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

2 MAY 24, 2022

10:01 a.m.

3 (Start of Introductory Video.)

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

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

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

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

6

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

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

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

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

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

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

23 (End of Introductory Video.)

24 CHAIR HOCHSCHILD: All right. Well, welcome
25 friends. I'm David Hochschild, Chair of the Energy

1 Commission. Today is Tuesday, May 24th, and we call this
2 meeting to order. Joining me are Vice Chair Gunda,
3 Commissioner Vaccaro, Commissioner McAllister, and
4 Commissioner Monahan. We have a quorum.

5 And Commissioner Vaccaro will now lead us in the
6 Pledge of Allegiance.

7 (Whereupon the Pledge of Allegiance was recited.)

8 Thank you all, and let me also say, "Go
9 Warriors." I don't have any other Warriors fans in the
10 house, but there's a big game tonight. If we win, we go to
11 the finals, so fingers crossed.

12 And with that let's turn to the Consent Calendar.
13 Madam Public Advisor, do we have any public comment on Item
14 1?

15 MS. MURIMI: So I'm just going to give quick
16 instructions for people in the room. Go ahead and use the
17 blue cards in the back of room. And for individuals on
18 Zoom go ahead and use the raised-hand feature.

19 I do see one commenter. I'm going to call out
20 your phone number, the last three digits. And for those on
21 Zoom, again, use the high-five open hand at the bottom of
22 your screen. So caller ending in 444 you may begin your
23 comments. (No audible response.) Again, press *6 to
24 unmute on your end. Caller ending in 444, you may begin
25 your comment.

1 MS. HARMON: Thank you so much. My name is Heidi
2 Harmon. I am the former mayor of San Luis Obispo. And I'm
3 also with Elected Officials to Protect America and Let's
4 Green California.

5 So I live right here on the Central Coast. The
6 Central Coast has always been a center for energy, some of
7 it more helpful than others. And we're really excited at
8 this possibility right off our shores in Morro Bay to have
9 offshore wind here. We know that climate, the climate
10 crisis is critical, and California is in many ways on the
11 front lines of this crisis with wildfires, sea level rise,
12 and what is being called a "forever drought." And so
13 offshore wind can be collected day and night as ocean winds
14 are stronger and consistent and we're excited to see that.

15 And with the escalating war in Ukraine, just by
16 way of example, funded by Russian oil and gas profits, the
17 urgency for countries and regions like ours to transition
18 to clean energy also has other implications outside of the
19 climate crisis more directly. So it's a national security
20 issue that we would be proud to be doing our part to
21 mitigate here on the California coast.

22 By meeting our electricity needs to clean
23 pollution-free offshore wind energy, California can deliver
24 air quality improvements to critical frontline communities.
25 And about 78 percent of our gas power plants reside in

1 communities identified as having the state's highest burden
2 of poverty and cumulative environmental health burdens.
3 And so typically these are black and brown communities that
4 suffer from fossil fuel production in factories that spew
5 toxins, which have been strategically located in their
6 communities, because they were redlined decades ago. So
7 also from an equity perspective, offshore wind seems to be
8 a great solution.

9 And we know that Diablo Canyon is in question all
10 of a sudden, but it seems like it is on its way out. And
11 would also be a great hub for renewable energy creation and
12 research and development, making the Central Coast really a
13 shining star in California and in the rest of the nation
14 for renewable energy production and technology.

15 So thank you for your consideration, and we
16 encourage you to support offshore wind technology. Thank
17 you so much.

18 CHAIR HOCHSCHILD: Thank you for those comments.

19 Let me just clarify we're taking public comments
20 on Item 1, which is the Consent Calendar, the Solar Energy
21 Generated System Petition to Amend. Public comments other
22 topics, we'll take toward the end of the hour at Item 10,
23 so anyone wishing to come in on something other than the
24 Consent Calendar, please hold your comments until then.

25 Dorothy, do we have any other comments?

1 MS. MURIMI: No other comments for Item 1.

2 CHAIR HOCHSCHILD: Okay, thank you.

3 With that, Commissioner Vaccaro, would you be
4 willing to move Item 1, the Consent Calendar?

5 COMMISSIONER VACCARO: Yes, I move Item 1,
6 approval of Item 1.

7 CHAIR HOCHSCHILD: And Vice Chair Gunda, would
8 you second?

9 VICE CHAIR GUNDA: I second Item 1.

10 CHAIR HOCHSCHILD: Okay, thank you. All in favor
11 say aye. Commissioner Vaccaro?

12 COMMISSIONER VACCARO: Aye.

13 CHAIR HOCHSCHILD: Vice Chair Gunda?

14 VICE CHAIR GUNDA: Aye.

15 CHAIR HOCHSCHILD: Commissioner McAllister?

16 COMMISSIONER MCALLISTER: Aye.

17 CHAIR HOCHSCHILD: And Commissioner Monahan?

18 COMMISSIONER MONAHAN: Aye.

19 CHAIR HOCHSCHILD: And I vote aye as well. Item
20 1 passes unanimously.

21 Let's turn now to Item 2, Informational Item on
22 California Air Resources Board Draft 2022 Climate Change
23 Scoping Plan. Welcome Rajinder

24 MS. SAHOTA: Good morning, Chair Hochschild and
25 Commissioners and members of the public listening in. So I

1 will be going through an overview of the Draft Scoping Plan
2 that was released on May 10th. It's out for public comment
3 right now through the end of June, and we do have a Board
4 meeting to consider it on June 23rd. Next slide, please.
5 Next slide.

6 So, as many of you already know, the scoping plan
7 is required by statute. It was required in '08 by AB 32.
8 The first scoping plan was done in 2008. And it is an
9 actionable plan for how California will meet its statewide
10 GHG reduction targets.

11 They usually include a suite of policies, so it's
12 not just one program that we rely on. And it is updated at
13 least once every five years.

14 The 2017 Scoping Plan actually laid out the path
15 to achieve the SB 32 target of 40 percent below 1990 levels
16 for 2030, which means we're now working on the 2022 Scoping
17 Plan due to the Board at the end of this year. And it
18 looks at the progress towards 2030. And it also looks at
19 laying out a path towards carbon neutrality no later than
20 2045.

21 There are significant statutory directions on the
22 development of the plan. It must provide GHG reductions
23 in-state for our GHG inventory and maximize air quality
24 benefits; minimize the leakage, which ensures that
25 production doesn't leave the state; along with emissions

1 and facilitate sub-national and national collaboration,
2 because climate change is a global issue and California
3 alone cannot solve it. And then also look at cost-
4 effective and flexible compliance for the regulated
5 entities in the state. Next slide, please.

6 This is just a graphic of the policy framework
7 that we have. Everything begins with legislation and
8 executive orders. We've got AB 32, SB 32, the target for
9 2020 and 2030. We've also got SB 100, that you all are
10 aware of; SB 1382, which is on short-lived climate
11 pollutants. And all of this is brought together in one
12 cohesive plan as part of the AB 32 Scoping Plan. And so it
13 incorporates all of the executive orders and directional
14 legislation to lay out a single story for how California
15 can move forward while meeting all of its obligations under
16 each of those statutes.

17 The plan is subsequently then translated into
18 action and action can happen across state agencies, it's
19 not just at CARB. And as that action is taken with its
20 regulation and incentive programs that will then translate
21 into specific projects on the ground, such as renewable
22 energy projects, infrastructure, digesters, and composting
23 facilities. Next slide, please.

24 We do have an Environmental Justice Advisory
25 Committee, and they are congregated under AB 32. We had

1 them meet over a dozen times since early last summer to
2 help inform the 2022 Scoping Plan. They did develop draft
3 recommendations, over 200 individual recommendations. And
4 the way that we incorporated that feedback into the plan
5 was incorporating their input into the modeling back in
6 December, of the different scenarios that we had.

7 We also looked at an additional step of
8 evaluating the phaseout of refinery operations by 2045 in
9 the draft plan.

10 We referenced five dozen -- there's at least five
11 dozen references to the draft recommendations in the draft
12 scoping plan. And anything that they provided
13 recommendations on that does not pertain to the design or
14 development of the draft scoping plan, we said that we
15 would develop a process to follow up on those.

16 For example, they did have comments related to
17 building decarbonization and prioritizing existing
18 buildings. And I know that that is something that is at
19 the Energy Commission, and so we will be sharing those
20 recommendations with the different agencies as they pertain
21 to the work that those agencies do. Next slide, please.

22 For this scoping plan we evaluated four different
23 scenarios. And we have two are looking at carbon
24 neutrality by 2035.

25 The first one was a complete phaseout of

1 combustion by 2035, not a very huge reliance on carbon
2 removal, and no requirement to use or allowance to use
3 biomass derived fuels. And it required ambitious
4 innovation in electric technology and aggressive consumer
5 adoption transfer for those kinds of appliances and
6 technologies.

7 Alternative 2 was really more of a "Our house is
8 on fire, let's throw everything we have at the issue as
9 quickly as we can," so it does include a significant amount
10 of engineered carbon removal and it allows for biomass
11 derived fuels, etcetera.

12 The two scenarios for 2045, Alternative 3, is a
13 broad portfolio of existing and emerging fossil fuel
14 alternatives in alignment with statutes and executive
15 orders. That is the scenario that staff recommended.

16 And Alternative 4 relaxes some of the constraints
17 imposed by executive orders and by statute, assuming a
18 slower rate of clean technology and fuel deployment and
19 consumer adoption.

20 So again, Alternative 3 is the one that we are
21 proposing, because we do need to ensure that anything that
22 goes into the scoping plan does meet the objectives of
23 executive orders and legislative direction that is on the
24 books at the time of the draft of the plan. Next slide,
25 please.

1 So we have to define "carbon neutrality." And in
2 this context, we talked about carbon neutrality, meaning
3 that we reduce emissions from the sources in the AB 32 GHG
4 Inventory. That's really the emissions from our
5 transportation, energy, and manufacturing sectors.

6 We then have to look at emissions or
7 sequestration from our natural and working lands. And this
8 is the first time in our scoping plan that we have actually
9 tried to quantify emissions from natural and working lands.
10 Usually we focus on just the energy and transportation and
11 industrial sectors.

12 And then any residual emissions that are left
13 over we would address through something like CDR, something
14 like direct air capture, to get to that final equation of
15 carbon neutral. Next slide, please.

16 This is a key metric slide and I want to spend a
17 little bit of time on this one, because it lays out the
18 alternatives across the top. Again, Alternatives 1 and 2
19 are about 2035; 3 and 4 are about 2045.

20 And you can see the build rates, and these are
21 year-over-year build rates.

22 In Alternative 1 you're looking at 10 gigawatts
23 buildout year over year for solar. Alternative 2 you've
24 got 5. And then you've got 7, and 6. We did add in what
25 the historic maximum build rates have been. And solar was

1 2.7.

2 So in order to meet any of the alternatives that
3 we evaluated, we are looking at a substantially increased
4 pace of deployment of solar and battery across all 4
5 alternatives.

6 And the story that has emerged in the scoping
7 plan is that the electricity sector can be a decarbonized,
8 affordable electricity sector. It can be the backbone of a
9 decarbonized economy. But that means for us to transition
10 to that sector that supply of energy, the reliability and
11 affordability must be met before we start to turn other
12 things off.

13 For Alternatives 1 and 2, we also said that we
14 would do early retirement of vehicles. So combustion
15 vehicles on the road, we would do early retirement of those
16 to ensure that there was no combustion in Alternative 1,
17 and there was very little combustion in Alternative 2. We
18 do end-of-life retirements in Alternative 3 and 4.

19 Again for residential early retirements, for
20 Alternative 1 it's the most aggressive in terms of going
21 towards electrification and phasing out combustion. We
22 would have to do early retirement of appliances.

23 In looking at them all then we also realized that
24 hydrogen has a role to play, especially in the
25 transportation sector for medium-duty and heavy-duty. And

1 if we were to develop all of that as renewables with
2 electrolysis, then we would be looking at an additional 47
3 gigawatts of renewable power under Alternative 1; 44 in
4 Alternative 2; 41 and 31 in 3 and 4, respectively. And
5 that is addition to the solar buildout in the first row
6 there, which is the annual build rates. That's in addition
7 to that 10, that 5, that 7, that 6.

8 When we did have internal conversations and we
9 had public conversations it was clear that there is going
10 to be a huge demand on the electricity sector when we want
11 to only focus on it to meet our hydrogen demand as well as
12 our end use energy demand. And so right now in the draft
13 scoping plan, we do not exclusively talk about hydrogen
14 being from renewables and electrolysis. We actually talk
15 about the potential to have RNG hydrogen available over
16 this decade.

17 For petroleum refining we phase that down with
18 the demand decline for that fuel. So because we phased out
19 all combustion in 2035 under Alternative 1, it goes to 0
20 for petroleum refining, those activities go to 0. In
21 Alternative 2 we still have some residual demand and so
22 refining activities are down to 25 percent and 8 percent.
23 Alternative 3, 33 and 13; and then Alternative 4, 39 and
24 18.

25 There was an ask by a few of the stakeholders

1 that we phase out refining. Regardless of having it paired
2 with demand in the draft scoping plan we do discuss that if
3 we were to phase out refining while demand persisted it
4 would be a tradeoff in terms of bringing in finished
5 products through the ports into the State of California.
6 And it would be a tradeoff in terms of having to build and
7 then transfer those fuels from the ports to those end-use
8 points across the state. And so it would create another
9 set of needs and infrastructure buildout if we were to
10 phase it out while demand still persisted in the state.

11 We also looked at the need for CCS. And in
12 Alternative 1 there's very minimal CCS, it's only paired to
13 cement, because many of the advocates that informed
14 Alternative 1 do not think that CCS is a viable or safe or
15 a real solution here. In Alternatives 2, 3, and 4 we do
16 allow for some CCS to the extent that we need it for our
17 petroleum and cement.

18 In the draft scoping plan we do talk about the
19 potential to use CCS for our production of hydrogen. We
20 also talk about the potential use of CCS to pair with
21 dispatchable power for reliability needs.

22 And even after we do all of that in Alternative
23 1, we phase out all the combustion, etcetera, there's still
24 emissions that remain. And those emissions are really the
25 fugitive emissions from short-lived climate pollutants such

1 as methane from dairies and wetlands, also HFCs from fire
2 suppression equipment, air conditioning units, and
3 refrigeration units. And so there's always residual
4 emissions that remain in all 4 alternatives, which then
5 scales with how much we're able to reduce the combustion
6 emissions.

7 And you can see the amounts of CDR that then
8 persists in the different alternatives in 2045.

9 We modeled natural working lands. The natural
10 working lands, if we model it with one option, they can be
11 a sink of 50 million metric tons in 2045. If we model it
12 under a different assumption, they are a source of 8
13 million metric tons in 2045. And so that is a conversation
14 that we will tee up with our Board in June to figure out
15 and have a discussion of which set of assumptions staff is
16 recommending, and where the Board thinks we should be going
17 in terms of the assumptions to either determine whether
18 it's a sink or a source. Next slide, please.

19 This is just a slide from the E3 PATHWAYS Model
20 showing by sector the emissions in 2020. You can see that
21 in the far-left column. And you can see its agriculture,
22 electricity generation, industry, commercial and
23 residential, transportation, and high-GWP gases.

24 In 2035 you can see under the two alternatives
25 for 2035, Alternates 1 and 2, we drastically reduced the

1 combustion-related emissions in those scenarios.

2 And then by 2045 we've actually drastically
3 reduced almost all of the sectors under all of the
4 scenarios.

5 Those shaded gray bars underneath, those
6 represent the amount of CDR that would be needed to then
7 balance out those missions to get to the net zero in 2045
8 or 2035. Next slide, please.

9 I think it's worth talking about the combustion
10 fuels. And so you can see in 2020 that we have a
11 significant portion of our fuels being liquid petroleum,
12 we've got natural gas, we've got some biomethane.

13 And then in 2035 under those different scenarios
14 you can start to see how we start to phase out the fossil
15 side and start to grow some of the renewable, sustainable
16 fuels like biomethane, liquid biofuels, and hydrogen which
17 isn't showing up that clearly, but hydrogen does show up in
18 Alternative 4 and 3 in 2035, and then is there as a sliver
19 in 2045.

20 So all of those scenarios that we're looking at
21 are very, very aggressive. In fact, in Alternative 3 we
22 reduce petroleum demand by about 91 percent and natural gas
23 demand by I think over 80 percent relative to 2020 levels.
24 Next slide, please.

25 I thought it was important to talk about the

1 growth in the load because electrification is what we're
2 looking at as being the backbone of a decarbonized economy.
3 Loads increase anywhere from 30 to 80 percent relative to
4 today and 60 to 90 percent by 2045. Alternative 3, the
5 load growth is about 78 percent.

6 And questions have come up about the comparison
7 of this work versus the work that we all did together with
8 the PUC on SB 100. For this scoping plan, ARB is assuming
9 much higher load growth and demand on the sector than we
10 did in SB 100. And that is a big difference across the two
11 scenarios, or the two studies or the two plans in terms of
12 what the electricity looks like in 2035 and 2045.

13 Again, Alternative 3 is compliant with SB 100 in
14 terms of the retail sales definition, but because the load
15 growth is so much higher in the scoping plan there are
16 going to be some quantitative differences in terms of how
17 much fossil may persist out in 2045. Next slide, please.

18 And this is just the new resource capacity build.
19 I want us to focus on the last bullet on the left-hand
20 side. In Alternative 3 the model builds 90 gigawatts of
21 solar, 40 gigawatts of batteries to meet the SB 100 retail
22 sales target. But it also called out for 10 gigawatts of
23 new gas.

24 And you can imagine that that is causing
25 significant conversation and concern with some of the

1 stakeholders here at ARB on the scoping plan. And when we
2 dug into this a little bit more it was clear that that gas
3 buildout is really about reliability in the afternoon peak
4 times. And it's really driven by the electrification of
5 the transportation sector. So it's not building decarb
6 that's pulling on that, or requiring that 10 gigawatts,
7 it's really the electrification of the transportation
8 sector in 2045 and the need for reliability. That is then
9 pulling in out of the Resolve Model new gas builds. Next
10 slide, please.

11 This slide shows the direct costs by scenario.
12 So the capital costs and infrastructure costs at, since
13 2021, dollars.

14 Alternative 1 and 2 are the most expensive in
15 2035 because we're rapidly deploying new things, buying,
16 and doing early retirement of certain technologies.
17 Alternatives 3 and 4 are modest. And then out by 2045, 3
18 and 4 have grown because we are continuing to deploy
19 infrastructure and clean energy. And then Alternate 1 and
20 2 have reduced somewhat relative to 2035. Next slide,
21 please.

22 So this is really about employment in California.
23 Our modeling showed that the California employment
24 continues to grow from about 23.5 million in 2021, to 27.7
25 million in 2045. And what you see here as the negative

1 numbers are jobs that do not appear with the implementation
2 of the scoping plan. So this isn't taking away jobs, this
3 is a slow slowing of the job growth in those years for
4 under those scenarios.

5 So in 2035 jobs are slowed by 1.6 percent, 1.1
6 percent under Alternative 1 and 2. And then the least
7 slowing of jobs is under 3 and 4.

8 And then you can see how the levels change in
9 2045. Alternative 3 is the one that we are proposing, and
10 that does have the least impact on job growth in 2045 with
11 that .5 percent. Next slide, please.

12 This is impacts to the GDP of the state. So the
13 economy continues to grow from about \$3.2 trillion to about
14 \$5.1 trillion in 2045.

15 In 2035 there was an odd thing that showed up on
16 our Alternative 2, and that's because we're pushing so much
17 CDR out there it actually adds to the economy a slight
18 amount in that timeframe.

19 And then Alternative 1 is a slowing of the
20 economy and that year because we are using dollars to buy
21 back vehicles and appliances.

22 There's modest impacts in Alternatives 3 and 4 in
23 2035. And then by 2045 you can see that Alternative 3 is
24 the least impacting on the growth of the economy relative
25 to Alternative 1, 2 and 4. Next slide, please.

1 We also looked at air quality modeling not just
2 the GHG modeling, so things like NOx and air particulate
3 matter. You can see in that graph on the left-hand side
4 that we've got the 2045 reference, that second bar in.

5 And under Alternatives 1, 2, 3 and 4 we can see
6 what the amount of NOx would be emitted into the
7 atmosphere.

8 It's very intuitive to understand that reducing
9 emissions, getting out of combustion will get you the
10 highest yields in reductions in NOx and the best air
11 quality benefits.

12 That is again the pattern that we see in that
13 right-hand slide where Alternative 1 delivers the most
14 reductions for NOx, PM, and for Reactive Organic Gases.
15 And that's really driven by the fact that we're getting out
16 of combustion almost completely or completely in that
17 Alternative.

18 When you look at Alternatives 3 and 4 you can see
19 that Alternative 4 is the least beneficial from an air
20 quality perspective. And so that's when we recommended
21 Alternative 3 out of those two options in 2045. Next
22 slide, please.

23 We quantify the health impact results, and you
24 can see again Alternative 1 in 2045 gets you the most
25 health savings, followed by Alternatives 2, 3 and 4.

1 Again, really intuitive, the faster we get out of
2 combustion the more combustion we get out the economy the
3 better the impacts, the air quality, and the larger the
4 health savings to the state. And next slide.

5 This is just the overall schedule. We are at the
6 point where we're heading into the June 2022 Scoping Plan
7 board meeting. At the Board meeting, the Board will hear
8 from many of the stakeholders, including environmental
9 justice advisory committees, representatives from our
10 colleagues at the state agencies. They may provide
11 additional direction to the staff to update the scenario
12 that we're proposing. Those updates would happen over the
13 summer. And then we would release a final scoping plan
14 towards the beginning of fall with a final board hearing at
15 the end of fall 2022.

16 And that concludes my presentation. I know it's
17 a lot of information and I'm happy to take questions.

18 CHAIR HOCHSCHILD: Thank you so much, Rajinder.

19 Any Commissioners wishing to -- questions? Vice
20 Chair Gunda? Oh sorry, Commissioner McAllister, go ahead
21 first.

22 COMMISSIONER MCALLISTER: Oh, Rajinder, thank you
23 so much, really. Well, I just want to thank you and the
24 tremendously capable and large team that the ARB has on
25 your work in developing the scoping plan. And I just want

26

1 to thank you, and all of them and Chair Randolph, for
2 making sure to involve the Energy Commission in the pieces
3 that are most relevant to us and bring our expertise into
4 that conversation. And particularly in my case our team is
5 on building decarb, I know that we've worked very closely
6 with your staff. So I'm really interested in, and well
7 we'll be paying attention to the public discussion. And
8 also, we'll be at the ready to help develop any mods that
9 need fleshing out. So I wanted to just thank you generally
10 and broadly for that.

11 I think just a couple of observations here. I
12 mean, I think the EJAC, the advisory committee that you've
13 put together, and the DACAG could actually, I think -- well
14 we should talk about how we can kind of jointly manage the
15 environmental and justice communities. And sort of make
16 sure that we're all hearing the same input, because I think
17 we have also proceedings that could really benefit from --
18 do benefit from our DACAG and interaction with us. And
19 could also certainly benefit from the perspectives from
20 your EJAC, and I think vice versa. And we should probably
21 talk about some structural ways to make sure that that
22 conversation happens between those two committees. Because
23 I think we also don't want people to be out there in
24 multiple forums wondering how they're being listened to and
25 whether they're being listened to. And we could certainly,

27

1 together, send a signal that we're all in this together and
2 paying attention in the same ways.

3 Let's see, I have two questions actually. One
4 about the health-saving goals, we'll start with that one
5 first. Have you thought about during the course of this
6 discussion -- really appreciate your quantifying and
7 putting some numbers to the health benefits to the state --
8 have you thought about how those might be monetized? Say,
9 if the health system and the providers are going to not get
10 as many emergency room visits, asthma rates are going to go
11 down, that kind of thing. Have you thought about or have
12 any sort of concrete proposals about how that might justify
13 the health providers actually funding building
14 decarbonization and contributing to the electrification
15 transition in transportation, say?

16 It seems like that's real money. And we
17 obviously need a big, upfront capital investment to make
18 many of these changes if we're going to be buying back
19 vehicles and appliances and getting into our existing
20 buildings. So anyway, that's my first question. I have
21 one other after this.

22 MS. SAHOTA: Sure. And thank you, Commissioner
23 McAllister. I do want to thank the staff there at the
24 Commission. They helped on multiple parts of the scoping
25 plan; it wasn't just building decarb. They helped on

1 electricity sector, and quite a bit on the refining and
2 petroleum sector evaluations that we did. So very much
3 appreciated that close collaboration.

4 On the health savings, those health-saving
5 numbers that we presented represent about 20 different
6 health endpoints. Those endpoints include reduced visits
7 to the emergency room, reduced mortality, reduced asthma
8 incidents, missed workdays or reduced, missed days of
9 school. So all of that is embedded in there.

10 And one of the things that we did after the last
11 scoping plan is try and have a conversation with some of
12 the healthcare providers in terms of -- as we know that
13 this is going to help reduce the strain on the system if
14 we're able to do all of these pieces, how are you all
15 thinking about it? And it's a very difficult conversation
16 to have, because many of the groups that we talked to back
17 in 2018 think of it as, "This is our lane, which is people.
18 This is your lane, which is energy and industry and
19 buildings." And so there needs to be a way to have a
20 closer tie across this view, and I absolutely agree with
21 that. It's not clear at what level that tie happens.

22 One of the other things that happened recently is
23 that the Insurance Commissioner's Office here in California
24 here in Sacramento reached out to us and they want to talk
25 about, "How do you build in climate risk? How do you think

1 about avoided damages and risk when you're thinking about
2 insurance rates?" And so we've begun that conversation
3 with them. And they cover all aspects of insurance, not
4 just personal insurance, health insurance, but also
5 property insurance in the State of California. So they
6 have been proactive about this discussion.

7 COMMISSIONER MCALLISTER: Great, well I think
8 there's a lot to dig into there. I won't continue right
9 now. But if there's any way, we can work together to help
10 sort of elucidate, even just study and sort of get some
11 rigor behind the health benefits and where they are and who
12 they impact, I think, will be a good start. So thanks for
13 that.

14 My second question has to do with load
15 flexibility. You said that some of the new gas, the
16 potential new gas was kind of in response to largely to
17 electrification and transportation. But we have a lot of
18 opportunity. I mean, I'm looking over here at Commissioner
19 Monahan as well. We're talking about how to really
20 encourage and incentivize load flexibility on the
21 transportation side and on the building side as a
22 reliability enhancement, as a resource. And I'm wondering
23 if any of those scenarios you looked at sort of considered
24 the time of charging and the load-management type of
25 potential mitigating factors around boarding new gas and

1 allowing retirements of existing gas?

2 COMMISSIONER MONAHAN: And actually just too,
3 Rajinder since you're already diving into this topic, just
4 to elaborate or build on that question is also the
5 potential for vehicles to provide energy back to the grid.
6 I mean the Ford Lightning is equivalent to seven
7 Powerwalls. And we're just trying to figure out with the
8 CPUC and the Air Resources Board how to unlock that
9 potential. And maybe these are areas for future research,
10 like not necessarily incorporated into this. But so the
11 question is how is the potential for transportation to be a
12 DAR incorporated into this? And if not, is that an area
13 for future research?

14 MS. SAHOTA: Yeah, I appreciate both of those.
15 So the 10 gigawatts is causing a lot of heartburn for many
16 stakeholders in our process. And we have been having
17 conversations about how there's this is the information we
18 have today. There's only so much visibility that PATHWAYS
19 gives us economy-wide. And that as we're moving forward in
20 programs and research and in procurement actions,
21 especially over at the energy agencies, there's
22 opportunities to continue to look for ways to avoid having
23 to build out those 10 gigawatts. And so we've flagged that
24 as an area that's the next step in for when we think about
25 implementing some of the higher-level electrification needs

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1 that we identify the scoping plan.

2 The reason that we have to put in the 10
3 gigawatts right now with only one sensitivity around
4 flexibility and time-of-day charging, is because we needed
5 to have something that modeled through PATHWAYS for how
6 demand changes overall for the load under the different
7 scenarios. And the resources were picked through the
8 RESOLVE Model, which is about costs and availability
9 through that model which you're all familiar with. And so
10 it's not as fine of a detail as I think many of the
11 questions that we want to have as the second order here,
12 but it does open that door to what else can we do to try
13 and avoid having to build that 10 gigawatts.

14 What we're identifying is that if we're going to
15 continue with Alternative 3 here, reliability has to be
16 addressed. And right now that reliability in the modeling
17 is within task, and it's really driven by transportation
18 electrification.

19 COMMISSIONER MCALLISTER: Great. Thanks a lot,
20 Rajinder. I'll pass it to along other Commissioners.

21 CHAIR HOCHSCHILD: Vice Chair?

22 COMMISSIONER MCALLISTER: Thank you. Thanks a
23 lot.

24 VICE CHAIR GUNDA: Yeah, thank you Commissioner
25 McAllister. I think the questions actually that I was

1 thinking about have already been kind of touched upon. But
2 I just wanted to say, Rajinder, to you, CARB staff as a
3 whole, and the Board and Chair Randolph, thank you for your
4 leadership and thank you for really helping coordinate
5 between the two agencies. And to the extent on the SB 100
6 forums I am certainly amazed by your ability to kind of
7 keep this complex thing moving.

8 I think as you mentioned one of the things that
9 we have a clear recognition on, starting with the SB 100,
10 is how fast things are changing. And every day we have a
11 new demand scenario or a new way of thinking about load
12 shifts. I think creating a forum similar to what we've
13 done on the SB 100 in terms of tracking the implementation
14 would be really helpful. So I welcome our continued
15 thinking on how best to collaborate as we finish the
16 scoping plan into the next SB 100 to make sure that we are
17 both hitting our clean energy goals, but also the
18 reliability.

19 So I just want to commend your work. And I want
20 to look forward to your Board meeting and the thoughts that
21 happen there. But I really would like to explore more
22 pathways and scenarios on an ongoing basis through
23 collaboration, thank you.

24 MS. SAHOTA: Yeah.

25 CHAIR HOCHSCHILD: Go to Commissioner Vaccaro.

1 COMMISSIONER VACCARO: Thank you. So Rajinder,
2 first I just want to say I have watched you for years from
3 afar, and the work that you've been doing on the scoping
4 plan. And you just show tremendous leadership and just how
5 you're able to answer all of the questions and do it so
6 confidently. I mean, you really know this, and I think
7 we're fortunate that you are leading in this space with all
8 of our colleagues at the Air Resources Board, so thank you
9 for that. And thank you for the presentation.

10 Full disclosure before I ask my two questions, I
11 have not made my way all the way through the scoping plan,
12 so these questions might be answered already. They go to
13 two of your slides, or the first one goes to two slides.
14 It was the key metric slide, and then one that talked about
15 the cumulative resource build in 2045.

16 And you point out solar, like the word is "solar"
17 that you use. So in that one band, for instance, when you
18 talk about the hydrogen, is solar really what you're
19 talking about? Or is it just solar as sort of a
20 demarcation for renewable energy more generally?

21 MS. SAHOTA: That's a great question. And I
22 really appreciate the kind words about my work here at ARB,
23 didn't want to let that go without recognizing or
24 acknowledging those kind words there.

25 For the key metrics, we essentially put it in

1 there as a demarcation as an overall for renewables. But
2 we had to make it a bit more tangible in the conversations
3 that we're having with folks that are not as well-versed in
4 the electricity sector as we may all be. And so we wanted
5 to give a comparison point of what that means in terms of
6 the buildout that we will need.

7 When it comes to the hydrogen piece, that really
8 comes back to a conversation that was happening around
9 incentive programs that were potentially being considered
10 by -- in the budget process last year where I know that
11 there was money that was being earmarked for you all at the
12 Commission to think about helping on hydrogen and renewable
13 green hydrogen. But then the definition became
14 problematic, and at some point, it never materialized.

15 And what we wanted to do there was really say to
16 some of the stakeholders, "If you only focus it on solar or
17 behind or off-grid renewables, this is the amount of energy
18 you will need," just to show again that the lift is really
19 heavy. And we need to keep all options on the table right
20 now.

21 And so until we get to that point where we can do
22 all of that as renewable, whether it's on-grid or off-grid,
23 the point was we need to keep all options on the table.
24 Otherwise, if we don't build our options on the table, we
25 can't move off of the fossil fuels we're using today unless

1 we have that other thing to transition to. And there's not
2 going to be a choice here where we just simply turn
3 everything off while we wait for everything else to
4 materialize.

5 COMMISSIONER VACCARO: Thank you. Okay, so one
6 other question, and this is from your talking points. I
7 appreciated how you are distinguishing where you are in the
8 scoping plan from where the joint agencies were in the 2021
9 SB 100 Report. I think that's really important. I'm just
10 wondering if there any thoughts that you can share about
11 how we all sort of harmonize or look at sort of these
12 different important analytical pieces of work as we move
13 forward, right? Because I think people are going to try to
14 make sense of, "But here's what you said in the joint
15 agency report. Here's what ARB is saying in the scoping
16 plan." And then we still have other processes like PUC's
17 IRP process.

18 So I'm just wondering if there's anything that
19 you feel that you could share right now that would be
20 helpful as we all try to harmonize all of this different
21 information.

22 MS. SAHOTA: Absolutely. And I can tell you
23 right now some of the folks that were not as happy with our
24 SB 100 report are definitely bringing some of those same
25 comments into the scoping plan in trying to leverage across

1 the different documents.

2 And the way that we see it is the scoping plan
3 sets an overall path for how we can get to the targets that
4 we have. It's updated once every five years, so we get to
5 revisit it and think about adjustments or new information
6 that's come to light. A lot of that new information
7 happens to be implementation. And SB 100, the IRP process,
8 those are really more detailed implementation tools for the
9 sector. And as we work through those in a more detailed
10 and thorough way, focusing just on the sector, we will have
11 a better understanding of what that sector can or can't
12 provide on what rate of deployment over the next 10, 15, 20
13 years. That will feed back into the next scoping plan, and
14 so the scoping plan sets that high-level map.

15 But the other actions that we have in SB 100 and
16 IRP are really where we do the more detailed work and try
17 to figure out what is possible, what are the impacts to
18 rates across the different household incomes, and where
19 should we land in terms of what we can do with the
20 information on implementation we have today.

21 COMMISSIONER VACCARO: That's a great answer.
22 Thank you, it's really helpful for me. And I don't have
23 any more questions. Thank you so much.

24 CHAIR HOCHSCHILD: Okay. Thank you so much
25 Rajinder, I appreciate all your -- yes, Commissioner

1 Monahan?

2 COMMISSIONER MONAHAN: Rajinder, I also wanted to
3 heap on the praise for you managing and steering this very
4 complicated process. And it really is an incredible
5 analysis, so I just want to start with the kudos and the
6 congratulations on your leadership, and the leadership
7 broadly across the agency on this.

8 And I just wanted to highlight that we have this
9 analysis that we are required to do by law every two years
10 on the charging needs to meet our 2030 targets, but we're
11 looking out to 2035 as well in the next analysis. And it's
12 done by a different set of -- I mean, UC Davis is
13 involved, NREL is involved. It's really like a different
14 set of analysts working on not just the charging needs, but
15 also the implications for the grid. And it's looking at
16 medium- and heavy-duty, which is of course a very evolving
17 area that we don't fully understand, but we're trying to
18 get really good data about when we expect these vehicles to
19 be charged and how they will be charged.

20 And I just think there's opportunity for us to,
21 just like the SB 100 process, to think about how to do this
22 in a cross-agency way. So that even though E3 is doing
23 your analysis, how do we integrate some of the best
24 thinking? I think this charging issue and what it's going
25 to mean for the grid to electrify transportation is so

1 critical. And we don't know everything, but we're getting
2 better data every day. So just thinking about how to
3 integrate these different analytical tools to give us the
4 best data possible.

5 MS. SAHOTA: Now I think Commissioner Monahan,
6 that's a very excellent point. And on that theme of
7 implementation I think one of the themes that's slightly
8 different in this scoping plan than past scoping plans is
9 we would set the path, we would talk high-level about the
10 programs and then we'd just say, "Okay, everyone go do it"
11 -- like sister state agencies -- "everyone go do it, we
12 know where we're going."

13 But what's become more increasingly clear as we
14 think about the 2030 target, as we think about SB 100, and
15 we think about carbon neutrality is that all of the
16 modeling shows to be on track for carbon neutrality we have
17 to make changes on the ground, physical changes, building
18 out infrastructure, bringing on new production of energy,
19 starting in this decade. And in this scoping plan we
20 actually start to integrate more of that feasibility and
21 implementation messaging.

22 And so to the extent that there is more that we
23 can add on that so that we can put down the markers for
24 readers, whether it's policymakers or even members of the
25 public, that if action doesn't happen in this decade, if

1 these barriers aren't addressed, we're never going to get
2 to where we need to be. We absolutely want to do that,
3 because all the science says if we don't make a change in
4 the next few years we're going to be wildly off track. And
5 change isn't doing a plan. Change is actually building
6 things, producing energy, and getting it to where you need
7 to have it. And so implementation, data implementation and
8 feasibility, are a very key theme here. And we're happy to
9 work with you to figure out how much more we can hit those
10 points as part of the revise to the plan.

11 CHAIR HOCHSCHILD: Thank you so much, Rajinder,
12 much appreciated. And thank you for joining us today and
13 we'll be in touch.

14 With that we'll turn now -- we're not going to
15 take up Item 3, the California Offshore Wind Energy
16 Development Report, we will be taking that up at a
17 subsequent meeting.

18 I do, however, want to give an opportunity for us
19 to hear the public comments. So we'll take Item 10 out of
20 order at this time, as there are a number of folks who had
21 wished to make a public comment on that beginning with Dan
22 Jacobson.

23 And as Dan is making his way up here, I just want
24 to say again my thanks to Commissioner Vaccaro for really a
25 tremendous workshop last week. The staff presentation was

1 excellent, the prep was excellent. The stakeholder
2 engagement and feedback we got was phenomenal. And I think
3 it's yet another indicator of how critical this policy is
4 and how successful I think the stakeholder engagement has
5 been as the Energy Commission has taken on, especially over
6 the last year. So really kudos to you and your team, Eli
7 Harland and Scott Flint and everyone else who's worked on
8 it, Rhetta, just a great job.

9 And so with that we'll go to public comment,
10 beginning with folks in the room and then we'll go to folks
11 by Zoom. Starting with Dan Jacobson.

12 MR. JACOBSON: Thank you. Thank you very much,
13 my name is Dan Jacobson with Environment America. I want
14 to thank the Chair and all of the Commissioners.

15 We're a little surprised, I guess, to see that
16 you're not going to take this issue up but encouraged
17 because the staff report was really a great piece of work.
18 And if you're not going to take this up today it totally
19 makes sense. We hope that you can go back and think "Maybe
20 we can go a little bigger," and that's what we're
21 encouraging. We were behind the ad that was in the paper
22 yesterday, a lot of our posters you'll be able to see. But
23 we think, and as was just mentioned in the scoping plans,
24 the time for action is now and we really have to think
25 about going big. And that's what I want to really dedicate

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1 my comments towards.

2 So again, first, thanks to the Commissioners and
3 to STEP. This is not easy. This is a complicated issue.
4 There's many stakeholders, but yet there's so much at stake
5 and we really can't get this wrong. We encourage the
6 setting of a high goal and would look toward examples of
7 things like the million solar roofs. But even the SB 100
8 program, which was again just referenced in the scoping
9 plan comments, and how setting that goal there and then
10 being able to do this work within the scoping plan with the
11 different agencies allows us to both get to that goal, but
12 to do it in a manner that protects all the things that we
13 need to be able to protect.

14 So I would say let's look at the examples of
15 where this Commission has been so instrumental for the past
16 two decades at setting these goals and being able to set
17 them hard, set large ambitious goals. But then fill that
18 in with all the technical support that we need to make sure
19 that we're doing it correctly.

20 The third is -- and this will sound a little off,
21 but we really encourage the Administration to give more
22 money to the CEC. I know this sounds fairly self-serving
23 for you all, but we need advocates to be able to go in
24 there. Because the amount of work that is going to be
25 required for you all to do, from the permitting to the

1 reviewing to the different scopes and studies that are
2 going to have to happen are more than what's been put into
3 the budget now. And so we encourage the Administration to
4 look at offshore wind, and not just support it, but to be
5 able to support it financially in ensuring that the CEC and
6 the different state agencies have the resources they need
7 to be able to do this really, really well.

8 And finally, we want to look at what more
9 research is going to be needed. We're going to need
10 research in terms of permitting. And how do we not speed
11 it up so it doesn't do all the protections that we need,
12 but speed it up so that we can meet the goals that have to
13 be met. How do we look at issues like ports and the supply
14 chain and the procurement that has to happen to be able to
15 do this? This is all going to be critical work. It's not
16 easy, we're going to need outside research to be able to
17 come into and to complement the work that the state has and
18 that you all have with some of the best staff to be able to
19 look at this.

20 And finally, I'll just be able to close by saying
21 this is an opportunity to have a race to the top. You're
22 going to hear from coalition members, from environmental
23 justice, from labor, from business, from environmental
24 groups, this is the exact coalition that we need not only
25 to move forward fast on offshore wind but also on climate

1 as a whole. We're spending too much time being very
2 divisive, this is a unifying opportunity and I encourage
3 you all to take it. Thank you very much.

4 CHAIR HOCHSCHILD: Thank you.

5 Next, we have Maia Leroy. And if you can spell
6 your name and state your affiliation, if any, that would be
7 helpful. Thank you.

8 MS. LEROY: Hi. Thank you, Commissioners. My
9 name is Maia Leroy, M-A-I-A L-E-R-O-Y. I am a Policy
10 Coordinator at the Center for Energy Efficiency and
11 Renewable Technologies. I am also a member of the Offshore
12 Wind Now Coalition. And I would just like to echo kind of
13 what Dan Jacobson had just said. We were pleased to see
14 the high target proposed in the meeting last week, but we
15 would still like to see it go a little bit higher. We are
16 rooting for a 20-gigawatt target by 2045 and an absolute
17 floor-bare minimum of 5 by 2030, and would even be happy to
18 see 10.

19 We also would like to advocate for some budget
20 increase after seeing that May revise and seeing that there
21 is some extra money there. We do think that it is vital
22 for some of that to go to the CEC and towards the
23 deployment of offshore wind. Thank you.

24 CHAIR HOCHSCHILD: Thank you.

25 Next, we have Jeff Hunerlach.

1 MR. HUNERLACH: Good morning. Thank you Chair
2 and Commissioners. My name is Jeff Hunerlach. I'm with
3 the Operating Engineers Local 3. We are up to about 37,000
4 members and we have about 800 apprentices, 600 of those
5 apprentices being here in California. We graduate about
6 200 a year and we bring in about 200 a year. And we're
7 looking forward to the offshore wind and we really feel
8 that we need to go bigger even than 20 gigawatts. Labor's
9 voice says we'd like to see 40 gigawatts on the West Coast
10 of California.

11 I'm from Humboldt. I drove down here to speak on
12 the item, and it got pulled, so I am encouraged by that
13 also that hopefully our words are heard. The coalition
14 I've worked with for the last of couple years, Brightline
15 Defense, Environmental California and, of course, Dan
16 Jacobson, we partnered. We helped pass 525 and we're
17 looking forward to helping in whatever way we can to go big
18 in California.

19 I wanted to talk about the Port of Humboldt.
20 It's the last deep-water port on the west coast of
21 California. It's totally underutilized and if you went and
22 seen it, you'd know why we have nothing there. It used to
23 be a very aggressive port years ago, but we have lost
24 everything up there. So going big on offshore wind creates
25 investment and opportunity for not only labor as a whole,

1 but for our contractors and for developers.

2 To go smaller in our opinion doesn't make sense.
3 We're in a climate crisis. We're being burnt down here in
4 California, water shortages, and we have to make the move
5 to go big in California.

6 And I appreciate all of you listening to me, but
7 I wanted to talk about real quick, some projects that have
8 happened. It's not just federal water projects, but state
9 water projects, offshore wind projects, we really need to
10 look at all of those if we're going to make this happen.

11 And even onshore wind projects up in northern
12 California, Terra-Gen in Humboldt County got demolished.
13 And right across the mountain another, Fountain Wind, got
14 crushed too. And I'm sitting here wondering we're in this
15 climate crisis and these things are getting voted down. So
16 I think the coalition is strong, stronger than it's ever
17 been, and we need to grow. And we need to be able to move
18 forward with these projects.

19 We have a terrible crisis here in California and
20 across the world with climate change. And if we keep
21 talking about it and talking about it and not doing
22 anything for 10 or 15 years down the road, we're just
23 killing our planet. So I encourage you to go big on
24 offshore wind and I thank you for the time.

25 CHAIR HOCHSCHILD: Thank you.

1 Next, we have Cassandra Boyce.

2 MS. BOYCE: Hi, my name is Cassandra Boyce. I'm
3 a student at University of California Merced, and I'm also
4 a California, sorry, Sacramento native. So I've been
5 studying environmental science at Merced for a year now,
6 but beyond that I've been studying environmental science
7 since junior high school. And I'm really concerned about
8 climate change. I think the situation is pretty dire.
9 We've been seeing it in California with the bigger
10 wildfires, which are caused by stronger storms, more
11 intense summers, like it's hotter on average, and then also
12 more drought. And I'm just very worried and so I think we
13 need it.

14 And I think the best way to do this is to really
15 cut down on CO2 emissions and we need to move away from
16 fossil fuels as fast as we can. And I think one of the big
17 ways we can do this is using offshore wind energy. I
18 think, listening to everyone else, I think that 20
19 gigawatts by 2045 should be accomplishable and that it
20 seems like we should be able to get 5 gigawatts by the end
21 of the decade,

22 But I think this is really credible and a good
23 way to get green energy, because we have a constant, like
24 an almost constant source of wind coming from the west and
25 the Pacific Ocean.

1 And I'm really concerned about this, and I think
2 that offshore wind is going to be a really good way to get
3 that energy. Thank you.

4 CHAIR HOCHSCHILD: Thank you so much.

5 We'll go next to Patrick Boileau.

6 MR. BOILEAU: Hi. Yes, Patrick Boileau,
7 Operating Engineers Local 3. Along with the rest of our
8 coalition partners I want to urge you to move swiftly on
9 offshore wind production. Offshore wind production, along
10 with the other green energy production, is vital to meeting
11 the state's goals and preventing the worst effects of
12 climate change; 20 gigawatts of offshore wind production is
13 a good start for getting where we are where, we need to go,
14 but it's not enough.

15 I also want to speak to you all briefly about the
16 people who are going to build that green energy
17 infrastructure, including offshore wind. California has a
18 highly skilled and trained workforce of union members who
19 are going to be at the forefront of building this stuff.
20 And the Operating Engineers is part of that coalition as
21 well.

22 We ask you as you move forward on offshore wind
23 that you consider that workforce and include provisions
24 that gives the opportunity for California workers, rather
25 than outsourcing those jobs to out-of-state or overseas

1 workers. California can not only be at the forefront of
2 the green energy economy, but it can also raise the
3 economic ties for our own workforce rather than enrich
4 outsiders.

5 Thank you for your time, I really appreciate it.

6 CHAIR HOCHSCHILD: Thank you.

7 We'll go next to Laura Deeheen, Dehern. Am I
8 saying that right? Probably not

9 MS. DEEHAN: Yeah, that was perfect. Laura
10 Deehan. Thank you so much Chairman Hochschild and
11 Commissioners.

12 Okay, Laura Deehan here, I'm the State Director
13 for Environment California. And I'm so excited to be here
14 today to just share our strong, enthusiastic support for
15 California going big on offshore wind. And I brought a
16 copy of the ad that we mentioned that was -- I don't know
17 if people can see on the screen -- that was run in the "San
18 Francisco Chronicle," the Governor's hometown paper
19 yesterday from our coalition.

20 And so our coalition, Offshore Wind Now, is made
21 up as others have said, of environmental organizations,
22 environmental justice groups, labor groups, business
23 groups, elected officials. We're all standing together to
24 say that let's tap into this incredible clean energy
25 resource that's just 20 to 30 miles off our coast blowing

1 so hard. We could be catching that wind and using it to
2 power our lives every single day.

3 There was a recent report from the National
4 Renewable Energy Lab that estimated that there's the
5 technical capacity off the California coast for over 200
6 gigawatts of offshore wind energy, which is just incredible
7 to think about. And we could at least tap into 10 percent
8 of that we think by at least 2045. And so that's why our
9 coalition is calling for that goal.

10 We really appreciated the vision and the ambition
11 that was laid out in your draft report, but we are urging
12 you to go even bigger, to set the ambition even higher with
13 that 20-gigawatt goal by 2045 and at least 5 gigawatts by
14 2030, so that we can more aggressively move to that clean
15 energy future and avoid having to be dependent on dirty
16 energy any longer.

17 I also wanted to present the over 1300 public
18 comments from members of the public who have weighed in, in
19 support of that goal. And so I brought those as well as
20 the lecture from our coalition today. And yes, together,
21 we can build this more resilient renewable future for all
22 of us. So thank you so much.

23 CHAIR HOCHSCHILD: Thank you so much. You can
24 give those to our Public Advisor. Thank you so much.

25 And with that we'll go to -- unless there's any

1 other comments in the room that we don't have -- okay, with
2 that I think we'll go to comments on Zoom.

3 MS. MURIMI: Thank you, Chair.

4 So we'll start with Frank Harris. Go ahead and
5 unmute on your end. Please state and spell your name, give
6 your affiliation, and you may begin your comment.

7 MR. HARRIS: Very good. My name is Frank Harris,
8 F-R-A-N-K H-A-R-R-I-S. I'm with the California Municipal
9 Utilities Association. I'm actually commenting I suppose
10 on Item 10, but commenting on Item 2. If there is a more
11 appropriate time for me to provide these comments, I can
12 delay that.

13 MS. MURIMI: We're taking comments for Item 10,
14 so you may begin your comment.

15 CHAIR HOCHSCHILD: You can speak on any item,
16 yes.

17 MR. HARRIS: That's great, thank you Chair. And
18 I wanted to thank Ms. Sahota for her presentation. And I
19 particularly wanted to point out that we are in support for
20 the 2045 target timeline in the scoping plan update.

21 It's important to understand that continued
22 support for California's clear energy policies really rely
23 on them being implemented, developed and implemented in the
24 most efficient and effective way possible. And given the
25 significant job of loss forecasts that came out of the CARB

1 process it's very clear that 2035 is far too aggressive,
2 too costly for the state to promote.

3 I also wanted to support some of her statements
4 regarding the need for reliability and affordability of the
5 electric sector. As we've all talked about the electric
6 sector is key to meeting California's clean energy and
7 environmental goals. And it's critical to be able to grow
8 transportation of building electrification, that we keep
9 the grid reliable and keep electric service as affordable
10 as possible.

11 And one other comment before I had it back to you
12 is I wanted to support some of the comments that
13 Commissioner McAllister made with regard to better
14 coordinating the inputs from all the environmental justice
15 and community groups. And Commissioner Gunda also
16 referenced greater collaboration between the Energy
17 Commission and the Air Resources Board and the other
18 agencies, the PUC for example, that this type of increased
19 collaboration can only help us to reach California's goals
20 in the most effective way and efficient way possible. So I
21 wanted to sort of give a me-too from CMUA for those
22 comments.

23 Thank you very much for the opportunity to
24 comment today and I look forward to the discussions on
25 this.

1 MS. MURIMI: Thank you.

2 Next, we have Sarah Xu. Please unmute on your
3 end, state and spell your name, and give your affiliation,
4 if any.

5 MS. XU: Good morning, Commissioners, my name is
6 Sarah Xu, spelled S-A-R-A-H X-as-in-X-ray, U-as-in-uniform.
7 And I'm Brightline Defense's Policy Associate. Brightline
8 Defense is environmental justice nonprofit excited by and
9 interested in the development of offshore wind and the
10 utility-scale clean energy benefits it can bring as well as
11 workforce development pathways that it can deliver to
12 frontline communities.

13 As part of the Offshore Wind Now Coalition
14 Brightline shares the excitement that has been shared by
15 others today in the coalition regards to the gigawatt goals
16 and going big on the gigawatt goals, as well as the goal's
17 ability to diversify our energy mix, strengthen our grid,
18 and offshore wind alternative as a clean energy and clean
19 air alternative that can power California.

20 Opportunities to deliver benefits to frontline
21 and disadvantaged communities across California is a key
22 part of offshore wind. Meaningful and thoughtful
23 development can create local workforce and bring thousands
24 of quality family-sustaining jobs and career pathways to
25 the communities as well as their youth and create

1 prosperity for their families and neighborhoods.

2 Thank you for taking the time to further evaluate
3 the offshore wind goals. And we hope to see additional
4 engagement and environmental justice in frontline
5 communities as well as environmental justice and equity
6 analyses in future reports and throughout the offshore wind
7 strategic plan. Brightline is in strong support of
8 offshore wind in California. And the impacts created by
9 climate change are sweeping and impacting all communities
10 across the state and we need bold solutions like offshore
11 wind to address our shared crisis now. Thank you.

12 MS. MURIMI: Thank you.

13 Next, we have Scott Adair. Please unmute on your
14 end, state and spell your name and give your affiliation,
15 if any.

16 MR. ADAIR: Hello, my name is Scott Adair. And I
17 am the Economic Development Director for the County of
18 Humboldt as well as a county administrative liaison for the
19 Humboldt County Administrative Office.

20 I just wanted to voice support and amplify
21 comments that have been made earlier by my colleagues in
22 the offshore wind industry, or those who share an interest
23 and excitement for moving forward offshore wind in our
24 state. I wanted to echo those statements made by Jeff
25 Hunerlach, a member also of our Workforce Development Board

1 in Humboldt County, that it is critical that we move
2 forward expeditiously with our efforts regarding offshore
3 wind.

4 I had the pleasure and opportunity for which I'm
5 grateful to have attended the recent Pacific Summit,
6 Offshore Wind Summit in San Francisco where I heard
7 Commissioner Vaccaro speak. It's clear to me and clear to
8 our stakeholders, our shareholders, and our coalition of
9 partners that we're putting together, that in order to
10 ready our supply chain and in order to prepare and ready
11 our workforce there is quite a bit of work that still needs
12 to be done.

13 And it will take us time, especially with some of
14 the challenges and barriers, economic development
15 challenges and barriers which are inherent and intrinsic to
16 doing business in California, which can be a little slower
17 compared to other states. That we need to move quickly and
18 efficiently so that we have the necessary capacity and
19 space and time to work with our local employers and our
20 supply chain leaders and our workforce partners to ensure
21 that we're ready.

22 We know that the Biden Administration has issued
23 a major challenge toward furthering offshore wind by
24 setting significant targets that we need to reach. And we
25 know that the State of California is going to be a critical

1 and key partner in helping to meet not just the state's
2 energy goals, but the nation's energy goals. This is a
3 crisis before us. This is something that we need to act on
4 now. It's very warm and rewarding to see so much support
5 and energy and passion for this critical and key emerging
6 industry in our state, and I wanted to be just another
7 voice to support.

8 And also thank your Commission for all the work
9 that you're doing, to thank staff for their efforts, and to
10 thank all of the other agencies, partners and organizations
11 who spoke today. We've really got something great here
12 before us. I think we're going to make it happen, but
13 let's work together to ensure that we do so successfully,
14 and we do so timely. Thank you.

15 MS. MURIMI: Thank you.

16 Next, we have David Asti. Go ahead and unmute on
17 your end. Give your name and state your affiliation, if
18 any.

19 MR. ASTI: Hello, can you hear me?

20 MS. MURIMI: Yeah, we can hear you.

21 MR. ASTI: Can you guys hear me?

22 MS. MURIMI: Yes, we can.

23 MR. ASTI: Hello?

24 MS. MURIMI: David, we can hear you.

25 MR. ASTI: Hello, can you hear me?

1 CHAIR HOCHSCHILD: We can hear you. Can you hear
2 us?

3 MR. ASTI: Uh-oh, technology fail. Can you hear
4 me?

5 CHAIR HOCHSCHILD: We can hear you. Can you hear
6 us?

7 Are there any other commenters, Dorothy, or is
8 that the last?

9 MS. MURIMI: That was the last one, Chair.

10 CHAIR HOCHSCHILD: Okay, why don't we take up
11 Item 10 and --

12 MR. ASTI: Sorry guys, I'm having some kind of
13 technology fail, I will try to dial in.

14 CHAIR HOCHSCHILD: We'll take up Item 10 later in
15 the agenda and see if he's able to get back on.

16 With that we'll turn now to Item 4. And I
17 apologize, I can stay just a few more minutes, and then I
18 have a speaking engagement at a new manufacturing operation
19 in Silicon Valley I have to leave for soon. I'll turn it
20 over to the Vice Chair.

21 But let's turn now to Item 4, California Electric
22 Homes Program. And welcome Richard Gibbs.

23 MR. GIBBS: All right, can you hear me all right?

24 All right. So good morning, Chair and
25 Commissioners. My name is Richard Gibbs, and I am a staff

1 member in the Renewable Energy Division. I am joined by my
2 Division's Deputy Director Deana Carrillo and attorney Nick
3 Oliver. Today staff is recommending adoption of the
4 guiding principles for the California Electric Homes
5 Program, or CalEHP. Next slide, please.

6 CalEHP is a market transformation initiative with
7 the goal to spur significant market adoption of all-
8 electric buildings and installation of energy storage
9 system technologies for new market-rate residential
10 construction.

11 By supporting the development of all-electric and
12 energy storage equipped housing and widening the
13 availability of market-rate clean energy homes Californians
14 will see the benefits of greenhouse gas reduction within
15 overall building decarbonization. That means improved
16 indoor air quality and better health outcomes. Next slide,
17 please.

18 CalEHP is a statewide program to incentivize the
19 construction of new multifamily and single-family market-
20 rate as all-electric residential buildings, as well as
21 installation of residential energy storage systems.

22 The goal of the program is to have a statewide
23 market transformation that helps increase the construction
24 of all-electric homes and the installation of energy
25 storage systems in newly constructed residential homes.

1 The budget for this program is a total of \$75
2 million. Next slide, please.

3 Regarding program eligibility CalEHP will be
4 available for new market-rate all-electric and energy
5 storage residential developments. Monetary incentives are
6 available for all-electric or energy storage-equipped new
7 residential buildings. Next slide, please.

8 The program will be implemented and administered
9 through a competitively selected third-party administrator.
10 We expect to post the solicitation seeking said
11 administrator within summer of this year.

12 The selected administrator will develop a program
13 consistent with the Statute, the Guiding Principles
14 document presented today, and the requirements of a grant-
15 funding opportunity solicitation for this program.

16 The CEC will provide input and guidance
17 throughout the process.

18 The administrator will provide technical
19 assistance to eligible builders to assist them in
20 understanding, applying, and completing projects under the
21 program itself.

22 Lastly, the administrator will develop a
23 mechanism for stakeholder engagement and feedback by
24 forming a technical advisory group. Next slide, please.

25 What is brought to you for your approval today is

1 the Guiding Principles document for CalEHP. The CEC has
2 developed these Guiding Principles to be used as the
3 overarching framework for program design, implementation,
4 and administration.

5 The Guiding Principles provides background
6 information on the program and key program elements
7 mandated by Statute and that prioritize the CEC' energy
8 goals. Within those key elements we outline guidance for
9 the potential third-party administrators to consider when
10 they develop the program design.

11 The version of the CalEHP Guiding Principles
12 presented to you today has been revised based on the public
13 comments received at a workshop held on March 17th of this
14 year and the public comment period that followed. In
15 consideration of the public comments we were able to
16 further expand on and clarify the document. Next slide,
17 please.

18 In conclusion, staff recommend the Commission
19 adopts the CalEHP Guiding Principles and staff's
20 determination that this action is exempt from CEQA. We are
21 available to answer any questions you may have, thank you.

22 VICE CHAIR GUNDA: Thank you, Richard.

23 Dorothy, do we have any public comments?

24 MS. MURIMI: Individuals on Zoom -- this is the
25 instructions for everybody -- individuals on Zoom can use

1 the raised-hand, it looks like an open palm or high-five at
2 the bottom of your screen or device. And individuals in
3 the room can go ahead and fill the blue cards in the back
4 of the room and bring them over to me.

5 Give that one moment. No comments.

6 VICE CHAIR GUNDA: Thank you, Dorothy.

7 Moving to Commissioner discussion, Commissioner
8 McAllister.

9 COMMISSIONER MCALLISTER: Great. Well thank you
10 Vice Chair.

11 And I thank you, Richard, for the great
12 presentation. And I want to kick off by just thanking a
13 few staff. Deana, certainly, thanks for being here and for
14 shepherding this process. Hally Cahssai and Guadalupe
15 Corona, and Allan Ward and Matthew Pinkerton and Nick
16 Oliver and Jimmy Qaqundah, the last four from Chief
17 Counsel's Office. Lots of teamwork on this project, or
18 this program.

19 And partly it just had to do with some little bit
20 of lack of clarity in the statute. And so the structure
21 that you're seeing -- just for the benefit of my colleagues
22 on the dais -- the structure that you're seeing to find a
23 contractor to implement this program with kind of high-
24 level guidance from the Commission, reflects the fact that
25 it was Legal's kind of analysis that well -- the fact is

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1 the statute doesn't give this program an APA exception.
2 And so we had to find a way to kind of meet the spirit of
3 the statute and sort of make everything open and
4 transparent and push some of the sort of detailed work to a
5 contractor rather than involvement in regulations per se,
6 right? So that's the reason for the structure.

7 I'm really excited about this program. It
8 complements the BUILD program very well and it is sort of
9 the market rate version of BUILD, if you will.

10 And I think we're aiming -- we're doing a lot of
11 market transformation work in the building sector and
12 aiming to do a lot more. And I think this is a really
13 great piece of that overall structure for really pushing
14 funding to the places that we need to ensure that our
15 buildings going forward are as low carbon as possible and
16 really get the technologies out there and scaled up, such
17 that they can increasingly just have mass adoption. And so
18 the market-rate piece of this is really critical for that
19 overall transformation.

20 You all will recall that the BUILD program
21 focuses on the affordable sector and then this is now the
22 market rate, so the two are really meant to proceed in
23 parallel.

24 So anyway, you may know that if you got
25 briefings, but I wanted to just provide a little bit of a

1 (indiscernible) context. But really to thank the RED team,
2 and for sort of weaving and bobbing as this thing
3 proceeded. And we have a good product here at the at the
4 business meeting.

5 COMMISSIONER VACCARO: Well, Commissioner
6 McAllister, I loved the explanation, and I did get a
7 briefing. And I poked a little in some of my questions,
8 really, on the topic that you just raised, right? I just
9 kind of wanted to understand, because Guiding Principles
10 are they're different.

11 But one of the things that I shared in the
12 briefing and wanted everybody here is that really just
13 commended the Legal team and the RED team for the
14 proactivity and the innovation and really like recognizing
15 that the Legislature entrusted the CEC to do something
16 important. But also didn't provide certain tools that are
17 really important when we're also tasked to move quickly.
18 And so what our team did is what they're great at: they
19 innovate, they're proactive, they find the solutions.

20 And I think this is a really nice model. It's
21 one we might consider in other spaces, even if we get the
22 APA exemption from the formal rulemaking process. This is
23 still something that I think we should consider applying in
24 other areas of our work.

25 So again, thank you for the presentation and just

1 wanted to recognize the legal team and the staff team for
2 how you approached this. I think what you do is meet the
3 spirit and intent of the legislation, which is to move
4 swiftly with a solid program. And you will also meet legal
5 requirements for setting expectations without running afoul
6 of any rulemaking requirements. This is really great.
7 Thank you.

8 VICE CHAIR GUNDA: Commissioner Vaccaro, do you
9 have any -- no, thank you. Thank you, Richard, that was an
10 excellent presentation.

11 So we'll move the motion. Commissioner
12 McAllister --

13 COMMISSIONER MCALLISTER: I will just make one
14 additional comment.

15 So Commissioner Vaccaro, to your observation, the
16 fact that we're sort of creating a little bit of distance
17 between the Commission and the actual implementation via
18 contractor does not mean that the eye is off the ball for
19 the long term, right? So we're building in transparency is
20 the goal, right, whether or not you have an APA exemption.
21 And so the plan will be to really pay attention to this,
22 the sort of unfolding of this program and the
23 implementation. And create opportunities periodically for
24 stakeholders in the public to go on record with their views
25 about how things are going. And then we can adjust and

1 direct the contractor if that's necessary, but obviously
2 using the right channels. So I think the structure is a
3 good one.

4 And if we are going to, as you suggest, that we
5 do get a lot of funding for building decarb and other
6 initiatives that really try to move markets in a big way,
7 this model is certainly one that's in the toolbox.

8 So with that I'll move Item 4.

9 VICE CHAIR GUNDA: Commissioner Vaccaro, second?

10 COMMISSIONER VACCARO: I second.

11 VICE CHAIR GUNDA: We'll take the vote now.

12 Commissioner McAllister?

13 COMMISSIONER MCALLISTER: Aye.

14 VICE CHAIR GUNDA: Commissioner Vaccaro?

15 COMMISSIONER VACCARO: Aye.

16 VICE CHAIR GUNDA: Commissioner Monahan?

17 COMMISSIONER MONAHAN: Aye.

18 VICE CHAIR GUNDA: I vote aye as well, that vote
19 count is 4 to 0, with Chair Hochschild absent.

20 Let's move to Item 5, Adoption of Demand

21 Scenarios. Welcome Heidi Javanbakht.

22 MS. JAVANBAKHT: Good morning, Commissioners. I

23 am Heidi Javanbakht. I am the Manager of the Demand

24 Analysis Office in the Energy Assessments Division. I am

25 presenting today on the staff recommendation to adopt the

1 demand scenarios. Next slide, please.

2 SB 100 set targets for the state to ensure that
3 60 percent of California's electricity is renewable by 2030
4 and all retail electricity sold in this state is carbon-
5 free by 2045. CEC staff developed the demand scenarios to
6 support analyses and planning for the state to reach its
7 greenhouse gas emission reduction targets while maintaining
8 grid reliability. Next slide, please.

9 Staff, with support from our consultants E3,
10 developed a range of scenarios looking at energy demand of
11 various fuels and their associated emissions through 2050.
12 Scenarios focused on transportation and building
13 electrification.

14 The referenced scenario is an extension of the
15 2021 IEPR forecast to 2050. The policy compliance scenario
16 assessed impacts of proposed policies and programs, such as
17 the Air Resource Board's Advanced Clean Cars II regulation.
18 And the mitigation scenario was the most aggressive
19 scenario, which included additional strategies on top of
20 that to reduce greenhouse gas emissions. Next slide,
21 please.

22 There were several opportunities for stakeholder
23 input and feedback on the demand scenarios, including a
24 Demand Analysis Working Group meeting and two IEPR
25 workshops.

1 In addition, we collaborated with the California
2 Independent System Operator, Public Utilities Commission,
3 and Air Resources Board staff through the regular Joint
4 Agency Steering Committee meetings. Next slide.

5 Key findings from the demand scenarios are that
6 current policies are insufficient to meet the SB 100
7 greenhouse gas emission reduction goals. Anticipated new
8 electrification and efficiency policies and programs
9 modeled in the Policy Compliance Scenario were also not
10 aggressive enough to meet the greenhouse gas emission
11 reduction targets. And then the Mitigation Scenario met
12 the 2030 target but did not meet the 2050 target. Next
13 slide.

14 The demand scenarios work led to questions around
15 near-term actions that could be taken within our normal
16 system planning processes to prepare for building and
17 transportation electrification, as many types of system
18 upgrades require a long lead time.

19 An interagency working group was formed and met
20 weekly to discuss scenario design and data needs. Based on
21 these discussions, CEC staff developed two scenarios that
22 include proposed electrification strategies highly likely
23 to occur for use in resource, transmission, and
24 distribution planning.

25 The design framework for these scenarios, along

1 with a graph of the results, are included in an appendix
2 within this slide deck. Next slide.

3 Using these new scenarios for grid planning is a
4 deviation from the current process which uses the IEPR 2021
5 forecast. In each IEPR, staff documents an agreement
6 between the grid planning agencies and identifies the
7 components of the forecast that are used for specific
8 planning purposes.

9 This agreement includes a clause that allows for
10 deviation from the IEPR forecast when there is consensus
11 amongst leadership at the CPUC, the ISO, and CEC that there
12 is a strong need to deviate. In this instance there is a
13 need to deviate in order to begin planning for higher
14 levels of electrification than were included in the 2021
15 IEPR forecast given the long lead time required for system
16 upgrades.

17 Leadership has agreed to instead use a scenario
18 that reflects higher electrification as the forecast for
19 the ISO's 2022/23 Transmission Plan and for the CPUC's
20 Integrated Resource Plan Portfolio for the 2023/24
21 transmission planning cycle. Future forecasts, beginning
22 with the IEPR 2022 forecast update, will include these
23 electrification strategies. Next slide.

24 In conclusion, staff recommend adopting the
25 demand scenarios that go out to 2050 to support planning

1 for the state's greenhouse gas reduction targets in SB 100.
2 Staff also recommend adopting the Interagency High
3 Electrification Scenario and the Additional Transportation
4 Electrification Scenario for grid planning. This would
5 allow deviation from the single forecast set, as agreed
6 upon by CEC, CPUC, and ISO leadership. Adoption will also
7 provide the option to use either of these scenarios for
8 distribution system planning.

9 That concludes my presentation. I would be happy
10 to answer any questions.

11 VICE CHAIR GUNDA: Thank you so much, Heidi.
12 Before we go to public comment just want to see if there's
13 any questions for Heidi.

14 Let's go to public comment.

15 MS. MURIMI: Thank you, Vice Chair.

16 For individuals that are in the room, go ahead
17 and use the blue cards located in the back of the room and
18 hand them to me. For individuals that are on Zoom if
19 you're calling in go ahead and press *9 to indicate that
20 you'd like to make a comment and *6 to unmute on your end.
21 And for those coming in on Zoom can use the raised-hand
22 feature, it looks like an open palm or high-five at the
23 bottom of your screen or device.

24 Going to start with caller ending in 659. Press
25 *6 on your end and you may begin your comments. State your

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1 name and affiliation, if any, and give your name. Thanks.

2 MR. ASTI: Hi, everyone. Can you hear me, okay?

3 MS. MURIMI: Yes, we can.

4 MR. ASTI: Excellent. This is David Asti,
5 Executive Advisor with Southern California Edison. I'd
6 like to state that I'm done with technology. I will be
7 bringing the COVID-free donuts for all of us, because I'll
8 be coming downtown from now on rather than relying on
9 technology.

10 More to the point, SCE would like to compliment
11 the Energy Commission and staff for the significant
12 undertaking of the recent demand scenario forecast
13 development. SCE believes the policy-based scenario
14 forecast is extremely important and valuable for shaping
15 states various long-term planning efforts toward meeting
16 the state's decarbonization goals. SCE appreciates the
17 collaborative efforts of the Energy Commission staff have
18 taken in engaging stakeholders, including SCE, to
19 collectively develop these scenario forecasts.

20 SCE would strongly support the Energy
21 Commission's timely approval and adoption of scenario
22 forecasts, including the proposed additional transportation
23 electrification demand forecast to facilitate near-term
24 applications that would have direct impacts on the state's
25 long-term planning efforts in grid reliability.

1 We would like to continue to support the Energy
2 Commission's future development efforts in expanding the
3 current scenario forecast work and making it part of the
4 future IEPR forecast development. Thank you very much.

5 MS. MURIMI: Thank you.

6 Next, we have Delphine Hou. Go ahead and unmute
7 on your end. Give your name and affiliation, if any. And
8 state and spell your name, thank you.

9 MS. HOU: Great. Good morning, this is Delphine
10 Hou, D-E-L-P-H-I-N-E, last name is H-O-U, Director of
11 California Regulatory Affairs from the California
12 Independent System Operator. Good morning, Chair and, Vice
13 Chair and Commissioners. I really appreciate the
14 opportunity to provide some comments. CAISO wants to show
15 our appreciation to the excellent collaboration we've had
16 working with the Energy Commission and our colleagues from
17 the California Public Utilities Commission.

18 On the (indiscernible) from the single forecast
19 that is critical and will set the stage to understand and
20 be prepared for higher levels of electrification within our
21 infrastructure planning processes, all of it to meet the
22 aggressive state goals that we have that are coming. And
23 also autonomous adoption of many of the clean energy
24 policies that the state has put forward. CAISO supports
25 these efforts. And the CEC-adopted forecasts are the

1 foundation for our transmission planning processes and
2 really enables the CAISO management to propose transmission
3 projects to, ultimately, to our Board and Governor. So
4 this is a critical linkage we have in our process, and it
5 really starts foundationally with the CEC's forecast.

6 So we want to acknowledge the incredible amount
7 of work under a very compressed timeline that could not
8 have happened without the hard-working staff at the Energy
9 Commission. So we definitely want to thank Heidi, who's
10 presented, for her leadership, Mike Jaske, Anitha Rednam,
11 Quentin Gee, Cary Garcia, Nick Fugate, all incredible team.
12 And I've been working with them for years and very happy to
13 see this move forward and appreciate all of their hard
14 work.

15 So in conclusion, the CAISO strongly supports
16 this item and urges the Energy Commission to adopt Item 5.
17 Thank you.

18 MS. MURIMI: Thank you.

19 Next, we have Jamie Hall. Go ahead and unmute on
20 your end, give your name and spell your name and state your
21 affiliation, if any. Thank you.

22 MR. HALL: Sure, thank you. My name is Jamie
23 Hall, that's J-A-M-I-E H-A-L-L and I'm a senior strategist
24 for EV Policy and Market Development at General Motors. So
25 thanks for the opportunity to speak today. I'm sorry I

1 couldn't be there in person.

2 We encourage the Commission to adopt these higher
3 electrification scenarios reflecting the state's policy
4 goals. The EV market is changing really fast and obviously
5 we've got a number of policies in California to push this
6 along even faster. It's a really exciting time, but I think
7 we at GM see grid upgrades as a potential bottleneck in our
8 move towards greater electrification. And we see this as a
9 meaningful step forward.

10 I personally spend most of my time these days on
11 infrastructure and grid-related considerations and I've
12 long hope for this sort of change. I'll admit I've not had
13 the bandwidth to meaningfully engaged in the process, to
14 date, but I'm really encouraged by what we're seeing today.
15 So I'd like to thank the staff, thank you all for the time
16 and encourage adoption of these overlooking scenarios,
17 thank you.

18 MS. MURIMI: Thank you.

19 Vice Chair, no more comments.

20 VICE CHAIR GUNDA: And thank you, Dorothy.

21 I just want to begin by just offering a few
22 thoughts on this item. And for the benefit of the
23 discussion between the Commissioners, the demand scenarios
24 work has been something of a process for the last three
25 years. And I really commend the entire Demand Forecasting

1 team starting with definitely Heidi, who has been an
2 incredible leader. But also her predecessor Matt Coldwell
3 who has taken up some of this work. And Anitha Rednam,
4 Mike Jaske for their incredible leadership, Aleecia the
5 management at the Division level, Cary Garcia, Nick Fugate,
6 Quentin Gee. But also the building decarbonization side of
7 it we had plenty of staff working on this very, very
8 important effort.

9 Just to kind of set the stage in the IEPR this
10 year we have something called the "California Planning
11 Library." The idea for us is to move forward into a
12 library of options for consideration and planning. And it
13 would be remiss if I didn't offer my thanks to Commissioner
14 McAllister and his leadership when he was overseeing EAD in
15 contemplating some of the broad strokes of the vision here.

16 So the 30,000-foot-level observation is the grid
17 is changing really, really fast. There isn't a lot of
18 forecasting we can do with certainty, specifically on the
19 electrification. While we can, year after year, think
20 about the reasonableness of a forecast there are things
21 that are changing, and we want to be prepared for that.

22 For those of you who have been observing the
23 discussion on the reliability one of the elements we talked
24 about in reliability risks is this lag in procurement.
25 When we talk about lagging procurement what we're trying to

1 say there is as we, as CPUC authorize this new procurement,
2 when they start at the beginning of the cycle, they are
3 taking the best available demand forecast at that point.
4 And by the time they conclude their cycle typically it's a
5 couple years after and things have changed a lot. So the
6 demand scenarios really allows for that, for the deviation
7 to be better considered, as we think through.

8 So I also want to thank the interagency staff.
9 Most of you know the JASC Forum where a number of these
10 discussions happen. Staff from CPUC, CAISO, we have all
11 worked together; I know Delphine, who commented today, is a
12 force; Simon Baker, Nathan Barcic; there is a number of
13 leaders who make this happen. So I just want to commend
14 everybody's work and I'm very excited and proud landing
15 this plane. I know there is a lot of work to do, moving
16 forward.

17 I also want to connect one point to our agenda
18 this morning. It talked about the scoping plan. And the
19 BUILD rates on the scoping plan are significantly different
20 from the SB 100, which is only a year and a half ago in
21 adoption, primarily because of the changes in the demand
22 that was underpinning. So this demand scenarios work for
23 CEC, the hope would be that we update this on a regular
24 cadence that could be used in SB 100, scoping plan, our IRP
25 decisions so there's much, much more real time changes that

1 could be incorporated into the planning.

2 So I think this work is phenomenal and can be
3 foundational. And, Heidi, thank you for your leadership
4 and looking forward to supporting that.

5 Is that it? I'm looking for anybody else's
6 comments? Commissioner McAllister, go ahead.

7 COMMISSIONER MCALLISTER: Yeah, I just wanted to
8 pile on the thanks. And I appreciate you're keeping me up
9 to date with the status of all the scenarios. And I think
10 the public conversation that we've had about this was
11 really helpful.

12 And then yes just taking a step back and doing
13 some creative thinking about and bringing in sort of
14 innovative approaches and kind of figuring out what the
15 range of possibilities actually is, right, going forward
16 with all of it; as you said Vice Chair Gunda, all the
17 uncertainties and the fast-moving environment that we find
18 ourselves in.

19 I do look forward to the day where we can sort of
20 do a scenario that also includes massive scaleup of
21 building electrification. But certainly transportation is
22 headed in that direction and that's really an amazing
23 development that we want to be sure that we're ready for.

24 But I also wanted to just acknowledge Vice Chair
25 Gunda for your leadership on this. And just really the

1 support that you provide for staff and to sort of feel like
2 they can do this work unimpeded and that it is a priority,
3 and it doesn't have to just fit in in between the workaday
4 stuff that they know they already do, so I really
5 appreciate your creating the space for that.

6 COMMISSIONER MONAHAN: And I too want to
7 congratulate the analytical team, Heidi and all, I mean
8 just really amazing work. And I know you guys have just
9 been, I don't know if "pummeled" is the right word, with
10 new analytical products. But it's so critical to be able
11 to have solid analysis to build our electrification plans,
12 and this is a great tool for the other agencies, for us.

13 I would also say in the past transportation
14 electrification, the policy has actually not aligned with
15 what we've seen in the market. And I think going forward
16 we'll probably see greater alignment because we're setting
17 such aggressive targets. But it's something to be aware of
18 that, historically, the regulatory target, we've exceeded
19 the regulatory targets.

20 And credits are generated, especially in early
21 years and this has created a lot of shift in the ZEV policy
22 as we've tried to get rid of credits and allow for more
23 acceleration of the market. So I think this makes sense
24 for this analysis to use the regulatory policy compliance
25 scenarios and with meeting the targets that we set.

1 So I'm really excited for this analysis to move
2 forward and for the team to continue to explore kind of
3 what transportation electrification means in terms of our
4 electricity use and especially as we pair it with the
5 potential for it to be a DER. So there's just a lot of
6 dynamism right now in the transportation electrification
7 analysis world, no shortage of possibility.

8 COMMISSIONER VACCARO: So I'll just bring up the
9 rear, echoing all of the thanks and appreciation for the
10 analytical rigor and the work and really want to recognize
11 you Vice Chair Gunda. And this is just going backwards an
12 observation from when you first had the role of Deputy
13 Director.

14 And then in your role as a commissioner there's
15 been a vision that you've brought. And sort of it's not a
16 finding work to do, because there is no work to do, it's
17 really looking at where are the places where we can improve
18 and make a difference and not maintain the status quo,
19 right? And I feel like this is a perfect example of there
20 was something of a gap that needed to be filled, and it was
21 really important for statewide overarching policy. And the
22 work that all of the inner agencies or energy agencies are
23 doing, and this is just -- it's tremendous, right. It
24 seems like it's the last item, substantive item on the
25 agenda, but this really is a tremendous item as well. And

1 I feel like a lot of the work that you do paves the way for
2 others of us who are also working with the ISO and the PUC
3 and really continuing with the collaborative collegial
4 relationships, so thank you.

5 Really thank you for your leadership, but also
6 the presence of mind to see when status quo really isn't
7 good enough and to figure out a productive, positive way to
8 move us all forward. So thank you.

9 And to use our staff and not consultants to do
10 it. And that's another thing that I know is really
11 important to you over the years is to really tap into this
12 tremendous wealth of knowledge and strength of analytical
13 powerhouse that we have here, so you've set the stage and
14 Deputy Director Gutierrez is really following up. So
15 anyhow, it's really exciting to see.

16 VICE CHAIR GUNDA: Thank you, Commissioner
17 McAllister, thank you for the kind words. Thank you,
18 Commissioners.

19 Just in closing before I open it up for the
20 motion, I think Heidi, and if Drew is here, I just want to
21 note to the Executive Office you guys have done work way
22 beyond what's in your duty statements every single day.
23 And as Commissioner Vaccaro has kind of pointed out this
24 tremendous work is impossible without the committed hearts
25 of the staff here who come in day in and day out, make this

1 happen. Thank you. Thank you to all the staff. It's hard
2 to acknowledge every single person and with the depth of
3 gratitude we feel, but thank you, thank you for moving the
4 ball.

5 With that, Commissioner Monahan, would you like
6 to move the item, please?

7 COMMISSIONER MONAHAN: I move this item.

8 VICE CHAIR GUNDA: Commissioner McAllister?

9 COMMISSIONER MCALLISTER: I second.

10 VICE CHAIR GUNDA: We'll take the vote.

11 Commissioner Monahan?

12 COMMISSIONER MONAHAN: Aye.

13 VICE CHAIR GUNDA: Commissioner McAllister?

14 COMMISSIONER MCALLISTER: Aye.

15 VICE CHAIR GUNDA: Commissioner Vaccaro?

16 COMMISSIONER VACCARO: Aye.

17 VICE CHAIR GUNDA: And I vote aye as well. The
18 vote count is 4 to 0, with Chair Hochschild absent.

19 So we will not be hearing Item 6 today, Local
20 Ordinance, City of Encinitas. It has been removed from
21 today's agenda.

22 With that we'll move to Item 7, Lead
23 Commissioner, Presiding Member Reports. Commissioner
24 Vaccaro, would you like to begin?

25 COMMISSIONER VACCARO: Thank you. I'll keep it

1 really brief. We moved to the public comment period early
2 and I think we heard from a lot of members in-person and
3 online with respect to the AB 525 report that was going to
4 be heard today. I just wanted to extend apologies to any
5 of you who changed position. I know some people traveled
6 to be here. It was a little last minute that the
7 postponement occurred. But I think what we heard from the
8 public comment is that it's a positive thing. We had a
9 tremendously, I think, just a well-attended public workshop
10 last week on the staff's draft report. A lot of new
11 information came in at the workshop, a lot of perspectives.
12 And we want to be able to do them justice.

13 The Chair and I thought that it made good sense
14 to postpone the item to have some more public process
15 around what we're hearing. And so I think we are all still
16 where we were: there is excitement, the staff report is
17 solid, it was well done. I stand behind it as a very
18 thoughtful piece of work. And what we've learned is that
19 there's a little bit more that we need to be considering in
20 this space.

21 So I'm looking forward to the next step, but
22 appreciate folks who came today, folks whose travel might
23 have been disrupted at the last minute, and all of the
24 participants of the workshop. We had four PUC
25 Commissioners on the dais, we had representation from state

1 lands on the dais as well as Ocean Protection Council and
2 just so many virtual participants.

3 So I think that's it, that's all I really wanted
4 to comment on is acknowledge that last-minute change and
5 how disruptive it could have been for folks.

6 VICE CHAIR GUNDA: Yeah, Commissioner Monahan?

7 COMMISSIONER MONAHAN: Well just briefly to give
8 you all a heads-up I'll be gone for the first two weeks of
9 June, so I think I'll be missing the next business meeting
10 for work travel. I'm going to Denmark for a series of
11 meetings on building and industrial decarbonization, a
12 little bit of transportation as well. And then to Norway
13 for the International Electric Vehicle Symposium as well as
14 trips to investigate decarbonization of marine vessels.
15 And so it'll be a really interesting, I think, learning
16 opportunity, but also an opportunity to share what is
17 happening here in California.

18 One just item I wanted to share is that the EV
19 Charging Infrastructure Strikeforce met for the first time
20 in-person. So we convened it two years ago right when
21 COVID was hitting hard, so the first time we were all
22 together physically. And Nate had actually in the morning
23 done it, so it was just separate from the Strikeforce, a
24 number of members went to visit the Legislature to talk
25 about the budget. And that was a really good discussion.

1 And you may recall that one of the pillars of
2 this EV Infrastructure Strikeforce is to integrate equity
3 in the buildout of ZEV infrastructure, so it was just a
4 really good meeting. And look forward to working with that
5 set of stakeholders to continue to build out ZEV
6 infrastructure.

7 VICE CHAIR GUNDA: Commissioner McAllister,
8 please.

9 COMMISSIONER MCALLISTER: Great, just very, very
10 short. Very briefly I did actually have to miss the last
11 business meeting. I guess the one sort of trip that's
12 noteworthy that I made, and together with Vice Chair Gunda,
13 was down to the WIRAB meeting in San Diego. And just it
14 was great. I think there were four out of five of the PUC
15 Commissioners there as well, so it was really great to have
16 broad California representation. There were
17 representatives from every state across the west just
18 talking about sort of the future, the western interconnect.

19 And, obviously, our path is uncertain. But
20 there's just a lot of conversation about different
21 structures that might come to pass and be put in place in
22 various parts of the west. And so I think we all agree
23 that it's important to be there and participate and
24 certainly pay attention and listen intently to what plans
25 are happening across the west.

1 Though the one downside of that meeting is I did
2 actually somewhere along the way did contract COVID, so
3 I've been a little bit out of the mainstream for a couple
4 weeks, but back full strength now. And I'm really more
5 grateful than ever for the vaccines, because without those
6 it would be a lot worse. So anyway, hoping none of you get
7 it, but yeah it wasn't so bad. So anyway, thanks a lot.
8 I'm happy to be back and circulating.

9 VICE CHAIR GUNDA: Thank you, Commissioner
10 McAllister.

11 I want to keep my update brief as well. Since we
12 met on the 11th I think the big thing, the big news is the
13 Governor announced his May revised budget. Obviously,
14 there is a large amount of money in there for reliability,
15 state reliability.

16 For those of you who have attended last week's
17 Friday reliability workshop, thank you. And unfortunately,
18 Commissioners, we lost the battle to CPUC Commissioners.
19 All five of them were here, so they claimed ownership of
20 that workshop. They said they would be leading it.

21 But I think it was a really good discussion. I
22 think we were able to frame the problem. I think if what
23 the governor really tried to note is in the worst of the
24 worst situations if we had compounding things of fire,
25 drought as well as heat happening at the same time the

1 state is really ill-prepared. I mean, I cannot put it more
2 clearly that we could find ourselves in thousands of
3 megawatts of shortfall if they were to coincide. Again,
4 the probability of them coinciding might be really low or
5 it's really hard to estimate but that's something that we
6 wanted to highlight. And the Governor's call for
7 developing a California statewide strategic reserve of
8 resources that we could rely on; these resources will be
9 out of market. So to the extent that they might be fossil
10 generation in it, those non-preferred resources they will
11 be out of the market and only be used as an insurance.

12 So the CEC staff has done a lot of work. We were
13 able to brief the Legislature and the Senate Budget
14 Committees have been doing a lot of talks explaining to
15 stakeholders.

16 So just in closing I just want to say I sent an
17 internal note to the staff, but just there there's a core
18 reliability of staff, with EO, CCO, STEP, EAD and Justin
19 Cochran, just incredible team of 12-13 people who have been
20 working for the last 18 months so I just want to thank them
21 for all the work they do. They know who they are, and I'll
22 send them a note, but just stating that reliability is
23 where our minds have been.

24 So with that I am done with mine, so moving to
25 Item 8 Executive Director's Report.

1 MR. BOHAN: Good morning, Commissioners, Vice
2 Chair. I have no report, thank you.

3 VICE CHAIR GUNDA: Thank you, Drew.

4 Turning to Item 9, Public Advisor's Report.

5 MS. MURIMI: No, no report.

6 VICE CHAIR GUNDA: Thank you, Dorothy.

7 And now for Item 10, going back to the Public
8 Comment.

9 MS. MURIMI: Thank you, Vice Chair.

10 So this is a period for any person wishing to
11 make comments on information items or reports of the
12 meeting or agenda or any other item. Each person has up to
13 three minutes to comment and comments are limited to one
14 representative per organization. We may reduce the comment
15 time depending on the number of commenters.

16 After you are called on, please restate and spell
17 your name, your first and last name, state your affiliation
18 if any. If you're in-person, fill out a blue card which
19 you can find at the back table and hand to me.

20 If you're joining remotely use the raised-hand
21 icon to indicate your interest in making public comment.
22 We may promote you to panelist. And if you're on the phone
23 press *9 to raise your hand and *6 to unmute.

24 We have one commenter on Zoom, Claire Warshaw.
25 Go ahead and unmute on your end, state and spell your name

1 and give your affiliation, if any.

2 MS. WARSHAW: Hi my name is Claire Warshaw, C-L-
3 A-I-R-E, and my last name is Warshaw, W-A-R-S-H-A-W. I've
4 commented before and, at the risk of embarrassment and
5 sorry to postpone to the ending of the meeting, I'm
6 commenting again. I hope I'm not annoying, but I also
7 realize that it seems important that I address something
8 that seems to be somewhat missing with our California state
9 agency work in addressing climate change and global
10 warming. And I'm not certain that I am being accurate
11 about this. I obviously do not have a doctorate degree.
12 I'm not working at any special agency. I'm just a member
13 of a public. I have worked at SMUD before. And wireless,
14 the wireless industry started to come in while I was
15 working at SMUD.

16 So my comment is about kind of a follow-up to
17 Agenda Item 2 where CARB is addressing things and deciding
18 on alternatives. A very complex situation that state
19 agencies are all working together, and compliments to you
20 all for doing that. I know you're making tough decisions
21 and talk, talk, talk. Actually though it looks like it's
22 not going far fast enough. I think it's important that the
23 decisions are made right. I also understand the want to
24 get things done and the frame of looking at all kinds of
25 issues at one time, that's very difficult. So compliments

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1 to you all for working on that.

2 But I am concerned about these large economic
3 industries that have a big play in California smog and
4 construction. And it seemed to kind of be on the outside
5 of state agencies' ability to regulate and enforce and
6 bring into the idea of change and the necessary change that
7 might need to happen.

8 For instance, a travel agency, travel industry,
9 the space industry, satellite industry, the shipping
10 industry. I'm glad to hear Commissioner Monahan bringing
11 up that she's going to examine some marine change, vessel
12 change or something soon. That sounds encouraging, but it
13 doesn't seem enough of that going on. The military, these
14 large agencies like the airplane industry will continue on
15 its path, with persons happily buying their tickets without
16 paying much attention to greenhouse gas emissions. And
17 I'll be part of that too.

18 But I think it can change, I do think there are
19 things that we can do if there was a way to do it, to have
20 some way of bringing those agencies, those industries in
21 somehow. And I don't know how to do it myself, but I do
22 think your talk in that is influential, so thanks for that.
23 I hope there's better results for that.

24 MS. MURIMI: Thank you.

25 No more comments, Vice Chair.

1 VICE CHAIR GUNDA: Yeah, I just want to
2 acknowledge Claire Warshaw, thank you for your comments.
3 And please, please know that it's important for us to hear
4 the comments from the public. And we take them seriously.
5 And please feel welcome to share your thoughts as regularly
6 as you think we should hear. Thank you, Claire, thank you
7 so much.

8 With that let's go to Item 11, Chief Counsel's
9 Report.

10 MR. Qaqundah: Good morning, Vice Chair and
11 Commissioners. I just wanted to very quickly say thank you
12 for the comments on the CalEHP. On behalf of the legal
13 team just wanted to say thank you. I will also pass those
14 on to Linda, I know she'll appreciate that. Otherwise, I
15 don't have a report today. Thank you.

16 VICE CHAIR GUNDA: Thank you.

17 Thanks everyone, and I think the meeting is
18 adjourned. Thanks.

19 (The Business Meeting adjourned at 11:57 a.m.)

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I do hereby certify that the testimony in the foregoing hearing was taken at the time and place therein stated; that the testimony of said witnesses were reported by me, a certified electronic court reporter and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

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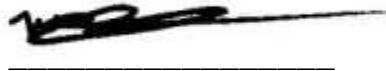
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