

DOCKETED

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BUSINESS MEETING
BEFORE THE
CALIFORNIA ENERGY COMMISSION

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

REMOTE ACCESS ONLY

The California Energy Commission's December 9, 2020 Business Meeting will be held remotely, consistent with Executive Orders N-25-20 and N-29-20 and the recommendations from the California Department of Public Health to encourage physical distancing to slow the spread of COVID-19. The public is able to participate and observe the meeting consistent with the direction in these Executive Orders. Instructions for remote participation can be found in the notice for this meeting and as set forth below in this agenda.

WEDNESDAY, DECEMBER 9, 2020

10:00 A.M.

Reported by:
Peter Petty

APPEARANCES

Commissioners (Via Remote)

David Hochschild, Chair
Janea Scott, Vice Chair
Karen Douglas
Andrew McAllister
Patricia Monahan

Staff Present: (Via Remote)

Drew Bohan, Executive Director
Darcie Houck, Chief Counsel
Noemi Gallardo, Public Advisor
Cody Goldthrite, Secretariat

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a. Pursuant to Government Code Section 11126(e), the CEC may adjourn to closed session with its legal counsel to discuss any of the following matters to which the CEC is a party:	
i. <i>In the Matter of U.S. Department of Energy (High Level Waste Repository) (Atomic Safety Licensing Board, CAB-04, 63-001-HLW); State of California v. United States Department of Energy (9th Cir. Docket No. 09-71014)</i>	
ii. <i>Communities for a Better Environment and Center for Biological Diversity v. Energy Resources Conservation and Development Commission, and California State Controller, (Alameda County Superior Court, Case No. RG13681262)</i>	
iii. <i>State Energy Resources Conservation and Development Commission v. Electricore, Inc. and ZeroTruck (Sacramento County Superior Court, Case No. 34-2016-00204586)</i>	

13. Chief Counsel's Report (Cont.)

- iv. *Natural Resources Defense Council, Inc., et al. v. United States Department of Energy* (Federal District Court, Northern District of California, Case No. 17-cv03404)
- v. *In re: PG&E Corporation and In re: Pacific Gas and Electric Company* (United States Bankruptcy Court, Northern District of California, San Francisco Division, Case No. 19-30088)
- vi. *State Energy Resources Conservation and Development Commission v. HyGen Industries, Inc.* (Sacramento County Superior Court, Case No. 34-2019-00252543)
- vii. *Olson-Ecologic Testing Laboratories, LLC v. CEC.* (Orange County Superior Court Case No. 30-2019-01115513)
- viii. *Interlink Products International, Inc. v. Xavier Becerra, Drew Bohan, Melissa Rae King* (United States District Court for the District of New Jersey, Case No. 2:20-cv-10566)
- ix. *Southern California Gas Company v. California State Energy Resources Conservation and Development Commission* (Orange County Superior Court, Case No. 30-2020-01152336-CU-WM-CXC).
- b. Pursuant to Government Code Section 11126(e), the Energy Commission may also discuss any judicial or administrative proceeding that was formally initiated after this agenda was published..

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DECEMBER 9, 2020 10:01 a.m.

CHAIR HOCHSCHILD: Good morning everyone and welcome. Today is Wednesday, December 9th. We're going to begin our Energy Commission Business Meeting.

Commissioner Douglas, would you be willing to lead us in the Pledge?

COMMISSIONER DOUGLAS: Yes, I would be -- I would be happy to.

(Whereupon the Pledge of Allegiance is recited.)

CHAIR HOCHSCHILD: Thank you. Before we get going today, I wanted to invite you on behalf of all of the Commissioners to join a very special event we're doing tomorrow, Thursday, December 10th, at two o'clock, which is the inaugural California Clean Energy Hall of Fame Awards with Governor Newsom. We'll be hosting that virtually. And my thanks, again, to Noemi Gallardo for all her work to help get this going. And the information about that event is on our website at energy.ca.gov. We hope all of you will be able to join us. Trying to finish a tough year on an inspirational note.

So, as a result of the continued widespread transmission of COVID-19, California's Department of Public Health has issued a new stay-at-home order based on a region's ICU capacity. Effective Monday, December 7th,

1 with a few exceptions, state offices have closed in
2 response to the new order. Again, we encourage you to wear
3 a face mask when out in public, wash your hands frequently,
4 keep your distance and more information is available at
5 covid19.ca.gov.

6 Today's Business Meeting is being held remotely
7 without a physical location for any participant consistent
8 with Executive Orders N-25-20 and N-29-20 and the
9 recommendations from the California Department of Public
10 Health to encourage social distancing in order to slow the
11 spread of COVID-19. The public may participate and/or
12 observe the meeting, consistent with the direction of these
13 executive orders. Instructions for remote participation
14 can be found in the notice for this meeting as set forth on
15 the agenda posted to the CEC website link and the Business
16 Meeting.

17 Public comment instruction. Pursuant to
18 California Code of Regulations Title 20, Section 1104(e),
19 any person may make oral comments on any agenda item. To
20 ensure the orderly conduct of business such comments will
21 be limited to three minutes per person as to each item
22 listed on the agenda that will be voted on today. Any
23 person wishing to comment on information items or reports,
24 non-voting items shall reserve their comment for the public
25 comment portion of the meeting agenda and shall have three

8

1 minutes total to state all remaining comments.

2 And just one last comment on the COVID situation.
3 You know, it's very encouraging what's happening with the
4 progress of the vaccine. That is good news. I think in
5 many ways, though, this is the most dangerous moment. This
6 is kind of the darkest hour before the sunrise. And I
7 really want to just urge everyone to take special caution
8 this holiday season. The vaccine is not distributed yet
9 and COVID can be fatal and so, we really need to maintain
10 our vigilance all the way through. So, just an extra -- I
11 know it's hard, we're all tired of it, but hang in there
12 and please, please, please stay vigilant through this
13 holiday season.

14 Before turning to our agenda items I'd like to
15 remind those joining by Zoom to select the gallery view,
16 located in the top right corner of your screen, to see all
17 the speakers during discussion.

18 I'd like to point out today that the Energy
19 Commission is seeking to approve \$123 million of funding at
20 today's meeting, which is going to help with our economic
21 recovery for our state.

22 So, let's see, with that let's turn to the
23 consent calendar, Item 1.d, the National Association of
24 State Energy Officers, also referred to as NASEO, and Item
25 1.f, Veloz membership contract will be removed from the

1 consent and taken up separately in order, immediately after
2 this first vote. At Item 1.d, Commissioner McAllister
3 serves as a Board Member for NASEO and will recuse himself.
4 And I serve as a member of the Public Policy Advisory Board
5 to Veloz, representing the Energy Commission, and I will
6 recuse myself from voting on Item 1.f.

7 So, with that let's turn to Item 1, the consent
8 calendar. Again, Item 1.d and 1.f are no longer a part of
9 the consent calendar and will be voted on separately
10 immediately after we hear the remaining consent calendar
11 Items a, b, c and e.

12 Any public comment on the consent calendar that
13 addresses Items 1.d or 1.f should be held until we take
14 those items up separately after the consent calendar.

15 Noemi, do we have any public comment on Items
16 1.a, b, c and d?

17 MS. GALLARDO: This is Noemi, the Public Adviser.
18 No comment.

19 CHAIR HOCHSCHILD: Okay. Unless there's
20 Commissioner discussion, I'd entertain a motion on those
21 items. Commissioner Scott --

22 COMMISSIONER MCALLISTER: Move those items.

23 CHAIR HOCHSCHILD: Or, sorry, is that
24 Commissioner McAllister. You were moving to make the
25 motion. And then, Vice Chair Scott, would you be willing

1 to second?

2 VICE CHAIR SCOTT: Yes, I second.

3 CHAIR HOCHSCHILD: Okay, all in favor say aye.

4 Vice Chair Scott?

5 VICE CHAIR SCOTT: Aye.

6 CHAIR HOCHSCHILD: Commissioner McAllister?

7 COMMISSIONER MCALLISTER: Aye.

8 CHAIR HOCHSCHILD: Commissioner Douglas?

9 COMMISSIONER DOUGLAS: Aye.

10 CHAIR HOCHSCHILD: Commissioner Monahan?

11 COMMISSIONER MONAHAN: Aye.

12 CHAIR HOCHSCHILD: And I vote aye as well.

13 Those items are adopted unanimously.

14 So, let's turn now to Item 1.d, NASEO.

15 Commissioner McAllister, do you want to say anything before
16 you recuse?

17 COMMISSIONER MCALLISTER: Yeah, I'm a member of
18 the NASEO Board of Directors and Executive Committee. And
19 this item to fund some work for which NASEO is the fiscal
20 sponsor, since I'm associated with NASEO I will recuse
21 myself from this item. I'll turn off my microphone and my
22 camera.

23 CHAIR HOCHSCHILD: Okay, thank you for that.

24 And with that, do we have any public comment on
25 Item 1.d, Noemi?

1 MS. GALLARDO: This is Noemi, Public Adviser, no
2 comment.

3 CHAIR HOCHSCHILD: Okay, hearing none let's --
4 unless there's Commissioner discussion, Vice Chair Scott
5 are you willing to make the motion?

6 VICE CHAIR SCOTT: Yes, I move Item 1.d.

7 CHAIR HOCHSCHILD: Okay. Commissioner Monahan
8 would you be willing to second?

9 COMMISSIONER MONAHAN: I second this item.

10 CHAIR HOCHSCHILD: Okay, all in favor?
11 Vice Chair Scott?

12 VICE CHAIR SCOTT: Aye.

13 CHAIR HOCHSCHILD: Commissioner Douglas?

14 COMMISSIONER DOUGLAS: Aye.

15 CHAIR HOCHSCHILD: Commissioner Monahan?

16 COMMISSIONER MONAHAN: Aye.

17 CHAIR HOCHSCHILD: And I vote aye as well.

18 That item passes unanimously.

19 I serve as a member of the Public Policy Advisory
20 Board to Veloz, representing the Energy Commission. I do
21 not receive any economic benefit from this role with Veloz.
22 However, to avoid a perception of conflict of interest I'm
23 disclosing this information and recusing myself from voting
24 on Item 1.f. I will leave the room and mute. And the Vice
25 Chair can take it from here.

1 VICE CHAIR SCOTT: Yes, okay. So, now we will
2 turn to Item 1.f, which is Veloz. Is there any public
3 comment on this item?

4 MS. GALLARDO: This is Noemi, the Public Adviser,
5 no comment.

6 VICE CHAIR SCOTT: Okay, then let's move to any
7 Commissioner discussion. Being a no go there.

8 So, Commissioner Douglas would you be willing to
9 make a motion?

10 COMMISSIONER DOUGLAS: Yes, I move this item.

11 VICE CHAIR SCOTT: All right. Commissioner
12 McAllister would you be willing to second?

13 COMMISSIONER MCALLISTER: I will second it.

14 VICE CHAIR SCOTT: Okay, so let us now take a
15 vote.

16 Commissioner Douglas?

17 COMMISSIONER DOUGLAS: Aye.

18 VICE CHAIR SCOTT: Commissioner McAllister?

19 COMMISSIONER MCALLISTER: Aye.

20 VICE CHAIR SCOTT: Commissioner Monahan?

21 COMMISSIONER MONAHAN: Aye.

22 VICE CHAIR SCOTT: And I also vote aye.

23 So, the motion carries four to zero with one
24 recusal. And with that, we'll invite Chair Hochschild back
25 and he will pick up the running of our meeting.

1 CHAIR HOCHSCHILD: Thank you Madam Vice Chair.

2 All right, thanks everyone.

3 Let's turn now to Item 2, a discussion of Energy
4 Commission progress on the Joint Agency Report, Charting a
5 Path to a 100 Percent Clean Energy Future, SB 100. Terra
6 Weeks.

7 And let me just say in introducing Terra what an
8 incredible year. Terra leaned into this project, which was
9 very, very complex. And a lot of coordination within the
10 Energy Commission and also coordinating with our sister
11 agencies very closely, CARB and the PUC on this. And I
12 think we did eight workshops altogether, culminating in the
13 hearing we had last week and this tremendous report.

14 So, Terra, we all so grateful to you. Thank you
15 for taking this on and leading us through this.

16 MS. WEEKS: Thank you, Chair. It has certainly
17 been quite a journey and a great learning opportunity for
18 me professionally. And it's just really been a pleasure
19 working with the whole Joint Agency Team.

20 So, good morning Chair and Commissioners. I'm
21 Terra Weeks, Senior Adviser to Chair Hochschild and the
22 Project Manager for the 2021 SB 100 Joint Agency Report.
23 And I'll be providing an update on the 2021 report but
24 please note this is not a full report overview, which we
25 are tentatively planning to provide at the February

1 Business Meeting early next year, once the final report is
2 released.

3 The next slide, please. So, first a review of
4 the benefits of California. Implementation of Senate Bill
5 100 provides benefits to public and environmental health by
6 reducing greenhouse gas emissions and air pollution from
7 the electricity sector.

8 The development of additional clean energy
9 resources needed to meet the goal also provides a
10 substantial economic and workforce opportunity.

11 The next slide, please. So, as the Chair
12 mentioned we are nearing the tail end of this report
13 process, which has included over a year of public workshops
14 including seven workshops across the state.

15 And last week we released the draft 2021 Report
16 and held a draft Report workshop joining with the CPUC and
17 CARB. So, thank you to Chair Hochschild, Commissioner
18 McAllister and Commissioner Douglas for joining us at the
19 workshop.

20 We had over 350 attendees and a lot of great
21 public comment. So, we would like to thank stakeholders
22 and members of the public who not only participated in last
23 weeks' workshop, but they've engaged for the last 15 months
24 or so.

25 The next slide, please. So, at the workshop

1 staff provided an overview of the draft report including
2 the modeling framework, key takeaways, and report
3 recommendations to support the implementation of SB 100 and
4 to inform long term planning.

5 In total, the Joint Agencies developed 13 report
6 recommendations which are grouped into three categories.
7 The first is areas for further study in the next report.
8 The second is process and engagement for SB 100 reports.
9 And the third are other recommendations to support
10 achievement of the 100 percent target.

11 So, I'm not going to review these in detail but
12 will fairly quickly run through the key points.

13 The next slide, please. So, in the first group
14 of recommendations we list a number of topics that we have
15 identified as priorities to assess in the next report
16 analysis. And these are to perform a comprehensive
17 reliability assessment, which we have highlighted as the
18 next step in the modeling process.

19 Work to better capture the potential impact of
20 emerging technologies and nongeneration resources such as
21 energy storage, and load flexibility, to analyze project
22 land use impacts, to find and include social costs and
23 nonenergy benefits. And continue to study opportunities
24 and impacts related to achieving the 100 percent target
25 prior to 2045.

1 The next slide, please. In the next group of
2 recommendations we identify strategies to support the
3 report development process itself. Notably, the Joint
4 Agencies recommend we convene an annual SB 100 workshop in
5 years between reports. And again, the reports are due
6 every four years.

7 We also plan to continue aligning SB 100 with
8 other relevant state efforts. We recommend continued
9 consultation with advisory groups, including the
10 Disadvantaged Communities Advisory Group, to guide
11 equitable planning and implementation, and to build upon
12 our best practices for outreach and accessibility.

13 The next slide, please. And lastly, we have
14 recommendations that fall outside the direct umbrella of SB
15 100 planning that can support the achievement of the 100
16 percent target. And these are to continue state support
17 for clean energy research and innovation, continue to
18 provide -- excuse me, to prioritize energy efficiency and
19 load flexibility, identify and address bottlenecks in
20 project permitting and development, and to promote
21 workforce development programs that focus on high quality
22 job creation.

23 The next slide, please. So, the draft report and
24 modeling data tables are posted on the Energy Commission
25 website and we encourage folks to review the report and

1 provide written comments to the SB 100 docket by December
2 18th.

3 The next slide, please. And staff will consider
4 comments submitted to the draft before we finalize the
5 report. And we plan to release the final version early in
6 the new year. And so, we are tentatively planning on a
7 final presentation at the February Business Meeting, after
8 the final report has been released.

9 Thank you and that concludes my update.

10 CHAIR HOCHSCHILD: Well, thank you so much,
11 Terra. You know, one point that I don't think we
12 emphasized quite enough at the last meeting, but thanks to
13 Vice Chair Scott and our terrific colleagues at the Public
14 Utilities Commission the EPIC program got extended for
15 another ten years which is, you know, a billion and a half
16 dollars for clean energy research and development. That is
17 going to help us reduce costs faster for getting to our SB
18 100 goals.

19 And whether it's small companies like Sepion or
20 Coreshell doing Lithium-ion battery projects, or larger
21 microgrids, and other new technologies, offshore wind and
22 others that are going to help, it's really across the
23 board. And so, that is one nice thing is that we are
24 adding tools to our tool belt as we go forward in terms of
25 how we reach these goals cost effectively and quickly.

1 So, I just want to emphasize again that this is a
2 very positive development with California's sustained
3 commitment to lead on clean energy R&D in support of our
4 100 percent clean energy goals.

5 With that, let's see if we have -- this is a non-
6 voting item so there's not public on this. And we took
7 public comment pretty extensively at the workshop. So,
8 let's turn to Commissioner discussion. Maybe Commissioner
9 McAllister, if you could start us off?

10 COMMISSIONER MCALLISTER: Yeah, just really
11 briefly I want to amplify the kudos to Terra and the whole
12 team, actually, both within the Commission and in our
13 sister agencies that have worked together on this. Really,
14 the collaborative platform that this has helped develop and
15 strengthen is key for going forward. And, you know,
16 building the crosswalks that we need with forecasting and
17 the different planning tools that we have going forward in
18 our respective agencies. And then, as we periodically
19 revisit the SB 100 Report itself, and update it, you know,
20 keeping it vital, and current and active as we go forward,
21 and making sure that we're, you know, keeping on the main
22 train track to get to the end of the road here at 100
23 percent. So, really happy with the collaboration.

24 A lot of analytical work ahead. And I think, you
25 know, all the indications are that that will continue to

1 provide insights and allow incorporation of new
2 technologies and innovation, you know, along the lines of
3 what, Chair Hochschild, you just suggested, as the fruits
4 of research come to bear.

5 So, really, a lot of really -- a lot of great
6 parallel initiatives that SB 100 is a terrific platform and
7 crucible for. So, really happy with where things are at
8 and very optimistic for the future. So, thanks for all
9 that.

10 CHAIR HOCHSCHILD: Great.

11 COMMISSIONER MCALLISTER: Thanks for your
12 leadership, too, on this action so --

13 CHAIR HOCHSCHILD: Thank you. Thank you. Other
14 comments, any other Commissioners wishing to make a comment
15 on this?

16 The only thing I think I would add is that,
17 Commissioner McAllister, your work both on efficiency and
18 the load management is fundamental to this. I mean the
19 more efficient we are, the less generation capacity we need
20 to bring online. And the smarter we are on load
21 management, you know, thanks to your leadership on the
22 standards, you know, the easier the lift will be. And
23 there's a lot of momentum to be found there.

24 I spoke on Monday at the press conference for
25 OhmConnect, who raised another \$100 million for their

1 residential demand response effort. And I think we're
2 going to see a lot more --

3 COMMISSIONER MCALLISTER: Yeah.

4 CHAIR HOCHSCHILD: -- resources come into that
5 space. And that all helps -- that's in direct support, all
6 this stuff with our SB 100 goals.

7 COMMISSIONER MCALLISTER: The reliability
8 enhancement that aggregated distributed resources can
9 provide, you know, now that we have a digital economy and
10 we just have much more powerful tools to mobilize resources
11 at all scales, aggregate them and get them to do
12 interesting stuff, you know, in concert that is incredibly
13 powerful.

14 So, as we develop those tools and load management
15 standards, and one of them, SB 49 on applicants is another,
16 and the Building Code itself. There are a lot of ways that
17 we as an agency can contribute to creating new resource
18 categories for the SB 100 goal, right. So, it's actually
19 super exciting. And again, across agencies with -- you
20 know, it's all collaboration. So, I think we're really
21 setting ourselves up for success.

22 CHAIR HOCHSCHILD: Our colleague Dave Olsen, who
23 has just retired from the CAISO Board has a great line,
24 which sticks with me, which is that everything needs to be
25 a good citizen of the grid. And I think that's very apt as

21

1 we go forward.

2 Thank you again, Terra, much appreciated.

3 COMMISSIONER DOUGLAS: Chair Hochschild, if I
4 could, I want to --

5 CHAIR HOCHSCHILD: Yes.

6 COMMISSIONER DOUGLAS: I just wanted to jump in
7 with a brief comment as well.

8 CHAIR HOCHSCHILD: Yes.

9 COMMISSIONER DOUGLAS: To thank Terra and just
10 acknowledge a job very well done on this. I know it wasn't
11 easy. There were a lot of internal calves to herd, there
12 were other agencies to work with. And, you know, the
13 results were really good. I mean I am a real believer in
14 taking a long time -- a long term perspective on where
15 we're trying to go with our goals. You know, for planning
16 and for policy development so that we can see the different
17 pathways available to us to meet these goals, and we can
18 think about tradeoffs and we can make informed choices.

19 And I think your comment, Chair Hochschild, about
20 how important energy efficiency, and demand response, and
21 other measures that we can take to reduce the sheer scale
22 of building our way towards those goals is going to be
23 incredibly important. Because, you know, from my
24 experience of course I look straight at the built out
25 numbers. You know, the amount of new renewable energy that

22

1 needs to come online to help us meet those goals. And
2 those numbers are a range. But they're very high under
3 almost any circumstance.

4 And the report does a really good job of pointing
5 that out, looking at choices and tradeoffs in terms of, you
6 know, increased diversification is helpful, of course. You
7 know, certain different kinds of build out or technology
8 development can lead to needing more or needing less. But
9 under any circumstance, under any of those scenarios of
10 course we've got to be very conscious of the different
11 pathways towards achieving the renewable energy build out
12 that we will need no matter what to achieve the SB 100
13 goals.

14 And the report does a really good job of talking
15 about some of the planning that can help inform that,
16 building on what we already know, and building on
17 experience that we have so far. And so, the transmission
18 planning side of this, you know, thinking about the
19 portfolio, thinking about what steps do we need to take if
20 certain kinds of resources that would be valuable are to be
21 available when we need them?

22 What are the steps we need to take if we identify
23 great resource areas, but it doesn't currently have
24 sufficient access to transmission?

25 And what we find is these are long lead time

1 decisions. And the only way to get at making those
2 decisions in a timely way for policy is to have this kind
3 of perspective that the SB 100 Report has given us.

4 So, I really appreciate the work that's been done
5 and I think it's valuable, I think it's extremely
6 informative, and it gives us a lot to build on. And it
7 gives us, you know, all a lot to do now as we look at the
8 pathways ahead of us.

9 So, anyway, many thanks Terra and team. Many
10 thanks to you Commissioner McAllister and Chair Hochschild
11 for your leadership on this report.

12 CHAIR HOCHSCHILD: Thank you. Unless there's
13 other comments from other Commissioners, I will just say,
14 Terra, I will be acknowledging you more fully at the end of
15 the Commission meeting when we do our end of the year thank
16 you.

17 But I would just say in addition to running this
18 process so well, you've been able to tolerate a very
19 difficult boss, so impressed with that as well.

20 So, with that let's move on. Thank you. We'll
21 move on to Item Number 3, Proposed Resolution Approving the
22 Lithium Valley Commission Members.

23 Let's go to Elisabeth de Jong to present on that.

24 MS. DE JONG: Hello everyone. My name is
25 Elisabeth de Jong and I administer the Geothermal Grant and

1 Loan Program and will be the Project Manager of the Lithium
2 Valley Commission. I'm here today to present a resolution
3 approving Lithium Valley Commission members.

4 The next slide, please. In recent years, the CEC
5 has facilitated events to discuss lithium recovery from
6 geothermal brine and breaking down barriers to development.
7 In November 2018 we hosted a roundtable discussion in
8 Sacramento. We followed this with a meeting in El Centro,
9 in May 2019. More recently, in February 2020 we cohosted a
10 symposium with GO-Biz to introduce California's Lithium
11 Valley Vision, the establishment of a world class lithium
12 industry in the state. This symposium coincided with the
13 Stanford Geothermal Workshops.

14 The next slide, please. Globally, about 325,000
15 tons of lithium was produced last year, which is expected
16 to rise to about one million tons by 2025. Current supply
17 comes primarily from hard rock mining and evaporation
18 ponds, first from Australia, Chile, Argentina, and China.
19 Essentially, developers in the Salton Sea are pursuing the
20 opportunity to co-produce lithium from geothermal brine.

21 The Lithium Valley has the potential to stimulate
22 the economy of a disadvantaged community, support the state
23 in reaching its emissions reductions and renewable energy
24 goals, support geothermal development and reliance on a
25 baseload renewable energy source, and supply a critical

25

1 mineral in which we are seeing increasing dependency for
2 the electrification of transportation.

3 The next slide, please. Assembly Bill 1657
4 requires the CEC to convene the Blue Ribbon Commission on
5 lithium extraction California that we refer to as the
6 Lithium Valley Commission. The Lithium Valley Commission
7 is charged with reviewing, investigating, and analyzing
8 certain issues and potential incentives regarding lithium
9 extraction in use in California. And to consult, when
10 feasible, with the EPA and the DOE.

11 AB 1657 requires the Lithium Valley Commission to
12 submit, on or before October 1st, 2022, a report to the
13 Legislature documenting its findings and recommendations.
14 Of the 14 Commission members, the CEC has the
15 responsibility to appoint 9 members, with the remaining
16 appointments to be made by the California Public Utilities
17 Commission, the Secretary of the California Natural
18 Resources Agency, the Senate Committee on Rules, the
19 Speaker of the Assembly, and the Governor.

20 The next slide, please. We received more
21 applications than we have membership seats for. We look
22 forward to participating in the -- the others participating
23 in the public meeting and staying involved.

24 After careful consideration of applicants for the
25 9 membership seats, the CEC recommends the following

1 members for appointment to go into effective January 1st,
2 2021:

3 Manfred Scott, Quechan Tribe as a general member.

4 Jonathan Weisgall, Berkshire Hathaway Energy,
5 represents the lithium extraction industry.

6 Roderic Dolega, Ford EV Purchasing, represents a
7 national vehicle manufacturer organization.

8 Frank Ruiz, Salton Sea Program Director for
9 Audubon California, represents a local environmental
10 organization.

11 Ryan E. Kelly, County of Imperial, represents a
12 local city or county government in the Salton Sea
13 geothermal resource area.

14 James C. Hanks, Imperial Irrigation District,
15 represents a local public electric utility.

16 Luis Olmedo, Comite Civico Del Valle, represents
17 disadvantaged and low income communities in the Salton Sea
18 geothermal resource area.

19 Arthur Lopez, the Torres Martinez Tribe,
20 represents a local tribal community.

21 Rod Colwell, Controlled Thermal Resources, as a
22 member with knowledge of economic and effectiveness in
23 local, state and federal incentives.

24 Staff recommends approval of the submitted
25 resolution and the proposed appointees. I would be happy

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1 to answer any questions you have. Proposed appointees were
2 invited to join virtually and be on the line as well to
3 comment. Thank you.

4 CHAIR HOCHSCHILD: Thank you so much, Elisabeth.
5 And, you know, I'm reminded of that wonderful African
6 proverb: If you want to go quickly, go alone. If you want
7 to go far, go together. And I think that's what this
8 Lithium Valley Commission represents is really a diverse
9 group of committed stakeholders who see this being
10 launched, and do it the right way, and bring their
11 expertise to the table.

12 I want to especially acknowledge Assemblyman
13 Eduardo Garcia, who had the vision to write this
14 legislation, and Governor Newsom for signing. And Vice
15 Chair Scott and the whole EPIC team for the \$14 million in
16 grants that we did for lithium development for this year.

17 So, my congratulations to Manfred Scott, Jonathan
18 Weisgall, Roderic Dolega, Frank Ruiz, Ryan Kelly, James
19 Hanks, Luis Olmedo, Arthur Lopez, and Rod Colwell.

20 Let me turn it over -- actually, let's first see
21 if we have public comment on this item.

22 MS. GALLARDO: This is Noemi, the Public Adviser.
23 We do have some public comment. Jonathan Weisgall of
24 Berkshire Hathaway Energy is on the line. Jonathan, your
25 line should be open. Please begin speaking when you're

1 ready.

2 CHAIR HOCHSCHILD: Do we have anyone else besides
3 Jonathan?

4 MS. GALLARDO: I believe it is just Jonathan.

5 CHAIR HOCHSCHILD: Okay.

6 MR. WEISGALL: I'm here. Can you hear me?

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

8 Yeah, go ahead, Jonathan.

9 MR. WEISGALL: Oh, wonderful. Okay. Well, as
10 one of the 9 I'm very honored. I look forward to working
11 with the members and the Commission. I think this is a
12 terrific group, as I hear these names.

13 I guess a point I want to make, you know, it's
14 one thing to extract lithium from geothermal brine, as
15 assessed, but to do it in bulk at reasonable cost that's
16 the challenge. It's not alchemy. The lithium is there.
17 We've recovered it in the laboratory. The question is can
18 it be done in a commercial way? And that's what this
19 commission needs to promote to get California on the global
20 map for lithium production. So many areas to work on with
21 this commission. Not just in California, not just in
22 Imperial County, but also in Washington, D.C. with a new
23 administration coming into office next month, with talk of
24 support for infrastructure, clean energy, and jobs. And
25 all those three words I must say dovetail beautifully with

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1 the goals of this commission. So, I can't wait to hit the
2 ground running and just really look forward to working with
3 fellow members, Commissioners, and staff. Thanks very
4 much.

5 CHAIR HOCHSCHILD: Thank you. Let's turn now to
6 Commissioner Douglas to get us started on the Commissioner
7 discussion.

8 COMMISSIONER DOUGLAS: All right. Well, thank
9 you so much Chair Hochschild. I am really excited about
10 this commission. We have a real opportunity to put Lithium
11 Valley, to put this opportunity for clean energy and
12 support for our storage, and renewable energy, and clean
13 vehicle goals on the map, you know, in a way that also
14 supports economic development and is the most
15 environmentally positive way of getting bulk amounts of
16 lithium capable of helping the need for California and
17 beyond, well beyond California that I know of, or have ever
18 seen or heard of.

19 So, I think we have a tremendous opportunity. I
20 also want to thank Assembly Member Eduardo Garcia for his
21 foresight in putting this bill forward and supporting and
22 -- supporting us and giving us this role in putting the
23 commission together.

24 As Elisabeth mentioned, we invited applications
25 for the 9 seats that the Energy Commission appoints, and we

1 received applications and statements of interest from very
2 many incredibly well-qualified applicants who have a lot to
3 offer. The appointments that we put forward for the
4 Commission's consideration are very strong and we're really
5 excited about it. I support each and every one of them.

6 I also want to invite everyone who applied and
7 did not get a seat to please work with us, and please
8 continue engaging with the Commission. We really need
9 everybody's engagement to realize the opportunities that
10 are here for this industry and this region, and to do it in
11 a way that supports and gives voice to some of the local
12 priorities, and concerns, and ideas that will help make
13 this successful.

14 So, I'd like to extend the same invitation to
15 local, state, and federal agencies. And Elisabeth has
16 already started doing some of that outreach. And we'll
17 work with her, and help create a forum to work with partner
18 agencies so that our governmental partners are in a good
19 position to provide their expertise, and their ideas, and
20 understandings into the commission, and also to build on
21 the results, and the recommendations, and the outcomes of
22 the commission's work.

23 Tribal entities are -- tribal governments are
24 incredibly important in this. We will have two tribal
25 members of the commission. There will be other tribes that

1 potentially have a significant interest in the outcome of
2 this work as well. And so, we'll be doing tribal outreach
3 as we do throughout this process, and ensuring that tribal
4 governments are also engaged to the extent that they are
5 interested in being engaged. And we're excited about that
6 aspect of the work.

7 So, I look forward to working with all of the
8 commission members, and all of the interested stakeholders,
9 and local, state, federal, tribal governments that will be
10 engaging to us to ensure that the commission's report to
11 the Legislature reflects the local interests, the
12 opportunity that's available to us. And, obviously, also
13 gives full consideration to the environmental aspects of
14 this opportunity, and local economies, and tribal
15 perspectives, and beyond.

16 I also just want to conclude by noting that the
17 opportunity area here at the Salton Sea is very much
18 coincident with the area that is most impacted by the
19 reduction of water and receding water levels in the Salton
20 Sea, the air quality and environmental impacts of that.
21 And, of course, the Natural Resources Agency is on point
22 with a number of other state entities, and in partnership
23 with local and federal agencies to implement right now a
24 10-year plan to construct a project that will help reduce
25 air impacts, and provide environmental benefits at the

1 Salton Sea. It's essential that we keep the lithium and
2 geothermal work here, that this Commission will be
3 supporting, very much in lock step, and complementary and
4 supportive of the work of Salton Sea restoration.

5 And I think we actually have a really good
6 opportunity to enable and potentially find ways that the
7 lithium opportunity and the geothermal of the Sea support
8 Salton Sea restoration. Because what we need is a long
9 term, sustainable vision in this local area that addresses
10 the tremendous challenges, and tremendous assets and
11 benefits there at the region.

12 So, that was probably more than I intended to
13 say, so thanks for indulging the longer than usual
14 comments, but I am excited about this commission.

15 CHAIR HOCHSCHILD: Thank you, Commissioner.

16 Unless there's other comments -- Commissioner --
17 Vice Chair Scott, yes.

18 VICE CHAIR SCOTT: Yeah, I wanted to weigh in
19 also and second a lot of what you heard Commissioner
20 Douglas say or echo a lot of what you heard Commissioner
21 Douglas say. I think the possibilities that the Lithium
22 Valley holds for us in terms of this clean energy
23 transition we're trying to make are endless, and they're
24 really exciting. So, I'm just delighted to see this
25 Commission coming together to really think about all of the

1 critical issues that Commissioner Douglas has laid out.

2 And I also just wanted to note that through the
3 EPIC program, you know, we're also excited to help support
4 this, right, and put some dollars, as you mentioned, Chair
5 Hochschild, earlier, in to help us assess what some of the
6 key research needs are in this space. And to provide some
7 of the funding that helps us address the technical
8 challenges along the way as well. So, I wanted to add that
9 in.

10 CHAIR HOCHSCHILD: Are there any other comments?

11 All right, hearing none -- well, let me just say,
12 it dovetails beautifully with what's happening in the
13 energy storage and electric vehicle markets. We are going
14 to see a tenfold increase in the amount of energy storage
15 coming online in California in the next year. And electric
16 vehicles, of course everyone is seeing what's going on. GM
17 is buying out dealerships that are not willing to
18 transition to electric. Thirty new models, I think, of
19 electric vehicles that company alone is coming out with in
20 the next couple of years. Just incredible momentum. And
21 so, demand for lithium is going to grow at a healthy clip.
22 And so, this is a very timely vote we're going to take
23 today.

24 With that, Commissioner Douglas would you be
25 willing to make the motion?

1 COMMISSIONER DOUGLAS: Yes, I'd be happy to. I
2 move approval of this item.

3 CHAIR HOCHSCHILD: Vice Chair Scott, will you be
4 willing to second?

5 VICE CHAIR SCOTT: Yes, I second.

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

8 COMMISSIONER DOUGLAS: Aye.

9 CHAIR HOCHSCHILD: Vice Chair Scott?

10 VICE CHAIR SCOTT: Aye.

11 CHAIR HOCHSCHILD: Commissioner McAllister?

12 COMMISSIONER MCALLISTER: Aye.

13 CHAIR HOCHSCHILD: Commissioner Monahan?

14 COMMISSIONER MONAHAN: Aye.

15 CHAIR HOCHSCHILD: And I vote aye as well.

16 That item passes unanimously.

17 Let's move on to Item 4., Appliance Efficiency
18 Regulations for Computers and Computers Monitors.

19 Hi Soheila, can you hear us?

20 MS. PASHA: Good morning. Yes. Good morning
21 Chair and Commissioners. My name is Soheila Pasha. I'm an
22 Electrical Engineer working for the Appliances Office in
23 the Commission's Efficiency Division.

24 With me are Corrine Fishman from the Efficiency
25 Division, and James Qaqundah, and Jared Babula from the

1 Chief Counsel's Office.

2 I'm here to present proposed updates to Title 20
3 Appliance Efficiency Regulations to incorporate new
4 technologies related to computers and computer monitors.

5 The staff is also proposing the adoption of the
6 finding that the proposed regulations are exempt under the
7 California Environmental Quality Act, or CEQA.

8 Please move to the next slide. These proposed
9 regulations will benefit California manufacturers by
10 increasing their ability to manufacture and sell products
11 in California, including those that incorporate innovative
12 features that comply with the regulations.

13 This proposal would also benefit consumers and
14 businesses in California by allowing them to purchase a
15 broader range of products, including those that incorporate
16 innovative features while ensuring such products comply
17 with the regulations.

18 The next slide, please. The original computers
19 and monitors regulations were adopted in 2016. The
20 Commission's adoption order for that rulemaking directs the
21 staff to present new technologies, innovative, and features
22 for adoption within six months in response to a petition
23 for a rulemaking.

24 Since you adopted the first amendment to the
25 computer regulations in 2017 to incorporate a new

1 technology at that time, CEC is proposing amendments to
2 include a set of new technologies in this rulemaking.

3 The 45-day written public comment period produced
4 the changes from October 2nd to the November 16th. Staff
5 held a public hearing on November 18th.

6 Proposed amendments are not subject to the
7 California Environmental Quality Act, or CEQA.

8 Next I will go over each new technology briefly.
9 The next slide, please. The first new technology is a
10 notebook that has a secondary integrated display which can
11 also be used as a touchscreen keyboard. Figure 1 shows an
12 example of these new technology notebooks.

13 Proposed changes include a new definition for
14 multi-screen notebooks and modification to the existing
15 notebook definition to clarify that these devices are
16 considered notebooks and must comply with the notebooks
17 standards.

18 This procedure is also modified to specify the
19 settings for the secondary display. The new technology is
20 about computers exhibiting cyclical behavior. These types
21 of computers periodically charge and discharge their
22 battery while connected to main power source. These will
23 create a policy or cyclical power consumption pattern
24 similar to the way as shown in Figure 2.

25 (Indiscernible) does include a new definition for

1 computers with cyclical behavior and modifications to the
2 test procedure to better represent the actual power
3 consumption of these computers.

4 The next slide, please. The next new technology
5 is an Ethernet port with data transfer rates between 1 and
6 10 gigabits per second. Existing regulations provide
7 energy adders for Ethernet ports that meet the add-in card
8 definition. Proposed changes provide an energy adder for
9 the Ethernet ports with data transfer rates between 1 and
10 10 gigabits per second that are integrated on a motherboard
11 and, therefore, are not considered to be an add-in card.

12 The last new technology is about the computer
13 gaming monitor with refresh rates of 300 Hz or higher that
14 incorporates incremental hardware (indiscernible)
15 assistance.

16 Proposed changes add a new definition for these
17 type of high-performance gaming monitors. And because
18 monitors (indiscernible) energy consumption is higher when
19 the refresh rate is higher, the proposed -- this proposal
20 adds a new energy additive to provide an adequate energy
21 allowance for this type of computer monitors. The energy
22 adder increases as the monitor's refresh rate increases,
23 but it caps at 480Hz.

24 The proposed amendments also make corresponding
25 modifications to -- for all these new technologies to the

1 data reporting requirements for computers and monitors.

2 The next slide, please. The staff requests that
3 Commissioners adopt the proposed amendments, amending the
4 Title 20 Appliance Efficiency Regulations and support the
5 findings of a CEQA exemption for this rulemaking.

6 This concludes my presentation. We're available
7 for any question you may have.

8 CHAIR HOCHSCHILD: Thank you, Soheila. Let's go
9 to public comment. Do we have any public comment on Item
10 4?

11 MS. GALLARDO: This is Noemi, the Public Adviser.
12 Yes, we do, we have a comment from Emily Spack of the IT
13 Industry Council. We'll open up Emily's line. And Emily,
14 please spell your first and last name before you begin.

15 MS. SPACK: Sure. Can you hear me?

16 CHAIR HOCHSCHILD: Yes.

17 MS. GALLARDO: Yes, we can.

18 MS. SPACK: Great. My name is Emily Spack, E-M-
19 I-L-Y S-P-A-C-K. So, hello, I'm Emily Spack from the
20 Information Technology Industry Council. ITI represents
21 over 70 of the world's leading information and
22 communications technology companies. Our members are
23 global leaders in all facets of ICT innovation from
24 hardware, to servicing and software, and have long been
25 leaders in sustainability.

1 ITI would like to thank the Honorable
2 Commissioner McAllister, Soheila Pasha, and the rest of the
3 staff as the counsel and the Energy Commission for their
4 exception collaboration to amend California's Computer and
5 Computer Monitors Appliance Efficiency Regulations to
6 incorporate new technologies of innovation.

7 ITI members strongly believe that California's
8 Energy Efficiency Standards need to keep pace with new
9 technologies and innovations to provide California
10 consumers more innovative solutions and energy efficient
11 choices.

12 Accordingly, ITI fully supports all of the key
13 amendments in CEC's proposed rulemaking to amend Computer
14 and Computer Monitors Appliance Efficiency Regulations to
15 incorporate new technologies and innovation.

16 Again, ITI would like to take this opportunity to
17 thank Commissioner McAllister and outstanding CEC staff for
18 the positive collaboration on Appliance Energy Efficiency
19 Standards.

20 CHAIR HOCHSCHILD: Thank you. Any additional
21 public comment?

22 MS. GALLARDO: This is Noemi Gallardo, Public
23 Adviser. No other comments.

24 CHAIR HOCHSCHILD: All right. With that, let's
25 go to the Honorable Commissioner McAllister.

1 COMMISSIONER MCALLISTER: Well, it's good
2 somebody thinks I'm honorable. So, my kids might chime in
3 on that one.

4 So, I want to just throw it sort of right back at
5 you. I mean ITI has been a great collaborator through the
6 years on this and other rulemakings. And certainly, the
7 members have not been shy in chiming in and bringing to
8 attention at the Commission issues that come up, and the
9 fast-moving marketplace for these device categories. I
10 mean there's just so much innovation, you know, and we're
11 in California, and this is a global industry that's doing a
12 lot every day.

13 So, I want to also -- I do want to second the
14 excellence, the point about the excellence of our staff.
15 Soheila and the whole team, Pierre, and the whole team
16 which has been doing a lot on multiple fronts. They've
17 really done a tremendous job to take in these issues and
18 work through them patiently, but relatively quickly, and
19 bring forward amendments that are highly technical,
20 relatively specialized. Some of the categories we're
21 talking about are kind of niche categories, but that the
22 Appliance Standards do need to modernize and embrace, and
23 that's what this update is about.

24 So, obviously, I've been paying attention to this
25 along the way and I'm happy with where this is landing, and

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1 would encourage everyone to adopt. But thanks everybody
2 for working through this. And actually, it's gone
3 relatively quickly and I think we've gained a lot of
4 consensus across the board that this is a good update. So,
5 would encourage a yes vote.

6 CHAIR HOCHSCHILD: Thank you, Commissioner.

7 Unless there is Commissioner discussion, I would
8 entertain a motion from Commissioner McAllister.

9 COMMISSIONER MCALLISTER: I will move this item.

10 CHAIR HOCHSCHILD: Okay. Let's see, Commissioner
11 Douglas, would you be willing to second?

12 COMMISSIONER DOUGLAS: Yes, I second this item.

13 CHAIR HOCHSCHILD: Okay, all in favor?

14 Commissioner McAllister?

15 COMMISSIONER MCALLISTER: Aye.

16 CHAIR HOCHSCHILD: Commissioner Douglas?

17 COMMISSIONER DOUGLAS: Aye.

18 CHAIR HOCHSCHILD: Vice Chair Scott?

19 VICE CHAIR SCOTT: Aye.

20 CHAIR HOCHSCHILD: Commissioner Monahan?

21 COMMISSIONER MONAHAN: Aye.

22 CHAIR HOCHSCHILD: And I vote aye as well.

23 That item passes unanimously.

24 Let's move on to Item 5, the 2020 Repeal of Self-
25 Contained Lighting Controls and Other Amendments. Carlos

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1 Baez.

2 MR. BAEZ: Good morning Chair and Commissioners.
3 My name is Carlos Baez and I'm an Energy Efficiency
4 Specialist in the Appliances Office. Also with me online
5 are Corrine Fishman and Lisa DeCarlo from the Energy
6 Commission.

7 I'm here today seeking adopting of rulemaking
8 docket 20-AAER-01 regarding the Title 20 Appliance
9 Efficiency Regulations. This rulemaking is the 2020 repeat
10 of Self-Contained Lighting Controls and other Amendments.

11 The next slide, please. The Appliance Efficiency
12 Regulations contain mandatory requirements for both
13 federally-regulated and state-regulated appliances to
14 provide manufacturers, distributors, retailers and
15 consumers of appliances with a clear and comprehensive set
16 of requirements in a single location.

17 The benefits of this rulemaking include the
18 removal of duplicative requirements for self-contained
19 lighting controls. In addition, this rulemaking eases
20 compliance for manufacturers of appliances by making minor
21 clarifying changes to the Title 20 Regulations. This leads
22 to increased energy and water savings for California
23 households.

24 The next slide, please. This type of rulemaking
25 is often referred to as a cleanup and proposes several

1 nonsubstantive and clarifying changes to Title 20. The
2 changes cover Sections 1601 through 1607. The proposed
3 changes do not include new energy or water efficiency
4 standards, new testing or marketing requirements, or
5 changes to the general certification process regarding
6 certification to the appliance database. The appliance
7 database refers to the modernized appliance efficiency
8 database system, called MAEDbS for short.

9 The 45-day written public comment period for this
10 rulemaking ended on November 23rd, 2020 and CEC staff
11 hosted a public hearing on December 3rd to receive
12 additional public comment.

13 The next slide, please. Most of the changes to
14 this rulemaking involve the proposed removal of the
15 appliance type called self-contained lighting controls.
16 These are products like occupancy sensors and daylight
17 control devices that control the amount of light that is
18 emitted from a light fixture. This rulemaking proposes to
19 completely remove this appliance type from the Title 20
20 Regulations. This involves the removal of all definitions,
21 energy performance and design standards, and testing,
22 marketing, and certification requirements relating to
23 lighting controls.

24 During development of the 2019 Energy Code, Title
25 24, the CEC included requirements for lighting control

1 devices. These Title 24 requirements became effective
2 January 1, 2020 and supersede those in the Title 20
3 Appliance Efficiency Regulations. Therefore, we are
4 proposing to repeal self-contained lighting controls in
5 Title 20 to avoid duplicative regulation.

6 If this rulemaking is adopted, self-contained
7 lighting controls will no longer have to comply with Title
8 20 in order to be sold or offered for sale in California,
9 but they still must comply with the separate 2019 Energy
10 Code.

11 The next slide, please. One notable change in
12 this rulemaking involves the appliance type called portable
13 luminaires. These are products like table lamps and desk
14 lamps. The proposed change is to remove the minimum light
15 output requirement for LED luminaires. The current
16 requirement states that these products must produce the
17 light output of at least 200 lumens. The issue is that
18 this requirement leads to the creation of some products
19 that produce more light than is necessary, like directional
20 reading lamps for example, which only need a small amount
21 of light for their intended use. This leads to higher
22 energy use in some products. Because the regulations are
23 intended to reduce energy use, removal of this requirement
24 is appropriate.

25 The requirement was originally put in place to

1 prevent portable luminaires from being sold with LED bulbs
2 that were extremely dim. However, after adoption of
3 separate standards for LED bulbs under Title 20, back in
4 2016, and recent market transformation for LEDs this is no
5 longer a concern.

6 This is the only proposed change for portable
7 luminaires. The remaining standards ensure that the
8 portable luminaire is energy efficient.

9 The next slide, please. Here are the other
10 proposed changes involved. As I mentioned earlier, Title
11 20 includes both state and federal requirements for
12 appliances. Rulemakings, like this one, are needed in
13 order to incorporate federal requirements into Title 20.
14 The proposed changes involve edits in Title 20 to some
15 federally-regulated appliances in order to match exactly
16 what is shown in federal law.

17 Next, there are some updates to data
18 certification requirements for certain appliances. These
19 updates to the data certification section in Table X are
20 needed to properly align the data fields required for
21 certification with the most current testing and performance
22 requirements for those specific appliances.

23 Lastly, there are some proposed changes that
24 provide clarifying edits, numbering, and cross-reference
25 updates, and other edits to ensure consistent formatting

1 and terminology throughout Title 20.

2 The next slide, please. Staff recommends
3 adoption of rulemaking 20-AAER-01 regarding the amendments
4 to the Title 20 Appliance Efficiency Regulations. Also
5 recommended is adoption of staff's determination that this
6 action is exempt from CEQA.

7 Thank you for your time today. We are available
8 to answer any questions.

9 CHAIR HOCHSCHILD: Thank you, Carlos.

10 Let's go to public comment. Any public comment
11 on Item 5, Noemi?

12 MS. GALLARDO: This is Noemi, the Public Adviser.
13 No comments.

14 CHAIR HOCHSCHILD: Okay, let's move to
15 Commissioner discussion. Commissioner McAllister?

16 COMMISSIONER MCALLISTER: Yeah, so this is
17 basically a good government, keep-it-simple action. You
18 know, we've been very successful in transforming the
19 lighting market and we are really just here dealing with a
20 couple of legacy issues that arise with that process of
21 transforming with our various authorities in the state,
22 Title 20 and Title 24. And also, you know, the fact that
23 small luminaires were an issue that sort of got overlooked
24 or got a little bit crossed by, over time, as the
25 marketplace developed and all lighting across the board got

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1 very efficient.

2 And so, we're really just cleaning up to clarify
3 and be consistent, and not making any energy sacrifices
4 here with these small changes. So, very much support this
5 and really appreciate Carlos, and Pierre, and the whole
6 team again in the Appliances Office for making this happen,
7 and bringing it to us.

8 CHAIR HOCHSCHILD: Great. Any Commissioner
9 discussion?

10 Seeing none, Commissioner McAllister, you wanted
11 to make the motion?

12 COMMISSIONER MCALLISTER: I will move this item.

13 CHAIR HOCHSCHILD: Okay. Commissioner Monahan
14 will you be willing to second?

15 COMMISSIONER MONAHAN: I second this item.

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

18 COMMISSIONER MCALLISTER: Aye.

19 CHAIR HOCHSCHILD: Commissioner Monahan?

20 COMMISSIONER MONAHAN: Aye.

21 CHAIR HOCHSCHILD: Commissioner Douglas?

22 COMMISSIONER DOUGLAS: Aye.

23 CHAIR HOCHSCHILD: Vice Chair Scott?

24 VICE CHAIR SCOTT: Aye.

25 CHAIR HOCHSCHILD: And I vote aye as well.

1 That item passes unanimously.

2 Let's move on to Item 6, California Air Resources
3 Board. Shaun Ransom, can you hear us?

4 MR. RANSOM: Yeah, hi. Good morning Chair and
5 Commissioners. My name is Shaun Ransom, staff in the Fuels
6 and Transportation Division, and I'm here today to present
7 the proposed resolution to approve the interagency
8 agreement for the Clean Mobility Voucher Pilot Program in
9 collaboration with the California Air Resources Board.

10 The next slide, please. The Clean Mobility
11 Voucher Pilot Program is a first-come, first-served,
12 California wide shared mobility program that supports zero
13 emission vehicles and infrastructure. The program improves
14 access to clean mobility options by working with
15 communities to create specialized mobility programs that
16 meet their specific needs.

17 It reduces barriers to zero emission
18 transportation. The Voucher Program builds on SB 350
19 recommendation to reduce barriers by improving access to
20 public funding. It increases mobility options in
21 disadvantages communities. The Voucher Program focuses on
22 traditionally under-represented communities that are
23 continuously revised with each successive funding window.

24 And from a funds place-based and community-driven
25 mobility solution the Voucher Program puts emphasis on

1 recipients that have community-based organizations and
2 nonprofits as part of the applicant team and has had
3 extensive engagement with the targeted community.

4 The next slide, please. The interagency
5 agreement is for \$8 million of clean transportation program
6 funds and this is to expand and increase the amount of
7 vouchers in the program. The program is a first-come,
8 first-served, web-based voucher program and currently
9 focuses on disadvantaged and low-income, affordable housing
10 and California Native Tribal Communities.

11 Recipients have access to a host of services,
12 including technical assistance, tools for community
13 engagement, and resources for mobility program development.

14 Some examples of shared mobility are ride-
15 sharing, car-sharing and micromobility.

16 The next slide, please. So, the program has
17 three phases and multiple funding cycles. The first phase
18 is outreach. California Air Resources Board and
19 contractors have developed strategic outreach plans and
20 help workshops throughout California to engage targeted
21 communities, raise awareness about the Voucher Program, and
22 build vital relationships.

23 The second phase is a needs assessment. And this
24 uses community outreach, transportation gap analysis, and
25 local travel demands, among other metrics to identify

1 mobility program models that will work best in the
2 communities.

3 And the final phase is the action mobility
4 vouchers. And these provide the necessary funds to build
5 out mobility programs. Voucher funds support vehicles,
6 charging infrastructure, and upgrades to sites such as bike
7 lanes and curbside improvements. The first round of
8 vouchers has been identified and CEC funding, if approved,
9 will be available in the second round set for the first
10 half of next year.

11 The next slide, please. So, some of the equity
12 highlights are there's preliminary and ongoing outreach,
13 education, and capacity building. From phase one outreach
14 until the program deployment and operations, recipients
15 will receive specialized assistance in all components of
16 their projects.

17 There's a streamlined application process. The
18 applications are online and in a checkbox style that allows
19 recipients to apply without burdening small offices with
20 lengthy proposals or relying on outside resources, such as
21 grant writers. Technical assistance recipients will
22 receive several layers of assistance. This includes
23 application assistance, mobility program development tools
24 for community engagement, invoicing, multi-lingual
25 platforms and a mobility allowance made up of the

1 successful voucher recipients to share experiences and
2 provide peer-to-peer feedback.

3 Service to traditionally underrepresented
4 communities, currently the voucher program is focusing on
5 disadvantaged communities, low-income affordable housing,
6 and California Native Tribal Communities. The interagency
7 agreement would expand the eligibility for all low-income
8 communities.

9 And finally, the Voucher Program is guided by
10 working groups that have so far identified these
11 communities. The program has regular meetings that
12 continually address program improvement and communities
13 that have not yet been identified for the Voucher Program.

14 The next slide, please. So, with that staff
15 recommends the approval of Agreement 600-20-001. And this
16 concludes my presentation. Thank you and I'm available for
17 any questions.

18 CHAIR HOCHSCHILD: Thank you.

19 Let's move on to public comment. Is there public
20 comment, Noemi?

21 MS. GALLARDO: This is --

22 CHAIR HOCHSCHILD: Yup.

23 MS. GALLARDO: Yes, apologies, Chair. This is
24 Noemi, the Public Adviser. We do have three people on the
25 line to make public comment. I'll remind everybody to

1 please spell their first and last names, and you have up to
2 three minutes to provide your comments. There's a timer on
3 the screen, for those of you who can see the screen, and we
4 will let you know when your time is up if you are going
5 past the three minutes.

6 We will start out with a representative from the
7 California Air Resources Board, Ava Yaghoobirad. And Ava,
8 I apologize if I did not pronounce your name correctly.
9 Please restate it and spell it for us so we get it right.

10 MS. YAGHOOBIRAD: Hello, can you hear me?

11 MS. GALLARDO: Yes, we can.

12 MS. YAGHOOBIRAD: Good morning Commissioners. My
13 name is Ava, A-V-A, Yaghoobirad, Y-A-G-H-O-B-I-R-A-D. With
14 staff on this project, with the California Air Resources
15 Board, thanks for having me and for the opportunity to
16 comment.

17 I'm here today to express my excitement on behalf
18 of CARB and the Clean Mobility Options Administrative Team,
19 and this great collaboration and partnership between the
20 two agencies to support the state by Clean Mobility Voucher
21 Pilot Program.

22 As Shaun mentioned in his presentation, this
23 program was created as a result of the two Senate Bill 350
24 Barriers Report, and its recommendations to minimize
25 barriers that low-income and disadvantaged communities face

1 to access clean transportation.

2 We're trying to build a long-term program that
3 will bring clean vehicles and infrastructure to the people
4 that need them the most.

5 First and foremost this partnership will
6 streamline the use of the state funds from both agencies
7 and provide greater support for under-resourced communities
8 to develop the projects that are tailored to their
9 community needs and priorities.

10 In addition, this partnership will help us to
11 further technical assistance and capacity building for
12 disadvantaged, low-income, and Tribal Communities around
13 the state, fund more clean transportation projects in these
14 communities, such as electric car sharing, bike, scooter
15 sharing, carpool, vanpool, ride on demand and innovative
16 transit services.

17 When we opened the application window for the
18 community transportation needs assessments in June this
19 year, we were over-subscribed in just two minutes. The
20 Mobility Project application window was opened in October
21 with \$20 million in funds, and we received more than 30
22 applications on the first day, and again had to close the
23 window much sooner than we were anticipating.

24 It seems the demand for these types of projects
25 is unlimited. Our goal is to build a long-term, robust

1 foundation for mobility equity and create sustainable high
2 quality transportation options that benefit all people,
3 regardless of socioeconomic status.

4 I would like to thank the CEC team who worked
5 with us in the past couple of months to develop the
6 interagency agreements. And thanks to the Commissioners
7 for their support. We're looking forward to working
8 together to successfully meet the program goals, learn from
9 each other along the way, and help more communities to
10 achieve their transportation goals.

11 This is truly a win for the residents in
12 disadvantaged, in low-income, and Tribal Communities.
13 Thank you.

14 CHAIR HOCHSCHILD: Thank you.

15 Any other public comment on this item?

16 MS. GALLARDO: Yes. This is Noemi, the Public
17 Adviser. Next, we have Julia Randolph from the Coalition
18 for Clean Air. Julia, reminder to spell your name before
19 you begin speaking. Your line should be open, Julia. You
20 can begin.

21 MS. RANDOLPH: Hi, Julia Randolph, J-U-L-I-A R-A-
22 N-D-O-L-P-H. Good morning, Julia Randolph with the
23 Coalition for Clean Air. We support this priorities
24 resolution with the Air Resources Board for the \$8 million
25 interagency agreement to expand and operate the Clean

1 Mobility Voucher Pilot Program.

2 This resolution is instrumental for this program
3 in a year where clean transportation funding has been
4 minimal. This proposed resolution will assist in air
5 pollution and GHG emission reductions in disadvantaged,
6 low-income, and Tribal Communities which really need those
7 reductions.

8 We really appreciate that the Energy Commission
9 is doing this and cooperating with the Air Resources Board.
10 Thank you.

11 CHAIR HOCHSCHILD: Thank you.

12 Is that it, Noemi, or do we have any more public
13 comment?

14 MS. GALLARDO: We have one more public comment
15 from Elizabeth Szulc of CALSTART. And Elizabeth, apologies
16 if I mispronounce your name. Please spell your name before
17 speaking. Your line should be open, please begin.

18 MS. SZULC: Hello Commissioners. My name is
19 Elizabeth Szulc and I am a Policy Associate with CALSTART.
20 CALSTART is a member-based -- oh, let me spell my last
21 name. First name is E-L-I-Z-A-B-E-T-H. And my last name
22 is S-Z-U-L-C.

23 Again, I am a Policy Associate with CALSTART, a
24 member-based nonprofit focusing on advancing clean
25 transportation, and we administer the Clean Mobility

1 Options Program. CMO is a tremendous program for providing
2 new, equitable mobility options. It needs to grow and
3 expand. And with the pandemic, communities are in need of
4 new mobility options now, more than ever.

5 The Commission's approval of this additional
6 budget will allow the program to grow significantly and
7 serve new communities with new mobility projects in 2021.

8 We appreciate CEC's confidence in CALSTART and
9 the program, and we look forward to partnering with the
10 Energy Commission on clean mobility. Thank you.

11 CHAIR HOCHSCHILD: Thank you.

12 Is that it, Noemi?

13 MS. GALLARDO: That is it. No more comments.

14 CHAIR HOCHSCHILD: All right, let's go to
15 Commission discussion. Commissioner Monahan.

16 COMMISSIONER MONAHAN: Well, first I just want to
17 thank Shaun and the CTP team, plus Ava and the Air
18 Resources Board team on making this happen. There's so
19 much work that goes into the background here in terms of
20 making sure that we have checked all the boxes so that our
21 funding stream and CARB's funding stream can work together.
22 And we're trying to do this in the way that doesn't make it
23 painful for the outside world. We want this to be easy for
24 the outside world and to see us as a single entity of our
25 state supporting clean mobility options.

1 So, this project really models that. And I know
2 that there were a lot of, you know, hurdles and hassles in
3 this. But I just want to just say to both teams, a really
4 great job on this.

5 You know, we in the Clean Transportation Program
6 have really highlighted the need for enhanced mobility for
7 disadvantaged communities. But as we reduce emissions and
8 electrify our transportation system, we also need to make
9 sure that people can get to doctor's appointments, and
10 people can get to school, and that we have the right
11 mobility options especially to support disadvantaged
12 communities.

13 And this checks all the boxes in terms of like,
14 well, how do we enhance mobility for disadvantaged
15 communities? How do we electrify transportation? How do
16 we make sure that we are making investments that actually
17 benefit communities that are not imposed by the government.

18 So, I just -- I do love this project. I feel
19 like it really reflects all the goals that we have around
20 clean transportation and supporting disadvantaged
21 communities.

22 CHAIR HOCHSCHILD: Great. Thank you,
23 Commissioner.

24 Vice Chair Scott. You are muted, Vice Chair.

25 VICE CHAIR SCOTT: Sorry, I was double muted

1 there. I just wanted to say kudos and congratulations to
2 Commissioner Monahan and our colleagues at the Air
3 Resources Board. It is a challenge sometimes to put those
4 two funding streams together, so great work in making that
5 happen.

6 And I did have just a question for you about the
7 first-come, first-served. And I wonder how we combine that
8 with ensuring that we get the benefits kind of spread out
9 across the communities, the low-income, the disadvantaged
10 communities, the Tribal Communities that we're trying to
11 hit. And so, I don't know maybe that's a question for
12 Shaun or for Commissioner Monahan, but if you have some
13 additional thoughts on that, I'd love to hear it.

14 COMMISSIONER MONAHAN: Shaun, can you take that
15 one?

16 MR. RANSOM: Yeah. Thanks Vice Chair. Yeah, and
17 so we have taken a look at some of these agencies that
18 might come in. And actually, the first results we got from
19 the community needs assessments we did an analysis on it.
20 And we were able to see that the recipients were very well
21 spread out over California. And that is part of the
22 outreach effort that's done in the phase one to make sure
23 that everyone is engaged, and everyone knows about the
24 program. And I think it really showed in the community
25 needs turnout.

1 So, really, kudos to the CMO team on that front.

2 VICE CHAIR SCOTT: Okay, thanks.

3 CHAIR HOCHSCHILD: Okay. Unless there's any
4 Commissioner discussion let's take a motion. Commissioner
5 Monahan are you willing to make the motion?

6 COMMISSIONER MONAHAN: I move to approve Item 6.

7 CHAIR HOCHSCHILD: Vice Chair Scott, are you
8 willing to second?

9 VICE CHAIR SCOTT: Yes, I second.

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

12 Commissioner Monahan?

13 COMMISSIONER MONAHAN: Aye.

14 CHAIR HOCHSCHILD: Vice Chair Scott?

15 VICE CHAIR SCOTT: Aye.

16 CHAIR HOCHSCHILD: Commissioner McAllister?

17 COMMISSIONER MCALLISTER: Aye.

18 CHAIR HOCHSCHILD: Commissioner Douglas?

19 COMMISSIONER DOUGLAS: Aye.

20 CHAIR HOCHSCHILD: And I vote aye as well.

21 That item passes unanimously.

22 Let's move on to Item 7, Hydrogen Refueling
23 Infrastructure.

24 MS. BERNER: Good morning Chair Hochschild and
25 Commissioners. My name is Jane Berner, from the Fuels and

1 Transportation Division. I will be presenting Agenda Item
2 7, in which staff is giving approval of proposed
3 resolutions for three grants agreements resulting from the
4 recent competitive grant solicitation for hydrogen
5 refueling stations, which is GFO-19-602.

6 The three proposed awardees are FirstElement
7 Fuel, Incorporated, Equilon Enterprises LLC, doing business
8 as Shell Oil Products U.S., and Iwatani Corporation of
9 America.

10 The next slide, please. GFO-19-602 sought
11 proposals to fund publicly available hydrogen refueling
12 station projects. These three agreements will advance the
13 state towards its air quality and climate change goals,
14 which include reaching 200 stations by 2025. This fueling
15 infrastructure will help California transition to the goal
16 in Governor Newsom's executive order and 7920 that 100
17 percent of new passenger vehicle sales be zero emission by
18 2035.

19 The next slide, please. The CEC has supported
20 station development careers by providing Clean
21 Transportation Program grant funds to station developers.
22 And to date 45 stations have opened and 16 more are in
23 development. With these three new grant agreements, the
24 CEC would be supporting the development of up to 111 new
25 stations and 3 upgrades of existing stations. Adding the

61

1 new stations to the existing, we anticipate 172 stations in
2 total.

3 We can report several positive outcomes from this
4 latest solicitation. The new stations will receive on
5 average a grant, while also providing more hydrogen
6 expansion capacity.

7 Trying to reduce station costs was the main
8 objective of GFO-19-602 and we believe the results show we
9 are making progress in this effort. And to demonstrate how
10 station capacity is growing, the stations opened today can
11 sell on average a maximum of about 80 vehicles today, while
12 the new stations will be able to sell over 200 vehicles per
13 day on average.

14 Another positive outcome is that station
15 developers are beginning to undertake station projects on
16 their own without the support of grant funding.

17 The next slide, please. Both FirstElement Fuel
18 and Iwatani Corporation of America have announced plans to
19 build stations with only private funding. The proposed
20 award to FirstElement Fuel before you today includes 16
21 stations that are not budgeted to receive any grant
22 funding.

23 And outside of the CEC project, Iwatani
24 Corporation of America is pursuing 7 privately funded
25 stations in partnership with Toyota Motor North America, as

1 it recently announced in the press release shown here.

2 The 172 stations total that I mentioned on the
3 previous slide does not include the 7 from Iwatani so,
4 altogether, staff anticipates California will have 179
5 stations when these projects are complete.

6 The next slide, please. Now that I've provided
7 this overview, I will briefly discuss how these grant
8 agreements are structured. In each awardee's agreement
9 funding will be provided for an initial batch of hydrogen
10 refueling stations. This totals \$29.8 million to support
11 the development of 30 stations, which has the capacity to
12 support a population of about 60,000 more fuel cell
13 electric vehicles. The current funded network can support
14 about 36,000 fuel cell electric vehicles, so in total they
15 would support nearly 100,000 vehicles.

16 Of this funding, \$24.8 million is from the Clean
17 Transportation Program and \$5 million is from the
18 Volkswagen Environmental Mitigation Trust Fund, which will
19 be allocated to the FirstElement Fuel agreement. The CEC
20 is supplying this \$5 million on behalf of the Bay Area Air
21 Quality Management District. We want to take this
22 opportunity to thank them and the California Air Resources
23 Board who worked with us to coordinate the use of this
24 funding in GFO-19-602.

25 The next slide, please. In addition to the

1 initial amount of funding for these agreements, if the
2 Commission approves this item today it will also be
3 approving an up to amount of funding for each agreement.
4 CEC staff may add future Clean Transportation Program
5 Funding to the agreement if and when the awardees meet
6 various milestones, such as having all of their currently
7 funded stations approved to build, and having site control
8 on the next batch of stations, and contingent upon funding
9 being available and allocated in Clean Transportation
10 Program Investment Plan.

11 This table shows the up to funding amounts and
12 the total number of stations that the awardees would
13 deliver if they receive the maximum amounts of funding
14 possible, which is \$115.7 million. Grant awardees would
15 supply \$131 million in match funding towards these
16 projects. These stations would support a population of
17 nearly 200,000 fuel cell electric vehicles and when added
18 to the existing network about 230,000 vehicles total.

19 The next slide, please. Here we have images of
20 what the stations are proposed to look like from each of
21 the proposed awardees. These stations will have -- will be
22 able to fuel 2 to 4 fuel cell electric vehicles
23 simultaneous, whereas most of the stations open today can
24 only fuel one vehicle at a time.

25 In addition, GFO-19-602 encouraged applicants to

1 consider ways to serve medium- and heavy-duty commercial
2 fleets without diminishing the light-duty customers'
3 fueling experience. Five of the stations planned by
4 FirstElement Fuel will have purposeful infrastructure for
5 heavy-duty trucks. And Equilon station design anticipates
6 the possibility by medium-duty vehicle fleets, such as
7 delivery vans.

8 The next slide, please. Staff recommends
9 approval of these proposed resolutions for the three grant
10 agreements so that these hydrogen refueling station
11 projects can commence. I believe representatives from the
12 three proposed grant awardees, the Bay Area Air Quality
13 Management District, and the Governor's Office of Business
14 and Economic Development have called into this meeting to
15 provide comments. And we will also answer any questions
16 you may have. And thank you for your consideration of this
17 item.

18 CHAIR HOCHSCHILD: Thank you. Let's go to public
19 comment.

20 MS. GALLARDO: This is Noemi, Public Adviser.
21 First, we have six folks on the line to make public
22 comment. First, we'll go with Gia Vacin from GO-Biz.
23 Everybody, just a reminder, please spell your first and
24 last names, indicate your affiliation and then you may
25 begin.

1 So, Gia, you'll be first. Your line should be
2 open. Please spell your name and begin.

3 MS. VACIN: Okay, hello. I'm Gia Vacin, G-I-A
4 V-A-C-I-N. Good morning Chair and Commissioners, I'm Gia
5 Vacin. I'm the Assistant Deputy Director of zero emission
6 vehicle market development at GO-Biz.

7 GO-Biz fully supports approval of these
8 agreements. GFO-19-602 will help the state get much closer
9 to Executive B-48-18 and the hydrogen station target of 200
10 stations. And it's certainly aligned with Governor
11 Newsom's order N-79-20, calling for 100 percent broadly
12 across the weight classes in the next 15 to 25 years.

13 This multi-year GFO is a result of excellent work
14 that was done by the CEC. And I appreciate and applaud the
15 efforts of the staff and Commissioner Monahan. The GFO
16 incorporated input from industry on how public funding
17 could be more effectively deployed to help unlock the time
18 of the sale, bring in significantly more private
19 investments, and help drive down costs, and accelerate
20 development of the retail hydrogen station network.

21 CEC takes these comments seriously and developed
22 a really elegant funding opportunity structure. And I
23 think the applications that came in show that it did just
24 what it was intended to. There are many exciting trends
25 since the last GFO, in 2016, that we can point to. And

1 Jane mentioned some great ones already. But, you know, for
2 example we have had a 3 to 8 time increase in station
3 capacity. And simultaneously, a 40 percent decrease in
4 station costs. And as Jayne also noted, we're being to see
5 stations being developed solely with private funding, which
6 is a really positive trend.

7 So, something else that I noticed that I wanted
8 to point out is that the results of the scoring process
9 were already also pretty remarkable. Every applicant
10 received a passing score. And I personally haven't seen
11 that before, but I'm sure it has happened, but I haven't
12 seen it. And I think it speaks to the caliber of the
13 station developers that are interested in the California
14 market.

15 And with regard to the proposed awardees,
16 FirstElement, Shell and Iwatani, GO-Biz has worked closely
17 with all of them. And in my team's experience they're
18 great collaborators and real pros with the experience and
19 commitment to get the job done. And I believe that they'll
20 also continue to find new ways to keep advancing the market
21 and driving down costs. They're also committed to
22 increasing the use of renewable hydrogen, which is very
23 important to the state, and of course to GO-Biz and CEC.

24 And since 2016 to this GFO, we've actually seen a
25 20 percent to 300 percent increase in renewable content in

1 the network. And in fact, FirstElement and Shell have
2 stated that they're already selling 100 percent renewable
3 hydrogen at their stations, which comprises more than 60
4 percent of the station network their stations do. So,
5 that's obviously a very positive trend.

6 So, again GO-Biz is supportive of this item and
7 this GFO and we look forward to working together with CEC
8 and to the awardees to do what we can to get the stations
9 built and open for drivers. Thank you.

10 MS. GALLARDO: Thank you, Gia.

11 So, next we have Minda Berbeco of the Bay Area
12 Air Quality Management District.

13 And after Minda will be Bill Elrick of California
14 Fuel Cell Partnership.

15 Minda, your line should be open. A reminder to
16 spell your first and last name, and then begin.

17 MS. BERBECO: Sure. My first name is Minda, M-I-
18 N-D-A, and my last name is Berbeco, B-E-R-B-E-C-O.

19 Good morning Commissioners, my name is Minda
20 Berbeco and I'm a Manager in the Strategic Incentives
21 Division at the Bay Area Air Quality Management District.

22 I'm here to express our support of the
23 Commission's approval of awards to the 30 stations,
24 including 5 of which will be co-funded with the VW
25 Environmental Mitigation Trust funding.

1 Under contract with the California Air Resource
2 Board, the Bay Area Air Quality Manager District is serving
3 as administrator for their light-duty infrastructure
4 project category and have been working with California
5 Energy Commission to coordinate the award of \$5 million in
6 VW funds through the CEC's solicitation.

7 I also want to thank the staff on your team,
8 specifically Jean Baronas and Phil Cazal for all their work
9 and dedication to support the accelerated deployment of
10 hydrogen fueling -- refueling infrastructure.

11 We are excited to continue to work with the
12 Energy Commission and look forward to the award and
13 construction of new hydrogen refueling stations. Thank
14 you.

15 MS. GALLARDO: Thank you.

16 Next up is Bill Elrick. A reminder to spell your
17 first and last name, and you may begin Bill.

18 MR. ELRICK: Great. This is Bill Elrick, E-L-R-
19 I-C-K. And I'm the Director of the California Fuel Cell
20 Partnership. Thank you for the time today. Good morning
21 to the Chair and all the Commissioners.

22 I want to just make a few brief comments and
23 commend CEC on a really successful Clean Transportation
24 Program thus far. But notably, around this really historic
25 hydrogen station funding, you know, the shift that staff

1 and the Commission made towards a more market-based
2 approach really is paying off. It's shown in this
3 response, now. Jane, Gia and the others have all kind of
4 highlighted it. But really, funding over 100 stations, the
5 transition to the private market really proving that not
6 only is there great desire and private investment pent up
7 for this zero emission vehicle technology, but really
8 aiming towards that sustainable market that we need to
9 reach for all our ZEV transportation to work, and achieving
10 the Governor's new executive order.

11 And so, this is really exciting news overall.
12 So, I just want to thank you, give the positive comments to
13 both the Commission and really all the staff work that got
14 to this work. I know it's many years in the making.

15 In addition, I'd like to also recognize the
16 uptake to the Investment Plan recently. You know, the
17 stronger recognition around hydrogen and fuel cell vehicles
18 and how they're going to pay an integral part in meeting
19 California's environmental and economic goals. Really
20 great to see that recognized and looking forward to seeing
21 some of the EVI Pro and other opportunities that can be
22 taken for hydrogen that were done for other technologies.

23 So again, thank you for the good work. Look
24 forward to working together more in the future on really
25 accelerating this now towards a successful fuel cell

1 vehicle and ZEV rollout. Thank you.

2 MS. GALLARDO: Thank you, Bill.

3 So, we have three proposed awardees coming up.
4 First will be Tim Brown, second will be Wayne Leighty, and
5 third will be Joe Cappello of Iwatani.

6 Again, a reminder to spell your first and last
7 names and indicate your affiliation before you begin. Tim,
8 your line should be open.

9 MR. BROWN: Sure. This is Tim Brown. It's a
10 tough one, T-I-M B-R-O-W-N. So, I want to thank the
11 Commission for the opportunity to speak today and for the
12 process we're going through here.

13 A little over six years ago FirstElement executed
14 our first infrastructure grant with the California Energy
15 Commission Clean Transportation Program. Since that time
16 we've opened 22 hydrogen stations and we've started
17 development on an additional 16. And we've grown our
18 company from 3 employees to 44.

19 And true to our true zero consumer brand, we've
20 dispensed over 2 million kilograms of hydrogen using zero
21 foreign oil, resulting in zero tailpipe emissions, and our
22 fuel is currently net zero carbon.

23 (Indiscernible) -- grants under consideration
24 today and they're grateful for the Commission's continued
25 efforts to promote all forms of zero emissions

1 transportation. But primarily, in large part due to the
2 CEC, California really leads the world in zero emission
3 hydrogen transportation. And without this beacon that is
4 California, the global industry of hydrogen transportation
5 may not exist. So, the hydrogen grants approved today will
6 accelerate an amazing progress even further. And so,
7 hopefully, in a decade or two when our air is cleaner, and
8 our atmosphere is stabilized, and geopolitical energy
9 landscapes have leveled out a bit, maybe we can look back
10 and remember that at least one great thing came out of the
11 year 2020.

12 So, thank you very much.

13 MS. GALLARDO: Thank you, Tim.

14 Next is Wayne Leighty. Your line should be open,
15 please begin.

16 MR. LEIGHTY: Good morning Chair and
17 Commissioners. My name is Wayne Leighty, W-A-Y-N-E L-E-I-
18 G-H-T-Y. I'm the Commercial Manager for North America at
19 Shell Hydrogen. Thank you for your consideration today of
20 this award of grant funding for hydrogen refueling
21 stations.

22 At Shell Hydrogen we've been building and
23 operating our current hydrogen refueling stations in
24 California since 2010. We're now opening new stations,
25 both for light-duty and heavy-duty vehicles. And as was

1 mentioned, this year we've been selling 100 percent
2 renewable hydrogen.

3 We're very excited to deliver on this next phase
4 of development that we've prepared under the proposed grant
5 agreement. Importantly, we will be doubling station
6 performance while housing the cost, and will be reducing
7 the carbon intensity of the hydrogen supply by 80 percent.

8 We'll also be bringing important new products,
9 new customer experience and new hydrogen supply to
10 California. The expected results for the CEC will that
11 stations can support a population of 1,000 vehicles each.
12 And that the CEC funding per station is reduced by two-
13 thirds from our prior award of grant funding. And the CEC
14 funding capacity of those stations is reduced by three-
15 fourths from the prior award.

16 To make that a bit more tangible, the reduction
17 in the CEC funds per vehicle that can be supported is from
18 \$3,200 per vehicle to \$730.

19 And along with the carbon intensity reduction
20 it's a 93 percent reduction in the CEC funds per greenhouse
21 emission abatement.

22 So again, to make that tangible in the prior
23 award to show it was about \$1,400 of CEC funds per ton of
24 CO2 equivalent emission reductions. Now, with full
25 utilization the proposal is about \$25 of CEC funds per ton

1 of CO2 abatement.

2 I'd close by saying this is not easy. Tremendous
3 progress is needed. I'd like to acknowledge there are many
4 skilled individuals that are dedicated to this mission and
5 purpose, as Tim mentioned as well. The innovative, multi-
6 year structure in GFO-19-605 is a critical enabler. So, we
7 are very grateful for the work by CEC staff and the
8 leadership to create this opportunity and this structure.
9 for your consideration of the award today, and to our
10 continued collaboration in the coming years. Thank you.

11 MS. GALLARDO: Thank you, Wayne.

12 Next is Joe Cappello of Iwatani. Your line is
13 open Joe, please respell your name and begin.

14 MR. CAPPELLO: Good morning. My name is Joe
15 Cappello, J-O-E C-A-P-P-E-L-L-L-O. And I'm the CEO of
16 Iwatani Corporation of America, and also an executive
17 officer of our parent company Iwatani Corporation.

18 Thank you, Commissioners, for allowing me time to
19 offer a few brief comments this morning. And first, we
20 deeply appreciate the California Energy Commission's
21 consideration of Iwatani's grant request which, if
22 approved, will enable our company to continue forward with
23 its intention to be a major participant, investor, and
24 employer in helping the State of California achieve its
25 goals of building out the hydrogen infrastructure necessary

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1 to support the adoption of zero emission hydrogen fuel cell
2 vehicles.

3 Iwatani is the only vertically integrated
4 hydrogen company in Japan, with hydrogen production and a
5 robust and diversified supply portfolio that supports not
6 only our own 5,700 refueling stations, but others in the
7 industry as well. It is our intention to replicate this
8 strategy in California.

9 As you may know, Iwatani established its
10 California business nearly two years ago with the
11 acquisition of four existing liquid hydrogen stations.
12 Major upgrades will be kicking off next month at the West
13 Sacramento station, followed by others. We had planned to
14 have this activity underway, but we were requested to
15 postpone the work due to recent supply issues impacting
16 certain regions in the California market. Fortunately, our
17 supply chain has not been impacted and it allows us to
18 support the community.

19 Our company also recently announced that it will
20 be constructing seven new stations in California. The
21 stations are expected to be commissioned during next year.
22 Our original intention was to include these stations in our
23 GFO request, but the California market needed us to
24 commence construction and commissioning sooner than the
25 process allowed for and thus, the stations will be funded

1 all privately.

2 Having said that, the GFO program is very much
3 needed to assist companies like ours in supporting
4 California achieve its environmental roles. The shift in
5 the program to consider tranche awards clearly allowed our
6 company to consider economies of scale as we contemplated
7 the built out and procurement strategy for the stations.

8 Our intention is for all new stations built under
9 the GFO program to be equipped with state-of-the-art
10 technology to dispense 100 percent renewable hydrogen. And
11 we remain committed to providing nothing short of a great
12 customer experience.

13 I would also like to share that the news of the
14 NOPA was heard around the world. Shortly after the release
15 of the information by the CEC, our company was contacted by
16 many other global companies interested in supporting
17 Iwatani in the California Hydrogen Infrastructure
18 Initiative. The news in Japan was particularly positive
19 and broadly observed.

20 We expect that California's clear commitment to
21 the hydrogen transition will continue to attract global
22 capital investment.

23 In closing, please know that Iwatani is committed
24 to supporting communities identified as disadvantaged and
25 expanding zero emission fueling capacity in these regions,

1 as well as creating new jobs. Every station built will
2 create new operations divisions, along with additional
3 engineering and support personnel.

4 We hope you all remain healthy and safe during
5 these times. And again, we would appreciate your
6 consideration and approval of Iwatani's grant request.
7 Thank you.

8 MS. GALLARDO: Thank you, Joe.

9 Chair that was the last comment.

10 CHAIR HOCHSCHILD: All right. Well, thank you
11 all for sharing those comments.

12 Let's move now to Commissioner discussion.
13 Commissioner Monahan.

14 COMMISSIONER MONAHAN: Well, first I want to
15 thank Jane, Jean, Mark, the whole hydrogen team. I mean,
16 this is a big lift. It actually has been in the work since
17 I started at the Commission which feels like now kind of a
18 long time ago, but maybe a year and a half ago. So, just
19 kudos to all of you for getting to the finish line.

20 And I want to congratulate the awardees for all,
21 you know, submitting these robust applications and for the
22 commitment not just to leverage our funds, but also to
23 commit your own funds and deepen private investment in this
24 sector. And I think that's one of the big takeaways is
25 that the private sector is starting to step up in terms of

1 investing in hydrogen infrastructure.

2 And I am, you know, particularly happy about the
3 fact that what we're seeing is, you know, exceeding -- you
4 know, we've had the 2-day wait problem with hydrogen and
5 fuel cells. And what we're seeing in California right now
6 is, well, here's your chicken, where's the egg, I guess.
7 You know, we want to see more fuel cell vehicles on the
8 road. And we want to see them both in the light-duty
9 sector and in the medium- and heavy-duty sector. And
10 that's a place I want to emphasize because, you know, we've
11 heard loud and clear from our Clean Transportation Program
12 Advisory Committee that the medium- and heavy-duty sector
13 is where the environmental justice community sees a lot of
14 opportunities for electrification to provide concrete
15 benefits in the form of, you know, improved air quality.

16 And so, the fact that these stations aren't just
17 for light duty, but now are also covering medium and heavy
18 duty is something we're particularly excited about and
19 looking forward to, you know, seeing more of the fuel cell
20 vehicles on the road.

21 I think it's the job both now of our agency,
22 together with the Air Resources Board, to provide the right
23 support so that we can see an increased number of fuel cell
24 electric vehicles on the road. This is something that has
25 to happen globally. We need a global transition to fuel

1 cell electric vehicles to really be able to drive down
2 costs and build up scale. But we're trying to show here in
3 California how to do it. And I think the message to the
4 world is, to the EU, to China in particular, I think, where
5 there may be opportunities to kick it on an even heavy-duty
6 side, is we need global scale up. And that's how we're
7 going to bring down prices through the global market for
8 fuel cell electric vehicles.

9 So, we're, for the first time, you know, kind of
10 way ahead of the game in terms of where the market is
11 currently. And CARB's survey of automakers indicates that
12 there will be 50,000 fuel cell electric vehicles, I think
13 those are all light duty, by 2025. And what we're saying
14 here in California is, hey, we've got the infrastructure
15 now, we're getting there so bring those vehicles. Show us
16 the vehicles.

17 And so, the fact that we are getting really close
18 to not just having the 100 stations in operation that's
19 required for our investments in the Clean Transportation
20 Program, but close to the 200 station goal that's in the
21 Governor's executive order and something I think we should
22 all be very proud of. And so, yeah, just congratulations
23 to the whole team of folks. To FirstElement which, by the
24 way, wins the award for the best name. I'm sorry to say,
25 Shell and Iwatani. But it appeals to my nerd self. But

1 the fact that we have, you know, two companies that are
2 focused just on accelerating the hydrogen economy, one
3 company, Shell, that has a long history of providing
4 fueling infrastructure for vehicles, also investing in
5 this, I just want to congratulate all of them for winning
6 these awards. And thanks for your investment in California
7 and hydrogen.

8 CHAIR HOCHSCHILD: Thank you, Commissioner
9 Monahan.

10 Any other comments from Commissioners? Vice
11 Chair Scott.

12 MS. GALLARDO: Oh, Chair?

13 VICE CHAIR SCOTT: Yeah, I would love to -- oh,
14 I'm sorry.

15 MS. GALLARDO: Sorry about that. This is Noemi,
16 the Public Adviser, apologies for the interruption. I did
17 miss a commenter who's on the Verizon line, James Dumont
18 from Build Momentum.

19 CHAIR HOCHSCHILD: Yes, let's take that.

20 MS. GALLARDO: I'd like to give him an
21 opportunity.

22 CHAIR HOCHSCHILD: Yeah, let's take that comment.

23 MS. GALLARDO: Yeah, so -- okay, so James my
24 apologies. Again, this is Noemi, the Public Adviser. We
25 are opening up your line that you can give your comments.

1 And please spell your last name, more importantly, and
2 state your affiliation. You may begin speaking.

3 MR. DUMONT: Excellent. Thank you very much.
4 Good morning. My name is James Dumont, J-A-M-E-S D-U-M-O-
5 N-T. I'm with Build Momentum, Inc.

6 I agree with the Commissioners and the previous
7 speakers, we are very pleased to see these projects moving
8 forward and fully support the important advances this
9 funding will make in supporting the state's transportation
10 electrification goals.

11 In reviewing the revised Notice of Proposed
12 Awards that was released yesterday afternoon, it's apparent
13 that there was approximately \$7 million reduced from the
14 Batch 1 awards by Iwatani changing the order of their
15 dispatches. Recognizing the sea change occurring at the
16 federal level with the election of president-elect Joe
17 Biden, I would like to encourage the Energy Commission to
18 leverage these remaining Batch 1 funds to fund down the
19 list, having faith that president-elect Biden's proposed
20 federal funding for alternative fueling infrastructure and
21 alternative fuels core awards programs will enable the CEC
22 to fund additional, subsequent batches beyond those
23 currently contemplated by awardees.

24 This will send a strong signal to the hydrogen
25 industry and enable further rapid deployment of greater

1 hydrogen fueling capacity and the attendant benefit of job
2 creation and environmental protections that come along with
3 those.

4 And that really is the extent of my comment.
5 Thank you very much for this important program and all of
6 your efforts.

7 CHAIR HOCHSCHILD: Thank you.

8 MS. GALLARDO: Thank you, James.

9 CHAIR HOCHSCHILD: Let's go to Vice Chair Scott.

10 VICE CHAIR SCOTT: All right. Well, thank you.
11 I just wanted to echo some of the things you heard
12 Commissioner Monahan say. To me, this is another very
13 exciting space. It's kind of akin to what we're doing in
14 the Lithium Valley to really push the industry forward and
15 show the way on all of these clean energy technologies.
16 It's really exciting for me to see the evolution of these
17 stations and also the evolution of this industry in a
18 relatively short period of time.

19 And I also want to give a shout out to our
20 wonderful team, under the leadership of Commissioner
21 Monahan, with the evolution of the solicitations that the
22 Energy Commission is putting out in this space to help
23 support this. I think that it shows -- I think the
24 solicitations have kind of evolved in a smart way, along
25 with the way that the industry is evolving. And I think it

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1 really shows when we do this right, we can move markets.

2 It's just really exciting.

3 And it's really neat to see all the changes,
4 right. I mean there's decrease in cost, there's inclusion
5 of medium duty and heavy duty, there's creation of jobs.
6 We are increasing the use of renewable and green hydrogen.
7 We're increasing private funding in this space. And we're
8 building out options that are really going to help us as a
9 state get to our zero emission vehicle goals. And that, in
10 turn, helps us get to the really important clean air and
11 climate goals that we have. So, I just wanted to layer on
12 my enthusiasm for this.

13 CHAIR HOCHSCHILD: Thank you, Vice Chair.

14 Unless there's other comments from other
15 Commissioners --

16 COMMISSIONER MCALLISTER: I want to make a quick
17 comment, just to --

18 CHAIR HOCHSCHILD: Yeah, go ahead.

19 COMMISSIONER MCALLISTER: Yeah, just quickly. I
20 agree with this item, I think it's great. And just to
21 build on something that Commissioner Monahan said, you
22 know, the broad, and actually Vice Chair Scott as well, you
23 know this -- I think we're seeing a stepwise evolution of
24 the hydrogen industry. And the dawning kind of
25 appreciation of the fact that the ecosystem goes beyond --

1 the optimal ecosystem does go beyond the transportation
2 sector and really includes, you know, storage. Electric
3 sector applications including storage, seasonal storage
4 perhaps, and also the power sector itself.

5 And so, what that exactly looks like over time
6 kind of remains to be seen. But I think there's a lot of
7 legitimate excitement sort of interest in the investor
8 community to see where this is going to go to help us
9 achieve our renewable integration goals, and get zero
10 carbon power sector.

11 And so, as those dots begin to be connected and
12 actual projects start to do it, I think that's really
13 exciting. So, this maturation is really -- we're on the
14 front end of it, but I think there are a lot of
15 jurisdictions across the globe that are having similar
16 light bulbs go off that they need to invest in this as a
17 decarbonization strategy. And we're partnering with many
18 of them in Europe, and elsewhere, and in Japan. So, very
19 exciting. I'm very excited to pursue this going forward
20 and to look for other opportunities, you know, along the
21 lines of this, the Lithium Valley, as Vice Chair Scott
22 said, to simulate its growth in strategic ways.

23 I think that's exactly what California's good at
24 and what we need to look for opportunities to do. So,
25 thanks.

1 CHAIR HOCHSCHILD: Thank you, Commissioner.

2 Unless there's other Commissioner comments -- I
3 guess the only thing I would say is obviously the Governor
4 issuing the ZEV executive order is one of the biggest
5 developments of the Newsom administration and it sent I
6 think a very clear signal to the state, to the country, and
7 the world. And by the way has already led to adoption of
8 similar policies in other countries since the order was
9 done a few months ago. But that's the direction we're
10 going towards a clean transportation future. And today
11 it's another milestone in our progress there.

12 So, congratulations to all of the awardees, and
13 to Commissioner Monahan and the whole team who worked on
14 this.

15 Commissioner Monahan, would you be willing to
16 make the motion?

17 COMMISSIONER MONAHAN: I move to approve Item 7.

18 CHAIR HOCHSCHILD: Okay, Vice Chair Scott are you
19 willing to second?

20 VICE CHAIR SCOTT: Yes, I'll second Item 7.

21 CHAIR HOCHSCHILD: Okay, all in favor say aye.
22 Commissioner Monahan?

23 COMMISSIONER MONAHAN: Aye.

24 CHAIR HOCHSCHILD: Vice Chair Scott?

25 VICE CHAIR SCOTT: Aye.

1 CHAIR HOCHSCHILD: Commissioner Douglas?

2 COMMISSIONER DOUGLAS: Aye.

3 CHAIR HOCHSCHILD: Commissioner McAllister?

4 COMMISSIONER MCALLISTER: Aye.

5 CHAIR HOCHSCHILD: And I vote aye as well.

6 That item passes unanimously.

7 Let's move on to Item 8, Local Ordinance

8 Applications.

9 MS. DROZDOWICZ: Good morning Chair and
10 Commissioners. I am Danuta Drozdowicz. I work in the
11 Efficiency Division's Building Standards Office and I'm
12 here to present local ordinances that exceed the Energy
13 Code from jurisdictions that have applied to the CEC for
14 approval.

15 Joining me today is Jacqueline Moore from the
16 Chief Counsel's Office.

17 The next slide, please. Jurisdictions that adopt
18 local ordinances are living laboratories, exploring
19 technologies for a clean energy future, and reducing state
20 greenhouse gas emissions as they lead from the grassroots.

21 The next slide, please. For local standards to
22 be enforceable, the jurisdiction must file with the CEC its
23 determination that its standards are cost effective. And
24 the CEC must then find that the local standards reduce
25 energy consumption compared to the current Statewide Energy

1 Code.

2 The next slide, please. To date under this code
3 cycle 33 ordinances from 29 jurisdictions have been
4 approved by the CEC. One in three Californian's currently
5 lives in a community with an Energy Code that exceeds the
6 State Energy Standards.

7 The next slide, please. Four jurisdictions have
8 applied for Commission consideration at this Business
9 Meeting. The Cities of San Mateo, Redwood City, East Palo
10 Alto, and the Town of Los Altos Hills.

11 The next slide, please. San Mateo's ordinance,
12 2020-17, requires new residential and office use buildings
13 to be all-electric. Exceptions are allowed for new
14 multifamily buildings with 100 percent affordable units.
15 If mixed fuel, multifamily affordable buildings must meet
16 higher efficiency standards than the code.

17 The next slide, please. Redwood City Ordinance
18 2407 requires new buildings to be all-electric. Exceptions
19 are allowed for hospitals, laboratories, commercial kitchen
20 equipment, affordable housing with 100 percent affordable
21 units, and accessory dwelling units. Photovoltaic systems
22 are required on all new buildings.

23 The next slide, please. East Palo Alto Ordinance
24 dash -- sorry, number 07-2020 requires new buildings to be
25 all-electric, with exceptions allowed for laboratories,

1 emergency operation centers, commercial kitchens,
2 affordable housing projects and accessory dwelling units.
3 Pre-wiring for electric appliances is required where gas
4 appliances are installed. And photovoltaic systems are
5 required on all new buildings.

6 The next slide, please. Los Altos Hills
7 Ordinance Number 589 requires new, low-rise residential
8 buildings install heat pump space heating and water heating
9 systems. Prewiring for electric appliances if gas
10 appliances are installed for cooking and clothes drying.

11 Energy related, but not subject to CEC approval,
12 the East Palo Alto and Redwood City ordinances also include
13 provisions for electric vehicle charging infrastructure.

14 The next slide, please. Staff posted the
15 complete applications, including the local ordinances and
16 adopted cost effectiveness analysis on the CEC's website
17 under Docket Number 19-BSTD-06 for the required public
18 comment period.

19 Staff reviewed the applications to determine if
20 these local ordinance standards will result in reduction of
21 energy consumption levels permitted by the 2019 Energy Code
22 per the requirements of the Public Resources Code. Staff
23 finds that the standards will reduce the amount of energy
24 consumed and will not lead to increases in energy
25 consumption inconsistent with state law.

1 State further confirms that the jurisdictions
2 publically adopted a finding of cost effectiveness for the
3 standards.

4 Because staff has found that the applications
5 meet all of the requirements of the Public Resources Code,
6 staff recommends approving enforcement of the ordinances.

7 This concludes my presentation. I am available
8 to answer any questions that you may have.

9 CHAIR HOCHSCHILD: Thank you so much. With that,
10 let's go to public comment for Item 8.

11 MS. GALLARDO: This is Noemi Gallardo, the
12 Public Adviser. So, we have over 15 commenters on the
13 line. We also have some written comments for this item.

14 Because of that, to ensure fairness and that we
15 allot enough time for everybody to make their comment, we
16 are going to reduce the comment time from 3 minutes to 2
17 minutes. I want to make sure everybody is aware of that.

18 And as we call on people, please spell your first
19 and last names, indicate your affiliation if you have one,
20 and then you can begin.

21 We're going to start off with Steve Sanders from
22 the Bay Area Chapter of Climate Reality Project. After
23 Steve will be Charles Cormany of Efficiency First
24 California.

25 So, Steve your line should be open, please begin.

1 MR. SANDERS: Thank you. Can you hear me?

2 CHAIR HOCHSCHILD: Yes, we do. Good morning.

3 MR. SANDERS: Oh, great. Okay. So, I'm Steve
4 Sanders, S-T-E-V-E S-A-N-D-E-R-S. And I'm speaking on
5 behalf of the Bay Area Chapter of the Climate Reality
6 Project.

7 We're here to commend the four cities that are
8 before you for their proposals for all-electric Reach codes
9 and urge that you support and approve San Mateo, Los Altos
10 Hills, Redwood City and East Palo Alto.

11 We're proud of the Bay Area cities that have been
12 leading in the effort to move towards electrification.
13 They join what are now 40 cities statewide. And we'd like
14 to suggest that it's really time, now, for state leadership
15 as well, and that we urge the Commission to use every
16 opportunity that you can to push this best practice
17 forward.

18 It should be noted that all-electric is now the
19 best practice nationally. Sixty percent of new homes
20 throughout the nation are all-electric. Unfortunately,
21 California lags the nation in a few instances in the energy
22 field where that's the case. And so, we think that there's
23 an opportunity in your current code update to expand this
24 pioneering that's been done by these cities across
25 California.

1 So, we'd urge you to approve these four Reach
2 codes, but also to seize this opportunity to adopt an all-
3 electric baseline in 2022. It's cheaper, it's healthier,
4 it's better for environmental justice, it reduces carbon
5 emissions. It's a proven best practice and we need to go
6 beyond this community-by-community approach, and urge you
7 not to miss this opportunity in 2022. We need to move as
8 quickly as we can. Thank you.

9 MS. GALLARDO: Thank you, Steve.

10 Next is Charles Cormany. And after Charles will
11 be Bruce Nagel. Charles, your line is open, please begin.

12 MR. CORMANY: Okay, thank you. My name is
13 Charles Cormany, C-H-A-R-L-E-S, the last name is C-O-R-M-A-
14 N-Y. I'm with Efficiency First California.

15 One thing I would like to say is that when you're
16 considering Reach codes, you know, these local ordinances
17 and most of them are pointing towards electrification, I
18 think an often overlooked point is that sometimes the focus
19 is on the fuel type and electrification, you know, is
20 properly in the arena.

21 But I think what we need to think is not so much
22 support of fuel type or, you know, is this electric, is it
23 gas, or what do we do? I think we need to support the most
24 efficient solution.

25 One of the reasons that Efficiency First is a big

1 supporter of Reach codes and electrification is because
2 currently electric heat pumps are the most efficient way to
3 heat water and to heat space heating. Electric appliances
4 in general are oftentimes multiple factors more efficient
5 than their gas counterparts. So, I think it kind of gets
6 lost in the conversation sometimes. We're always talking
7 about why we should adopt these technologies and that.

8 But I think if you go from a purely efficiency
9 stand point, which we need to reduce our consumption, there
10 is no question that the electric appliances are the most
11 efficient way to do it.

12 So, I just thought we would like to add that to
13 the conversation. That we would like to encourage you to
14 adopt any Reach codes. We support electrification. And we
15 think that electrification of buildings is the future and
16 it's the most efficient ways to provide these, and it's
17 time to look at options beyond natural gas.

18 And I think there's multiple benefits to these
19 technologies, you know, the health, safety, all these other
20 concerns. But I think purely on efficiency alone should be
21 a motivation to encourage the adoption of Reach codes in
22 electrification.

23 So, I appreciate your time today and it's nice to
24 be part of the conversation. Thank you.

25 MS. GALLARDO: Thanks, Charles.

1 Next will be Bruce Nagle. After Bruce will be
2 Jonny Kocher of Rocky Mountain Institute. So, we'll start
3 with Bruce. Your line is open, please begin.

4 MR. NAGLE: Hi. Can you hear me?

5 CHAIR HOCHSCHILD: Yes, we can.

6 MS. GALLARDO: Yes, we can.

7 MR. NAGLE: Great, thanks. We thank the previous
8 callers and urge you to go ahead and as recommended to
9 support the Reach codes for East Palo Alto, Los Altos,
10 Redwood City and San Mateo.

11 The Board has moved forward on requested valid
12 Reach codes presented to you. Your efforts have been
13 instrumental in getting more cities to move to new
14 sustainable and standards, moving close to the goal set
15 forth in B-55-19 for California to be carbon neutral by
16 2045. This is not an easy goal to hit.

17 Enabling cities to move to all-electric building
18 brings us closer to that goal by adding one of two major
19 sources of GHG that we are facing, and that's buildings and
20 transportation. The four C's you've approved are different
21 in each of them. The East Palo Alto is probably -- you
22 know, represents a city that has a large disadvantaged
23 community inside of it and it's looked to by a number of
24 the neighbors around there that if they can do it, we can
25 do it as well. So, it's great for that.

1 Those of you who have been highly active in
2 supporting sustainability improvements, like Reach codes,
3 recognize that the youth are going to inherit the earth.
4 If we're not good stewards, we will leave them a planet
5 that may not be habitable, thus made part of the mass
6 extinction and we're concerned that they will have no place
7 to live.

8 Telling word of this came during the Reach codes
9 for Mountain View where Mayor Abe-Koga said that she was
10 voting for the Reach codes because her two children were
11 very much concerned about having a place to live.

12 Climate change is affecting us all today and will
13 affect more as time goes on. Please approve this so that
14 we will give the children of the earth a place to live.
15 And thank you for the ability, the opportunity to talk.

16 MS. GALLARDO: Thank you, Bruce.

17 Next is Jonny, I think Kocher, Rocky Mountain
18 Institute. Reminder, everybody to spell your first and
19 last names and to also indicate your affiliation, if you
20 have one.

21 Jonny, you may begin.

22 MR. KOCHER: Thank you for the opportunity to
23 comment. My name is Jonny Kocher. That's J-O-N-N-Y K-O-C-
24 H-E-R. And I work in the Oakland Office of Rocky Mountain
25 Institute, an independent nonprofit working to shift

1 towards a low carbon future.

2 I encourage the Commission to approve the Reach
3 codes for the Cities of San Mateo, Los Altos Hills, Redwood
4 City and East Palo Alto that are under consideration today.

5 I'd also like to thank the Commission for
6 approving local Reach codes to date and encourage the state
7 to follow the lead of these cities and adopt a single, all-
8 electric baseline in the Title 24 2022 Code cycle.

9 At yesterday's workshop, the CEC presented
10 information and indicated that in the 2022 Code cycle a
11 heat pump baseline would be considered for high rise,
12 multifamily residential, and selected nonresidential
13 buildings. In other words, the CEC plans to propose
14 pathways for partial electrification for a few buildings in
15 the 2022 Code cycle.

16 This proposal ignores the substantial cost
17 savings that would occur by avoiding adding new gas lines
18 to buildings. Research done by TRC, Frontier Energy, and
19 Energysoft last year for the CEC, on the affordability of
20 all-electric Reach codes found that all-electric buildings
21 are cheaper than mixed fuel buildings.

22 The analysis found that compared to their mixed
23 fuel alternatives, an all-electric medium office building
24 in California cost at least \$45,000 less and a midrise
25 residential building cost at least \$14,000 less, and that a

1 hotel costs at least \$1.2 million less. These cost savings
2 don't even include the reduced stranded assets that would
3 be a benefit to all gas rate payer as California begins the
4 process to electrify its building stock.

5 Finally, we'd like to encourage the Commission to
6 adopt rules that promote all-electric buildings in the 2022
7 code cycle code process, as CARB has recommended last month
8 in their groundbreaking resolution.

9 Thank you for your time and consideration.

10 MS. GALLARDO: Thanks, Jonny.

11 Next we have Alice Sung of Greenbank Associates.

12 And after Alice will be Sarah Sachs.

13 Alice, your line is open, you may begin.

14 MS. SUNG: Hello, can you hear me?

15 MS. GALLARDO: Yes, we can.

16 MS. SUNG: Thank you. Good morning Commissioners
17 and staff, my name is Alice Sung, A-L-I-C-E S-U-N-G. I'm a
18 principal of Greenbank Associated, an independent citizen
19 advocate, speaking today in support of Item 8.

20 I have three points. First, I would like to
21 encourage the CEC to approve the all-electric reach codes
22 for the four cities, as presented today, joining the about
23 40 cities that have already adopted locally such reach
24 codes, ahead of the Title 24 2022 Energy Code. And I thank
25 you for your continued leadership.

1 Building upon these reach codes, the CEC should
2 also move secondly to adopt a single all-electric baseline,
3 as Jonny has just mentioned, for all building types because
4 all-electric buildings are cheaper to build, to operate,
5 and better for public health especially children.

6 And third, in relationship to these first two
7 points, critical to the 2022 Energy Code and reach codes in
8 particular, allowing for an all-electric heat pump baseline
9 for commercial, nonresidential buildings is especially
10 important for public pre-K-14 schools, including local
11 community college facilities which are not under the
12 jurisdiction of municipal ordinances or these reach codes.

13 And so, the current CEC Title 24 studies and
14 proposals to set heat pump baselines for small schools was
15 implied yesterday in the slides. They seem to go in the
16 right direction, but to be equitable we need an all-
17 electric baseline that needs to be extended to all public
18 schools, colleges, and universities.

19 Continuing to allow for a gas-fuel fueled
20 baseline would penalize electrification and hinder the
21 ability to leverage AB 841 and future funds to decarbonize
22 schools to meet climate goals.

23 I urge you to capture the opportunities of a 2022
24 all-electric code sooner in order to benefit all of our
25 public school buildings and leverage the funding programs,

1 such as AB 841, and future funding for zero carbon school
2 districts statewide. Our children thank you for your
3 consideration.

4 MS. GALLARDO: Thank you, Alice.

5 Nest we have Sarah Sachs. And after Sarah it
6 will be Tom Abram.

7 And Sarah, apologies if I mispronounce your name.
8 Please spell your name for us and you may begin.

9 MS. SACHS: Thank you and good afternoon,
10 Commissioners. Just checking that you can hear me?

11 CHAIR HOCHSCHILD: Yes, we can.

12 MS. SACHS: Great, thank you. My name is Sarah
13 Sachs, spelled S-A-R-A-H S-A-C-H-S. And I am speaking on
14 behalf of Ceres, a nonprofit sustainability advocacy
15 organization.

16 Ceres runs the Business for Innovative Climate
17 and Energy Policy or BICEP network, a coalition of nearly
18 70 major businesses, many of whom have substantial
19 operations or are headquartered in California.

20 Ceres is encouraged to see four municipal all-
21 electric ordinances before the CEC today and we recommend
22 CEC approval. And this year's electrification policies are
23 essential to facilitate building decarbonization across the
24 state. Given the immediacy of the current crisis and
25 benefits of timely action, Ceres strongly supports the

1 establishment of all-electric building ordinances that
2 address both the commercial and residential sectors.

3 Last week we submitted two letters regarding
4 California building decarbonization into the Title 24
5 docket. The first letter is signed by 55 major businesses
6 and institutions calling on California to pursue ambitious
7 building decarbonization policies.

8 Signatories of this letter include JLL, a Fortune
9 500 commercial real estate services company, Adobe, Dignity
10 Health, eBay, PayPal, Ikea, Sierra Nevada Brewing, the
11 University of California at Davis, and the F Corporation.

12 The second letter on behalf of the Ceres BICEP
13 network also supports building decarbonization and urges
14 the CEC to establish an all-electric building code as a
15 part of the 2022 Title 20 report update. Businesses and
16 institutions recognize the significant risk climate change
17 poses to their long term economic success, the health of
18 their employees and customers, and the livelihood of their
19 communities. That is why they are taking action to
20 decarbonize their operations and supply chains, an
21 increasingly importance of robust building decarbonization
22 policies that will help them optimize their energy use,
23 decrease their emissions, and drive market transformation.

24 In addition to approve the four municipal
25 ordinances today, the Commission has a larger opportunity

1 for California to lead the nation and take another step
2 forward in addressing the climate crisis. Ceres urges the
3 CEC to move towards adopting a statewide all-electric code.
4 Thank you for your time and consideration.

5 MS. GALLARDO: Thank you, Sarah.

6 Now, we will have Tom Abram. And then after Tom
7 will be Suyama Bodhinayake. And a reminder to please spell
8 your names and apologies in advance if I mispronounce them.
9 Tom, your line is open, please begin.

10 MR. ABRAM: Great, thank you so much. Good
11 morning Commissioners and staff. My name is Tom Abram,
12 T-O-M A-B-R-A-M. I'm an engineer residing in San Diego.

13 I encourage you to approve these municipal reach
14 codes. This is an important step in moving California and
15 its climate goals, and I laud these communities for taking
16 the lead on climate action.

17 I also encourage you to adopt an all-electric
18 baseline for all building types in the 2022 code cycle.
19 All-electric buildings will reduce initial construction
20 costs and provide significant emissions reductions over
21 their lifetime. An all-electric code for all of California
22 will allow for more consistency and stability in the
23 construction industry, as opposed to the patchwork of
24 municipal reach codes, as important as they have been in
25 moving electrification forward.

1 California has already committed to a 2045 carbon
2 neutrality goal and building electrification offers the
3 most affordable and technologically mature pathway to
4 mitigate the carbon emissions associated with natural gas
5 combustion in buildings.

6 Delaying an all-electric building code for even a
7 three-year code cycle will leave California with \$1 billion
8 in additional gas infrastructure costs, which will likely
9 become stranded assets in the future. Additionally, this
10 delay will be responsible for adding 3 million tons of
11 carbon emissions through 2030.

12 Additionally, it is becoming more clear that gas
13 appliances are responsible for negative health impacts,
14 including asthma in children. Again, I highly encourage
15 you to approve all municipal reach codes that are being
16 considered today. And I, again, thank those communities
17 for taking the lead. And I encourage you to take the lead
18 by adopting an all-electric baseline for all building types
19 in the 2022 cycle.

20 Thank you for your time and thank you for all
21 that you do.

22 MS. GALLARDO: Thank you, Tom.

23 Next we have Suyama and after Suyama will be Tom
24 Kabat. Suyama, your line is open, please begin.

25 MR. BODHINAYAKE: Good afternoon Commissioners

1 and thank you for the opportunity to add my voice to your
2 meeting today. I hope everyone can hear me.

3 MS. GALLARDO: Yes, we can.

4 MR. BODHINAYAKE: Hello. Hi.

5 MS. GALLARDO: Yes, we can hear you.

6 MR. BODHINAYAKE: My name is Suyama Bodhinayake,
7 spelled S-U-Y-A-M-A B-O-D-H-I-N-A-Y-A-K-E. I'm trained in
8 architecture and I'm an Associate Member of the American
9 Institute of Architects, a Director of the Board at the
10 American Institute of Architects, Orange County Chapter. I
11 also serve as the Director of Sustainability and the Chair
12 of the Committee on the Environment at the American
13 Institute of Architects Orange County.

14 But today I'm speaking as a Californian, a
15 Southern Californian resident living in Irvine, and as a
16 design professional. The Silverado Fire at the end of
17 October and the Bond Fire just last week brought the strong
18 smell of smoke and layers of ash right into my neighborhood
19 and served as one more reminder of the urgency in which we
20 should act to promote a healthy environment.

21 Therefore, as a resident of Southern California
22 and as a member of the professional building community, I'm
23 here to ask the Energy Commission to make healthy homes and
24 buildings the standard in California. I support adopting
25 codes that require new construction to be all-electric and

1 for our building codes to be updated to have higher
2 efficiency standards than the current 2019 Energy Code.

3 An area that would be an easy transition would be
4 the use of heat pumps in buildings. The heat pumps are a
5 mature, widespread, and cost effective technology. They
6 are already used in heating in Southern California Edison
7 territory and 40 percent of commercial buildings, which is
8 the same percentage as gas heating. Over 90 percent of
9 buildings in Orange County already include air
10 conditioning, which really is a heat pump that only runs in
11 one direction to produce cooling. It's simpler and more
12 cost effective to have one system for both heating and
13 cooling, a heat pump, than to have two separate systems,
14 gas heat and AC.

15 From a trades perspective the installation of the
16 AC and heat pump is the same, connecting refrigerant lines,
17 pipes, pipes and electrical connection. So, this isn't
18 difficult to transition for them.

19 In spite of all the efforts, Southern California
20 has some of the unhealthiest air in the U.S. And that has
21 real health implications on our communities, combustion of
22 gas in buildings adds air pollution, and affects those of
23 us living and working here.

24 So, the time is now for us to update our building
25 codes in a responsible, forward thinking manner that is

1 supported by the professional building community. Thank
2 you for your time.

3 MS. GALLARDO: Thanks, Suyama.

4 Next is Tom Kabat. After him will be Sarah
5 Spengeman. Tom, your line is open, please begin.

6 MR. KABAT: Thank you. Hello Chair Hochschild
7 and Commissioners. My name is Tom Kabat, T-O-M K-A-B-A-T.
8 I'm an energy engineer by training and career-long
9 municipal gas and electric utility resource planner, having
10 retired from a very progressive municipal utility.

11 I'm a Menlo Park Environmental Quality
12 Commissioner speaking just for myself today. I strongly
13 support these new all-electric reach codes, the four that
14 are in front of you. And I see them as mounting evidence
15 that we, as policy assistants, really need to make climate
16 progress the new normal. If we have to do this city by
17 city we will run out of time.

18 New construction is the easy lift, as other
19 speakers are pointing out. And I'm supporting these cities
20 who went through the arduous and unfamiliar process of
21 vetting it town by town, trying to make energy and climate
22 experts out of normal staff and citizens.

23 However, the city-by-city process is clearly not
24 fast enough to address the climate problem at the speed
25 that lets California continue to show the type of

1 leadership the world is looking for. I hope you approve
2 these four reach codes today and also use the opportunity
3 to signal your staff that they have your consent and
4 support to act even more in accordance with the ITCC advise
5 that we must eliminate carbon emissions in ways that are
6 rapid, far reaching, and unprecedented. I say it that way
7 because as a career-long government employee myself I know
8 the constraints employees sometimes feel unless you can
9 signal them they have your support to push the envelope on
10 accelerating the transition in time to produce the scale of
11 the climate rescue we need.

12 This includes asking you to direct staff to
13 develop an all-electric base code for all building types in
14 2022. This will free up us at the city level to make
15 progress in new areas, including working on the heavy lift
16 of decarbonizing existing buildings.

17 Thank you for your continued leadership and
18 partnering on accelerating to the rescue of the climate
19 system.

20 MS. GALLARDO: Thank you, Tom.

21 We will have Sarah Spengeman next. After Sarah
22 will be David Moller. A reminder to spell your names and
23 indicate your affiliation, if you have one. Sarah, your
24 line is open, you may begin.

25 MS. SPENGEMAN: Hello, my name is Sarah

1 Spengeman, and that's S-A-R-A-H S-P-E-N-G-E-M-A-N. And I
2 serve on the Board of Directors for Interfaith Power &
3 Light, a diverse safe community that represents 700 member
4 congregations across California.

5 I'm speaking today on behalf of Interfaith Power
6 & Light to encourage the Commission to approve the all-
7 electric reach codes that are on the agenda today. And we
8 also urge the Commission to adopt a single all-electric
9 baseline in the 2022 code cycle, which will benefit all
10 communities across the state. Eliminating highly
11 polluting, dirty fossil fuels from all of our new buildings
12 is not only vital to protecting human health and ensuring
13 health equity, but is essential to a safe climate future.

14 As people of faith, our values can tell us to
15 support policies that protect human health, especially the
16 most vulnerable or historically disadvantaged members of
17 our communities, and safeguard the health of our air and
18 water, and the ecosystems upon which all life depends.

19 Burning fossil fuels in all forms is a threat to
20 human health. As health and medical researchers have
21 demonstrated in study after study, exposure to indoor and
22 outdoor air pollution from gas appliances makes people sick
23 and results in more emergency room visits and hospital
24 admissions.

25 And we know that the burden is not felt equally

1 in our communities. As people of faith we are called to
2 pursue justice. Lower-income households are more likely to
3 live in smaller, more poorly ventilated housing units, or
4 be renters with limited control over maintaining safe
5 indoor air quality and, thus, are more likely to be exposed
6 to higher concentrations of harmful air pollution.

7 I speak today not just as a person of conscience,
8 but as a mother. Children are more vulnerable to air
9 pollution because of their developing lungs. And children
10 who live in homes with gas stove are 42 percent more likely
11 to have asthma. We cannot protect our communities if we
12 continue to depend on fossil fuels in new homes and
13 buildings, and we certainly won't be on track to reduce
14 emissions fast enough to avoid climate breakdowns.

15 As people of faith, we urge you to adopt an all-
16 electric code for all new buildings statewide. And thank
17 you for your leadership implementing the state's climate
18 goals.

19 MS. GALLARDO: Thank you, Sarah.

20 Next will be David Moller. After David is Diane
21 Bailey. David, your line is open, please begin.

22 MR. MOLLER: Thank you. Good afternoon Chair and
23 Commissioners. My name is David Moller, D-A-V-I-D M-O-L-L-
24 E-R. I'm a retired engineer representing the Marin-Sonoma
25 Building Electrification Squad. We're a group of citizens

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1 working with local jurisdictions to decarbonize new and
2 eventually existing buildings.

3 We strong support approval of the reach codes
4 adopted by San Mateo, Los Altos Hills, Redwood City, and
5 East Palo Alto.

6 We'd also like to encourage the Commission to
7 adopt an all-electric baseline for all building types in
8 the 2022 code cycle. You need only look at the recent
9 actions of several large jurisdictions, including San
10 Francisco, San Jose, and Oakland when they enacted
11 ordinances requiring all new buildings to be all-electric
12 to see the urgency and strong public support for statewide
13 action.

14 As has been noted, with these jurisdictions added
15 there are now 40 California jurisdictions with either a gas
16 ban or electric reach code. And these rate jurisdictions
17 represent about 3 million people. Accordingly, this is the
18 direction that we as a society must head and are headed.
19 The sooner this direction is codified in the State Energy
20 Code and Building Code, the less adverse impact we'll all
21 suffer from our changing climate.

22 Your own studies, as well as the studies done by
23 many others, show that requiring new buildings to be all-
24 electric will reduce construction costs and likely also
25 reduce utility bills, helping make housing more affordable.

1 I'd like to echo Tom Kabat's comment that it is
2 really inefficient and way too slow to expect each of
3 California's hundreds of jurisdictions to figure out and
4 address this issue on its own.

5 Ten years from now we'll all be looking back and
6 wondering why we didn't do more and do it sooner to address
7 our changing climate. We need to act now and we need you
8 to act now. Now is the time to stop expanding the use of
9 natural gas with its adverse impacts on public safety,
10 indoor air quality, and climate, and to codify all new
11 buildings in California be all-electric.

12 I want to thank you for your consideration.

13 MS. GALLARDO: Thanks David.

14 Next is Diane Bailey. After her will be Elena
15 Engel. I believe your line is open Diane, please begin.

16 CHAIR HOCHSCHILD: Diane, can you hear?

17 MS. GALLARDO: This is the Public Adviser, Diane

18 --

19 MS. BAILEY: Good afternoon Chair and
20 Commissioners, and thank you for the opportunity to
21 comment. My name is Diane Bailey, that's D-I-A-N-E B-A-I-
22 L-E-Y. I'm commenting on behalf of the Campaign for Fossil
23 Free Buildings in Silicon Group, and our 33 member groups
24 working together to accelerate a phase out of fossil fuels
25 from our homes and buildings.

1 Our coalition supports the reach codes adopted by
2 Redwood City, East Palo Alto, San Mateo, and Los Altos. We
3 worked closely with staff and stakeholders in each of these
4 cities which represent very diverse populations. And we
5 urge your final adoption of these important clean energy
6 reach codes.

7 With 40 cities throughout California adopting
8 policies to prevent the use of polluting fossil gas in new
9 construction, we also urge you to build off local
10 leadership and take electrification further by setting an
11 all-electric baseline for new construction in the 2022
12 Building Codes. And this really important for the reasons
13 that Tom Kabat and David Moller outlined about our lack of
14 time and ability to get every city in California to act
15 independently. Your leadership is critical.

16 We need bold actions, like all-electric building
17 codes, to help transition off of polluting fossil fuels if
18 we want to have any hope of achieving a stable climate in
19 the future and averting the worst impacts.

20 In fact, there's a steep cost of delayed action
21 to move off of fossil fuels. Not just in the health
22 impacts we face and the extreme weather, but in actual
23 dollars.

24 A recent study from the Brookings Institute
25 modeled out the potential economic consequences of climate

1 change in the U.S. and found that under a scenario of
2 inaction, where climate change continues unchecked, our
3 annual GDP loss could be anywhere from 6 to 14 percent.
4 And these impacts fall the hardest on low income
5 communities of color, deepening the equity divide.

6 However, it turns out that we can build more
7 housing more quickly and more affordably by avoiding
8 polluting gas. The state's housing affordability crisis
9 demands that we make every effort to reduce building costs,
10 while speeding up housing production. Avoiding gas hookups
11 allows for a faster building process and developers can
12 save tens of thousands of dollars in upfront costs to
13 install gas lines, and on energy savings by choosing to
14 build without gas.

15 Analysis in San Francisco, for example, found
16 that building a 2,500 square foot all-electric home would
17 reduce building costs over --

18 MS. GALLARDO: Diane, this is Noemi, the Public
19 Adviser. I apologize for interrupting you, but you are --
20 you're at two minutes and I want to be fair to everybody.

21 MS. BAILEY: Sure. Let's do our --

22 MS. GALLARDO: Thank you, Diane.

23 MS. BAILEY: -- part towards a climate safe
24 future. Thank you.

25 MS. GALLARDO: All right, next will be Elena

1 Engel and then after Elena will be Brianna McGuire.
2 Reminder to spell your names and indicate your affiliation,
3 if you have one. Elena, your line is open, you may begin.

4 MS. ENGEL: My name is Elena Engel, E-L-E-N-A
5 E-N-G-E-L. I'm a citizen of San -- of California and I'm a
6 350 Bay Area volunteer.

7 I urge you to approve the electric reach codes
8 presented by the various cities. These cities have taken
9 the initiative to do the right thing and this Commission
10 should support them. And you can do more. I urge you to
11 adopt an all-electric standard for all buildings in
12 California for the 2022 Code.

13 What's the logical reason to wait? So, the
14 buildings being built between now and whenever you act to
15 include all buildings will have to spend more money to
16 retrofit their buildings, to strip out the gas
17 infrastructure and replace it with electric?

18 Other speakers have given many other reasons why
19 we should do this, so I won't repeat them. But I will say
20 we all know that we must get rid of methane. A livable
21 climate is not compatible with methane gas. The real
22 question is when? The fires, the droughts, the storms,
23 they don't go on pause waiting for you to deliberate. They
24 continue to increase as we continue each day to pour these
25 fossil gases into the atmosphere.

1 I urge you to approve these reach codes presented
2 today and also a standard for all California buildings
3 without exception now, for the 2022 Code. Please continue
4 to stretch your leadership. Thank you.

5 MS. GALLARDO: Thank you, Elena.

6 So, next is Brianna McGuire. After her will be
7 Tanya Barham. Brianna, your line is open, you may begin.

8 MS. MCGUIRE: Thank you very much. Hi there,
9 folks. My name is Brianna, that's B-R-I-A-N-N-A. McGuire,
10 that's M-C-G-U-I-R-E. And I am commenting today on behalf
11 of the Bay Area Chapter of Sunrise Movement, which is a
12 youth movement to stop climate change and create millions
13 of good jobs in the process.

14 I would like to echo the well-informed comments
15 given before me and ask that the CEC approve the all-
16 electric reach codes under consideration today. But I'd to
17 go further and ask the CEC to move towards adopting a
18 single all-electric baseline for all building types for the
19 2022 Code cycle.

20 We are in a climate emergency and all-electric
21 buildings are not only critical to fight this crisis, but
22 they are the better economic and health investment for
23 California, as noted by many others before me.

24 Obviously, research has found that all-electric
25 buildings are cheaper to construct and cheaper to operate.

1 But additionally, as we've heard and it bears underlining
2 that those disproportionately burdened by outdoor air
3 pollution, especially low income children of color, are
4 those who are also disproportionately burdened by indoor
5 air pollution from gas appliances.

6 It is clear that during a global respiratory
7 pandemic and amidst its current devastating economic
8 effects that we need to be thinking long term about the
9 investments California needs. And that's in healthy
10 housing. That's in healthy school buildings. It is
11 fundamentally an investment in our young people. Waiting
12 to implement an all-electric baseline is risky, it's
13 expensive, and it is not consistent with the speed of
14 action required to fight the climate crisis.

15 Please take this incredible opportunity not only
16 to approve these reach codes, but also to make the
17 reasonable and necessary choice to update the 2022
18 Statewide Building Code to be all-electric so that
19 California can lead the fight against the climate crisis
20 with pollution-free buildings.

21 I'd like to thank the Commissioners and the
22 support staff for the opportunity to comment today. Thank
23 you very much.

24 MS. GALLARDO: Thanks Brianna.

25 Next we have Tanya Barham and after that Colleen

1 Fitzsimons. Tanya, your line is open, you may begin.

2 MS. BARHAM: Hi. Thank you Commissioners and
3 staff. My name is Tanya Barham, T-A-N-Y-A B-A-R-H-A-M.
4 I'm the CEO and Founder of Community Energy Labs.

5 And like the other callers, I'm calling to
6 encourage the CEC to approve the all-electric reach codes
7 presented today. But also to point out the opportunity for
8 the state to extend that leadership and the good work of
9 these communities statewide.

10 So, similar to Alice Sung's comment, I applaud
11 the CEC Title 24 proposal to set heat pump baselines for
12 small schools. But I would encourage all-electric baseline
13 being extended to all public schools, colleges, and
14 universities for a few reasons.

15 A June 2020 USGAO report on K through 12
16 educational institutions identified key areas of deferred
17 maintenance in K through 12 school facilities. An
18 estimated 41 percent of districts need to update or replace
19 heating, ventilation, and air conditioning systems in at
20 least half of their schools.

21 In about half of the schools the GAO visited,
22 officials described HVAC-related problems, such as older
23 systems that leaked, damaged flooring, ceiling tiles which,
24 if not addressed can lead to indoor air quality programs,
25 and mold, and in some cases cause schools to adjust

1 schedules.

2 As we all know, direct combustion of gas in
3 buildings for space and water heat only exacerbates these
4 air quality and learning environment issues at a time when
5 all of us are concerned about COVID and indoor air
6 quality.,

7 AB 841 presents a huge opportunity to address
8 this deferred maintenance issue at scale and now is the
9 time to leverage those funds to also address broader state
10 goals regarding indoor air quality for students, the
11 potential for HVAC preheating and cooling to help balance
12 the grid and reduce solar curtailment.

13 Nobody wants to endure another summer like the
14 one we just had. Climate impact is here and buildings are
15 one of the top contributors to the problem. One-tenth of
16 U.S. greenhouse gas emissions or 560 million tons of CO2
17 per year come from direct combustion of gas in buildings.
18 Ninety-three percent of commercial buildings use fossil
19 fuels to heat water and air. Schools are no exception.
20 Continuing to allow for a gas or dual-fueled baseline for
21 medium and large schools penalizes electrification, hinders
22 the long term ability to leverage AB 841 to meet state
23 climate goals, and to improve both indoor and outdoor air
24 quality for California children and school communities.

25 I urge the Commission to consider including all

1 schools and communities colleges in the Title 24 baseline
2 because, of course, many of these institutions are not
3 covered by --

4 MS. GALLARDO: Tanya, this is Noemi, the Public
5 Adviser. Apologies for interrupting, but your two minutes
6 are up and we want to be fair to others.

7 MS. BARHAM: That's fine.

8 MS. GALLARDO: Thank you.

9 Next we have Colleen Fitzsimons and after Colleen
10 will be Robert Carr. A reminder to spell your names and
11 indicate your affiliation, if any. Colleen --

12 MS. FIGZSIMMONS: Thank you.

13 MS. GALLARDO: -- your line is open.

14 MS. FITZSIMONS: Thank you. Good afternoon
15 Commissioners. My name is Colleen, spelled C-O-L-L-E-E-N.
16 The last name is Fitzsimons, F-I-T-Z-S-I-M-O-N-S. I'm the
17 Executive Director of the San Diego Green Building Council.
18 And I'm calling to encourage you to approve the four all-
19 electric reach codes presented today.

20 I'd also like to encourage you to move towards
21 adopting a single all-electric baseline for all building
22 types because all-electric buildings are cheaper to build
23 and operate, critical to protect us from, the climate
24 crisis, and as others have pointed out better for public
25 health, especially for children.

1 As mentioned, the proposal presented in the
2 recent CEC workshop affects only a few building types in
3 the 2022 Code cycle. While this is an important step
4 towards California's decarbonization goals, the proposal
5 also includes a number of exceptions to electrification.

6 For example, incorporating gas heating as a
7 backup for heat pumps in some climate zones was proposed,
8 despite evidence presented in the workshop that indicated
9 substantial emission savings if an all-electric heat pump
10 were to be used.

11 The proposal also acknowledged the substantial
12 costs that would be saved from not having to add new gas
13 lines to buildings, would also reduce stranded asset risk
14 if California begins the process to electrify its building
15 stock.

16 Waiting three more years before implementing an
17 all-electric energy code would cost Californian's \$1
18 billion in unnecessary gas infrastructure and lock us into
19 3 million tons of additional carbon emissions by 2030,
20 missing a great opportunity to move towards a faster,
21 cheaper way to build housing here.

22 Please adopt a single all-electric baseline for
23 all building types in the 2022 code cycle. Thank you.

24 MS. GALLARDO: Thanks Colleen.

25 Next is Robert Carr. After Robert will be Simone

1 Barth. Robert, your line is open, please begin.

2 MR. CARR: Hello, my name is Robert Carr, R-O-B-
3 E-R-T C-A-R-R. And I'd like to thank the Commissioners for
4 an opportunity to comment today.

5 I fully encourage the CEC to approve the four
6 electric reach codes being presented today. As many of the
7 speakers have said, all-electric buildings reduce
8 construction costs, operational costs and, therefore, make
9 housing more affordable, which is great for communities of
10 concern.

11 They will also help us reach our greenhouse gas
12 emission goals and our air quality goals.

13 And lastly, all-electric buildings, as many have
14 said, are good for occupant health. They cause, you know,
15 potentially up to 24 percent increase in asthma in homes
16 because of the nitrous oxide that results from burning
17 natural gas.

18 And lastly, I would like to encourage the CEC
19 going forward to consider an all-electric baseline for all
20 buildings in the next Title 24 central code.

21 I thank you for the opportunity for presenting
22 today.

23 MS. GALLARDO: Thanks Robert. Next we'll have
24 Simone and after Simone we'll have Sven Thesen. Reminder
25 to spell your names. Simone, your line is open, you may

1 begin.

2 MS. BARTH: Good afternoon. Thank you
3 Commissioners for the opportunity to comment. My name is
4 Simone Barth, S-I-M-O-N-E B-A-R-T-H. I'm a Senior Project
5 Manager of Omgivning. We are architects, interior
6 designers, and planners located in Los Angeles. I am past
7 Chair of the AIA Los Angeles Committee on the Environment,
8 as well as Steering Committee Member of the AIA California
9 Committee on the Environment. Also, I support the Zero
10 Code VIA L.A. Board of Directors supports the Zero Code and
11 the AIA California supports Zero Code implementation.

12 I urge you to approve the reach code
13 (indiscernible) of the four municipalities. The support of
14 an energy code baseline to being implemented into the 2022
15 code cycle.

16 Affordable infrastructure is available. As
17 Suyama already mentioned, heat pumps are mature, widespread
18 and cost effective technology. They're already used for
19 heating in Southern California Edison territory on 40
20 percent of commercial buildings, the same percentage as gas
21 heating.

22 Over 90 percent of buildings in Orange County
23 already include air conditioning which is heat pumped that
24 only runs in one direction to produce cooling. It is
25 simpler and more cost effective to have one system for

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1 heating and cooling. Air conditioning and heat pumps is
2 the same for the trades, connecting (indiscernible) lines,
3 piping and electrical, so it isn't difficult to transition
4 for them.

5 In spite of all the efforts, Southern California
6 still has some of the unhealthiest air pollution in the
7 United States and that has real impacts on our communities.
8 Combustion of gas in buildings adds that air pollution and
9 affects those of us living and working here.

10 We are at a critical tipping point and the world
11 is not looking to the United States. It looks to
12 California. And I urge you to adopt a baseline, an Energy
13 Code baseline and continue to be the leader of carbon
14 neutrality and environmentalism. Thank you so much.

15 MS. GALLARDO: Thanks Simone.

16 Next we have Sven Thesen. And after that will be
17 Wes Reutimann. So, Sven your line is open, you may begin.

18 MR. THESEN: Hello, my name is Sven Thesen, S-V-
19 E-N, last name Thesen, T-H-E-S-E-N. I'm a chemical
20 engineer by profession and cofounder of Project Green
21 Home.org.

22 Commissioner and staff thank you very much for
23 all of your work. The California Energy Commission codes
24 and the reach code process as a whole is a great thing.
25 Every three years we only get better.

1 Project Green Home is in full support of the four
2 reach codes for those four cities, San Mateo, East Palo
3 Alto, Redwood City, and Los Altos Hills. It's important to
4 note city staff, elected officials and residents from those
5 four municipalities have toured Project Green Home because
6 we have had, for the last 9 years, a heat pump addressing
7 both the radiant floor and our potable water, a condensing
8 dryer and an induction stove, plus a couple of EV chargers.
9 We are living and have lived the all-electric lifestyle for
10 the last 9 years.

11 And as you're all aware we are -- have a housing
12 deficit. Going all-electric is cheaper up front, faster
13 from a permitting and construction perspective, and cheaper
14 on the operations. So, when we talk about Tom Kabat's
15 comments, and David Moller's comments about no longer
16 taking these reach codes and going to completely across
17 California for an all-electric code, no more piecemeal.
18 There's so much time and effort being wasted that should be
19 spent elsewhere in battling the climate catastrophe that
20 we're in.

21 I want to close with words of my wife, the
22 physician, and she said to make sure to reiterate to all of
23 you the negative health impacts of the operation of natural
24 gas stoves, especially for children. Thank you.

25 MS. GALLARDO: Thank you, Sven.

1 Next we have Wes Reutimann. And after Wes we
2 will have Erin Feeney. Wes, your line is opened. Oh,
3 actually, now it is open and you may begin.

4 MR. REUTIMANN: Great, thank you. Good afternoon
5 Commissioners and staff. My name is Wes Reutimann, W-E-S
6 R-E-U-T-I-M-A-N-N. And I'm commenting today on behalf of
7 Active SGV. We're a community-based nonprofit organization
8 dedicated to creating more sustainable, equitable and
9 livable San Gabriel Valley. And while we're located in
10 Southern California, we're very grateful for the leadership
11 of our neighbors in Northern California in moving our state
12 towards healthier, safer, more affordable, and sustainable
13 housing.

14 A recent UCLA study of indoor air quality within
15 older homes and apartments in our region of East L.A.
16 County found that air quality was even worse within indoor
17 environments than outdoors. That really said something
18 because our constituents already suffer from some of the
19 worse outdoor air quality in the United States and the
20 problem has been getting worse over the last decade plus,
21 after decades of improvement on air quality.

22 The health impacts of this pollution, as you
23 know, is really devastating and they include very high
24 rates of asthma, particularly among younger people and
25 people of color, cognitive impairments, some cancers, and

1 even obesity has all been linked to exposure to high levels
2 of air pollution. The economic costs of these health
3 disparities is billions in associated healthcare and
4 diminished productivity of Los Angeles County alone.

5 As a community-based organization committed to
6 improving the health and wellbeing of residents of East
7 L.A. County, active San Gabriel Valley strongly supports
8 the ability of communities to adopt reach codes to support
9 the development of healthier, more sustainable housing.
10 However, recognizing that we work with some many
11 disadvantaged communities that lack the resources and,
12 really, their local capacity to adopt these codes on their
13 own, we strongly urge the Commission to bring the benefit
14 of reach codes to the entire state in the 2022 code update.

15 Thank you for your time and leadership on this
16 issue.

17 MS. GALLARDO: Thank you, Wes.

18 Now, we'll have Erin Feeney. After her we'll --
19 or after Erin will be Sean Armstrong. Reminder to spell
20 your name and indicate your affiliation, if any. Erin,
21 your line is open, you may begin.

22 MS. FEENEY: Thank you for your time today,
23 Commissioners. My name is Erin Feeney, E-R-I-N F-E-E-N-E-
24 EY. I am a San Francisco resident and an architect working
25 on affordable housing in the Bay Area and beyond. As

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1 professional concerned with the health and safety, and
2 sustainability of our cities I strongly support the reach
3 codes that are being considered today.

4 On behalf of my company, David Baker Architects,
5 I also request an all-electric standard in the next code
6 cycle. We are already recommending to build all-electric
7 to all of our clients who are largely multifamily
8 developers, due to the following reasons. That these are
9 increasingly requiring these as we see with the reach codes
10 being proposed today. Our office is a signatory to the
11 2030 commitment. We're focused on building more
12 efficiently and see innovation happening in electric
13 technology. We know that this innovation would move a lot
14 faster with the CEC (indiscernible) driving that change.

15 We are committed to lowering the environmental
16 and health impacts of buildings in our communities. We see
17 electrification as an equity issue. It directly impacts
18 the health and safety of residents in affordable,
19 multifamily housing.

20 And finally, electrification allows for greater
21 opportunities for building resilience, such as peak
22 shifting, and battery backup in the face of increasing
23 climate events and natural disasters.

24 Thank you for your consideration.

25 MS. GALLARDO: Thanks Erin.

1 Next is Sean Armstrong. After Sean will be
2 Stephanie Morris. Sean, your line is open and you may
3 begin.

4 MR. ARMSTRONG: Hello. Thank you, this is Sean
5 Armstrong spelled S-E-A-N A-R-M-S-T-R-O-N-G, with Redwood
6 Energy.

7 I'd like to thank you and encourage you to vote
8 for these four reach codes. And I just want to rattle off
9 a couple of statistics that I think are worthy. Since
10 1950, the plurality of space heating in the United States
11 has been done with -- sorry, since 1950 the plurality of
12 domestic hot water has been electric. Since 1970 it's been
13 space heating has been the plurality.

14 Right now, 88 percent of all the dryers sold in
15 our country are electric and 61 percent of all of our
16 stoves are electric.

17 I would argue that California is behind the
18 times. We pat ourselves on the back about leadership but,
19 in fact, in most of the United States we have a much higher
20 dominance of all-electric construction or specific
21 appliances being electric. California is a petro state.
22 Our history is based upon that. We really responded, I
23 think incorrectly, to the energy crisis in 2000 by creating
24 a gas-oriented, gas-friendly code when in fact that was a
25 gas scam. That wasn't actually an electricity crisis. And

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1 we've been, you know, encouraging development to be on the
2 wrong direction.

3 In 2017, when my mother-in-law died in the Tubbs
4 Fire, I've felt like the state is not really doing its job
5 which is basically protecting the health and the safety of
6 our population.

7 So, I just call upon you as responsible officials
8 to realize that we're in mortal threat. You know, the day-
9 to-day threat of asthma. You know, 12 percent of asthma is
10 caused by gas stoves in Australia. We have the same usage
11 of gas stoves in the United States, which is approximately
12 one in three gas stoves. And so, 12 percent of the asthma
13 in Australia is probably the same as the United States, 12
14 percent is because of our gas stoves. And that's like a
15 day-by-day death. People go to the hospital every year.

16 My office manager has asthma and she nearly died
17 of COVID this spring. She still can't walk more than a
18 mile and a half. Can't walk.

19 And so, I just see the state not taking
20 responsibility for how devastatingly awful the pollution of
21 gas stoves are for people's health, the outside air
22 pollution --

23 MS. GALLARDO: Sean, this is Noemi, the Public
24 Adviser. Apologies for interrupting, but your two minutes
25 are up.

1 MR. ARMSTRONG: Well, thank you very much. I
2 just encourage you to pass these and go further. Thank
3 you.

4 MS. GALLARDO: Thanks Sean.

5 Next is Stephanie Morris. After Stephanie will
6 be Jared Johnson. Reminder to spell your names and
7 indicate your affiliation, if any. Stephanie, your line is
8 open, you may begin.

9 MS. MORRIS: Thank you very much. Good afternoon
10 Commissioners. My name is Stephanie Morris, S-T-E-P-H-A-N-
11 I-E, the last is M-O-R-R-I-S. And I am a Volunteer Leader
12 with Mothers Out Front Silicon Valley. I'm also a
13 landscape architect. I live in Campbell, California and
14 I'm the mother of an 11-year-old son. I'm gravely
15 concerned about his future and the future of all youth
16 today.

17 On behalf of Mothers Out Front, a growing
18 grassroots movement of 35,000 mothers and others,
19 mobilizing for a livable climate for all children, I
20 encourage you to approve the all-electric reach codes
21 presented here today for San Mateo, Los Altos Hills,
22 Redwood City, and East Palo Alto.

23 Our Mothers Out Front chapter helped to pass
24 these codes, along with our allies in the Campaign for
25 Fossil Free Buildings in Silicon Valley. And we hope you

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1 will approve them.

2 Also, I'd like to take this opportunity to urge
3 you to move towards adopting a single all-electric baseline
4 for all building types in the next code cycle because all-
5 electric buildings are cheaper to build and operate, better
6 for public health, and critical to protect us from the
7 climate crisis. All-electric buildings are also critical
8 for maintaining equity and health in our public schools.

9 Waiting three more years would not only miss an
10 opportunity to unleash a faster, cheaper way to build
11 housing in the Golden State, it would cost Californians \$1
12 billion in unnecessary gas infrastructure, and lock us into
13 3 million tons of additional carbon emissions by 2030.

14 We commend you for your previous hearing on gas
15 build pollution and indoor air quality, a big concern of
16 ours, particularly during this time of sheltering in place.
17 We hope you will act with urgency to help address the
18 public health and climate crises we are facing and
19 accelerate our very necessary and beneficial transition to
20 all-electric buildings.

21 The CEC would save citizens like myself many,
22 many hours of time if environmental organizations did not
23 have to work with each individual city one-by-one to pass
24 electric reach codes.

25 Thank you very much for your time and this

1 important meeting. We need to be able to look toward the
2 future knowing we all work together for a livable planet.
3 The eyes of us moms and the world are on you. Thanks.

4 MS. GALLARDO: Thanks Stephanie.

5 Next is Jared Johnson and after him will be
6 Matthew Gough. Jared, your line is open and you may begin.

7 MR. JOHNSON: Hello, my name is Jared Johnson, J-
8 A-R-E-D J-O-H-N-S-O-N, for Arkela (phonetic). And on
9 behalf of my organization we support the adoption of these
10 local reach codes. And with many cities across the state
11 having already taken the lead, it's time for the CEC to
12 take electrification further by setting an all-electric
13 baseline for new construction in all on the 2022 Building
14 Code.

15 Building all-electric is less expensive than
16 building with gas for every single housing type, according
17 to data from San Francisco Environment. In some cases
18 foregoing gas hookups and gas appliances saves thousands of
19 dollars in construction cost. So, moving to all-electric
20 will reduce construction costs, will also reduce utility
21 bills helping make housing more affordable to folks.

22 To emphasize this point, research done for the
23 CEC on affordable -- on affordability of all-electric
24 commercial buildings also found substantial capital savings
25 in all climate zones, models for several different housing

1 types. That research is further bolstered by an E3's 2019
2 study, Residential Building Electrification in California.
3 That reported across six different climate zones in
4 California that capital costs for all-electric single
5 family homes and low rise multifamily buildings are cheaper
6 than their fossil gas alternatives.

7 As of December 6, 2020 over 9,279 fires have
8 burned 4 million acres across the state, equaling a full 4
9 percent of California's land area making 2020 the largest
10 wildfire season ever recorded in California's modern
11 history, according to the Forestry and Fire Protection
12 Department. So, it's clear California's in a climate
13 emergency and we must stop throwing gas on the flames. We
14 need to do everything we can to adopt and mitigate
15 greenhouse gas emissions. But allowing the development of
16 new gas infrastructure will only make it harder for us to
17 fully decarbonize. And science tells us we need to fully
18 decarbonize in order to protect our future and to keep
19 things from getting even worse.

20 So, Arkela urges the CEC to adopt an all-electric
21 building code for new construction in the 2020 Building
22 Code.

23 MS. GALLARDO: Thanks Jared.

24 Next is Matthew Gough. After him will be Brian
25 Barnacle. Matthew, your line is open and you may begin.

1 MR. GOUGH: Thank you Commissioners for the time
2 to speak today. My name is Matthew Gough, spelled M-A-T-T-
3 H-E-W G-O-U-G-H.

4 And I'm calling in on behalf of the Sierra Club
5 to voice support for the four reach codes up for approval
6 today. These cities are taking a meaningful step towards
7 meeting California's climate goals. They're protecting the
8 health of their residents and making housing more
9 affordable.

10 San Mateo, Redwood City, East Palo Alto and Los
11 Altos Hills join 40 total cities that have adopted building
12 electrification ordinances in the last year and a half.

13 It's time, now, for the CEC to follow the
14 leadership of cities and adopt a single all-electric
15 baseline for all building types in 2022.

16 And it's not just cities that the CEC can look to
17 for good examples of building electrification policy. In
18 the last few weeks France announced that it will require
19 all-electric space heating in single family homes starting
20 in 2021 and in apartment buildings in 2024. United Kingdom
21 announced a similar policy as early as 2023. The
22 populations of these countries collectively is well over
23 100 million people and serves as an example that building
24 electrification can work at scale and is viable in
25 California today.

1 Looking closer to home, in recent days at the Bay
2 Area Air Quality Management District's Climate Protection
3 Board Subcommittee meeting, the committee members and staff
4 affirmed for the first time publicly that they plan to
5 propose regulations in 2021 to further reduce NOx emissions
6 from gas appliances, and homes and buildings.

7 On top of that, the California Air Resources
8 Board also called for an all-electric new construction
9 standard starting in 2022.

10 So, this means that the CEC has a tremendous
11 opportunity to move in the right direction by requiring an
12 all-electric baseline in 2022. There are examples and
13 models to pull from at the local level from cities, at the
14 state level from agencies like CARB and BAAQMD, and at the
15 nation state level in France and England.

16 We really can't afford to wait any longer. And
17 so, the Sierra Club urges you all to move forward in
18 adopting an all-electric building standard in 2022. Thank
19 you for your time.

20 MS. GALLARDO: Thanks, Matthew.

21 Next is Brian Barnacle. After that we will have
22 Eric Arens. Brian, your line is open and you may begin.

23 MR. BARNACLE: Hello everyone. My name's Brian
24 Barnacle, B-R-I-A-N B-A-R-N-A-C-L-E. And I'm calling, a
25 resident of Petaluma. I'm a renter. A climate consultant,

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1 climate activist, and city councilmember elect for
2 Petaluma.

3 I urge you to support the cities who have put
4 these reach codes in front of you. And I hope the City of
5 Petaluma will be on this list soon enough.

6 In addition to that I want to call to your moral
7 leadership, your climate leadership to adopt an all-
8 electric code for the 2022 cycle. In Sonoma County here
9 climate change is real. We're dealing with our fourth year
10 in a row of fires. I was already spending a lot of time
11 inside because of COVID, but I had to get myself a box in
12 and a filter because of the fires this year, again.

13 As a renter, I've lived in -- the last four homes
14 that I've lived in have all had malfunctioning fan plates
15 when I moved in and as a result I was breathing toxic
16 levels of emissions and pollution in my home. That's
17 something that we can do something about and we certainly
18 shouldn't be exacerbating the problem going forward into
19 the future.

20 As the statewide official on that you can make
21 that change. And for years you've been calling on cities
22 to lead the way on climate change and on climate action.
23 We are. The cities who are adopting these reach codes are
24 leading the way and we're relying on you to step up and
25 codify the market, create a market for all-electric

1 technologies, get the manufacturers and the builders off
2 our backs and take some heat. We really are relying on you
3 to be leaders on this. And I encourage you to think about
4 all the children right now that are breathing pollution in
5 their homes and have nowhere to go because they can't go
6 outside and play. I encourage you to think about all the
7 children in the future that are going to be breathing toxic
8 pollution in their homes if we continue this trend. It's
9 something you can do something about and I hope you. Thank
10 you so much.

11 MS. GALLARDO: Thanks Brian.

12 Next we'll have Eric Arens. After Eric will be
13 Kevin Ma. Reminder to spell your names and indicate your
14 affiliation, if any. Eric, your line is open, you may
15 begin.

16 MR. ARENS: Yeah, hi. I am Eric Arens, E-R-I-C,
17 the last name's A-R-E-N-S. Good afternoon Commissioners
18 and staff.

19 I support and many people support the gas ban
20 because in the San Mateo, Los Altos, Redwood City, and East
21 Palo Alto, and now there are something like 40
22 jurisdictions in California that have such codes or will
23 have them soon.

24 And I support having an all-electric code for the
25 whole State of California. And if we had such a code, it

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1 would cut the CO2 and the methane emissions, which are both
2 harmful for the climate and for the health of people. And
3 the sooner we make ourselves all-electric, the fewer
4 stranded assets there will be and the accompanying costs of
5 taking those assets out later on.

6 France and England will be outlawing gas and
7 they'll be going to entirely electric in a few years now,
8 like two years, or three years, or four years.

9 And most of the U.S. is already electrified and
10 California is way far behind and we have to catch up.

11 So, anyway, I encourage you to require an all-
12 electric baseline in 2022. Thank you.

13 MS. GALLARDO: Thanks Eric.

14 Next is Kevin Ma and after that will be Bronwyn
15 Barry. Kevin, your line is open and you may begin.

16 MR. MA: Good afternoon Commissioners. My name
17 is Kevin Ma, K-E-V-I-N M-A, and I am representing today
18 Silicon Valley Youth Climate Action.

19 AS an organization working in the South Bay we
20 support all four of these ordinance applications in front
21 of you today for the reach code. And we encourage the
22 Commission to look at making such all-electric reach codes
23 to be mandated across the entire state because we all
24 recognize that climate change is a crisis. And that if
25 we're going to move on to an all-electric in like six

1 years, then why not do it now so we can get our industries
2 ready and working to get all their changes done necessarily
3 faster. Because we know that it is going to take a push at
4 the regulatory level to get anything done of this. And if
5 we do this city by city, it's extremely time consuming for
6 advocates and it will be delaying for any actual long term
7 action.

8 We know that this is the first step in a long
9 process and we have to address burnout ordinances, address
10 retrofits, and just addressing the new construction is
11 going to not be enough. I know it's probably like the most
12 feasible, but we as the next generation will be left with
13 the burdens of the disasters that the current climates have
14 seen with wildfires, sea level rise, and unbreathable air.

15 And as such, we ask the Commissioners to take
16 strong action to make sure that the next generation can
17 actually have a planet that they can live on and future
18 generations have a place to live. Thank you.

19 MS. GALLARDO: Thank you, Kevin.

20 So, I see Bronwyn Barry. And Bronwyn, we're
21 going to open up your line just to check. I don't have you
22 on my list as having spoken earlier, but I'm getting
23 indications that you may have. Bronwyn, would you let us
24 know have you gotten a chance to speak or would you like to
25 speak now?

1 MS. BARRY: I would like to speak now if I could,
2 please. I didn't speak earlier.

3 MS. GALLARDO: Yes, go ahead and a reminder to
4 spell your name.

5 MS. BARRY: Great, thank you. So, my name is
6 Bronwyn Barry. The spelling of it is B-R-O-N-W-Y-N. My
7 last name is Barry, B-a-r-r-y. And I'm here as a
8 representative for the North American Passive House
9 Network.

10 So, I'd like to thank the Commission for the
11 opportunity to present here. And I stand, firstly, in
12 support of the ordinances that these small, local cities
13 have put before you.

14 I'm not going to mince words here and I'm going
15 to join the comments that have been made by previous
16 callers to this Commission. And actually point out that
17 these small cities have had to submit this proposal of
18 electrification as a reach code is a damning indicator of
19 the fact that our California Title 24 and the energy models
20 that have been used to calculate these is actually
21 shockingly in arrears. This is not leadership. This is
22 catch up.

23 The fact that we, as a community, need to come to
24 the Commission who are charged with leading California's
25 greenhouse gas emissions targets and reaching the goals

1 that we have as the state mandates that we pursue, and we
2 are using an energy model and a framework that is showing
3 is unable to get us there in a timely manner, and at the
4 accelerated pace that our climate energy requires is a real
5 indicator that things really need to be changed
6 systemically.

7 I close by urging that the Commission use this
8 opportunity to take the very first tiny step towards the
9 decarbonization of our built environment, but that you go a
10 lot further and you actually finally start now on a pathway
11 for our energy code and building codes will start to
12 include all the other massive carbon emitters that we know
13 are responsible of the greenhouse gases, the climate crisis
14 that we see ourselves in, including embodied carbon.

15 So, please I do not come to praise you faintly.
16 In fact, I come to say this is not leadership. California
17 has a long way to go and we are just barely playing catch
18 up. Our house is on fire. Electrification is --

19 MS. GALLARDO: Bronwyn, this is the Public
20 Adviser. Apology for interrupting, but your two minutes
21 are up.

22 MS. BARRY: Thank you. Please go a lot further
23 than the baseline electrification. We've got a lot further
24 to go. Thank you.

25 MS. GALLARDO: Chair, that was the last person on

1 the Verizon line to comment. I have four comments to
2 relate that were submitted in writing.

3 So again, this is Noemi Gallardo, the Public
4 Adviser. I'll read those now.

5 The first comment is from Pauline Seales. That's
6 P-A-U-L-I-N-E S-E-A-L-E-S. On behalf of Santa Cruz Climate
7 Action Network, a local group with approximately 1,600
8 members. We are extremely concerned about the climate
9 crisis and embrace electrification as a great step in the
10 right direction. We strongly support the reach codes
11 currently being approved. We need to work towards an all-
12 electric standard as soon as possible. Electrification is
13 essential in any area's zero carbon plan. Many studies
14 have shown that all-electric actually reduces construction
15 cost and increases air quality and public safety, as well
16 as reducing future climate change. Thank you for your
17 attention to this important matter.

18 The second comment is submitted by the Napa
19 Climate Now Steering Committee, David Kearney-Brown.
20 That's spelled K-E-A-R-N-E-Y dash B-R-O-W-N. Eric Murray,
21 M-U-R-R-A-Y. Lynne Baker, L-Y-N-N-E B-A-K-E-R. Chris
22 Benz, B-E-N-Z. And Lori Stelling, L-O-R-I S-T-E-L-L-I-N-G.

23 Commissioners, we are commenting on behalf of
24 Napa Climate Now, Napa County's community-based climate
25 action advocacy group, in support of approval of the reach

1 codes submitted by San Mateo, Los Altos Hills, Redwood City
2 and East Palo Alto. The jurisdictions in Napa County are
3 also interested in adopting all-electric and electric-
4 preferred codes because this makes housing more affordable
5 to build and to operate. Lack of affordable housing is the
6 big issue in our county and contributes to the largest
7 source of GHG emissions as workers have to commute in from
8 neighboring counties.

9 However, our cities have small populations, small
10 city staff, and budgets that have been greatly reduce by
11 COVID. So, going through the steps to develop and get
12 approval for a reach code is large doing. This is why we
13 are asking the CEC to adopt a single, all-electric baseline
14 in 2022. Napa County and California need this because all-
15 electric buildings are cheaper to build, healthier to live
16 in, and reduce carbon emissions. Thank you.

17 The third comment is from Ann Feeney, spelled A-
18 N-N F-E-E-N-E-Y, Professor Emeritus at the Scripps Research
19 Institute.

20 My name is Ann Feeney and I reside in San Diego
21 County. I am Chair of the Sustainability Advisory Board of
22 the City of Del Mar. I encourage you to approve the all-
23 electric reach codes in Item Number 8 and applaud you for
24 approving all of the reach codes in approximately 40 cities
25 throughout California. Such reach codes are critical to

1 address climate change which is so dramatically affecting
2 California with wildfires, excessive heat in the summer and
3 sea level rise.

4 I hope that the CEC will move towards adopting a
5 single all-electric baseline in the 2022 Title 24 Code
6 because all-electric homes are cheaper to build for all
7 housing types and they reduce carbon emissions.
8 Importantly, all-electric homes are healthier to live in
9 due to the indoor air pollution such as nitrogen dioxide
10 emitted from gas appliances, including stoves. Such
11 exposure leads to respiratory effects including asthma.
12 Lower income's multifamily homes are usually smaller and
13 often have inadequate stovetop ventilation and thus have
14 higher levels of NO2. Therefore, low income housing
15 residents are disproportionately affected by indoor air
16 pollution.

17 The last item is from Karen Jacques, spelled K-A-
18 R-E-N, Jacques, J-A-C-Q-U-E-S, a resident of the City of
19 Sacramento.

20 Regarding Item 8, as a California resident who is
21 extremely concerned about the climate crisis, I strongly
22 urge the Commission to adopt an all-electric standard for
23 buildings and to make that standard effective in 2022.
24 All-electric retrofit is costly and time consuming and the
25 faster an all-electric standard is adopted, the fewer

1 buildings will need to be retrofitted. I am glad that many
2 California jurisdictions have adopted all-electric reach
3 codes. Now, we need a statewide standard. Thank you.

4 Chair, this is Noemi, the Public Adviser, again.
5 That was the last written comment to be related.

6 CHAIR HOCHSCHILD: Thank you, Noemi. And I want
7 to thank all the members of the public who took the time to
8 provide their testimony today.

9 And to say, you know, we heard a number of
10 personal stories, people who are dealing with health issues
11 or know someone who is impacted in some form or another by
12 the climate crisis and the fires that we're dealing with.
13 And I think we all feel this great sense of urgency.

14 I do want to say this year has also been
15 remarkable for some of the big progress. This is the
16 Governor's executive order in zero emission vehicle sales
17 by 2035. The progress we're making towards SB 100. We're
18 almost two-thirds. Most of our retail electric sales are
19 coming from clean, carbon-free sources.

20 And as we go into this building code I think
21 we're all very mindful of the urgency.

22 I want to specifically thank the cities today on
23 this item who have completed their diligence and they're
24 making the progress they are. We need local leadership on
25 these issues to help lead the way and I want to

1 congratulate them.

2 With that, let's turn it over to Commissioner
3 discussion starting with Commissioner McAllister.

4 COMMISSIONER MCALLISTER: Thanks, Chair
5 Hochschild. So, I want to reiterate the thanks for
6 everyone who chimed in today. It was a lot of really
7 substantive and obviously passionate comments based on
8 personal experience, but also very well informed about the
9 air quality through the state and the building code itself.
10 In many ways I think, you know, I agree with a great many
11 of the comments you made and really appreciate all the
12 thought and feeling that went into them.

13 And agree, I think you know we all agree that
14 increasingly, given the cleanliness of the electricity grid
15 and as it evolves that electricity will have a central role
16 in solving the climate. It already does and will have
17 increasingly a central role in solving the climate crisis
18 going forward.

19 On equity, and certainly hearing a lot of those
20 comments around equity and disproportionate impacts, you
21 know, the Energy Commission is doing a lot on equity.
22 Building it right into our programs, our incentive programs
23 to try to move marketplaces toward these clean electric,
24 low carbon technologies through the 1477 Bill program,
25 through upcoming program AB 841 in schools. Really want to

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1 acknowledge those who commented on schools. And actually,
2 equity's a principle for everything we're doing at the
3 Commission, really at the highest level. And so, that all
4 your comments are in alignment with that.

5 Also wanted to call out the partnerships that
6 we're developing with our sister agencies, in particular
7 with ARB, to approach, to try to get a more integrated or,
8 you know, across-agency integrated approach to combustion
9 byproducts and air quality, both indoor and outdoor. And,
10 you know, just the building code itself, or beyond just
11 Part 6 of the building code, but also looking at Part 11,
12 CalGreen. And then, also air quality authority in the
13 regions across the state through the AQMDs, like Bay Area,
14 who also commented today.

15 You know, there are authorities that can target
16 combustion and the air quality, the byproducts of
17 combustion that are specific to our state implementation
18 program and our, you know, federal waiver that we have to
19 go get NOx reductions for example. So, that's another tool
20 in the toolbox that we have as a state to really, you know,
21 flex our muscle in terms of moving towards a decarbonized
22 future.

23 So, wanted to just acknowledge the complexity and
24 unevenness of this issue. And, you know, we live in a big
25 diverse state with lots of climate zones, lots of local

1 context. Each one of these ordinances that comes forward
2 reflects a thought process. I certainly understand the
3 comments that, boy, wouldn't it be more efficient if the
4 state just pulled one big lever. But the fact is that
5 locally jurisdictions have different contexts. And
6 actually, the ordinances that come forward are quite
7 different. There isn't a one-size-fits all. And their
8 willingness to go through that process I think does
9 stimulate good ideas that we can take advantage of and we
10 will take advantage of them.

11 So, with all that said I exhort everyone who
12 comment and anyone to, you know, please participate in the
13 actual Title 24 update rulemaking, which is not this item.
14 Very much appreciate your support for these ordinances and
15 your comments on those. That's really welcome and helpful.

16 We will continue to dig into these issues. And
17 I'd also encourage you to participate in the Building
18 Standards Commission process as well, looking at Part 11,
19 CalGreen, where air quality issues will no doubt be, have
20 the subject of discussion for 2022 as well.

21 And ARB actually did submit some ideas to HCD for
22 consideration in Part 11 around air quality, so that's a
23 relevant development as well.

24 You know, given the climate emergency, we are
25 actually focused on increasing the stringency of the

1 building code across the board both for residential and
2 nonresidential codes. And so, the process it has been, it
3 is, and will be transparent, and it will indeed push the
4 marketplace strongly towards lower emission technologies.
5 I certainly want to ensure everyone there. It's not my job
6 to sort of pick winners beforehand. I think, you know,
7 have a process. Encourage all of you to put your ideas in
8 the process. Many of you have quoted things that we
9 actually have sponsored here at the Commission, research
10 and projects and, you know, clearly we're aware of those
11 and would love your perspectives around those and others.
12 So, appreciate all of that.

13 So, for this item, local ordinances for San
14 Mateo, Los Altos Hills, Redwood City and East Palo Alto, a
15 subset of incredibly diverse array of communities in the
16 Bay Area, you know, happy to bring these forward.

17 The Warren-Alquist Act, just to level set here,
18 the Warren-Alquist Act, CEC's enabling statute says that
19 our role is twofold. First, a local ordinance cannot cause
20 any building not to comply with our standards, the Part 6,
21 Title 24 standards. So, that means the ordinance is more
22 stringent than the state energy efficiency standards.

23 So, CEC staff analysis has shown that in all four
24 cases these ordinances do that. A building that complies
25 with these local ordinances, these stretch codes will

1 comply with the state minimum standard building code.

2 And then number two, the local -- we confirm that
3 the local government held a public meeting on their cost
4 effectiveness analysis. We're not in a position of
5 validating that analysis, but we do confirm that they held
6 a public meeting on their cost effectiveness analysis, and
7 these local governments did hold such meetings.

8 So, those are the two things. Our role is very
9 limited, actually, in confirming or approaching these
10 stretch codes. You know, local governments have a lot of
11 leeway as long as they're assured that the buildings are
12 going to meet the code and they've done some process
13 locally to get it voted on and brought to us.

14 So, as we've seen, you know, each local
15 government decides the details of its own ordinance based
16 on its own priorities, and its own climate. In various
17 ways it's the political climate, it's the physical climate,
18 and its own particulars in terms of the context and
19 constituents.

20 So, I think, you know, it's clear that the
21 direction the building sector is going is toward
22 decarbonization. We all agree with that. And the Part 6
23 of Title 24 is a tool to push the whole state, and it's a
24 big state, in that direction. And we intend to do that.

25 So, with that I think I'll wrap up my comments.

1 I certainly, you know, realize that these are actually
2 pretty complicated issues in terms of, you know, making
3 sure that we make -- that we don't take lightly imposing
4 requirements on every single project, but that we look for
5 ways to push the envelope in ways that the marketplace is
6 ready for. And so, that's what we intend to do. Certainly
7 what I intend to do guiding the building code update
8 process.

9 But for this item I'm in strong support of these
10 four ordinances and would encourage my colleagues to adopt
11 them.

12 CHAIR HOCHSCHILD: All right, thank you.

13 Comments by the other -- Vice Chair Scott.

14 VICE CHAIR SCOTT: Yeah, I just wanted to jump in
15 really quickly as the public member on the Commission and
16 say a mean three to what you heard from Chair Hochschild
17 and Commissioner McAllister in terms of thank you to folks
18 for their passionate, and well informed, and constructive
19 comments to us.

20 CHAIR HOCHSCHILD: Thank you. Commissioner
21 Douglas, were you going to say something. Okay.

22 With that let's move the item. Commissioner
23 McAllister, are you willing to make the motion.

24 COMMISSIONER MCALLISTER: Yeah, I will move Item
25 8.

1 CHAIR HOCHSCHILD: Okay. Let's see, Vice Chair
2 Scott, would you be willing to second?

3 VICE CHAIR SCOTT: Yes, I second Item 8.

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

6 COMMISSIONER MCALLISTER: Aye.

7 CHAIR HOCHSCHILD: Vice Chair Scott?

8 VICE CHAIR SCOTT: Aye.

9 CHAIR HOCHSCHILD: Commissioner Douglas?

10 COMMISSIONER DOUGLAS: Aye.

11 CHAIR HOCHSCHILD: Commissioner Monahan?

12 COMMISSIONER MONAHAN: Aye.

13 CHAIR HOCHSCHILD: And I vote aye as well.

14 Item 8 passes unanimously.

15 Congratulations to all those cities.

16 It is now 1:15. Perhaps we can just quickly
17 knock out Item 9 here and then maybe just take a break.

18 Are there any public comments on Item 9, Noemi?

19 MS. GALLARDO: This is Noemi, Public Adviser, no
20 comments.

21 CHAIR HOCHSCHILD: Okay. Unless there is
22 discussion, Vice Chair Scott are you willing to move Item
23 9?

24 VICE CHAIR SCOTT: Yes, I move approval of Item
25 9.

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

3 COMMISSIONER DOUGLAS: Second.

4 CHAIR HOCHSCHILD: I'll take that as a yes.

5 All in favor say aye.

6 Vice Chair Scott?

7 VICE CHAIR SCOTT: Aye.

8 CHAIR HOCHSCHILD: Commissioner Douglas?

9 COMMISSIONER DOUGLAS: Aye.

10 CHAIR HOCHSCHILD: Commissioner McAllister?

11 COMMISSIONER MCALLISTER: Aye.

12 CHAIR HOCHSCHILD: Commissioner Monahan?

13 COMMISSIONER MONAHAN: Aye.

14 CHAIR HOCHSCHILD: And I vote aye as well.

15 Item 9 passes unanimously.

16 I would like to do justice to this next item
17 since this is our thank you for staff and we have a lot of
18 things to say.

19 Could I suggest that we go in recess for 30
20 minutes and reconvene at quarter to 2:00. Would that be
21 acceptable to everyone to get a little bit of lunch
22 quickly?

23 COMMISSIONER MCALLISTER: Yeah.

24 CHAIR HOCHSCHILD: Is that okay?

25 CHAIR HOCHSCHILD: Okay, we'll recess for half an

1 hour and come back at quarter to. Thank you.

2 (Off the record at 1:16 p.m.)

3 (On the record at 1:46 p.m.)

4 CHAIR HOCHSCHILD: All right, welcome back
5 everyone. That was a marathon morning. So, let's move on
6 to Item 10, Lead Commissioner Reports. And we're going to
7 do our staff recognition as well.

8 So, let's begin with Commissioner Monahan.

9 COMMISSIONER MONAHAN: Yeah, you know, I'm going
10 to get my report out, and so this is more on a thank you
11 since I think we have a lot to get through. And I want to
12 make sure I'm prioritizing, actually, the thanks yours.

13 So, I want to start and we all know this has been
14 a really challenging year for so many reasons. And I just
15 want to say how inspired and impressed I've been with the
16 entire staff of the Energy Commission.

17 And I can't mention everybody in this thank you
18 because it would go on too long, and we all want to eat
19 dinner and get back to our regularly scheduled program.

20 So, you know, I want to say like that it has been
21 I think really an honor to get to know people in a
22 different way, to see their kids, to see their houses, to
23 see, you know, some of the challenges they face, but also
24 some of the wonderful aspects of their family life, and
25 their home life. So, it really has been, I would say,

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1 bonding for my team and me, and I think largely for the
2 organization as well.

3 And I want to start with my team in thanking
4 them. They're a great, hardworking bunch with low egos and
5 high performance. So, just really I couldn't ask for a
6 better team of folks.

7 Catherine Cross who has taught me to give up my
8 calendar and really push a hundred percent of my control,
9 which I'm happy to do.

10 My advisers Ben De Alba and Jana Romero who have
11 just been like rock stars in my little world. Like I said,
12 they bring low egos, high performance and integrity to
13 everything they do. So, just a big thank you to my team.

14 And to my student assistant, Crystal Flores, who
15 has brought me into the 20th Century when it comes to
16 social medial, I would say, well, maybe 19th Century. I'm
17 still working my way to the 20th.

18 So, across the board I've been impressed with
19 every, you know, staff from every division and how they've
20 adapted to the challenge this year. I just want to focus
21 on the team that I work the most closely with, the Fuels
22 and Transportation Division right now.

23 They have had a lot on their plate and they've
24 handled everything really well, really adeptly. And it
25 started, you know, there was a change in leadership, so we

1 had a Director, Kevin Barker, so I want to thank him for
2 his leadership. And also to recognize Hannon Rasool who
3 really has just been the go-to guy. He just jumped right
4 in. He's handled everything super adeptly. He's just
5 really like an amazing addition to the CEC team.

6 And while he was -- and before we had him, we had
7 John Butler who was Acting Deputy Director, and he had to
8 handle his job plus the Acting Director's job, and he did
9 everything so smoothly and so easily, and brought Hannon up
10 to speed. And so, I just want to thank John for his
11 dedication to the work and to the Energy Commissioner
12 generally.

13 So, the Officer Managers, Elizabeth John, Charles
14 Smith, Mark Wenzel, you've all been great to work with.
15 You're dedicated, you're kind, you're competent, so just
16 thank you for all you've done and for your teams.

17 So, like I said, the division has a lot of work
18 on their plate. There was the nuts and bolts of grants,
19 but there was also writing a ton of reports. I mean a ton
20 of reports and including the IEPR.

21 So, let me just highlight a few things they did.
22 They convened a new Clean Transportation Advisory Committee
23 and for the first time ever published a multi-year
24 investment plan. In the midst of the pandemic they were
25 doing all of this.

1 The medium- and heavy-duty team released what
2 must have been a record number of solicitations, including
3 a drayage solicitation in collaboration with CARB.

4 We launched two -- we, meaning they, the team,
5 launched Steven Kelly VIP projects, with one additional
6 launch scheduled for later this month. We got \$51 more
7 million for hydrogen -- I mean for light-duty charging
8 infrastructure.

9 We also, as you saw today, released the hydrogen
10 solicitation.

11 And then, as I said the reports, oh, my God, 2127
12 SB 1000, IEPR report, the AB 8, I mean a crazy number of
13 reports.

14 And I don't know if you guys have read the IEPR,
15 but I think it's pretty good. And we'll be talking more
16 about that later. But the team that led that, Quentin Gee
17 was, you know, an amazing writer, but he worked together
18 with a big team of folks on that.

19 Heather Raitt, amazing. Heather, you're
20 incredible in terms of handling the IEPR and doing it so
21 well, and so nicely.

22 I want to thank Siva Gunda, Matt Coldwell, Heidi,
23 and a lot of others in EAD. They have this portal which I
24 love. I consult it, I would say, on a weekly basis. And
25 they're also deepening their analysis of transportation

1 electrification in the forecast.

2 I want to thank Lori, and Ray, and a lot of
3 others in ERDD for thoughtfully integrating this
4 transportation electrification into research and
5 development.

6 And I want to thank the folks that have been
7 involved with the SPPE process. Fun times. Especially
8 Linda Barrera, Susan Cochran, Caryn Holmes, the rest of the
9 team, they've really been amazing to work with, in addition
10 to my comrade Commissioner Douglas on this one.

11 So, there's a lot of folks in the leadership of
12 the organization, Noemi Gallardo and her team in the Public
13 Adviser's Office. I rely on you guys so much and you have
14 really just been like a guiding light in terms of public
15 engagement.

16 Lindsay and her team. Oh, my God Lindsay is
17 amazing. I think we're all going to be talking about
18 Lindsay and how much she has upped our game on the
19 communications side.

20 Darcy and her team at Chief Counsel has been
21 helping me navigate a bunch of issues, nights and weekends
22 Darcy works. It's kind of crazy how much she works. In
23 fact that is a problem almost. But she has really been
24 helpful to me in a lot of different ways.

25 Gary and his team in Governmental Affairs. I

1 mean they've got a lot on their plate and we are looking
2 forward to a lot more in the coming year or two. We have
3 some big reauthorizations that we're hoping for. So, a lot
4 of work that we need the support of OGA for that.

5 So, I lastly want to thank the leadership through
6 Courtney, you know, just in terms of how well you have
7 helped everybody navigate COVID and move to a virtual
8 environment. There's a number of folks, I don't want to
9 list them all, who have been involved in the equity work.
10 Noemi has figured central, but Carousel, and Courtney and
11 others. And that work to me is really profoundly
12 important. The Idea N and the Idea X in terms of helping
13 us all be more attentive to equity and especially making
14 sure that disadvantaged communities benefit from the work
15 that we do and we take care of each other in that. In
16 that, you know, that we need to make sure that our
17 workforce is diverse and that we support a diverse
18 workforce while they're here at the Energy Commission.

19 So, my fellow Commissioners what a joy to work
20 with all of you. Talk about a group of low ego, high
21 performing individuals. I just want to thank you all
22 because you really are wonderful to work with. I feel like
23 not all boards will have that. A lot of them have
24 competitions. You know, those things are not so pleasant.
25 And I just feel very privileged and lucky to be with such a

1 great collaborative group of folks.

2 So, that's it. I said it really fast.

3 CHAIR HOCHSCHILD: Well done. Here, here.

4 Let's go next to Commissioner McAllister.

5 COMMISSIONER MCALLISTER: Sorry, I couldn't find
6 my mouse there. Well, I would second that last comment,
7 that final comment from Commissioner Monahan. You know, I
8 think all of you know I was a Peace Corps volunteer back in
9 the day, in the late '80s and got a start there in project
10 work, you know, doing actual community-based project work.
11 And there's nowhere to hide when you're in a local

12 community trying to do a project and just starting with
13 figuring out what it is that people actually want and need.

14 And I really learned there that the way you do a
15 successful project is by doing as much work as you can, and
16 bringing your best self, and holding the pen if necessary
17 to write the document, or whatever it is that you're doing.
18 But at the end of the day giving credit to everyone else,
19 you know, because like actually listening to them and
20 giving them a reason to want to want the credit for it,
21 right.

22 And I think our positions here on the Commission
23 are kind of odd, right, because we're sort of being pushed
24 to take credit for everything that staff does. And so, I
25 find that a little bit off-balancing because -- because,

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1 you know, we don't always have -- you know, people expect
2 us to wave the flag for the Commission, which we do. But I
3 think it is -- it is absolutely staff and all of our
4 stakeholders across the state, in our big, robust, diverse
5 vocal state that deserve the credit for pushing us in the
6 right direction and getting good policy done, right. And
7 so it does I think sometimes put us in the strange
8 situation of, you know, being pulled in multiple
9 directions.

10 But that comes with quality work and that comes
11 with the policymaking process if your commitment truly is
12 to get good policy done.

13 So, I want to just manifest my appreciation for
14 everybody's bringing their -- you know, putting their ego
15 on the shelf and really just bringing their best efforts to
16 what we all know is a team effort to try to get California
17 to where we need to go, and really take that deep, you
18 know, deeply personally.

19 So, lots of -- I have lots of thank yous and I am
20 actually going to mostly go to naming individuals and I'll
21 try to go relatively expeditiously here, but there's so
22 many people. I do oversee a fair number of projects and
23 topics and I'm over a couple of divisions, and I want to
24 just make sure that the staff that's involved in those just
25 gets the recognition that they absolutely deserve.

1 So, I guess I'll kind of start with the
2 Efficiency Division, which is kind of the core of my daily
3 work. And Mike Sokol, the Deputy of Efficiency Division,
4 has an amazing ability to keep plates spinning. It's
5 really almost not quite a circus, but pretty close.

6 And Christine Collopy, his Deputy, both of those
7 are just -- they're quality individuals and really
8 dedicated.

9 And then a few topic areas. You know, Load
10 Management Standards we have really high hopes for and
11 really there's been a process of getting familiar with
12 those, with those authorities again and really trying to
13 figure out what that looks like today, you know, and in
14 2021.

15 And so, Karen Herter, Gabe Taylor and Jennifer
16 Nelson in the Existing Buildings Office are really doing
17 great work on that effort.

18 In the Appliance Efficiency Office Pierre DuVair,
19 really great to have him back at the Commission. And his
20 team Sean Steffensen, Soheila Pasha, who you saw earlier,
21 and Nick Struven who's focusing on some of the load
22 flexibility work we're doing on appliances. They're all
23 doing great work.

24 In the Building Standards Office really happy to
25 have Will Vicent here, a relatively new addition, already

1 really rowing hard and pulling more than his expected
2 weight. And I really have high hopes and really look
3 forward to working with him in the coming year.

4 Mazi Shirakh, who you all heard about in the --
5 well, for his lifetime achievement award and exploits over
6 the course of decades in the Building Standards Office.

7 And then, also in that office Payam Bozorgchami,
8 Peter Strait, Danny Tam, Lorry Froess all just really great
9 work in support of this coming update.

10 Also in the Efficiency Division Troy Dorai has
11 been working on our data efforts. It's really starting to
12 reap benefits and just tremendous work on a unique building
13 identifier project which is going to -- a lot of wonky
14 stuff in Efficiency Division, but really foundational for
15 where are kind of big data efforts are going to go.

16 And then Amber Beck, who came over from Media
17 this year to help with our media communications within the
18 division, she's really, really doing great work.

19 In the Compliance Office Lorraine White and her
20 team doing HERS cleanup efforts. And kind of there's a lot
21 TBD there, but I think that's going in the right direction.

22 So, I'm going to move on to the Energy
23 Assessments Division. That's the other main division that
24 I work with. And Siva Gunda you all know and have
25 interacted with him and his team. Just really quality,

1 good management, keeping again a lot of plate spinning,
2 balls in the air in what really is complicated arena.

3 In particular, you know, our Commission vision
4 for upping our analytical game and really putting in place
5 those resources, Siva and his Deputy, Aleecia Gutierrez are
6 really doing great work there.

7 On the Forecasting Team Nick Fugate, and Cary
8 Garcia, Lynn Marshall, wanted to give them some kudos.

9 Natural Gas, Melissa Jones and also Lana Wong
10 there.

11 On Fuels, Gordon Schremp. You all know him. He
12 is a mensch and I know that when I get an ask from
13 Washington or some place I can just push that right to
14 Gordon and he will come back with a beautiful answer that's
15 very well informed.

16 Al Alvarado, Amanda Poletti, Tom Flynn also in
17 that office.

18 Ryan Eggers, on the data regs he's being doing a
19 lot of great stuff on the regs update, particularly with
20 the fuels data and just bringing -- just doing great
21 quality work there.

22 Grace Anderson on the Western Outreach, she works
23 with Vice Chair Scott quite a bit. She's helped me a lot
24 this year. And Judy Grau, as well, working across with the
25 CAISO and the imbalance market. Really appreciate all

1 their efforts.

2 On SB 100 I wanted to call out Liz Gill, who
3 you've seen a fair amount of as that project gets rolled
4 out. Just really terrific work. Jim Bartridge and Mark
5 Kootstra as well on that project.

6 Let's see, in CCO, our Chief Counsel's Office,
7 certainly wanted to call out Darcy and her team. Really,
8 so happy to have Darcy here.

9 In my realm, work with a lot of the attorneys
10 there, but I particularly wanted to mention Michael Murza
11 and Karen Holmes on the various efforts that we're working
12 on. Matt Chalmers, as well.

13 Let's see, the Local Assistance and Financing
14 Office now actually sits in the Renewables Division, but
15 I'm still very involved with them and it's been a real
16 pleasure to work with Natalie Lee, the Deputy of that
17 Division, and Armand Angulo who still runs the -- who's now
18 running the LAFO office. We have a lot of big stuff
19 happening there and it's really great to work with that
20 team.

21 Let's see on -- I'm getting there. I really
22 appreciate your patience, but there's just a lot of people
23 that I want to call out.

24 Okay, so just various different efforts. On the
25 1477 Bill Program, this is actually in LAFO, Jordan Scavo,

1 Tiffany Mateo, and Erica Chac, really you're doing great
2 work. It's going to be a successful program.

3 In Efficiency Division I already mentioned Jen
4 Nelson. Or, actually, AB 3232, which is the building
5 decarbonization work, that spans two divisions and so it's
6 Efficiency and EAD, and so it's been a nice cross-
7 divisional effort. I want to just recognize Jen Nelson,
8 and Matt Coldwell, Ingrid Neumann, and Nick Janusch, as
9 well as Mike Jaske for rolling up their sleeves on the
10 analysis and also the report. And most recently Melissa
11 Jones for shaping up that report and giving it one voice.

12 In R&D, I just have to call out Laurie ten Hope
13 and Virginia Lew, just really great leadership there. So,
14 thank you.

15 Just a few more. A few efforts that I wanted to
16 -- well, let's see. Yeah, so I'll just sort of knock off
17 the last few themes here because they're all important. I
18 have to give kudos to Heather Raitt and the IEPR team. You
19 know, this IEPR has been a really great effort. You know,
20 as always, really, but each one has its subtleties. I'm
21 going to be leading the IEPR next year and really looking
22 forward to working with them and the team, scoping it out
23 the near term and then doing the report.

24 We'll try not to set any records for workshops,
25 Heather, but you know we're going to have quite a few.

1 Media and Public Communications, I got to call
2 out Lindsay again, and also Tom Chesy who helped with the
3 video about my own home build project. You know, all that
4 great net positive passive house that my family and I built
5 over the last few years. And that you all, I think, have
6 seen that video. So, thank you for that.

7 Jason Harville in the Data Analytics Office --
8 Data and Analytics Office. You know, we would not be where
9 we are in our big data efforts if not for Jason, who's just
10 really proven to be a jack of all trades, familiar with the
11 deep analytics himself and really understanding the data
12 piece of it, but also managing kind of a whole solar system
13 of efforts that really need to revolve around the sun, is
14 our long term goal here, for getting our data analytics
15 shop to be most useful for informing policy. So, I really
16 want to encourage all of you to talk to Jason about that
17 effort.

18 The Public Adviser's Office, Noemi Gallardo and
19 Rosemary Avalos, they have been tremendous. I mean I think
20 that they're public facing so you see them every day, and I
21 think our stakeholders benefit tremendously from them. And
22 Dorothy Murimi as well in the Public Adviser's Office.

23 And then, wrapping up, you know, the Executive
24 Office has just kept the trains running on time and provide
25 the right sort of mix as vision, as well as administrative

1 competence. And I just really want to thank Drew and
2 Courtney for your capabilities and all your -- really, your
3 situational awareness and sort of bringing yourselves fully
4 to that role.

5 And then, I just want to thank my colleagues.
6 You know, Chair Hochschild, and Vice Chair Scott,
7 Commissioner Douglas, Commissioner Monahan. So, I just
8 really -- wherever we intersect it's a pleasure to work
9 with you. You know, we do have these committee structures
10 and I'd love to like ask you a lot more questions than I'm
11 actually able to. And we want our business meetings to be,
12 you know, manageable, on time. But, really, it's nice to
13 have confidence that our team is firing on all cylinders.
14 We're going to need a new metaphor, I guess, once we don't
15 have the ICU anymore, but I mean the ICE, sorry, the
16 internal combustion engine. We can't really saying firing
17 on all cylinders I guess. I don't know.

18 But I think it's just really great to work with
19 you on our various endeavors. And as we get more
20 integrated and, you know, more dots connect to more places
21 I think we'll have opportunities to actually work together
22 more.

23 And then, finally, I just wanted to mention my
24 staff. You know, Bryan Early, my Chief of Staff. Bill
25 Pennington working on the Building Code, a big lift. Fritz

1 Foo, who's really, you know, stepped up to the plate and
2 learned a ton and just he's been drinking from the fire
3 hose really since he joined the office. And just, really,
4 it's a pleasure to work with all of you.

5 And finally, Laura Castaneda who has helped sort
6 of my own trains keep running on time in our office. So,
7 we've got -- I think I got everybody, but apologies if not.
8 But thanks for bearing with me.

9 This was an amazingly challenging year and I hope
10 we can see each other in person and not at a flat screen at
11 some point in the relatively near future. So, here's to a
12 great 2021.

13 CHAIR HOCHSCHILD: Well said, thank you,
14 Commissioner.

15 Let's go to Vice Chair Scott.

16 VICE CHAIR SCOTT: All rightly, so I also have a
17 pile of year-end remarks. And I'm going to try not to
18 speak faster than my usual clip so that people can actually
19 hear their names when I say them.

20 But I'm just really delighted to have a chance to
21 thank our staff. As both Commissioner Monahan and
22 McAllister have already mentioned, 2020 has proven to be a
23 year of challenge and change, particularly here in
24 California where we struggled through our largest and most
25 destructive wildfires. We've had record setting heat

1 waves, rolling blackouts, and all of that while we've been
2 enduring a global pandemic.

3 So, I really do want to start by thanking the
4 Chair for carving out a little time for us today to reflect
5 on the past year and to acknowledge our accomplishments
6 along with a terrific staff who, despite this challenging
7 year have continued to carry out their instrumental work
8 that the Energy Commission has become known for in just an
9 incredibly laudable manner.

10 And I also want to thank my fellow Commissioners.
11 It is just a pleasure to get to work with each and every
12 one of you. I feel like I learn something from you ever
13 time that we overlap. And I always enjoy the work that we
14 do together. I couldn't ask for a better set of
15 colleagues.

16 So, back in March, when the response to the first
17 shelter in place orders, and before we really knew how the
18 rest of the year would unfold, the Energy Commission was
19 one of the first agencies to transition to full
20 telecommuting. Not only were we one of the first to make
21 this transition, but we did it really well. And we set an
22 example to other agencies for how it could be done.

23 And so, I really want to say thank you to Rob
24 Cook and his whole team from IT, Contracts, Grants and
25 Loans, and more, because they basically made this seem like

1 it just happened. And I know that that is not true. I
2 know that there was a lot of work that went behind making
3 that transition and making it smooth both for people who
4 work at the Commission, but also for people who work with
5 the Commission. So, a huge thanks to you.

6 We really had to rethink how we do business and
7 everyone on the team did it while balancing children, and
8 parents, pets, homeschooling, and all kinds of other things
9 that are going on in our homes. And so, I'm just impressed
10 really every day with the amazing team that we have.

11 And I think we as an agency have demonstrated an
12 ability to be flexible, to be nimble, to be proactive and
13 to be responsive both for ourselves and our coworkers, but
14 also externally with the people that we work with and serve
15 on a daily basis. And I just can't say kudos enough.

16 And, hopefully, you have heard me say this during
17 business meetings throughout the year because it really is
18 impressive.

19 I think our team here at the Commission has done
20 a phenomenal job staying on top of things that are so
21 incredibly important. And so, I want to share my sincere
22 thanks and gratitude to a staff of the Commission as a
23 whole for really stepping up in a big way this year.

24 And despite the challenges of 2020, it's been an
25 exciting year for the R&D program. So, now I'm going to

1 turn to the part that I focus on.

2 And most notably, back in August the Public
3 Utilities Commission renewed our EPIC Program for another
4 ten years. Yeah, woohoo. That represents about a \$1.3
5 billion investment in our clean energy future and that's a
6 huge win for us at the Energy Commission, I think at the
7 PUC, and a huge win for all Californians.

8 And while our staff has really made EPIC a world
9 class research program, we still had to go through a pretty
10 extensive renewal process to clearly demonstrate the values
11 and benefits of the program. And so, I really want to
12 thank that team. Laurie ten Hope, Linda Spiegel, David
13 Erne, Eric Stokes, Fernando Pena, Anthony Ng, my advisers,
14 and then from our Legal Office Gabe Herrera and Linda
15 Barrera for doing such a great job at making the renewal
16 what was hopefully a very easy decision for the Public
17 Utilities Commission.

18 And honestly, I want to reiterate my thanks for
19 the entire EPIC team. Because if we hadn't spent the last
20 few years building an exemplary record in carrying out this
21 program in such a professional way, it might have been more
22 difficult to make the case for how important this program
23 is.

24 In October, we hosted our sixth annual EPIC
25 Symposium and that was not without a little bit of angst.

1 If you all remember that was supposed to be an in-person
2 event in April. We transitioned that to be a virtual event
3 in October. And we were so fortunate to have Governor
4 Newsom provide some opening remarks for us and that was
5 certainly a highlight.

6 And I want to thank -- and we were still in that
7 virtual world able to attract nearly 1,000 attendees, which
8 is pretty awesome, and that's a record high for our
9 symposium. And so, I want to thank the team who helped to
10 organize that. And that includes Eric Stokes, Katrina
11 Leni-Konig, Maggie Deng, and Rachel Salazar. Just for all
12 of the planning, the phenomenal planning that went into
13 making our symposium a success.

14 I also want to say thank you to Scott Cox from
15 our R&D division because he has made significant
16 contributions to helping raise the profile of the EPIC
17 program this year and helped us to organize our EPIC
18 Innovation tours, which started out also as an in-person
19 thing, but turned into a virtual world, and all of his
20 support with the social media. So, thank you so much,
21 Scott.

22 I'd like to acknowledge and thank our Food
23 Production Investment Program, or that's the FPIP program
24 team. Kevin Uy, Cyrus Ghandi and Virginia Lew, plus the
25 rest of the team who have done a fantastic job with the

1 FPIP program. This year we got the last of our FPIP money
2 out the door. There's about \$7 million remaining in an
3 open solicitation. But in total we have invested about
4 \$118 million into 48 food production projects throughout
5 the state. And these funds, as you all know, are helping
6 California food producers lower their carbon footprints of
7 their production processes, along with the energy use and
8 the associated greenhouse gas emissions. And the team
9 really was heroic in their outreach in this space. As I've
10 mentioned before, food producers probably didn't often
11 follow what the Energy Commission was doing prior to the
12 FPIP program, so we really did have to do some extended
13 outreach, some thoughtful outreach to let that community
14 know here' what we're up to. Let's listen to them closely
15 to figure out how to smartly design the program in a way
16 that it could really be effective. And again, I think the
17 team there just knocked it out of the park.

18 Under our PIER Natural Gas program we've
19 continued investing in technology advancements that help
20 improve public health and safety, to decarbonize end uses
21 in buildings and in industry, to develop fuel alternatives
22 like renewable hydrogen, and to reduce environmental
23 impacts. And so, I want to thank that team as well.

24 Finally, in our R&D division, across our programs
25 we have continued to have a focus on ensuring that low

1 income and disadvantaged communities are realizing the
2 benefits of our research and helping direct where the
3 research goes. We have been actively engaging with our
4 Disadvantaged Communities Advisory Group on how we can be
5 more intentional and effective in this space.

6 So, I want to thank the team for pulling this
7 into their DNA. And I also really want to thank our
8 Disadvantaged Communities Advisory Group for the expertise
9 and their dedication, and how they are always providing us
10 constructive feedback. They help us make our programs
11 better. So, thank you to them.

12 And as always, this is just a handful of the
13 highlights from the Research Division that I could have
14 highlighted. And I would include more if we had more time.
15 But I want to make a few additional acknowledgements.

16 I wanted to echo Commissioner Monahan's thanks to
17 our SPPE team, as well. And I also am excited about the
18 new work in the team that I'm working with on AB 841, in
19 partnership with Commissioner McAllister. So, that's
20 Natalie, Armand, Jonathan, Darcy, and Allan. So, thank you
21 all. As we get up to speed and figure out how to quickly
22 put guidelines together for that important program that's
23 due by May. So, we have a very tight timeline to get to
24 pull that together.

25 I want to say thank you to Lindsay Buckley,

1 Michael Ward, Aretha Welch, and the rest of our Media Team
2 for their hard work this year. And just a huge kudos to
3 Lindsay. Under her leadership the Media Team has really
4 taken our media and outreach to the next level. From the
5 fantastic graphics and videos they developed to keeping our
6 social media current and fresh, to developing the tutorials
7 that helped all of us at the Energy Commission navigate
8 this brave new virtual world. Our Media Team, I think, has
9 just done a fantastic job not only supporting all of us in
10 our work internally, but also relaying our work in a
11 compelling way to the outside world.

12 And I'm particularly thankful to this team for
13 the 45th Anniversary celebration that we just had on
14 Monday. I thought they did a fantastic job. It went so
15 well I was pleased. We got really great feedback. And a
16 huge shout out there to Tom Chesy, and also to Toan Lam.
17 From the script writing, to the video production, the
18 graphics, and beyond they truly stepped up and made that
19 just a fantastic virtual event.

20 In fact, almost the entire Media Team had a role
21 in that event. And I want to say just thanks to everybody,
22 actually. There was a village that put that event
23 together. We put a nice thank you slide for that. And I
24 just want to say thanks to everybody there.

25 As you all know, we also quickly pivoted to

1 conducting our Energy Commission's Business Meetings
2 virtually. Noemi Gallardo, Dorothy Murimi, and her team
3 stepped up with the support, and also some of our legal
4 team, in a really big way. We were able to really think
5 through how to make our online business meetings more
6 transparent, more accessible, and more engaging. And it
7 seems like every month we're finding new ways to refine and
8 improve on our meetings. And so, I really want to applaud
9 them for their continued work in this space.

10 And I also want to thank all of our staff who
11 have presented on video. I know for those of you who
12 aren't used to doing this every month and being on video
13 that was maybe a bit of a heavy lift. But it really makes
14 a difference, I think, to the folks who are watching and
15 wanting to engage with the Commission. So, I want to thank
16 all of the Energy Commission staff who have previously
17 presented on video and who will present on video as we
18 continue in this virtual world.

19 Just a few more here. I want to thank Heather
20 Raitt, Stephanie Bailey and the IEPR team. Just as you
21 guys have heard they're cracker jack. They knock it out of
22 the park every day. They made also a huge transition as we
23 went into this virtual world. And I got to help oversee
24 the microgrid part of the Integrated Energy Policy Report
25 this year.

1 So, I also want to thank Mike Gravely, who is the
2 Energy Commission's resident guru on storage and microgrid
3 for his expertise and help in outlining that together.

4 I want to say that I'm grateful to Grace Anderson
5 who helps me in my role as the Vice Chair of the Western
6 Interconnection Regional Advisory Body, so that's WIRAB.
7 And all of the work that I do and engage with kind of that
8 Western Interstate Energy Board. Her level of expertise is
9 unparalleled and I would not be able to do that successfully
10 without her assistance.

11 And I want to thank her staff, Al Alvarado,
12 Christopher McLean, Angela Tanghetti, and Judy Grau who
13 also continuously help make sure that the Commission and
14 California's voice is heard in that Western Regional
15 Collaborative on Critical Energy Issues.

16 I also wanted just to note that Al and Judy are
17 retiring, so that is sad for us, but very, very happy for
18 them. And I want to wish them all the very best, to let
19 them know that they'll be greatly missed at the Commission.
20 But I wish them all the best in retirement.

21 Okay, three more and then I'll turn it back over.
22 I want to thank Barry Steinhart and Richard Rojas from OGA.
23 They do great work keeping my team and I engaged in the
24 latest and greatest when it comes to legislation efforts.

25 I want to thank our Executive Office, Drew Bohan

1 and Courtney Smith. They truly lead with a vision towards
2 the future and a lot of care in their hearts for how the
3 Energy Commission staff is doing and gets along.

4 I want to thank our Chief Counsel Darcy Houck and
5 her team for their leadership.

6 And then last, but certainly not least, I want to
7 give a hearty thanks to my team. My advisers and my
8 previously adviser earlier this year, Linda Barrera. And
9 my current advisers Rhetta DeMesa and Mona Badie. I just
10 -- I wouldn't be able to get through the day without their
11 fantastic work. There's just not enough wonderful and nice
12 things I can say about their professionalism, their
13 dedication, their expertise, just the laudable work that
14 they carry out each and every day.

15 And thank you to my Executive Assistant Miina
16 Holloway. She makes sure that I am where I'm supposed to
17 be virtually all the time and in the real world as well, so
18 I appreciate that so much.

19 And to our Student Intern Patrick McCann-Kingston
20 for helping us out during the year. I couldn't do it
21 without that Miina team there that I have there together,
22 so I appreciate them so very much.

23 So with that, again my fellow Commissioners it is
24 an honor to work with you all every day. Thank you for
25 indulging my long set of thank yous. But, you know,

1 there's so many wonderful folks at the Energy Commission
2 that we just have to thank, so I'm glad we have time to do
3 it this afternoon.

4 CHAIR HOCHSCHILD: Thank you, Vice Chair.

5 Let's go to Commissioner Douglas.

6 COMMISSIONER DOUGLAS: All right. Well, I first
7 just want to echo the words of appreciation and
8 acknowledgement made by my colleagues. Really, as
9 Commissioner McAllister said, the work that we do is built
10 on the foundation of all this incredible work done by the
11 Energy Commission staff at all levels, and they make it
12 possible.

13 And so, I've got some thank yous, as well, to
14 recognize the achievements of the divisions and offices
15 that I work most closely with.

16 And it's already been noted, you know, these
17 achievements come even as we made the transition to remote
18 work, and even as everybody had to deal with the changes in
19 their lives that this pandemic has caused.

20 So, starting with the Renewables Division, a big
21 thanks of course to Natalie Lee whose leadership of this
22 far ranging, you know, small but far ranging division in
23 terms of its responsibilities has just been tireless.

24 A couple of the main achievements made by the
25 Renewable Energy Division include significant updates to

1 the power source disclosure regulations, compliance period
2 to verification results for the RPS. Modification to the
3 New Solar Homes Partnership Guidebook to recognize
4 challenges brought on by the COVID pandemic. The
5 appointments made today to the Lithium Valley Commission.
6 The successful wrap up of the REAP program and the
7 tremendous outreach that went along with that. And there's
8 more, and there's a lot more.

9 But I just want to thank the Renewable Energy
10 Division for all of their hard work. And now, of course,
11 some of their hard work is on programs that I'm not
12 directly overseeing, but I do get to hear about them
13 because, you know, that is a division that has just a
14 tremendous amount of workload.

15 The STEP Division, Siting, Transmission, and
16 Environmental Protection, a big thanks to Sean and his
17 talented team. I'm just going to give some highlights of
18 what's been achieved this year.

19 Of course, first and foremost in my mind the way
20 that team stepped up in coordination with Siva Gunda, EAD,
21 and Executive Office to, you know, squeeze every megawatt
22 out of our system that we could during the energy
23 emergencies, and the expertise, and the hard work that they
24 brought to that.

25 Supporting and facilitating a really great

1 workshop last week on improvements to the existing natural
2 gas fleet for electric system reliability and resiliency.
3 Providing important data and analytical support to the root
4 cause analysis in the SB 100 Report. Managing on time or
5 reasonably on time multiple STEP analyses and from start to
6 finish of those processes.

7 You know, we had a heavy caseload this year. We
8 had a very heavy caseload in our siting program, in this
9 year, multiple cases going on at the same time. And there
10 was robust participation in that.

11 So, ensuring power plant compliance with
12 conditions of certification. So again, you know, we have a
13 different kind of program now because of the need to adapt
14 to new virtual reality that we live in, but the staff has
15 done a good job of adjusting to that, and continuing our
16 presence and asserting our presence in terms of making sure
17 conditions are followed, and power plants are operating in
18 accordance with their licenses.

19 Evaluating the potential for and challenges to
20 offshore wind energy in federal water, offshore of the
21 California coast. The subdivision supported the Energy
22 Commission's participation in the follow-on California
23 Intergovernmental Task Force, and significant work that we
24 did outside of official task force meetings.

25 And, of course, under the leadership of Tom

1 Gates, the CEC's Tribal Liaison, the Energy Commission
2 really lived up to our commitment to ensure that Tribes and
3 Tribal Governments are informed of opportunities to, for
4 example, participate in Energy Commission programs, compete
5 for Energy Commission grant funding, and engage in
6 government-to-government dialogue, or informal dialogue
7 with the Energy Commission around areas that they're
8 interested in and that we work in. And that has taken a
9 form of informal conferences, it's taken a form of more
10 formal meetings, and it's very much taken a form of
11 participation in multiple programs, including a record
12 number of Tribes being awarded funds from Energy Commission
13 programs, especially the EPIC Program. And the Energy
14 Commission-funded Tribal Grant Challenge, which is
15 administered by the Strategic Grant Council.

16 I wanted to call out Public Adviser Noemi
17 Gallardo. She's done a really great job of just stepping
18 up, being proactive, helping implement new strategies,
19 making a real effort to help members of the public and
20 stakeholders participate in our remote proceedings,
21 supporting the business meetings, and remote participation
22 in the business meetings. Supporting each division.
23 Taking on new initiatives. Taking a major role supporting
24 the DACAG. She's really, really stepped up and gone above
25 and beyond in her work.

1 Chief Counsel's Office, very, very happy to be
2 working with Darcy Houck and she's got a really talented
3 team of attorneys working with her. And I have appreciated
4 very much the contributions, for example, of Allan Ward on
5 the audits, and contracting side. Gabe Herrera, as we've
6 worked through the RPS regulations, and so much more. But
7 Chief Counsel's Office has had a major, major workload as
8 well, and has made this transition as well.

9 Hearing Office, the work of Linda Barrera, of
10 course, Karen Holmes, and the Hearing Officers on different
11 cases, Susan Cochran, Ralph Lee, Deborah Dyer. It's been a
12 lot of work and will continue to be, but that's all right
13 it's what we do.

14 The Office of Audits, Investigation and Program
15 Review, led by our Chief Auditor, Lisa Negri, has a very
16 low profile in our organization, but they're very, very
17 effective. They do the important work of ensuring that
18 we're good stewards of public funds, particularly funds
19 awarded to grantees.

20 They had to transition, because of the pandemic
21 they can't go into the field, they can't do office visits,
22 but they request the paperwork they need, they get it, they
23 do their audits, and they've done very good work.

24 The IT team, as has been noted, was phenomenal
25 this year.

1 Executive Officer and executive leadership, Drew,
2 Courtney and the executive team just really deserves high
3 praise for their work to ensure the safety of our staff,
4 the rollout of technology to allow us to telework, and just
5 keeping lines of communication open, their attention to the
6 culture of the Energy Commission through, for example,
7 their support of diversity initiatives and more. And the
8 communication with us, as Commissioners, to help us do our
9 jobs and so that we can help support the organization,
10 they've played a really important role in that.

11 Just going to my team -- oh, Lindsay, I should
12 have talked about Communications. And thanks to Lindsay
13 for her hard work and her team, of course.

14 And going now to my Executive Assistant, Ollie
15 Awolowo, and Advisers, of course Eli Harland and Kourtney
16 Vaccaro have supported me. And I think I would be just
17 about nowhere if I didn't have my advisers to bounce ideas
18 off of and help me stay organized, along with Ollie.

19 I also want to thank Jim Bartridge and Jon
20 Hilliard who stepped up to be technical advisers to the
21 Committee as we do siting work. They've been very, very
22 helpful.

23 And I will end with general thanks to everybody I
24 didn't mention, but should have. Everybody who everyone
25 else mentioned, so I decided not to for brevity, but really

1 want to join in their comments. And all of you, my
2 colleagues on the Energy Commission, it's a real pleasure
3 to serve with all of you. So, thank you.

4 CHAIR HOCHSCHILD: Thank you, Commissioner.

5 Well, I have to say I'm really glad we're
6 spending a long time doing this because I think it's our
7 greatest asset, our people, each other. And I want to just
8 begin with you guys. I am so fortunate to get to work with
9 such a talented, dedicated, tireless, ethical, relentless
10 team. I mean it's just -- and I'm grateful not just for
11 the sort of strange, and beautiful, natural allocation of
12 talents that we seem to have, because they're very highly
13 complementary when you step back and think about it, but
14 also the problems that we haven't had. I mean there just
15 aren't -- there aren't bitter, bickering. I mean, we see
16 some issues a little differently, but we can always have a
17 conversation. And we all know each other are coming from
18 the right place and it's just such an asset.

19 I think the most highly evolved, you know,
20 manifestation of our humanity is really fully recognizing
21 that we're part of something larger, and that we're all
22 like a part of one body, you know, and are coordinating
23 well. And that's really what I feel. And I feel it with
24 our team of Commissioners.

25 And you know what, one of my biggest fears is

1 getting promoted. I don't want to go. This is like --
2 this is actually where I want to be because what we have is
3 so special. And I feel that with our senior team as well
4 across the Commission.

5 I want to begin by recognizing Drew, who there's
6 actually among his many, many good qualities he is
7 extremely humble and he always deflects to other people
8 when it comes to praise. But Drew, you're the heartbeat of
9 the Energy Commission in terms of implementing the vision
10 that the five of us are working on. You're tireless. You
11 -- just the motor is always on. And I'm so grateful. I
12 mean I'm on the phone with you constantly and I just feel
13 we solve problems together all the time.

14 Courtney Smith, thank you for all of your
15 energetic support on so many issues, particularly during
16 this transition to work from home, which is not easy. I
17 feel like we actually made that transition much more
18 successfully than I was expecting and I really want to
19 acknowledge that. It was a big lift.

20 And, you know, I'm share this with everybody but,
21 you know, Secretary Crowfoot has, you know, repeatedly
22 pointed to the Energy Commission as pioneering a bunch of
23 new models and doing some cutting edge stuff, which is how
24 we work, and that's something we should all be proud of.

25 We had, obviously, a grid outage in August. I

1 have never spent so much time with Siva Gunda in my time
2 here and I couldn't be more grateful. Your attitude, your
3 creativity, your ability to prioritize, to mobilize, to
4 collaborate is exceptional. And the Energy Commission is
5 so fortunate to have you. I believe, you know, you made a
6 huge difference in the challenges we were facing this
7 summer and just, you know, what you've done with the team
8 that you have is incredible.

9 I wanted to just in particular acknowledge a few
10 folks who are in new roles since I became Chair and because
11 I just feel everybody is shining. And so, Carousel Gore,
12 just what you've done with HR and in participating in our,
13 you know, heritage celebration and making this place
14 better.

15 Melissa Rae King on enforcement and what you've
16 done with that shop.

17 Mike Sokol, you know, you're kind of the poster
18 child to me for someone coming into CEC, working really,
19 really hard and just learning the job, and just being
20 relentless and you've got a big, big job on your plate.

21 Hannon, wow, amazing. What -- you know, you felt
22 to me like you'd been here three years after he'd been here
23 three months. Just so much fresh thinking and creativity
24 and, you know, selflessness. And just really excited by
25 what we have done and what we're going to do all together

1 going forward.

2 Darcy, we have the best Chief Counsel in state
3 government. Absolutely so grateful for you. And thank you
4 to Commissioner Douglas for making the connection early at
5 that Tribal Summit, I think it was a year and a half ago.
6 Just your judgment I rely on so deeply.

7 Noemi Gallardo, you know these meetings we do
8 they're running so well because of you. I just feel like
9 we're just shipshape. And the Vice Chair has been terrific
10 in making some improvements in how we do our public
11 process. But even things like our Clean Energy Hall of
12 Fame Awards tomorrow, incredible process. So, just so much
13 heart from you for the work, for the process, everything
14 you touch gets better.

15 Jennifer Martin-Gallardo, this new role, this
16 Public Ombudsmen role advocating for our grant recipients
17 so their process is respected and improved. I'm so glad
18 you're in the role you're in.

19 Lindsay has just been a bright light and I just
20 -- the turnaround in improvement and new capacity we have
21 in communications is just everything I'd hoped for and
22 more. You know, and it's a hugely, hugely critical piece
23 of what we do. It doesn't matter if we do everything right
24 if we don't do a good job sharing those stories, so thank
25 you for that.

1 And Le-Quyen, you're the orchestra conductor that
2 keeps all this, you know, chaos in my office moving
3 forward. Just spectacular. You anticipate everything.

4 Terra and Ken, I think the world of you both.
5 You know, Terra, you go off and take on SB 100. And, you
6 know, I actually miss you because I don't get to work with
7 you so closely. And part of the reason is I know when
8 you're on a project I don't need to be in it because you're
9 doing it so well. So, I just couldn't be more grateful.
10 You were a summer fellow, you know, three years ago I think
11 in my office, and now running SB 100. So grateful.

12 And Ken, just a fountain of knowledge on
13 absolutely everything. Your motor is always on. So,
14 grateful to my whole team.

15 I wanted to also just highlight, you know, there
16 are some retirements happening. People like Gabe Herrera
17 who have been a fixture of the Energy Commission for a long
18 time. I'm a huge fan of this retired annuitant thing. I
19 love it. You know, Karen Holmes retired and then we got
20 her back. And so, to the Energy Commission retirees we're
21 coming for you. You get your little break and then we're
22 going to rope you back in because you provide so much
23 value.

24 But just to recap, you know, the top issues that
25 I told the Governor I wanted to take on when I took over as

1 Chair, you know, getting more money for schools to continue
2 the Prop 39. You know, we got 841. That's going. The
3 EPIC extensions, according to the Vice Chair and the team,
4 their 10-year extension. Couldn't be more pleased, that
5 was a home run. Transportation electrification we have
6 moved, with Commissioner Monahan's leadership to, you know,
7 a zero emission focus (indiscernible) -- for \$51 million,
8 and just incredible momentum there. The Governor's
9 executive order setting the way, you know, supporting
10 building decarb and electrification. Incredible.

11 You know, today was another example of us
12 approving all these local codes and we're pushing really
13 hard on the state code, and building on already an
14 incredible feat with the solar mandate on new construction
15 that went into effect.

16 And the first offshore wind, Commissioner Douglas
17 has been phenomenal in that and very excited about where
18 that can go. But the process, the outreach and some of the
19 early money we've got going there amazing. And then
20 looking at development, also working closely with
21 Commissioner Douglas and the Vice Chair there, and that the
22 Commission approved today, and the \$14 million earlier this
23 year. So incredible.

24 We need to catch our breath. I want everybody,
25 you know, on staff and all of us Commissioners to really

1 try to take a break this holiday season. Turn off the
2 phone. Click block sender on me. And, you know, I want
3 you to just like recharge, and restore and rest. We need
4 that. This is not -- this year has felt like a 100-yard
5 dash, but it's been a marathon. We really have to kind of
6 recharge our batteries. The road is long ahead.

7 So, that's actually my greatest hope is that we
8 actually take a break, collect ourselves, but then just
9 appreciate what we have. We're building something really
10 special.

11 What's happening now, positions at the Energy
12 Commission are hard to get. There is actually very, very
13 high caliber applicants. For Chief Counsel, you know, I
14 think we had (indiscernible) applicants for this. And when
15 you have something special and you have a healthy culture,
16 and you're doing really brave, pioneering, coordinated work
17 you attract great people. And that's just an incredible
18 dynamic that's happening right now. So, let's appreciate
19 that, let's be grateful for that. Let's keep supporting
20 one another and let's 2021 a great year.

21 So, thank you all for listening to all of that.
22 And with that, let's go to Item 11, Executive Director's
23 Report.

24 Thank you Chair and thank you Commissioners for
25 all the kind words you said about so many of our staff. I

1 agree with them all. And ordinarily my goal with this
2 section of the Business Meeting is to be very brief. And I
3 hope you'll indulge me today to take a little bit more time
4 than usual. There are so many folks to thank.

5 But I want to focus my thanks on those folks that
6 report directly to me and provide such leadership to the
7 organization.

8 You know, our successes cannot and would not
9 happen without all the staff that we've got. And the same
10 time they wouldn't happen without the leadership of the
11 folks I want to flag and just spend a minute talking about
12 today. So, I'm going to focus on them.

13 First, Courtney Smith. Wow. What a great
14 partner in so many ways. One of Courtney's super powers,
15 at least her workplace super powers is her ability to take
16 action. Something that came in really handy in March when
17 COVID hit and turned our workplace upside down. She has
18 been instrumental in choreographing our agency's response
19 in terms of implementing new work flows, next tech
20 solutions, safety protocols, and communication channels.
21 This stuff all looks easy now, when we look back on it it's
22 kind of normal. But it was a hell of a lot of work by a
23 lot of people, but Courtney really spearheaded it.

24 In addition, along with Carousel, Darcy, Noemi,
25 and Courtney, the four of them led our IDEA efforts and a

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1 number of you -- I know I'm going to be repetitive, a
2 number of you have already acknowledged this, but I really
3 want to highlight some of the things that I think each of
4 these individuals deserves credit for. And Courtney really
5 deserves a lot of the credit for this one, too.

6 It's designed to find out ways we can make our
7 workforce more inclusive, both for the folks that are a
8 part of our organization and those who participate in the
9 work that we do.

10 And finally, I just want to say Courtney
11 represents us in the Carbon Capture and Sequestration
12 Interagency Working Group. And this gives her an
13 opportunity to use her brilliance and skills to work
14 collaboratively with our sister agencies to figure out how
15 we can better understand and lead on CCS. This is going to
16 be a major thing in the future.

17 Next up I want to acknowledge Gaylene Cooper.
18 Probably the single biggest thing I miss from being out of
19 the office is my interactions with Gaylene and Courtney.
20 It used to be a quick walk, you know, ten steps and we'd
21 talk something through, knock it out, and be done with it.
22 And, of course, we can all pick up the phone and do that
23 sort of thing, but it just isn't the same as being able to
24 very quickly say hello.

25 It took us a while to get a little rhythm without

1 being able to meet in that fashion, but we -- Gaylene is
2 just incredibly adaptable. She's often at least a step
3 ahead of me. And her work is behind the scenes, you don't
4 see it a lot, but I got to tell you it's just absolutely
5 critical.

6 A little known fact, Gaylene has an eagle eye and
7 command of the English language that many folks would covet
8 if they knew it. She's one of the best editors I've worked
9 with and I'm really grateful to have her on the team.

10 Next, I want to talk about Rob Cook. With EPIC
11 being extended it is especially important that we improve
12 our processes as much as possible, and this is really Rob's
13 wheelhouse and something he's passionate about.

14 We're well on our way to making our entire grants
15 and contracting process, from the solicitation at the front
16 end to applications, to invoicing both electronic and as
17 seamless as possible. And with Rob's leadership in 2020 we
18 decreased our invoicing processing time from an average of
19 about 45 days to 15 days. And that will get even better
20 once this whole system goes electronic, which we expect to
21 happen later, sometime next year.

22 We also reduced the structural deficit of our
23 ERPA, our primary fund source for staff and operations by
24 \$1.65 million just this year, which brings our total four-
25 year reductions to \$40 million. This is not easy and we

1 couldn't have done it without Rob's help.

2 And finally, on Rob's staff, you've acknowledged
3 this, but I really want to give a shout out to our IT
4 staff. In March they stepped up, sprang into action, got
5 us all ready to work from home in a matter of days. And we
6 look back on it now, again it's become normal, but these
7 folks were incredible. Zoom, Teams, Office 365, words I've
8 never heard before. We got new laptops and cell phones for
9 all staff. And in doing so, we've saved a bunch of money.
10 And this IT helps every day innovating and helping us solve
11 problems as new ones come up.

12 Dennis Yagen is the head of our IT shop and he
13 deserves special mention for building an incredible team.

14 Next up I want to acknowledge, as several of you
15 have, Jason Harville. He's a data guru. First and
16 foremost, he also worked side by side with Dennis and they
17 made a great team. They have slightly different
18 perspectives and approaches, but together they spearheaded
19 this effort that we all are grateful for.

20 His team also developed a Commission wide file
21 management strategy. Things are a little messy in some of
22 our file systems and what he's working on is really going
23 to clean up what we've got. It's going to shrink the size
24 and the cost of our overall network.

25 His biggest project, thank you Commissioner

1 McAllister for alluding this, was to build the computing
2 infrastructure to receive and store enormous, terabyte
3 scale utility data. We've just started receiving that data
4 very recently and developing our automation for cleaning it
5 and processing it.

6 And finally, Jason has nearly completed our data
7 submission portal and that's going to provide a common
8 website for submitting data to the CEC. It's going to save
9 our data-submitting stakeholders' time and headache, it's
10 going to reduce errors, and it's going to save us about
11 \$80,000 a year when we retire the existing systems. And
12 that doesn't count the amount of time we save from our own
13 staff and the time they need to spend.

14 Natalie Lee. Natalie and her team manage the
15 RPS, the Renewable Portfolio Standard, as Commissioner
16 Douglas pointed out. These are the rules and requirements
17 for California's renewable system and Natalie runs it.

18 In 2020, the team completed verification efforts
19 for all 43 publicly-owned period for Compliance Period 2.
20 And we found all of them in compliance with the RPS
21 requirements, which was great. Because the year prior or,
22 excuse me, the compliance period prior that was not the
23 case.

24 At our next business meeting, which is on
25 December 22nd, Natalie's team will be presenting updates to

1 the RPS regs. With Commissioner Douglas's leadership,
2 Natalie's team navigated some really challenging issues,
3 especially regarding long term procurement requirements. I
4 think we're in good shape and we'll see in a week or two on
5 that one.

6 Her team, Natalie's team is also responsible for
7 the work to bring forward the Blue Ribbon Commission on
8 Lithium Extraction, which you voted on earlier today in
9 this business meeting.

10 And finally, I want to really give Natalie a
11 shout out for managing the NSHP program which is in its
12 wind down phase, and the REAP program. These distributed
13 \$12.4 million and \$3.9 million, respectively, in 2020, and
14 were widely regarded as extremely well run programs.

15 Next, Siva Gunda. Along with Terra, Siva helped
16 lead our SB 100 Interagency Report. His division took the
17 lead in crafting all of the analytics behind the bold
18 policies in SB 100. This is extremely difficult work that
19 takes a highly sophisticated, multidisciplinary team, each
20 working on different pieces that all have to work together
21 really nicely. And I couldn't be prouder of what we did
22 and the reception we got from the public when we rolled it
23 out.

24 Siva also led the effort to build new in-house
25 modeling capabilities to support a lot of our work,

1 including the demand forecasts. And the team developed and
2 authored new data products, including Energy Insights, the
3 Wind and Hydropowered Generation Data, visualization tools
4 and maps. And a number of GIS maps and models, including a
5 wildfire tracking tool.

6 The team also kicked off efforts with CPUC to
7 identify areas for collaboration on the CPUC's OIR for
8 natural gas planning. We expect natural gas will play a
9 prominent role in next year's IEPR, and Siva's team will be
10 the engine behind that.

11 And finally, as the Chair notes and others,
12 really, in the statewide reliability conversation he
13 stepped up like few I think expected. We would as an
14 organization and he would individually, and really made an
15 incredible contribution to our efforts to state off the
16 worst last August and September.

17 Laurie ten Hope. Laurie is celebrating her 35th
18 year with CEC and her tenth as the Deputy of the R&D
19 Division. She led our efforts to secure reauthorization of
20 the EPIC Program. Thank you, Vice Chair, for noting that.
21 \$1.5 billion over the next ten years for clean energy
22 investments.

23 The R&D highlight reel is really long and I
24 plucked out a few high points. The team invested \$14
25 million in demonstration projects to economically capture

1 lithium for geothermal brine. This will tie in nicely with
2 the body you appointed today.

3 Second, developed a new value stream for second
4 life electric vehicle batteries to provide stationary
5 storage resilience in commercial buildings.

6 Third, invested in 16 new projects focused on
7 building decarb.

8 Fourth, invested \$79 million in 28 food producers
9 to install solar microgrids, all-electric equipment and
10 super high-efficiency boiler replacements. And made the
11 largest investment in emerging energy storage technologies
12 in the history of the Commission. This all this year.

13 Thank you, Laurie.

14 Shawn Pittard. Shawn led a multiyear effort that
15 culminated last month to fix the problems at the geysers,
16 geothermal facilities. He discovered a couple years ago
17 major problems, and with Shawn's steady leadership
18 convinced the company that it was in its best interest to
19 fix these problems with their fire suppression system.

20 The company agreed. They agreed to new
21 permitting conditions. They fixed a lot of the problems
22 over time. They really stepped up. And they also paid a
23 \$2.1 billion settlement.

24 Shawn's division is also leading an effort to
25 figure out how California's natural gas fleet can produce

1 more electricity by adding efficiency features to power
2 plants. There may be no such thing as a free lunch, but
3 this is pretty close. Additional power with no additional
4 GHGs.

5 Melissa Rae King. Melissa took over our
6 enforcement efforts from Paul Jacobs in 2019 and has been
7 seamlessly moving our enforcement efforts forward. Year to
8 date, her team has wrapped up cases involving 20 product
9 types and 40 domestic and international companies that sell
10 appliances in California. This includes manufacturers,
11 distributors, retailers and installers.

12 In 2020, Melissa led the negotiations that led to
13 settlement agreements back opening compliance terms and
14 assessing a total of \$2.5 million in total administrative
15 civil penalties.

16 She's also planning having a creating approach to
17 having online retailers, the big ones like Amazon, and
18 others, utilize the tools that they have at their disposal
19 to help identify products that don't meet our standards.

20 Hannon, the Chair acknowledged the fact that
21 Hannon joined us just in July. I had to ask him when it
22 was and it was the end of July, and it was hot. We took a
23 bike ride together. But he's led his team in the
24 development of, as Patty pointed out, the first three-year,
25 multi-year investment plan for the organization. I think

1 it was a brilliant move to set forth and tell the world
2 what we're planning to do over a couple of years. This is
3 a very strong ZEV infrastructure focus.

4 Hannon's also stewarded the School Bus
5 Replacement Program. It met its target of delivering 25
6 percent of its school buses by the end of this year,
7 despite COVID. And although these buses weren't in full
8 time use, school districts were able to use them for food
9 and laptop distribution to students.

10 In addition, Cal EVIP has launched two incentive
11 projects and a third is set to launch soon. Between CEC
12 funding and local partners more than \$75 million will be
13 made available for EV charging rebates.

14 Next I want to call out Carousel Gore. Also as
15 noted by a couple of you, she has a very difficult job.
16 She handles all complaints made by one staff member about
17 another staff member. Her professionalism is unparalleled.
18 And this is a difficult job. She and I talk a lot. But
19 she usually leaves somebody unhappy after doing her work.
20 Sometimes both parties are unhappy. But she understands
21 her job is to try to be impartial and try to do her best to
22 achieve a fair resolution. I don't think we could have
23 picked a better person for the job.

24 She's also one of the co-leaders of the AB
25 initiatives, again with Courtney, Darcy, and Noemi. And

1 she's helped revise our Sexual Harassment Zero Tolerance
2 Policy, which is critical to get right and adopt. We have
3 one, but we've revised it to make it even stronger.

4 And I also want to note that she's helped develop
5 best practices for hiring panels, so that the hiring panels
6 we have represent the diversity that is the California
7 Energy Commission. And it projects to the world, to people
8 we interview who we are and what we're like.

9 And finally, she brings just so much cheer to so
10 many of our festivities. Her singing voice and just
11 general positive spirit is very welcome.

12 Lisa, Lisa Negri. She led her shop through a
13 difficult year, but a really productive one. She lost a
14 position and talked to her about if she needed a fill and
15 she said let's just see how it goes, which is just a very
16 keen first mentality and I'm grateful for that.

17 And she also lost, by virtue of donating, one of
18 her staff to contract tracing. This is a bit to anybody,
19 but a really big hit to small shop like hers. Team issued
20 12 audit reports this year, involving 24 projects, as well
21 as one internal audit.

22 Lisa is really good at staying on task and of the
23 12 audits 8 had findings, but to date, in 2020, seven of
24 them have already been resolved. And that's really Lisa
25 just staying on top of it. And I invite her to pester me

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1 as much as possible and she's just great about staying on
2 task.

3 She also affords the audited entities the
4 opportunity to weigh in and they sometimes do. And if
5 something is amiss, Lisa is very quick to say, well, fine,
6 we'll fix it. But that's rare. I haven't seen anything
7 significant that's been pointed out. Once her team is
8 done, her findings are just rock solid. This is very good
9 for an organization that manages so much money like we do.

10 I'm almost done, two more. Mike Sokol. Mike has
11 ably led one of our biggest and most complex divisions.
12 Mike was new to management and he's just done an admirably
13 job. He's developed really innovative systems of
14 onboarding and approaches to team building using the remote
15 tools. Anyone listening, who wants to tap into that,
16 please reach out to him or Christine. This may be why his
17 division's vacancy rate is so low. He's really made an
18 effort to do that.

19 His team also developed, as Commissioner
20 McAllister pointed out, the AB 3232 building decarb
21 assessment. It was a draft that we're anticipating we'll
22 publish by the end of the year on building standards. Mike
23 came on just as we were completing the 2019 standards and
24 he brought them over the finish line at the beginning of
25 this year, establish the first-in the-nation mandatory

1 solar requirement. And the team is well on its way to
2 developing the scope of the update to the 2022 building
3 standards.

4 Load flexibility. Again, Commissioner
5 McAllister, I won't be too repetitive. Lots of progress
6 here. Expecting a rates database by the end of this month.

7 And finally, I just want to mention the HERS
8 repository, a big project. Thanks to the team. We're
9 expecting we will have the repository build, up and running
10 by March of next year, which is really good news.

11 And last, but not least, I think every one of you
12 mentioned Heather. Heather Raitt manages our IEPR team of
13 course. And she led us through a difficult transition and
14 was kind of the Guinea pig for a number of these tools we
15 employed, with a lot of assistance from Noemi and others,
16 and certainly IT she really led our pivot to workshops
17 using Zoom.

18 I remember talking to her the day before the
19 first one and she was a little nervous, but it went off
20 without a hitch and we've really, I think, polished it
21 well.

22 The IEPR is a really good example of something
23 that makes me very proud to work at this organization and
24 that is that we do public outreach really well. It's
25 important to us. We try our best and I think it shows. We

1 really get public input. We try hard to invite as many
2 people that represent California as possible, and I think
3 it shows.

4 And Heather really, I think, you know a lot of
5 credit to go around, but she deserves the lion's share of
6 the credit for this. This year's IEPR's in its final
7 stages, thanks to the leadership of Commissioner Monahan,
8 and next month we'll present the scope for next year's
9 IEPR.

10 And finally, I just want to thank the five of
11 you. I'm so proud to play a role advancing our mission and
12 having your support. Thank you.

13 CHAIR HOCHSCHILD: Thank you, Drew. You know, we
14 may have to have time limits on our thanks because there's
15 so many people to thank. But this is wonderful, honestly,
16 and I'm glad we're giving this all the due time that it
17 needs. And Drew, again, you've just been magnificent, just
18 the heartbeat of the Energy Commission.

19 Let's go on to Item 12, Public Adviser's report.

20 MS. GALLARDO: Hi there, everyone. This is Noemi
21 Gallardo, the Public Adviser. And I also want to express
22 some gratitude, but will be as quick as I can.

23 Thank you Chair and Commissioners for all of the
24 kudos you gave just now. I had to wipe some tears a couple
25 of times there. And I wanted to thank you all, Drew, and

1 Darcy for your leadership. I'm humbled to have the
2 opportunity to support and work with you, and you keep me
3 inspired every day.

4 I also want to thank Team PAO, the Public
5 Adviser's Office. They're all committed to serving the
6 public and have made tremendous contributions, including
7 making me a better Public Adviser.

8 So, thank you Albert, Dorothy, Hannah, Karina,
9 Maria, and Rosemary. And Angelica too, while she's
10 temporarily supporting me.

11 Finally, I want to give some quick shout outs to
12 some individuals. Patty Pham, Raj Singh and Jerome Lee for
13 putting up with me throughout all the virtual events this
14 year and helping me become more tech savvy, especially
15 making it look like I know what I'm doing on Zoom. And
16 then Carousel, Darcy, and Courtney for being my thought
17 partners. I've enjoyed our deep dialogue on how to best
18 advance inclusion, diversity, equity and access for the
19 benefit of staff and our stakeholders. And I'm excited to
20 turn even more of our ideas into action next year.

21 And Larry Rillera, Katrina Leni-Konig, and Renee
22 Webster-Hawkins for being my sounding boards and
23 accountability checks on all things equity and community
24 engagement.

25 And finally, Le-Quyen Nguyen and Kourtney Vaccaro

1 for being the brightest guiding lights for me as I settled
2 into my position at the Commission, answering all my silly
3 questions about state protocols, providing support, advice
4 and much needed laughs.

5 And to the rest of my CEC peers and friends I
6 look forward to continue partnering with you as we move
7 into 2021. And hope you all join us at the California
8 Clean Energy Hall of Fame Awards tomorrow. Don't forget.
9 And that concludes my report.

10 CHAIR HOCHSCHILD: Thank you, Noemi.

11 All right, let's move on to Item 13, Public
12 Comment.

13 MS. GALLARDO: So, again, this is Noemi, Public
14 Adviser. This is the period for any person wishing to
15 comment on information items or reports of the meeting
16 agenda, or any other items. Each person has three minutes
17 total to comment. And comments may be limited to one
18 representative per organization. As a reminder, we are not
19 accepting public comment through the Zoom system. Please
20 call our Verizon line at 888-823-5065. You still have time
21 to hop on if you act quickly. The passcode is business
22 meeting.

23 After your line is opened, please spell your
24 first and last names, state your affiliation if you're
25 representing a representation. Do not use the speaker

1 phone when talking because we won't hear you clearly. And
2 if you're also on Zoom, either mute or leave Zoom to avoid
3 feedback.

4 Chair, we have no written comments and it looks
5 like there is no one on the line. So, no public comments
6 on this one.

7 CHAIR HOCHSCHILD: Okay, thank you.

8 Let's move on to Item 14, Chief Counsel's Report.

9 MS. HOUCK: Thank you, Chair. We will be having
10 a closed session, but before we do that, I just want to
11 just thank my team and thank all of you. I've been here
12 for just over a year and I really feel grateful for being a
13 part of this amazing team and working with all of you.
14 I've learned so much from working with the Commissioners,
15 the Executive Office, and all of our dedicated staff, and
16 deputy directors. And really, again, feel honored to be
17 part of this team.

18 All of the great programs that you all talked
19 about usually come through my office in some way or
20 another, so our workload has increased tremendously based
21 on all of the great work you've been doing.

22 And so, I really want to acknowledge the folks in
23 my office. My management team, I couldn't do my job
24 without them, Allan Ward, Kerry Willis, James Qaqundah,
25 Linda Barrera, and Muoi-Lynn Tran. They keep things going

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1 and have really been just amazing for me.

2 We've also, as you all mentioned this year has
3 been very challenging in a lot of ways, especially with the
4 pandemic and remote working. We've hired a number of new
5 staff that have not only had to deal with the challenges of
6 remote working, but have had to get to know new colleagues
7 and build working relationships in a virtual environment.

8 So, I just want to recognize Patricia Carlos,
9 James Qaqundah, Ngoc Tran, Christina Evola and Justin
10 Delacruz who have all come onboard in this virtual
11 environment and we're very lucky to have all of them.

12 I again want to also recognize our support staff.
13 They assist Noemi on the business meetings. Our
14 secretariat helps pull information together for the agenda
15 and the business meeting, and we couldn't do our jobs in
16 CCO without them. So, I wanted to recognize Cody
17 Goldthrite, Patty Paul, Chester Wong, Maggie Reed, Pamela
18 Fredoei, and Liza Lopez who has just been a tremendous
19 asset. She was promoted to a management position this year
20 and has been learning that also in a virtual environment.

21 We also have two dedicated staff that volunteered
22 to do contact tracing, Raj Dixit and Pam Fredoei, and so I
23 want to recognize the work that they're doing on behalf of
24 California there, a well.

25 So, thank you. I'm looking forward to 2021. And

1 again, feel very honored to work with all of you, and Drew,
2 and all of the deputies in his office, and Courtney have
3 just been so supportive. And I also just echo would Noemi
4 said and feel honored to be able to work with Noemi,
5 Carousel, and Courtney on the diversity initiative. So,
6 thank you and happy to be hear.

7 CHAIR HOCHSCHILD: Great, thank you. Thank you,
8 Darcy.

9 One final thought, which is -- so, I make it a
10 point to speak at every new employee orientation and just
11 share a little bit about our priorities, and take
12 questions, and so forth. And I get asked sometimes, you
13 know, what are we looking for in our staff? And I say, you
14 know, look at the senior staff that we have in place now,
15 that's -- that passion, and commitment, and
16 professionalism, and dedication that's what we're looking
17 for.

18 But I think everybody needs mentoring. And
19 particularly new people coming to work for us now, where
20 we're working remotely, it's really hard to build
21 relationships. And we all need to reach out. And for
22 those on senior staff, especially, just to really try to
23 prioritize mentoring and taking younger, new employees
24 under your wing, showing them the ropes, helping provide
25 some advice and guidance is one of the greatest gifts that

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1 we can give. I know all of us at one point or another have
2 benefited from that and we've got to do our best to pass
3 that along.

4 So, with that, Darcy, I think we're meant to go
5 into closed session now, is that right? I can't hear you.
6 Are we meant to go into closed session, now? You're muted,
7 Darcy.

8 MS. HOUCK: Oh, sorry. Yes, we're ready to go
9 into closed session and you should have the information, it
10 should have been sent to you and we'll be using a
11 conference line to call in.

12 CHAIR HOCHSCHILD: Okay, thank you. Let's go.

13 (Closed session begins at 3:05 p.m.)

14 (Public meeting resumes at 4:01 p.m.)

15 CHAIR HOCHSCHILD: We have nothing to report from
16 the closed session and we're adjourned.

17 (The Business Meeting adjourned at 4:02 p.m.)

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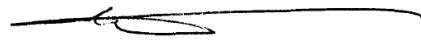
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I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 15th day of December, 2020.



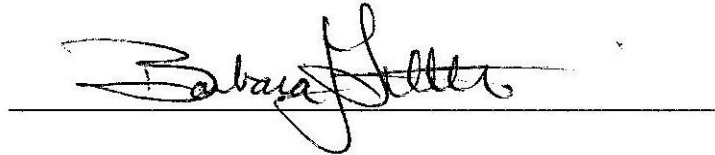
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IN WITNESS WHEREOF, I have hereunto set my hand this 15th day of December, 2020.

A handwritten signature in cursive script, appearing to read "Barbara Little", is written over a horizontal line.

Barbara Little
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