the town of Needles in the Lake
12 Havasu area. We received an invitation from Brian
13 McDonald who, Commissioners, you'll see as a familiar
14 face from our tribal en banc. He is the Vice Chair of
15 the Chemehuevi tribe. He invited us to visit them. And
16 so, we took him up on that offer. And here are Katrina
17 and I, along with the governor's tribal advisor,
18 Christina Snyder, and the Public Utility Commission's
19 tribal advisor, Kenneth Holbrook.

20 And then on the next slide, just see a couple
21 of quick pics. One of them is Lake Havasu. It was just
22 gorgeous. They took us on a ferry boat to go see the
23 area. And the tribe runs this ferry boat that is used
24 by everyone there in the community. It runs almost 24
25 hours and is really important. It runs on diesel so I

1 didn't want to show it, but they are seeking to make it
2 cleaner given how much they're traveling there.

3 And then also here is the group of us showing
4 that agency workers can have fun. And that's the site
5 of the, or I guess the site that's selected for the
6 microgrid that we are applying for through the
7 Department of Energy for funding. So, they wanted to
8 give us a firsthand look at where it could be.

9 And let's see. Let's go to the next slide.

10 So, this is a photo of the members of the
11 Tribal Alliance of Sovereign Indian Nations. So, Vice
12 Chair McDonald invited us to attend the meeting there as
13 well and be able to talk about what Energy Commission's
14 doing, what Public Utility Commission is doing. And
15 were able to meet the chairs of the Chemehuevi tribe,
16 Pechanga, San Manuel, Torres Martinez, Soboba. So, it's
17 a big group of them that form the Tribal Alliance of
18 Sovereign Indian Nations. Great learning opportunity,
19 you know, to develop relationships as well.

20 All right, so now we'll go to the next one.

21 All right, so the Chair and I also were able
22 to travel to Imperial again. We coordinated a visit for
23 the Department of Energy and the Department of Defense
24 to go see the lithium development happening there.

25 There was a group of us, a big group of us, 23 total; 13

1 from Department of Energy, three from Department of
2 Defense, and Patterson from the governor's office, Dee
3 Dee Myers from GO-Biz and some other staff joined us
4 there. And so, it was wonderful to be able to show 'em
5 what the three develop-- lithium developers are doing
6 out there.

7 And then also if we go to the next slide.

8 We took them also to see the community and to
9 show the Lithium Valley vision includes addressing the
10 needs of the community there, which the needs are very
11 deep. And so, this is an example, this is a community
12 of Niland. Their post office burned down and it hasn't
13 been, you know, fixed, cleaned up anything, and won't be
14 for about a year and a half.

15 So just imagine if your local post office
16 burned down, you know, what-- how fast that would get
17 fixed. But in these towns, they're so depressed,
18 they're hardly anything happens. So just an example of
19 that. They're really excited for the potential of the
20 Lithium Valley.

21 All right, and then we'll go to the next
22 slide.

23 We also visited with the Torres Martinez
24 tribe, and they're also excited about the potential for
25 the Lithium valley because of the business enterprises

1 that they could create. And so, they talked to us about
2 those opportunities and how enthusiastic they are, and
3 here's a picture of us in their gym with this, you know,
4 beautiful crest showing there. So that was the big
5 group of us. All right.

6 And then from there we went to visit some
7 critical minerals processing facilities. So, we started
8 out at a place called-- we'll go to the next slide,
9 sorry-- 5E advanced materials. They produce or want,
10 need-- want to produce boric acid and lithium carbonate,
11 and they have the largest boron deposit in the US they
12 said, and possibly the world.

13 So, boron is an ingredient used for magnets
14 that is necessary for batteries in electric vehicles.
15 So, I'm learning all this, so feel free to correct me if
16 I'm wrong, but that was their big focus was the boron
17 for the magnets. They were also very enthusiastic about
18 their safety. They were celebrating that they hadn't
19 had an injury there like last two years. And then also
20 jobs. These critical mineral facilities have potential
21 to create a lot of jobs, and they're located in really
22 underserved areas. And so, the local communities are
23 excited about what's going on here too.

24 And then the second visit was to Mountain Pass
25 Materials and their facility there. They're the only

1 integrated rare earth mining and processing site in
2 North America. It was really exciting to see they have
3 2,200 acres, and so we had to go on a shuttle to be able
4 see even most of it. It took us three hours and that's
5 a short trip for them for site visits, and it was really
6 exciting. They mentioned that after a multi-year
7 construction effort, they're now commissioning a rare
8 earth-- their rare earth refinery. That would be the
9 only production facility of that type in the US, and it
10 would be able to produce material sufficient to power
11 six to 10 million electric vehicles they said.

12 So again, very exciting. It's, you know, hard
13 to even wrap my head around what the-- what's possible
14 here. So that's the end of my journey here.

15 CHAIR HOCHSCHILD: Wow, what an Energy
16 Commission road warrior.

17 COMMISSIONER GALLARDO: Oh, totally.

18 CHAIR HOCHSCHILD: Incredible.

19 COMMISSIONER GALLARDO: Thank you.

20 COMMISSIONER GALLARDO: But well worth it.

21 CHAIR HOCHSCHILD: Wonderful pictures. Vice
22 Chair?

23 VICE CHAIR GUNDA: Thank you Chair,
24 Commissioner Gallardo. That is an impressive tour. And
25 I'm-- was just thinking we have the dashboard with all

1 the investments and all. It'd be really wonderful if we
2 could link the photo library to some of the visits so
3 there's a story behind it, you know just to think about.
4 But thank you for sharing that, that's amazing. And
5 really enjoyed meeting the traffic, Commissioner
6 Monahan.

7 So, I have, I'll keep it quick here. Just,
8 you know, I think we already touched on a lot of these
9 things, big elements from the topics we are working on.
10 Load shift goal, we finished the workshop. There is
11 gently an agreement to at least double the load kind of
12 flexibility that we have today in the state by 2030; 7
13 years, roughly double. So, from 3,000 to at least 7,000
14 space. So that's something that the staff are working.

15 The draft revised DSGS guidelines workshop
16 occurred. I think, you know, there's support generally
17 for the idea of a challenge grant. Again, kudos to
18 Deanna and all to really thinking through how to move
19 the needle forward, especially integrating some of those
20 demand flexibility ideas into the DSGS program.

21 The Chair, myself, Commissioner McAllister, we
22 all were at the Verde Exchange. A lot of discussion on
23 hydrogen and partnerships with Japan, but also India
24 specifically for me, and thank you chair for supporting.
25 So, we are going to continue to work-- our office is

1 going to continue to work on developing potentially an
2 MOU with India.

3 So, there is a conference coming up in July,
4 the Energy Minister's Conference, Conference of Energy
5 Ministers. That's potentially going to happen this
6 July, so we're thinking about at least having a state
7 representation there if possible. I'll already be on
8 vacation, so hoping to at least attend in person and
9 we'll continue that work.

10 I think offshore wind, the Chair already
11 discussed the IEPR workshops. Thank you, Commissioner
12 Monahan. We are beginning to go into the summer here,
13 so we are beginning our legislative hearings on
14 reliability and the budget. So that's where we are.
15 We're happy to brief you all separately. Thanks.

16 CHAIR HOCHSCHILD: Great. Commissioner
17 Monahan.

18 COMMISSIONER MONAHAN: Well first, I want to
19 say it was a pleasure attending the DACAG in-person
20 meeting with our newest Commissioner. And I just want
21 to thank our fabulous Public Advisor team, including our
22 fabulous Public Advisor, Mona Badie. And just, it was a
23 great visit.

24 And I want to just lift up something that you
25 said about Roman Partida-Lopez and his personal story.

1 I mean he shared his personal story around being born in
2 Mexico, his parents really wanting him to get a good
3 education, the trip across the border that many children
4 make on a daily basis, hours to cross the border. And
5 their parents do this because they want a better
6 education. Roman's family ended up moving to Mexico. I
7 think it was a hard, you know, hard to do. And just, he
8 was so gracious to share his story, and to be there, and
9 to see what it's like to be at a crossing, how many
10 hours it takes.

11 We actually got to meet with Caltrans, who's
12 trying to build a new border crossing that would make it
13 easier for families to go across. I mean, a lot of
14 people actually live in the United States and work in
15 Mexico, so it doesn't just flow one way. Well, it's
16 always two way, but. And they're trying to build out
17 zero-emission vehicle refueling technology as they do
18 it. It's a challenge and they're embracing it. So, it
19 was just great to see Caltrans, and the port, and just
20 to walk the streets and see how people's lives are
21 impacted by energy availability and energy choices. So,
22 it was a really impactful trip.

23 We had just a few things-- and we're going to
24 have a retreat tomorrow, so I don't actually want to go
25 too much into things that we're going to talk about

1 tomorrow anyway. But we did have our first advisory
2 committee meeting for the Clean Transportation Program
3 advisory, I mean for the investment plan. We've had
4 these two workshops and I just want to say it's been
5 great to have this cross-agency participation. We had
6 President Reynolds for both the whole time, pretty much.
7 All the CEC Commissioners have made appearances, some
8 for all day long. So just I'm grateful for them.
9 Elliot Mainzer, the president of CAISO, also came to
10 the-- on the bulk grid side. So, we've just had really
11 great cross agency participation, emphasized a lot of
12 initiatives that are ongoing that we want to lift up
13 through this process, and some ideas for how do we move
14 more swiftly.

15 So, I thank-- I want to thank my advisor, Ben
16 Wender, who has really worked so hard, and Heather and
17 the IEPR team and Vice Chair Gunda's team. I mean
18 really, it's been all hands on deck and just a lot of
19 work, and Ben's head is exploding learning a lot of new
20 things. Yeah, and me too, my head is also exploding.

21 One quick thing, I visited Chevron in the
22 heels of Vice Chair Gunda and the Chair's visit and to
23 talk about hydrogen. Sarah Lim came with me, Brian
24 Early actually from Commissioner McAllister's office,
25 and we got to tour the facility. It was quite

1 fascinating and really got lots of food for thought from
2 that visit.

3 CHAIR HOCHSCHILD: Great, thank you. Well--

4 COMMISSIONER MONAHAN: Oh, can I say one last
5 thing

6 CHAIR HOCHSCHILD: Yes, please, please.

7 COMMISSIONER MONAHAN: There's a lot of bills
8 happening, and I just want to thank our executive
9 director for stepping up and handling--

10 CHAIR HOCHSCHILD: Yes.

11 COMMISSIONER MONAHAN: -- OGA --

12 CHAIR HOCHSCHILD: Thank you.

13 COMMISSIONER MONAHAN: --in addition to his
14 otherwise quite easy job, but he's been amazing. The
15 team's been amazing, lots of bills and lots of time
16 spent evaluating bills.

17 CHAIR HOCHSCHILD: Yes, I'm really glad you
18 said that. Thank you, Drew, for stepping up. I will
19 save most of the content on issues for tomorrow's
20 retreat. I did want to just highlight one thing, which
21 was had a 60 Minutes story on Lithium Valley, which came
22 out on Sunday. And you know, we've been working on that
23 for a long time. And it's now at a point where it's
24 really ripe, it's getting national attention.

25 The piece I think captured perfectly how big

1 the opportunity is, and how big the need is in that
2 community, and the need to do this development the right
3 way. And I thought it was-- it did feature one of the
4 members of the Lithium Valley Commission, Frank Ruiz,
5 from Audobon Society, and it mentioned the Lithium
6 Valley Commission process, and I was just really happy
7 to see this getting national attention. I think it
8 reiterates, you know, just how ripe it is for federal
9 investments, and how important Commissioner Gallardo's
10 work has been on that.

11 I just wanted to share a few things on a more
12 personal level. I wanted to first welcome Sandy Louey
13 back to the Energy Commission. It's just great to see
14 you. And, you know, just please know as you continue to
15 recover from your accident, we're all pulling for you
16 and rooting for you and it's just wonderful to see you
17 in person. So, so glad you're back and in the building.

18 And then I just wanted to share one
19 reflection. I really got started in energy in 2001. I
20 was working for Willie Brown, who was mayor of San
21 Francisco, and we went to-- I had a reunion with him
22 this last week, a number of staff who worked for him.
23 And he's 89 now, he's an absolutely sharp as a tack
24 still, has incredible charisma.

25 And just reflecting a bit on his life, he was

1 the first African-American to represent San Francisco.
2 He was in the state assembly and was speaker for 15
3 years, which to this day is the longest that's ever
4 happened. In fact, term limits were really introduced
5 because of him, so. Then he went on to serve two terms
6 as mayor of San Francisco.

7 And that experience for me was really a
8 university of politics. I learned how to get things
9 done from him, how to build coalitions, how to
10 communicate, how to organize, how to strategize. He was
11 brilliant. And I have been feeling actually just a lot
12 of emotion since I saw him the other night, just really
13 how grateful I was for that experience.

14 It was not an easy thing working for him. I
15 got yelled at a lot. And when you've been yelled at
16 Willie Brown, you really-- he can really tear into you.
17 But I got-- it was something of a forge. And it is
18 interesting just to note, I mean Francisco's a small
19 city, it's 800,000 people, but it's had this huge
20 footprint. Jerry Brown's come out of there, Gavin
21 Newsom, Kamala Harris, Diane Feinstein and Nancy Pelosi,
22 Willie Brown and so many others.

23 And I think part of it's that the politics are
24 very intense there, and you do grow a lot. So, I think
25 of it like a forge, you know, making iron. It's like

1 you can make it there, you can do some big things. And
2 so, I just have been feeling very kind of wistful about
3 that time and appreciative, and just very grateful to
4 him. And so, I'm taking him out for lunch next month.

5 But I just-- I wanted to share that because it
6 was during that time, the summer 2001, we had blackouts
7 for the first time ever. And the lights were going out
8 in schools and banks and grocery stores, you know. And
9 at that time we didn't know what was going on. We
10 thought there was a real short-- it was, ended up being
11 market manipulation from Enron.

12 But that's what got me started in energy. We
13 did a bond initiative to put solar panels on public
14 buildings and do energy efficiency. That \$100 million
15 bond in November, 2001. And that's what kind of got me
16 launched in the energy field. So anyways, it just has
17 been on my mind to share that.

18 So alright, with that, let's turn to executive
19 director's report, Item 12.

20 MR. BOHAN: Thank you, Chair, members. I will
21 be seeing you in the next couple days, so I'll reserve
22 my comments until then. Thank you.

23 CHAIR HOCHSCHILD: Okay. Public Advisor's
24 report, Item 13?

25 MS. BADIE: No report.

1 CHAIR HOCHSCHILD: Okay. Chief Counsel's
2 report, Item 14.

3 MS. BARRERA: Buenas tardes. Good afternoon,
4 this is Linda Barrera, Chief Counsel of the Energy
5 Commission. I know I stand in the way of lunch so I
6 will be brief, but I have two things to report out.

7 The first is that, as you know, the Energy
8 Commission is growing. The Chief Counsel's office is
9 growing, like all of our divisions, and we are known to
10 be a small office. When I started with the Commission,
11 we were about 30-something people, and now we have about
12 50 positions. We have about 25 attorneys and about 14
13 vacancies.

14 So, myself and my team are working really hard
15 to recruit, and I wanted to take this opportunity to
16 introduce you to four members of our team because since
17 we're mostly remotely, it's just different to meet you
18 in person and just kind of have a better like closer
19 view of you who are leading us through all these very,
20 very ambitious policy goals.

21 So first I want to, I think a number of you
22 have already met her, See-o-ar Gasale (PHONETIC), if she
23 can just stand up really quickly. She hails all the way
24 from the country of Jordan. Second, I want to introduce
25 you to Chad Oliver, who is a new attorney and he comes

1 from Siskiyou County. So, we are actually going really
2 up north of California. Third, I want to introduce you
3 to Sonya Racer (PHONETIC), and she actually comes all
4 the way from Paris, France. And last I want to
5 introduce you, if you can please stand up, to Blanca
6 Camberos, who is our new office manager who will support
7 our wonderful secretariat, Liza Lopez, and our docket
8 and all these things that help the Commission run.

9 So just thank you for being with us. This is
10 an exciting time to add more and additional members to
11 our team.

12 CHAIR HOCHSCHILD: Let's give 'em a round
13 applause here. Thank you guys.

14 MS. BARRERA: Next, I want to take also the
15 opportunity, if you can show the slide please, to
16 recognize Alan Ward, whose last day with the Energy
17 Commission is May 19. Alan worked with the Commission
18 for 22 years and served as the Assistant Chief Counsel
19 of the Transactions Unit for the last decade.

20 During his time at the Commission, he advised
21 Energy Commission staff on all things related to
22 contracts, grants, and loans. His immense knowledge and
23 his enviable command of the State Contracting Manual and
24 the Public Contract Code, coupled with his expertise
25 navigating through Department of General Services

1 requirements, and developing terms and conditions for
2 CEC agreements have been instrumental, critical in
3 developing and funding these projects across the state,
4 which are worth billions of dollars. These projects
5 have been, and will continue to spur the clean energy
6 economy and innovation needed to help our state meet its
7 climate and energy goals.

8 Alan's leadership, his experience and steady
9 hand, have helped the Commission avoid and minimize
10 projects at risk of not delivering their promises.
11 During my time as Chief Counsel, and I started during
12 the pandemic, he was instrumental in helping me run the
13 office. I witnessed and benefited from his in-depth
14 experience on transactional matters and how he runs just
15 a really tight unit in which all his attorneys truly
16 love him.

17 And I want to follow up with a few thoughts
18 that I want to share from people Alan supervised and
19 work with. The first is from Raj. Alan has been, he
20 says, "Alan has been such a supportive boss and mentor,
21 and his creative solution-oriented approach has been
22 invaluable as we navigate the unique opportunities and
23 challenges facing implementation of the CEC goals and
24 vision. He always has a smile, even though the most
25 difficult days. And was a truly inspiring leader to our

1 Transactions Unit. I consider myself incredibly lucky
2 for the opportunity to work under him." I want to
3 correct that that comes from Christina Evola.

4 Next, I will transition to comments from Raj,
5 an attorney in his unit. He says, "Alan has been the
6 best supervisor anyone could hope to have, and far and
7 away the best assistant Chief Counsel I have ever worked
8 for in all my various experiences at different state
9 agencies. Always easy to work with, always responsive
10 to questions, and always up for interesting
11 conversations about anything from astronomy to
12 basketball to video games."

13 And Lisa DeCarlo, Assistant Chief Counsel also
14 at the Energy Commission. She said, "Working with Alan
15 has been a pleasure. He's always ready to jump in with
16 guidance when needed and in such a supportive-- he's
17 such a supportive colleague. He also contributed to
18 agency morale by general generously sharing his ever-
19 bountiful chocolate stash."

20 Alan, I'm going to miss you. Thank you for
21 your hard work and your unrelentless commitment to
22 always giving the Energy Commission thorough and
23 excellent legal advice. We absolutely have very big
24 shoes to fill. I and everybody at the CEC wish you the
25 very best in your new adventure. Thank you.

1 CHAIR HOCHSCHILD: Alan, would you like to
2 share any words? You don't have to if you don't want.

3 MR. WARD: This is like the Jerry McGuire, you
4 know. I'm not going to cry, I'm not going to cry.

5 I had not intended to, but I will try to do
6 this on the fly. It has been an absolute honor to work
7 at the Energy Commission for two particular reasons.
8 The mission of the Commission is critical to California
9 as well as the world, making it very important to work
10 here. I felt like I was contributing to something
11 bigger.

12 The second reason why it's been an honor to
13 work here has been the staff of the Commission. They're
14 phenomenal. I've had friendships for over 22 years with
15 certain members and it's a phenomenal group, and I will
16 miss that the most. I'd like to thank my family. They
17 have been on this journey with me, as I think all of our
18 families are. And that's it. Thank you very much.

19 CHAIR HOCHSCHILD: Congratulations.

20 (Applause)

21 CHAIR HOCHSCHILD: Yeah, I'll just add to
22 Linda's comments. You've been the consummate
23 professional. And I think a lot of what really makes
24 things work is actually very unheralded preparation and
25 problem-solving work, particularly in CCO. You know,

1 and there's so many things you guys as a group get out
2 ahead of and help strategize and solve and protect us.
3 I felt very protected by CCO from so many things that
4 could have gone wrong, but and then when things do go
5 wrong, the problem-solving. And particularly with you,
6 Alan, I just have always found you to have a very calm
7 kind of manner, and I like the way that you think
8 through things and when we get to a good place. So, I'm
9 very, very grateful. I don't anyone else would like
10 to?

11 COMMISSIONER MCALLISTER: Yeah, I, Alan just
12 so hopefully you know, you'll consider coming back as a
13 retired new attempt just to get that out. But just echo
14 those comments. You know, your just equanimity, and
15 thoughtfulness, and preparation all combined just to
16 really sort of defuse and sort of depressurize any given
17 situation. And, you know, you've dealt with some tough
18 ones just that I've been involved in and I'm sure many,
19 many more. And that manner and professionalism, it just
20 serves the Commission and the state incredibly well.

21 And you know, you-- absolutely big shoes to be
22 filled. And I just want to thank you for all of your
23 contributions because the CCO is often behind the scenes
24 kind of just helping set up the guardrails, I think more
25 than we even know day to day. And when push comes to

1 shove and we're sort of in a pressure situation, you
2 know, invariably you've just been there with having
3 thought about it and having-- able to propose solutions
4 and really proactively help us deal with those issues
5 when they come up and make sure we're prepared. So just
6 thank you very much. And thanks to your family.

7 VICE CHAIR GUNDA: Alan, just want to add a
8 minute. I haven't worked with you directly on a lot of
9 issues, but you know pretty much everybody thinks, I
10 mean, it says how wonderful you are. For me, you know,
11 just observing 22 years at an agency profoundly
12 contributes to its culture. And, you know, all the good
13 work stands on the shoulders of staff who have been here
14 to cultivate this space. So, thank you for your service
15 to the agency, but to the people of California and the
16 world. Thank you.

17 COMMISSIONER MONAHAN: I'll be brief, Alan,
18 because I'm guessing this is a lot to absorb. But, you
19 know, when I started at the Energy Commission, you were
20 there giving advice. I was learning about the Energy
21 Commission, learning about the role of TCO, and you were
22 just really consistent in explaining things very simply
23 for those of us who were new to state service and trying
24 to figure out the most basic parts of the Energy
25 Commission. So, thanks for your tutelage, thanks for

1 your steady leadership. And just the fact that you've
2 been at the CEC for so long guiding us, you know that
3 it's not-- I think we can't fill those shoes, but just
4 really appreciate what you've given to the state, what
5 you've given to us, and what you've given to the people
6 that you work with. Because those, not very many people
7 get that stellar of recommendations from the people who
8 served under them. It just says a lot about you and
9 your character. So, thank you.

10 COMMISSIONER GALLARDO: This is Commissioner
11 Gallardo. Just a quick comment too. Alan, when I first
12 got here, I didn't meet you in person, but I just kept
13 hearing about this Alan Ward guy. Everything that would
14 come up was, oh, well, "Alan says." Like, wow, what a
15 pillar. He's in everything. And I feel like you really
16 were, you know, a pillar for us. And so, we're
17 definitely going to miss you.

18 And from what I understand, you're going to a
19 different agency. So, if you get bored there,
20 disappointed, you know if they're not as passionate and
21 fun as we are, feel free to come back. Or when you do
22 decide to retire, you know we're open arms over here.
23 So, thank you Alan for everything and appreciate you.

24 CHAIR HOCHSCHILD: Congratulations.

25 (Applause)

1 CHAIR HOCHSCHILD: Alright, we're adjourned.

2 (Whereupon the meeting was adjourned at 12:40

3 p.m.)

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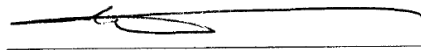
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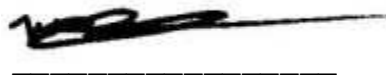
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Myra Severtson
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