DOCKETED	
Docket Number:	25-BUSMTG-01
Project Title:	2025 Business Meeting Agendas, Transcripts, and Public Comments
TN #:	266067
Document Title:	Transcript of the August 13, 2025 Business Meeting
Description:	N/A
Filer:	Kim Todd
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	9/18/2025 2:46:28 PM
Docketed Date:	9/18/2025

CALIFORNIA ENERGY COMMISSION

In the matter of:

Business Meeting	)	Docket No. 25-BUSMTG-01

WEDNESDAY, AUGUST 13, 2025

10:00 A.M. - 3:00 P.M.

In-person at:

CALIFORNIA NATURAL RESOURCES AGENCY BUILDING
715 P STREET
FIRST FLOOR AUDITORIUM
SACRAMENTO, CALIFORNIA 95814
(Wheelchair Accessible)

The California Energy Commission (CEC) aims to begin the business meeting promptly at the start time and the end time is an estimate based on the agenda proposed. The meeting may end sooner or later than the time indicated depending on various factors. Commissioners may attend remotely in accordance with Government Code section 11123.2(j).

Pursuant to the California Code of Regulations (CCR), title 20, section 1104(e), any person may make an oral comment on any agenda item. To ensure the orderly conduct of business, such comments will be limited to two minutes or less per person.

Please visit the CEC Business Meeting web page for more information and materials at https://www.energy.ca.gov/proceedings/business-meetings.

Reported by:
Martha Nelson

APPEARANCES

COMMISSIONERS

David Hochschild, Chair

Siva Gunda, Vice Chair

Andrew McAllister, Commissioner

Nancy Skinner, Commissioner

STAFF

Drew Bohan, Executive Director

Sanjay Ranchod, Chief Counsel

Jeremy Smith, Deputy Director, Energy Assessments Division

Gavin Situ, Mechanical Engineer, Efficiency Division, Load Management Standards

Bryan Neff, Energy Assessments Division

Elyse Kedzie, Energy Storage Engineer, Infrastructure Transition Unit, Energy Research and Development Division

Tanner Kural, Energy Research and Development Division, Energy Resilience Unit, Sustainability and Resilience Branch

PUBLIC ADVISOR

Mona Badie

ALSO PRESENT

Georgia Walker-Keleher, Chair Hochschild's Summer Fellow

Josh Boone, Executive Director, Veloz

APPEARANCES

PUBLIC COMMENT

Claire Zuma

Steve Uhler

Tanya DeRivi, Western States Petroleum Association

Katharine Larson, Sacramento Municipal Utility District

Michael Quiroz, Ava Community Energy

Michael Galluzzo, Enzinc, Inc.

Deepak Upadhyay, DarmokTech

Sarah Douglas, Renewal Energy

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P R O C E D I N G S

10:03 a.m.

WEDNESDAY, AUGUST 13, 2025

(Whereupon an introduction video is played and not transcribed.)

CHAIR HOCHSCHILD: Good morning, friends. I'm David Hochschild, Chair of the California Energy Commission. Today is August 13th. I call this meeting to order.

Joining me are Vice Chair Gunda, Commissioner McAllister, and Commissioner Skinner is in the building, will be here momentarily. (Sneezes.) Excuse me. And Commissioner Gallardo is overseas on a delegation with a number of other state agencies. We have a quorum.

Let's begin by standing for the Pledge of Allegiance.

(The Pledge of Allegiance is recited in unison.)

CHAIR HOCHSCHILD: Before we begin, I want to note that items 5 and 6 on the agenda will not be heard today. Those will be rescheduled.

We'll begin by taking public comment.

MS. BADIE: Thank you, Chair.

My name is Mona Badie. I'm with the Office of the Public Advisor, Energy, Equity, and Tribal Affairs.

This first public comment period is the open

public comment period, so anyone can comment on any item on the agenda. We do ask if you are here to comment on an item with a dedicated public comment period, which would be any voting action item, that you wait for that dedicated public comment period to be announced to make comments at that time. But right now, it could be for any for any non-voting item in the Commission's jurisdiction.

All right, So first, we'll start with the folks in the room. We're asking folks to use the QR code to sign up to make a public comment. You can visit the Public Advisor's table in the back of the room if you need assistance with that or to scan the QR code. And if you're joining by Zoom, you'll use the raise-hand feature, it looks like an open palm on your screen, or star nine if joining by phone. Those are the ways that you can let us know you'd like to comment during this initial public comment period.

And we have one commenter in the room. Claire Zuma, if you'd like to approach the podium? And just a reminder, it helps us if you can state and spell your name for a current reporter. We do ask that comments be limited to two minutes or less, and there will be a timer on the screen. You may begin.

MS. ZUMA: Hi, my name is Claire Zuma, C-L-A-I-R-E Z-U-M-A. And I'm here to please encourage fast

charging electric vehicle projects to install additional outlets for electric bicycles and scooters.

California electric vehicle charging infrastructure projects, such as that announced August 5th, 2025 on the California Energy Commission website, can aid what seems to be a less represented California population sector, e-bicyclists and e-scooters. E-bicycles and e-scooters are electric vehicles, too. They are part of the modern California economy.

E-bicycle/e-scooter infrastructure may attract humans who attend particular venues, such as the Los Angeles 2026 World Cup and the Summer 2028 Olympics. Can one imagine come international athletes get stuck in Los Angeles car and bus traffic with us? Hey, Amsterdam bicycle commuters, check out our lack of bicycle advancement. Some airlines allow transport of e-scooters of a certain battery ranges, according to the internet.

I speak as someone who has not ridden an electric bicycle or scooter, but who has completed many miles and traveled on a mechanical bicycle. I notice many in the Sacramento community utilizing electrical bicycles and scooters. However, bicycle scooter charging choices appear limited and potentially less friendly, requiring an approachable building or property site with owner permissions. Some long-distance bicyclists probably prefer

to pay for electrons -- the timer is stuck -- in order to get from point A to point B and back, like Sacramento to San Francisco and back, usually considered a reasonable day trip, without having to plague any coffee shops, buy too many coffees, bother a property owner's pocketbook, or break their own budgets.

Please ask the CEC stakeholders -- ah, my phone -- to design and implement bicycle and scooter electric charging resources at the same places they're installing electric vehicle fast charging stations, if at all possible, or please help make a plan for this population.

Thank you for listening.

By the way, the video seems to be overexposing you guys and making you look older and redder.

CHAIR HOCHSCHILD: I look old enough as it is. Thank you.

MS. ZUMA: It's a very backyard (indiscernible).

COMMISSIONER MCALLISTER: At least we're not orange.

CHAIR HOCHSCHILD: Thank you. Appreciate that.

MS. BADIE: All right. And then let me just check our in-room commenting queue.

All right, I'm going to transition over to Zoom. I'm having a technical difficulty with my laptop, so I'm

going to switch over. And all right, so I'm going to open the line for caller identified as call-in user two. And when I open your line, if you can unmute on your end, and please say and spell your name if you would like to share that for our record. We are asking for comments to be two minutes or less. There's going to be a timer on the screen.

MR. UHLER: Good morning, Commissioners. This is Steve Uhler, U-H-L-E-R. I called today to talk about the MIDAS database, which has a chronic outage problem. I would like to thank whoever got somebody to do something as far as contacting me, because I have done -- I've asked -- I've presented this problem over the last two or three years.

Basically, it doesn't -- it has an outage. It seems to align with when UTC or Greenwich Mean Time changes date. And in the case of SMUD and others, not just SMUD, I get no data, no data, all nulls, a situation that the FEMA says violates the rules. Something is wrong with the MIDAS database.

I received an email from the Public Advisor claiming that the staff had identified a way -- a workaround. I will say workaround because to use it would actually violate the regulations as far as what I'd have to give, suggesting that I add a date range for the real time

data. I did that last night. It had absolutely no effect.

So please see that this is looked into. I've heard of a situation of somebody wanting to go to maybe another flavor of the month, something called NoSQL. That is not the problem. There is no need to go through that.

I would also like to say that for Item 9, speaking under my rights under the meeting laws, you should table that until the MIDAS database is shown to be fully functional and meets Business and Professional [sic] Code for points of sales displays. MIDAS meets the definition of that.

So please look into this because I have a lot of things I want to do with it. But it does no good to not have 24/7 availability.

And also reinstate the phone number that used to be on the site so that I can call when this problem happens, so I can talk to your technician so they can walk through what's going on. So please take care of this.

Thank you.

MS. BADIE: Thank you for your comment.

And that concludes the comment period for Item 1. Back to you, Chair.

CHAIR HOCHSCHILD: Okay. Thanks. Before we move on to Item 3, agency announcements, I just want to take an opportunity to introduce my Summer Fellow, Georgia Walker-

Keleher.

Why don't you come on up, Georgia, and just say a little bit about yourself. She's a student at Stanford and some of the stuff you're working on while you're here. Yeah.

MS. WALKER-KELEHER: Hi, everyone. Yeah, my name is Georgia Walker-Keleher, and I've had the opportunity to have an awesome summer so far. I'm working on some grid resilience projects and kind of getting to look at quantifying the impact that the CEC is having in lots of its grant funding areas.

Yeah, I'm entering my senior year, and I am just, yeah, so grateful to have gotten an opportunity to work at a place where everyone has such a shared sense of purpose. And yeah, wherever I go, I will look for that in an organization. Thank you.

CHAIR HOCHSCHILD: Thank you, Georgia.

So Item 3, agency announcements. Today, we're seeking to approve almost $31 million contributing to California's economy.

I also wanted to announce that we'll be hosting the 11th Annual EPIC Symposium on Tuesday, October 7th here in this room, which we're in close coordination with utilities and our other agency partners, really looking at all the cutting-edge innovation in the cleantech space. I

believe the EPIC Program is the best clean energy research and development program in the world, and I've seen most of those programs around the globe. What we're doing here is extraordinary.

So this is a free, open-to-the-public symposium, and I encourage everyone interested in the space to come join us. The information for how to sign up is on the Energy Commission website at energy.ca.gov.

With that, let me just see if my colleagues have any announcements they would like to make at the outset?

If not, let's turn to Item 3, consent calendar, and I believe we have some statements from Commissioner McAllister and the Vice Chair on this item.

Commissioner McAllister?

COMMISSIONER MCALLISTER: Yes, thanks, Chair.

On Item 3A, I'll recuse myself from any discussion, consideration, or vote on the proposed resolution approving an agreement for a one-year membership for CEC to NASEO, that's the National Association of State Energy Officials, as I currently serve on the Board of Advisors for NASEO.

Additionally, on Item 3B, the proposed resolution approving a contract with the Western Interstate Energy Board to fund a membership for the state for years from 2025 to 2028, I will note for the record, pursuant to

Government Code section 1091.5(a)(9), that I serve as a member of WIEB's Board and receive reimbursements for travel expenses, meals, and other considerations associated with my service on the Board.

This is considered a non-interest under conflicts of interest laws because I'm not an employee of WIEB and I have no direct financial interest in the membership contract. That's the subject of this item. Nevertheless, in the interest of procedural efficiency, I will not be voting on any of the consent items and I will step out of the room and ask to be notified after the vote is complete for Item 3 so that I can return.

Thanks.

CHAIR HOCHSCHILD: Vice Chair?

VICE CHAIR GUNDA: Thank you, Chair.

Good morning, everybody. On Item 3B, proposed resolution approving a contract with WIEB, the Western Interstate Energy Board, to fund a membership for the state for years 2025 and 2028, I note for the record, pursuant to Government Code section 1091.5(a)(9), that I serve as the Vice Chair on the Board of Advisors for the Western Connection Regional Advisory Board, which is a standing advisory committee to WIEB. I receive reimbursements for travel expenses, meals, and other considerations associated with my service on the Board.

This is considered a non-interest under conflicts of interest laws because I'm not an employee of the WIEB and I have no direct financial interest in the membership contract that is subject to this item.

With this disclosure, I'm able to vote on this item.

Thank you, Chair.

CHAIR HOCHSCHILD: Thank you.

At this time, we'll take public comment on Item 3.

MS. BADIE: Thank you, Chair.

The Commission welcomes public comment on Item 3 at this time. If you're in the room with us, we ask for folks to use the QR code. You can sign up for any of the items to make comment on any of the items using the QR code at any time. And if you're on Zoom, you'll use the raise-hand feature or star nine if joining by phone.

All right. I am not seeing any raised hands for this item. Back to you, Chair.

CHAIR HOCHSCHILD: Unless there's any Commissioner discussion, I'd welcome a motion on Item 3 from Commissioner Skinner.

COMMISSIONER SKINNER: So moved.

CHAIR HOCHSCHILD: Is there a second from the Vice Chair?

VICE CHAIR GUNDA: Second.

CHAIR HOCHSCHILD: All in favor, say aye.

Commissioner Skinner?

COMMISSIONER SKINNER: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: And I vote aye as well, with Commissioner McAllister abstaining. And you can inform him to come on back.

With that, we'll move on to Item 4, information item, Veloz National Education Campaign Update. I welcome Josh Boone.

And I want to note, Josh was recently celebrated for 15 years in this role and in its predecessor organization, the Plug-in Vehicle Collaborative, and really has been at the heart of California's efforts to bring electric vehicles mainstream. Veloz, I think, has raised over $60 million, $65 million, I think, altogether since you've been running it. You've brought together utilities, auto manufacturers, charging companies, Uber, Public Utilities Commission, Air Resource Board, Energy Commission, and others. And it really culminating in this incredible campaign.

So here to present that is Josh. Over to you.

MR. BOONE: Yeah, thank you, Commissioner

Hochschild, and good morning, fellow Commissioners. My name is Josh Boone. I'm the Executive Director of Veloz, as the Commissioner said, and I'm here to talk about our National EV Education Campaign.

I've included about 35 slides, so I'm going to try not to make you dizzy. But the reason I did that is because you can go back and look at all the embedded videos and sound bites.

Next slide, please. Let's keep going.

Okay, so for those of you that are not familiar with Veloz -- we can go to the next slide -- we are a nonpartisan national 501(c)(3) nonprofit. Our vision is that the future of transportation is electric and is for all. And we are most publicly known for our education campaign called Electric For All. And our mission is we use our unique public-private partnership to really accelerate zero-emission vehicle adoption through what we call our three C's, communication, collaboration and convening.

Next slide, please.

Veloz has been a part of many firsts in the state of California. We are a Sacramento-based nonprofit with a national purview. Let me just simply say that, you know, back in 2010, 2012 when we started, we had EVs that had a range of around 70 miles, you know, in total range. And

now we have EVs with over 300 miles of range. And we've had a lot of milestones that you all have been part of, and certainly the Energy Commission has been at the center of many of those items.

Next slide, please.

So our theory of change, we really look at the end goal of better earth, better for people, and better for the economy. But if you look under that strategy column, we really focus on three elements, and many of you do as well, but consumer awareness and education, upfront cost of electric vehicles, which is becoming increasingly challenging, and then, of course, zero-emission vehicle infrastructure, which the Energy Commission is known for.

Next slide.

Veloz is made up of about 40-plus organizations. You can see organizations from many different EV sectors, utilities, government, nonprofits, ride hailing, ride share, autonomous zero-emission vehicles, national EV charging companies, and many, many more. And we are trying to grow this as we look to expand our programming across the country.

Next slide.

Okay, so you can think of Veloz under kind of these two brands. So Veloz, the nonprofit, has a lot of different programs that we're dealing with. One of the

things that we work in close tandem with the Energy Commission is our quarterly EV Market Report. And then our consumer-facing brand is our Electric For All brand. And you can see a kaleidoscope of programs that surround each of those two brands, but they work in concert with one another.

Next slide.

And what I'm really here to talk about is our national campaign, which is called Electric For All: The Way Forward is Electric.

Next slide.

And so when we think about behavior modification and really bringing awareness around EVs and the many benefits, we think about this kind of awareness funnel. So we start at the top of the funnel and try to bring inspiration and catch eyeballs around EVs and the many benefits. We move them down the funnel, try to bring them education tools through our online tools at electricforall.org. And then we really encourage folks from across the country to take action in the form of exploring what makes and models are available, go do a ride and drive, and then interact with vehicles and perhaps consider buying or releasing an EV.

Next slide.

So I mentioned electricforall.org. So one of the

things that we've tried to do over the years is pull together what is now a multimillion-dollar site. Think of it as a hub for all things light-duty electric vehicles. So you can put in your zip code, no matter where you are in the country, and it will provide federal, state, and local incentives. You can look up home charging information. You can look up charging stations. You can learn about Level 1, Level 2, DC fast charging. And there's a whole wide variety of myth-busting resources there. So think about that as the call to action for our national campaign.

Next slide.

So we've had four California-based campaigns over the last seven, eight years. We started with a campaign called Opposites Attract in 2018. And we did Kicking Gas with the former Governor Arnold Schwarzenegger in 2019. In 2021, during COVID, we did 40 Million Reasons to Go Electric. We brought Mark Ruffalo and a cadre of local superheroes to life in that campaign. And then, most recently, we completed Myths Busting Myths, where we used mythical creatures to bust common myths around EVs.

So the question is, what's next, and what are we doing now?

Next slide, please.

So as I mentioned, we are focused on a national campaign called The Way Forward is Electric, following

under the Electric For All brand. And based on our national database and access to Americans' kind of attitudes and perceptions around EVs, we've come up with a variety of messaging pillars, but the top ones are cost, range, and charging and incentives, and a particular focus on the federal tax credit over the next month and a half, as we anticipate that credit going away at the end of September.

So this campaign is funded in a large part through a competitive grant solicitation from Electrify America, bringing $43.5 million into the budget. But then we work with Edison, Uber, and others, and our automaker partners are certainly providing in-kind support into the creative assets.

So next slide.

Okay, so the campaign creative, we've been able to hire a world-renowned producer and director called Patrick Daughters, and he is known for kind of bringing CGI to life, kind of real world. Think of it as kind of the Barbie movie, if you've seen that, where there's real people. So we're using real cars, set in grains, kind of a fictitious but fun, bright background.

And so we're attacking those kind of core messages across the top, savings on case, kind of short-term savings, lower cost of ownership, long-term savings,

lower maintenance, daily range, longer ranger, and home charging. And these are running across -- the creative assets are running across all media.

Next slide.

So one of the fun elements of this campaign is we have been able to work with Rick Swanson from Parks and Rec, known as Nick Offerman, and he is the voiceover talent in our video Creative Assets. And one of the things that's really cool about Nick is we wrote him a quote, as you often do, and he said, "Nope, I'm going to write my own quote," and he pushed back this quote to us. And so he's a real believer in trying to wean us off of fossil fuels. And he's in the market, actually right now, looking for an EV. So we're really excited to kind of see what EV he chooses.

But the choice around Nick is that he's kind of a middle American, no-nonsense, kind of neutral tone, and we think kind of his deadpan humor brings a real creative element to the video assets.

Next slide.

Okay, so our primary focus is generate purchase intent. And then, of course, we want to inspire interest in zero-emission vehicles, educate on the benefits of EVs, and really encourage people to adopt them, whether new or used.

Next slide.

We take a 360 campaign approach. So all things are media these days, everywhere from paid, earned, owned. Happy to talk to you about what channels we're in. But there is an influencer campaign activating in about a week and a half across the country, and then we've got a whole community-based organization toolkit where I'll mention that at the end, but anybody can use it. It's for free. You can access the assets and promote them through your own organization.

This campaign is kind of twofold. We're doing a digital approach, so we're kind of meeting people where they are online, and then we're meeting people where they are in the parking lot by bringing an experiential campaign, which will include ride-and-drives at the beginning of the year.

Next slide.

Just quickly, this is a variety of the media that we're purchasing and involved with. I want to go all the way to the right and just say that as part of this campaign, we were able to do a partnership with Simon Malls and WS Development, which is also a mall owner, and they are bringing several million dollars of free advertising into the campaign. And because of our ability to do national media buying, we're able to really drive

efficiency. So that bottom number is really important to us. Essentially, we're getting about $8 million of free media because of how we're buying media in an efficient way.

Next slide.

We had a really good launch with some good headlines across the country, including a pickup in the *New York Times*, as well as a variety of podcasts across the country.

Next slide.

So I want to get into the fun part, which is I want to show you some of the video creative assets, and this is just one element. Think of the campaign as video assets, and then digital display banners, podcasts, the whole thing. But let's first of all show one of our cost videos.

(Whereupon a video is played.)

"When you take away the spark plugs, the oil filter, the belts, the alternator, and, oh, yeah, the gas tank, you tend to take away other stuff, like headaches.

"EVs have fewer parts, fewer repairs, and are less expensive to drive. Discover EV savings at electricforall.org."

Okay, let's go right into the next video.

(Whereupon a video is played.)

"Why do EVs cost less to own over the long run? Well, for starters, you never have to buy gas again, and there are fewer parts. And fewer repairs, making it easy on your bank account.

"All long-term relationships should be this good. With a lower cost to own, the way forward is electric. Discover EV savings at electricforall.org."

Okay, next slide.

So this just gives you a sense of some of the display banners that you'll see. Like if you go on CNN.com or your favorite news outlet, you might see this banner ad pop up on the left. We've gone to the trouble of animating it, so that's kind of fun. And then in the middle, we're working with a variety of podcasters to actually advertise on podcasts. I don't know if you can play the one.

(Whereupon a video is played.)

"Imagine never buying gas again. EVs are easy to charge as your phone and perfect for everyday life.

"Now, most Americans only drive about 40 miles a day, and most EVs go 200 to 400 miles on a full charge. That's plenty. And with fewer parts, that means fewer repairs and fewer surprises at the mechanic. Anyone who has made the switch says the same thing, once you go electric, you don't look back.

"The way forward is electric. Learn more at electricforall.org."

And then we get the fun opportunity in social media to do things like save up to $2,000 a year, ghost your gas station. Those all can be optimized. So every three to four weeks, we're looking at the data, and we're able to kind of tweak the messaging that the audience targets. So it's a really important aspect.

Next slide. I know we're running close on time. Go ahead.

(Whereupon a video is played.)

"How far can an EV take you on one charge? It can take you to work, to school, to soccer practice, to the grocery store, to the post office, and you'll still have enough charge to visit your in-laws in the next county. But they don't need to know that.

"The way forward is electric. Explore EVs with the range you need at electricforall.org."

Okay, next slide.

I think we showed some digital banners already, but we are also buying in the out-of-home digital billboard market. So that top image is an example of some of the billboards we currently have running across the country in different DMAs.

Next slide. Go ahead.

Home charging.

(Whereupon a video is played.)

"Keeping an EV fully charged is as easy as charging your phone, only the cord is much harder to lose. Charge at night right from home.

"The way forward is electric. Explore EVs that fit your life."

I think it's replaying it, yeah. Okay. Let's keep going.

And then one of the things I wanted to pause on briefly is, I think most of us know, the federal tax credit is going away. So we have pulled about $2.3 million from our 2026 budget forward to do basically a media blitz over the next six weeks to really promote the opportunity to take advantage of that $7,500 tax credit. So that's what you're seeing here is an example of that.

Next slide.

And then finally, in the interest of time, I'll be short, but as I mentioned, we developed an online toolkit where you can access all of these creative elements, whether they're social media creative or other digital display banners, and use them. You can also take advantage of the website.

And so if we can just click through the next few slides, you can get kind of a flyover of the toolkit. So

reach out to me and we'll give you access if you're interested. Keep going.

The campaign is also in Spanish.

Yeah, keep going. Keep going.

And then, of course, how can you support the campaign? Share the assets. Reach out to me. Advocate for the campaign. And one of our goals is that the current roughly $45 million budget will get us through next summer. So we're really looking to try to raise another $45 million to $50 million so that we can keep the campaign going for a second and third year, really to get us through midterms in the current administration.

Next slide.

And then I'm happy to answer any questions, but thank you for the opportunity to present the campaign.

CHAIR HOCHSCHILD: Yeah, Josh, thank you so much. Just phenomenal work.

And I would highlight the federal tax credit ends at the end of September, so I really appreciate you surging the outreach.

Also, just that, you know, we're in a much better place than we were a few years ago in terms of the models that are available. And the median range of EVs has been increasing. So it's now, you know, 282 miles is the average range for vehicles sold. And of course, thanks to

the good work of my colleague Commissioner Skinner and her predecessor, Patty Monahan, we now have more electric vehicle charge plugs and gasoline nozzles in California and a lot more coming. So it's never been easier to make the switch.

With that, let me just open up if there's any questions or comments for Josh or my colleagues.

Yeah, Vice Chair?

VICE CHAIR GUNDA: Thank you, Chair.

I just wanted to extend my thanks, Josh. Just, you know, first of all, thank you for the presentation. Want to just note your, you know, personal leadership at Veloz, but the entire team. I think there is a tangible and significant impact that Veloz has brought to the overall electrification of the transportation sector. So I just want to say thank you in kind of helping us meet our climate goals and, you know, that of further emissions. So thank you so much for all the work.

MR. BOONE: Yeah. Thank you. I would just say that in a time where we're all experiencing a lot of policy rollbacks and pushback, one of the policy levers we have is strategic communications. And one of the levers we have is to talk to Americans about the benefits of EVs. And we know from the data that whether red, purple or blue, folks are really interested in electric vehicles. The problem is

that there's so much misinformation and disinformation, and the number of dollars being put in the anti-campaign is real-real, and it's very high. So this gives us an opportunity to really work to combat that.

So we at Veloz like to think of ourselves as a large tenant. So come partner with us and help us take this effort further.

Thank you.

CHAIR HOCHSCHILD: Hold on.

Commissioner McAllister?

COMMISSIONER MCALLISTER: Yeah. Great. Thanks a lot, really, for the presentation and all the effort over the years.

And I want to just give kudos to Chair Hochschild for leadership in the foundation and management of Veloz and fundraising, all the important stuff you talked about. You know, it starts with leadership. And just really want to appreciate you, Chair, and, as well, you, Josh.

So I want to just make a couple of points, just, you know, this reminds me a lot of the early days of energy efficiency when, you know, it's just a common sense, very nonpartisan, presumably nonpartisan. You know, it's all about pocketbook issues and practical navigation of a complicated world. And energy efficiency just makes sense; right? It makes all of our other problems smaller. It has

negative costs. You know, we've shown over and over again that it comes with actually improved product performance and more features in addition to lower energy consumption. So I think people, as they experience electric vehicles and, you know, induction cooking and other technologies, I think electric vehicles is really the number one object lesson of how positive this transition can be.

And it also, I think, along with data centers, is pushing us to understand energy consumption, electricity consumption, and manage it more proactively. And so I think that's also a good thing. You know, necessity is the mother of invention. So really, I think we're going to -- we are learning a lot from this transition. And I think, you know, I sort of referred to the origins of energy efficiency, which precede the EV revolution. But, you know, I think we're also taking cues from your experience and all of your efforts to manage the heat pump transition, which is sort of lagging the EV adoption curve.

So really just so much synergy here and, you know, unfettered good things. So I really appreciate all your efforts to help move that model out and do all the strategic communications and behavioral approaches really valuable, so thank you.

CHAIR HOCHSCHILD: Well, just as we close, I wanted to say, I think one thing that's really unique about

Veloz, there's no organization like it in the United States that has brought together such a diverse set of stakeholders, having, you know, utilities and Uber and charging companies, and auto manufacturers and state agencies and other, you know, key groups to come together to speak with one voice, one clear, loud voice.

And, you know, we meet three times a year and I just always find the meetings really fruitful. And I just want to thank you for keeping it so organized and, you know, well thought out. And it's an amazing tribute that Veloz just won this $43 million grant. And this campaign you described is a national campaign, so $12 million of that's going to California. The rest is going out across the country. So thank you, Josh. I appreciate that.

All right, with that, we'll turn next to Item 7 because we're going to skip on Items 5 and 6, so California Refinery Maintenance and Reporting Guidelines. Having touched on EVs, we'll return to petroleum.

So, Jeremy, welcome.

MR. SMITH: Thank you. Yes. Good morning, Chair, Vice Chair, and Commissioners. I'm Jeremy Smith, a Deputy Director in the Energy Assessments Division. I'll be presenting two items for your consideration and approval this morning.

But before I do that, I just want to address the

removal of Items 5 and 6 from the agenda today, that's the staff's recommendation to postpone implementation of the max margin and penalty, as well as the recommendation not to govern the timing of refinery maintenance events. You know, these recommendations come from, you know, the staff working tirelessly on these issues and are backed by a lot of research and collaboration with stakeholders. And so we do feel strongly that these are the right actions.

However, given the timing of this, we felt like it was best to have more time for public input and engagement in these issues and get that feedback. This is a really important decision for the Commission to consider and so I felt that was the best course of action at this time.

I will also mention that because we do feel strongly that these are the right steps to take, that we do plan to bring these items up for consideration at the next business meeting.

So with that, the first item I'm going to present this morning is the second edition of the California Refinery Maintenance Reporting Guidelines.

California refiners are required to report to the Energy Commission details of planned and unplanned maintenance events so we can understand the impact that these outages have on petroleum supplies. These updated

guidelines enhance transparency, improve our ability to evaluate supply conditions, and will provide critical data to inform consideration of the CEC's consumer protection tools granted under SB X1-2 and AB X2-1.

Next slide, please.

These updates provide three key benefits to Californians.

First, they provide the CEC with earlier warning of potential supply disruptions by providing more detail on planned and unplanned maintenance and refiners' resupply actions.

Second, they provide greater transparency during periods of reduced refining capacity, which is when price volatility risk is highest.

And third, they create a stronger foundation for any future consumer protection actions by ensuring we have accurate standardized data to inform policy considerations.

Next slide, please.

The Petroleum Industry Information Reporting Act of 1980, or PIRA for short, requires petroleum industry companies to submit various data to the CEC. Our analysis of these data is an important part of the Energy Commission's role to understand the operations of California's petroleum industry and respond to possible supply disruptions. These data also serve as the

foundation for policymaking as we consider how to best utilize the consumer protection tools granted to the CEC under SB X1-2 and AB X2-1.

The CEC collects four main categories of petroleum market data, including refinery costs and profits, market trends, refinery maintenance, and other miscellaneous data. Today's proposal focuses on the third category, refinery maintenance reporting, and refines it to better track how maintenance events affect supply and what actions refiners are planning to offset for lost production.

Next slide, please.

Under SB X1-2, the Energy Commission has broad authority to collect various petroleum industry data and adopt rules. Refinery maintenance reporting is treated differently from most other requirements as it's exempt from the Administrative Procedure Act. This means we can update these reporting guidelines through an adopted guidebook rather than a formal rulemaking process.

Next slide, please.

Second edition guidelines include several important updates. First, expanded planned and unplanned maintenance reports with new submission IDs, process unit IDs, and other fields will improve event tracking. Second, updated PIRA data submission portal protocols allow for

better tracking of revisions, manage resubmissions, and standardize file formats. These changes will make it easier to connect maintenance events to supply impacts in our analysis.

Next slide, please.

The most significant addition is the Refinery Maintenance Turnaround Resupply Plan. This supplemental requirement submitted with the Planned Maintenance Report documents how a refinery intends to replace lost production during a maintenance event. This report includes projections of inventory builds, in-state and out-of-state purchases, foreign imports, and reductions in non-contracted sales if needed. The Resupply Plan is due at least 30 days before a planned maintenance or turnaround aligning with typical industry planning cycles.

Please note this update does not require any specific resupply action. It simply requires a refiner to notify the CEC of their anticipated steps, if any, to offset for their lost production.

Next slide, please.

These guidelines are statutorily exempt from CEQA, and staff recommend that you approve the California refinery maintenance guidelines second edition today. If approved, the guidelines will take effect immediately. The guidebook will be published tomorrow. Obligated parties

will be notified with updated instructions and reporting with the revised forms will begin within seven days. This ensures California has a stronger, more transparent reporting foundation for evaluating refiner maintenance impacts and resupply actions critical to informing future supply stabilization efforts.

That concludes my presentation. Brittany Aldredge (phonetic) from our Chief Counsel's Office and I are available to respond to your questions.

CHAIR HOCHSCHILD: Thank you so much. And I just want to acknowledge, again, the amazing work. I know it's been a really heavy lift for you, your whole team, your colleagues, Vice Chair, just incredible, so thank you for all that public service.

With that, let's go to public comment on Item 7.

MS. BADIE: Thank you, Chair. The Commissioner welcomes public comment on Item 7 at this time. If you're in the room with us, we're asking folks to visit the Public Advisors table and use the QR code. That will let us know that you'd like to comment. And if you're joining on zoom, you'll use the raise-hand feature on your screen, it looks like an open palm or star nine if joining by phone. And we're going to start in the room before we transition over to zoom.

All right, so we've got a Tanya DeRivi. Tanya,

if you could please approach the podium? And just a reminder, we're asking for comments to be two minutes or less, and it does help if you can state and spell your name for our record.

MS. DERIVI: Okay. Thank you. Tanya DeRivi, T-A-N-Y-A, D, like David, -E, capital -R-I-V, like Victor, -I, with the Western states patrolling association.

WSPA appreciates the CECs need to better understand how both planned and unplanned refinery maintenance activities could impact transportation fuels and retail prices for consumers, including by submitting plans for refinery resupply. We are supportive of the adjustment to require these resupply plans for 30 days before any planned event. Longer timeframes would likely have been impractical to assess and demonstrate given reliance upon a global commodities market with long transport times over ocean waters in the case of marine transport or purchases of in-state products.

While it is more probable to offer an estimate of the planned product volume and desired delivery mode, reporters may not know who the seller and locations will be. We ask the CEC to allow a placeholder solution for in-state purchases for all fields, except product volume and desired delivery mode.

We are also supportive of changes that address

our prior concern with any proposed and potentially onerous resupply regulatory requirement that could potentially delay compliance when seeking additional approvals as the CEC considers future efforts to refine these guidelines or streamline extensive data reporting requirements. We would encourage staff to consider the following.

One, CEC will need to clarify the threshold for these submissions. For example, if a turnaround on a unit does not affect production, EG a utility plant, it is unclear if there's a reporting requirement. Two, limiting reporting to impactful events only as such as those affecting 20 percent or more of gasoline production. And three, where resupply reporting is duplicative, the CEC should streamline data inputs already provided in the Planned Refinery Maintenance Report, the California Daily Spot Contract Report for Trades and Settlements, and for daily marine imports.

WSPA would like to thank the CEC for their efforts to engage with industry on a more workable reporting framework to better understand transportation fuel supply issues for consumers.

Thank you.

MS. BADIE: Thank you.

And I am not seeing any other commenters for Item 7 in the room or on Zoom, so back to you Chair. Thank you

so much. Let's go to Commissioner discussions, starting with the Vice Chair.

VICE CHAIR GUNDA: Thank you. Thank you, Chair.

Thank you, Tanya for the comments.

Just want to make sure, does the -- Jeremy, do you have any desk pumps for the comment?

MR. SMITH: Sure. Yeah. First, I do want to acknowledge that, you know, we've been working with industry closely on this for several months. We posted an original version of these reporting guidelines back in March. We had a workshop on them and, you know, we were considering, considering a lot of actions back there in the early spring. And, you know, we took some of that input from that and ultimately arrived at the version that we have today, as Tanya pointed out, you know, moving the reporting deadline from, you know, much earlier when refiners might not have as much information to 30 days. And so we were aware of, you know, the situations and the lack of information at different stages of, of resupply planning. And so that was really helpful feedback.

I'll also say that, acknowledge the fact that there may be duplicative information in some of the reports. We're taking a lot of steps, as we've talked, I know, in various business meetings before about building data submission portals that will allow for a much easier

process for reporting entities to upload the information and get confirmation that it's been received and validated. That unlocks the potential to go back through and look at all the data that we're collecting. It will connect it all and allow us a greater, you know, opportunity to go through and refine it and reduce any duplicative reporting.

So this is certainly something that we understand, appreciate the burden there and are looking for ways to reduce that in the near future.

VICE CHAIR GUNDA: Jeremy, just another quick question just for the record. Could you just provide the value proposition of this data? I mean, kind of just recognizing that part of our job is to think through how can we use data to proactively plan as we move into the summer, I just wanted to note for the Commission, you know, the value proposition from the staff's point of view on this data set.

MR. SMITH: Sure. Absolutely. So I put it into two key buckets. First is just the refinements to the reporting that allows us to better track really what's going on, giving things, you know, unit IDs and stuff like that. So if a unit goes down once, is that the same one that goes down again? We'll be able to track things like that. Just give us better situational awareness of what's going on at the events. And just, you know, general

protocols that will help our day-to-day analysis of this stuff as oftentimes it's time critical to process this information. And so there's a lot of things there to help us with that.

The second bucket is on, you know, collecting more information on how refiners currently resupply; right? So that really helps us understand as we consider the merits of resupply rules, where is the baseline now? What are the actions that are taken now? And what are we really asking for in terms of a change? Are we going from zero to, you know, a lot, or are we going from, you know, 70, 80 percent backfill already to some higher amount? And so it just really helps us collect more information and allow that process to be data-driven based on what conditions are today.

VICE CHAIR GUNDA: Great. Thanks, Jeremy.

Chair, I have a few comments and I'll pass it back.

So I just wanted to say, you know, I want to start with gratitude. There is a lot of staff that work on these issues. As Jeremy pointed out, it's been, you know, a marathon, but also a sprint. So it's been -- for two and a half years the staff have been just really, you know, running to complete so many of these deadlines.

I want to also note that, you know, oftentimes we

don't have the resources needed to do these things. We are not fully resourced on these elements. So I just wanted to, you know, take a moment and sincerely thank the staff for their dedication in making all these things happen on time.

You know, specifically, I think the teams that we work with on a day-to-day basis, want to start with the Leg Team, Sarah, Kourtney, amazing work. You know, they're in the background, you know, not visible every day, but the amount of work that they are having to work, given the legislative interest on this issue.

Coms Team, I see Niki and Sandy, you know, just making sure that we say what we actually want to say and not say something else. So Niki, thank you so much for all the help.

Chief Counsel's Office, you know, with Chad, Lisa, more recently, Sanjay has been a part of it and then welcome to Brittany to the team. Thank you so much for all the incredible work.

EAD staff, you know, obviously Jeremy, I cannot thank enough for doing multiple jobs. You know, you we're hired for something else but, you know, thanks to your expertise, you've been pulled into the petroleum stuff. Thank you so much for your work, Aleecia and the leadership, but also all the staff that we might not name

person by person here, but the incredible work that they do and the Executive Office. Drew has been an incredible partner on this issue and just want to say a big thanks.

And I want to close by just our office, Lisa and Aria, the amount of time they put in this work is just, just incredible.

So thanks to every one of you. I was going to do that thank you at the top of the four items, you know, we're going to have today.

But I want to comment briefly to, to Jeremy's point, provide a little bit of context, the reason for the actions five, six, seven, and eight today, we're really kind of building upon the letter that our office sent to the governor and which Theresa presented the last business meeting, just recognizing the mid-transition phase of the, of the entire ecosystem. And really, you know, just, you know, what Josh has presented earlier, we just need to continue to double down on our investments on the EV side and the clean energy side, as well as provide the necessary confidence for the industry to continue to make the investments to be here as long as we need on the systems that we are trying to transition away from.

So given that, we've identified a number of different strategies in the letter, including providing a pause on the penalty, the gross margin penalty, looking at,

you know, opening the resupply and minimum inventory proceeding in a way that, you know, it gives us a time to be deliberative, again, some of the reporting guidelines.

So when we take the totality of the work, I think it's really important, as Jeremy noted, that we have the necessary time to consult with all the stakeholders, especially the margin of penalty. I think as an office, we firmly believe that it needs to be paused, but the length of time and the context of framing that that is important to be finalized, you know, deliberately. So thank you, Jeremy, for, for framing that.

And finally, we also want to recognize Kelsie Goff from the team who leads the work that Jeremy presented today at staff level. To Jeremy's points, the guidelines will provide additional data transparency and really allow, you know, staff to be able to provide better insights and have an idea on what the resupply plans are and how we are situated going into a summer and provide a summer outlook much more confidently.

I also want to just, you know, close by saying thanks to, you know, Tanya, who we see regularly from WSPA. Thanks to the industry's participation, Chair, on this issue. We have had a number of conversations and I wanted to thank them for being collaborative and trying to pursue solutions.

Also DPMO, we do have the DPMO, director Milder, whose, you know, expertise and experience provides us an ability to lean on. So a big thanks to them.

And the broad stakeholder group. We have labor, who's really interested in these issues, environmental justice and vitals, local governments, academia. So we have a very broad interest in these issues. And I just want to say a big thanks to our staff for keeping those conversations flowing so we can keep these moving forward in the most productive way.

So when we're ready, we'll move the item, but really thankful to everybody.

CHAIR HOCHSCHILD: Well, I just want to say, thunderous agreement to all the thank yous that you gave, but really it starts at the top. And you are leading the state's efforts and the Energy Commission's efforts here. And this issue is fraught, it's contested, it's complex, and it's multifaceted, and I just feel incredibly grateful every day for your calm and thoughtful and strategic and inclusive way of navigating through a big, big challenge for the state. So my gratitude again to you, Vice Chair.

Are there other comments, Commissioner McAllister?

COMMISSIONER MCALLISTER: I just wanted to double down on that thanks to the Vice Chair, your efforts. And

just, it's a very divisive issue. And I think, you know, having your approach to really build bridges and nurture relationships is key to getting towards a really grounded workable solution. And thanks to all the stakeholders for coming to the table and really responding to that approach.

And, you know, getting off of fossil fuels is not going to be easy. And this is kind of the tip of the spear. So I think, you know, the experience in the model, the template that you're developing here is going to be useful down the road as well, so just really appreciate. I want to sort of put this in historical perspective, because I think this is really important in a very profound way. So thanks for all of your leadership.

CHAIR HOCHSCHILD: Commissioner Skinner?

COMMISSIONER SKINNER: Thank you. I think we all recognize that transitions of any support -- any sort, whether they're transitions in our personal lives or transitions societally as, as this one is, yeah, they don't -- they're complicated. And you can't always anticipate every element of what will need to be addressed in such a transition.

So the state, obviously, has been, for decades now, setting really clear goals for clean air, for climate protection, for public health, for just environmental quality improvements overall, and for economic development.

And those various goals are causing changes in all kinds of our day-to-day activities. I mean, in a simple level, we can think about the transition from the incandescent light bulb until now, what we all use are LEDs. That one, perhaps, was not quite as fraught or complicated as this one --

CHAIR HOCHSCHILD: It was pretty --

COMMISSIONER SKINNER: -- (indiscernible).

CHAIR HOCHSCHILD: It was pretty fraught --

COMMISSIONER SKINNER: And that's --

CHAIR HOCHSCHILD: -- to litigate them and --

COMMISSIONER SKINNER: If you were in the middle of it, right. But it, but let us say, it was a little bit narrower.

Anyway, but point being that when -- the different times that the state has adopted various goals or even legislation that supports these transition, it is not that the state has been, you know, like, oh, we're just going to plow ahead. No, it's that you, until you're underway, that's when you really confront what other adjustments you need to make in order to balance that transition so that you come out at the end of it in a way that does not create economic harm but still achieves the good economic public health, climate protection, and air quality and greenhouse -- I mean, that was already climate

protection -- air quality goals that you're trying to achieve. And that's what we're in the middle of.

And so, you know, who would have known that CEC was going to end up playing such a big role in it, but we are. And I also want to give that thanks to the staff Who -- you know, this has been a lot of work. We were -- sometimes these things end up being concentrated. You know, we might have said, okay, wouldn't have been nice if we had a longer time to have figured out all of this on ramp and off ramp, but hey, we responded and we responded deliberately, deliberatively, cooperatively, and collaboratively, and I'm really impressed.

And I want to thank staff. I really want to thank our Vice Chair. And I look forward not only to our actions on this, but to the legislature also acting in a way that is harmonized with what we're doing so that we can do this transition in the way. And we're talking to transition off of refined fuels that we can do this transition in a way that works for everyone.

So really appreciate it and thank you.

CHAIR HOCHSCHILD: Thank you, Commissioner.

Vice Chair?

VICE CHAIR GUNDA: Yeah, Chair, was going to do this at the end, but, you know, Senator, former Senator Skinner and Commissioner Skinner, you know, the SB X1-2 was

something that you led. And like many other things, we today implemented that at CEC, including a lot of work on the demand side. So I just wanted to say thank you for your leadership on giving the necessary tools, the transparency tools that really put us in such a good place to more proactively plan to your point rather than reacting in crisis.

So, again, I think we are really well served with this information and all the work we are doing to understand problem statement better and device strategies that best address the problem statement. So thank you for your leadership.

CHAIR HOCHSCHILD: With that, I'd welcome --

COMMISSIONER SKINNER: Sorry. And as a final, and we are not -- this is no means a backtracking from those goals. It is an adjustment, not even an adjustment, it is approaching the achieving of the goals in the way that does them with the most benefits to everyone.

CHAIR HOCHSCHILD: With that, I welcome a motion on Item 7 from the Vice Chair.

VICE CHAIR GUNDA: Yeah, move Item 7.

CHAIR HOCHSCHILD: Is there a second from Commissioner McAllister?

COMMISSIONER MCALLISTER: Second.

CHAIR HOCHSCHILD: All in favor, say aye.

Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Skinner?

COMMISSIONER SKINNER: Aye.

CHAIR HOCHSCHILD: And I vote as well. Item 7 passes four to zero.

We'll turn now to Item 8, Order Instituting Informational Proceeding, Petroleum Supply Stabilization.

Welcome back to Jeremy.

MR. SMITH: There we go. All right. Thank you, Chair. The next item I am presenting for your consideration is staff's recommendation to open the petroleum supply stabilization informational proceeding to explore strategies for maintaining a safe, reliable fuel supply during California's transition away from petroleum fuels. This proceeding will focus on minimum inventory requirements and refinery resupply planning as authorized under Assembly Bill X1-2 -- or 2-1, but we'll also consider other supply stabilization tools.

Next slide, please.

Here are the benefits of opening this informational proceeding.

First, it will create a public forum to gather

data, hear directly from stakeholders and build a clear and accessible public record. This ensures all perspectives are captured before any decisions are made.

Second, it gives us the opportunity to thoroughly research the potential benefits and costs of minimum inventory requirements, resupply planning, and other supply stabilization tools before taking any regulatory action. This is critical to fulfilling our responsibility to protect consumers.

And third, it positions us to develop data driven strategies aimed at stabilizing supply and reducing the severity of gasoline price spikes so that Californians are protected from unnecessary volatility in the years ahead.

Next slide, please.

This chart illustrates the conceptual phases of California's transportation fuels transition. Along the top, you can see these four phases, pre, early, mid, and late transition.

We've entered what has been described by researchers, Drs. Emily Grubert and Sara Hastings-Simon as the mid transition during which the demand for petroleum based fuels while falling remains significant while clean alternatives continue to scale up. This is illustrated in this chart, which shows California's gasoline demand building through the first two phases, but beginning to

decline now in the mid transition. Increased adoption of zero-emission vehicles will propel us into the late transition phase.

The challenge is that our in-state refining capacity is declining faster than demand. This leaves the market more fragile or sensitive to both planned and unplanned outages and more dependent on imports that take weeks to arrive. Proactive management is critical to support fuel reliability and economic stability, protect consumers, communities, workers and the environment. That's why stabilizing our near-term supply during the mid transition is so important and why we're proposing to study strategies like minimum inventories and refinery resupply planning in this proceeding.

Next slide.

In 2024, the legislature passed AB X2-1 expanding the Energy Commission's consumer protection tools. The law authorizes the CEC to adopt minimum inventory requirements for refined transportation of fuels and resupply planning requirements before a refinery begins maintenance or turnaround events.

But there are important conditions. Any such regulations must protect the health and safety of employees, local communities and the public, and they may only be adopted if the likely benefits to consumers

outweigh the potential costs. These safeguards make clear that the legislature intended for us to proceed carefully and deliberately.

Next slide, please.

An informational proceeding is the best way to start the structured process of fully evaluating the supply stabilization tools. It allows us to build a comprehensive public record before any rulemaking begins, engage stakeholders in a structured and transparent process, examine both the potential benefits and unintended consequences of inventory and resupply requirements, and ensure we have the necessary data and analysis to make the best decisions for Californians.

Next slide.

More specifically, the informational proceeding will focus, as I said, on two primary topics.

First, we'll investigate whether requiring refiners to hold a minimum volume of finished transportation fuels, blending components or feedstocks could reduce price volatility and protect consumers during supply disruptions. This additional slack in the system could be effective at reducing the impact of unplanned outages. We will look at how such requirements might work, the infrastructure needed, and the possible costs and risks.

Second, we'll research whether requiring refiners to present a resupply plan before commencing plan maintenance could help avoid price spikes and supply disruptions. This will involve examining operational realities, safety considerations, and how such requirements could be implemented without disrupting those necessary maintenance activities. And of course we'll be open to investigate other supply stabilization strategies that emerge from stakeholder input.

Next slide.

This will be a transparent, inclusive, and data-driven process. We will hold public workshops and hearings with opportunities for written comments and stakeholder presentations. We'll conduct outreach to consumer advocates, environmental justice and environmental groups, labor organizations, industry representatives, academic experts, and community stakeholders. We'll collect and analyze both public and confidential data on refinery operations, inventories, and supply disruptions, consistent with our existing data gathering authority under PIRA, SB X1-2, and AB X2-1. We'll also coordinate closely with other agencies, including the Labor and Workforce Development Agency.

Next slide, please.

At the conclusion of this proceeding, we expect

to have a clearer understanding of the feasibility and value of minimum inventory and resupply planning requirements, a transparent record of benefits, costs, and potential unintended consequences, identification of the conditions under which these tools would be the most effective, and evidence-based recommendations for the Commission's consideration in any future regulatory action.

Next slide. I should have one. There we go.

In closing, staff recommends that the Commission approve the Order Instituting Informational Proceeding on Petroleum Supply Stabilization. If approved, our first public workshop will be held on September 24, 2025. Opening this proceeding now is a proactive, strategic choice. It prepares us to act if and when the evidence supports it while ensuring that our decisions are transparent, inclusive, and based on the strongest possible foundation.

Thank you and I'm happy to answer any questions.

CHAIR HOCHSCHILD: Thank you.

At this time, we'll go ahead and hear public comment on Item 8.

MS. BADIE: Thank you.

The Commission welcomes public comment on Item 8 at this time. If you're in the room with us, we're asking folks to use the QR code. It's located in the back of the

room. And we have staff from the Public Advisor's Office to assist you with that. And then if you're on Zoom, you'll use the raise-hand feature on your screen, or star nine if joining by phone.

And in the room with us, we have Tanya DeRivi. Tanya, if you could please approach the podium? And just a reminder that we're asking for comments to be two minutes or less, and it is helpful to restate and spell your name for our co-reporter as well.

MS. DERIVI: Thank you. Tanya DeRivi, T-A-N-Y-A D, like David, -E, capital -R-I-V, like Victor, -I with the Western States Petroleum Association. All right.

WSPA appreciates the CEC's efforts to work with industry and its ongoing efforts to better understand California's complex transportation fuel system, as well as the numerous challenges in-state refiners face in trying to meet consumer demand for the upcoming decades. We believe California still must do more to protect its in-state refining assets, including our storage assets, to provide the affordable and reliable gasoline supplies envisioned by SB X1-2 and AB X2-1.

We appreciate the several substantive changes CEC has made since initially proposing a Refinery Resupply Plan regulation in February. These changes represent a win for California consumers.

As future proceedings for resupply and minimum inventory take place, we iterate here that the CEC must consider the following as it seeks to determine whether regulations are necessary.

One, comprehensive and proper analysis of existing extensive data sources.

Two, further analysis to assess potential cost impacts of forcing more marine imports into a market that may not be short.

Three, avoiding any unintended consequences, such as making less fuel or fuel less affordable or increasing carbon or other pollutant emissions. This requires consistent lifecycle global and regional analysis.

Four, whether and how any policy could adversely impact consumers in Arizona and Nevada.

And five, ensuring that any policy does not create regulatory bottlenecks that could compromise maintenance safety or could disrupt, halt, or delay the provision of fuels.

We believe that a thorough analysis of the above information and considerations will determine that forcing a resupply or minimum inventory obligation on in-state refiners is not necessary and would likely be counterproductive.

WSPA would like to thank the CEC for their

efforts to engage with industry in developing any practical solutions to ensure an affordable supply of fuel continues to be made available to consumers across California, Arizona, and Nevada. Thank you for this opportunity to provide comments.

MS. BADIE: Thank you.

And we do not have any other raised hand for comments for this item, so back to you, Chair.

CHAIR HOCHSCHILD: All right, let's resume with Commissioner discussions, starting with the Vice Chair.

VICE CHAIR GUNDA: Thank you, Chair.

I just want to say, again, thanks to Jeremy and the entire team. I'm not going to repeat the statement from the previous item, but just a big thanks.

I think a couple of core points I want to note for this conversation that Jeremy has already touched upon, as we looked at the information that we've gathered over the last couple of years through the tools given to us in SB X1-2 and AB X2-1, I think the important piece that has a very clear correlation is, as well as, you know, we can establish some causal relationships, when the supply, in-state supply goes down, suddenly there is a direct correlation to increase in the volatility of the price of the pump.

So the tools that are being considered here,

whether it's a resupply, which is really around planned outage, if a refinery has a planned outage, how does the refinery plan to ensure that there is enough supply in the market compared to the last production of the planned outage? And two, given that, you know, we watch and look at the information historically, there are always going to be unplanned outages, and what kind of liquidity should the market have to absorb those unplanned outages so the overall supply in the market is stable enough to ensure there isn't any price volatility?

So from the premise of that, at a 30,000 foot level, the tools of resupply and minimum inventory has a functional basis in helping with the overall transition. The complexity of this, as Tanya from WSPA noted and staff recognize, is the implementation of these tools can have profound impacts. How we choose to implement them under what conditions could have both profound positive impacts and negative impacts. And it's really important for us to have a wholistic analysis to understand those pieces.

I want to note, again, you know, like we've said many times publicly, industry today, a number of industry players today actually plan for resupply when they have a planned outage. It's about how much of that resupply planning is established as a best practice in the industry as a whole, and are there improvements that we could make

in collaboration with the industry? Those are the important elements that the staff will continue to tackle.

So overall, I really appreciate the opportunity to have a more robust, thoughtful, and deliberative process with broad engagement, so I look forward to supporting this item.

Thank you, Chair.

CHAIR HOCHSCHILD: Thank you.

Any other Commissioner discussion on Item 8? And if not, I'd welcome a motion on Item 8 from the Vice Chair.

VICE CHAIR GUNDA: Move Item 8.

CHAIR HOCHSCHILD: Is there a second from Commissioner Skinner?

COMMISSIONER SKINNER: Second.

CHAIR HOCHSCHILD: All in favor, say aye.

Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Skinner?

COMMISSIONER SKINNER: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

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

We'll turn now to Item 9, Load Management Standard Compliance Plans, and I welcome Gavin Situ to

present.

MR. SITU: Good morning, Chair, Vice Chair, Commissioners, and attendees. I'm Gavin Situ, Mechanical Engineer for the Efficiency Division of the Load Management Standards Unit. Today, I'm seeking approval of 4 of the 19 Compliance Plans submitted by the regulated parties of the Load Management Standards, or LMS.

LMS requires regulated parties to submit Compliance Plans detailing how they will comply with the LMS requirements. These four plans are from two large community choice aggregators, or CCAs, and two large publicly owned utilities, or POUs. The CCAs are Ava Community Energy, or Ava, and Clean Power Alliance of Southern California, CPASC. The POUs are Los Angeles Department of Water and Power, or LADWP, and Sacramento Municipal Utility District, or SMUD.

The Commission has already approved Compliance Plans from six regulated parties at the business meeting on May 8th. The remaining Compliance Plans from nine CCAs will be brought for consideration at the later meeting.

Next slide, please.

The LMS requirements are a groundbreaking effort to create a comprehensive structure to facilitate and promote automated and continuous management of electricity loads in California. The LMS requirements include the

large CCAs and large POUs to evaluate marginal cost-based electricity rates. Based on their evaluations, the large CCAs and large POUs must offer such rates and/or programs to their customers to promote better economic -- to provide better economic incentives.

The LMS also requires the regulated entities to upload all of their time-varying rates to the Market-Informed Demand Automation Server, or MIDAS. Customers and third parties can access these rates through MIDAS. With the help of automation technologies, customers can then shift loads from high-cost periods to low-cost periods based on their rates. Load shifting benefits Californians by saving them money on electricity bills. It also improves grid reliability and reduces the need for future infrastructure investments.

Next slide, please.

The LMS also requires regulated parties to design, build, and maintain a single statewide standard tool, referred to as a statewide tool. The statewide tool's goals are to enable third parties, with the customer's permission, to look up the customer's current rate and compare with other available rates. With the customer's consent, they can also change the customer's to a more suitable rate.

The Executive Director found good cause for

extending the deadline of the statewide tool plan to May 8th, 2026, and requests the Commission condition its approval of these CCA and QOU Compliance Plans on this extension. Good cause exists because developing the statewide tool plan has proven to be more complicated than anticipated. The Commission previously approved this extension for the six regulated entities receiving Compliance Plan approval at its 8 May -- sorry, May 8th business meeting.

Next slide, please.

The two CCAs, Ava and CPSC, submitted their plans to the CEC, and CEC staff reviewed the plans on behalf of the Executive Director. CEC staff provided technical support and a revision request to the CCAs in bringing their plans into compliance. Once the modifications were made, CCAs docketed their final plans.

After staff evaluation, CEC's Executive Director has determined that the CCAs' revised Compliance Plans are consistent with the requirements of the LMS regulations. Both CCAs have committed to participation in the CalFUSE Dynamic Rate Pilots. These pilots offer marginal cost-based hourly rates to their customers and help them shift loads.

Next slide, please.

LADWP submitted its Compliance Plan to the CEC in

December 2023.

In December 2024, LADWP submitted its revised Compliance Plan in response to a revision request from the Executive Director. In the revised Compliance Plan, LADWP noted that the marginal cost-based rates would not be technologically feasible due to the lack of advanced metering infrastructure. LADWP proposed a managed electric vehicle or EV charging program that leverages MIDAS to broadcast time-varying signals for daily load management.

After staff evaluation, CEC's Executive Director has determined that the LADWP's revised Compliance Plan is consistent with the requirements of the LMS regulations.

Next slide, please.

SMUD submitted its Compliance Plan to the CEC in December 2023. In December 2024, SMUD submitted its revised Compliance Plan in response to a revision request from the Executive Director. In the revised Compliance Plan, SMUD provided an evaluation of marginal cost-based rates that is based on sound methodology and data. The evaluation shows that marginal cost-based rates could achieve great benefits on an individual basis. However, they were not projected to be cost-effective due to low participation projection.

SMUD's revised Compliance Plan also points to its current portfolio of programs that encourage load shifting,

including critical peak pricing, or CPP, smart thermostats, EV managed charging, and battery or virtual power plants.

The CEC staff points out that SMUD's participation rate projection is highly conservative relative to the participation data of domestic and international cohorts. Such low participation projection severely limits the economy at scale that is essential to achieving cost-effectiveness. SMUD's notable conservatism may be influenced by the low participation rate of SMUD's own CPP rate.

While CEC staff recognize that SMUD's own data should carry weight, the degree of conservatism should be re-evaluated for reasonableness as more data emerges from similar California rates in the coming years.

CEC staff also believes that the other trailblazing features in the LMS regulations address some of the potential challenges that SMUD anticipates or past challenges that sample regions face that may reduce cost-effectiveness. For example, SMUD noted that in Spain, 77 percent of the customers were not aware of the dynamic rates. LMS regulations effectively address this issue by requiring public education programs and uploading dynamic rates into MIDAS, which enable automation and thereby improving customer awareness.

Accordingly, staff recommends that the approval

of SMUD's revised Compliance Plan to be conditioned on SMUD providing an updated analysis on the cost-effectiveness of marginal cost-based rates and that SMUD submit its updated analysis by August 13th, 2028.

Next slide, please.

For the purpose of complying with the California Environmental Quality Act, or CEQA, staff analysis indicates approval of the Compliance Plan is not a project. All four plans are consistent with the LMIS regulatory requirements and staff, on behalf of the Executive Director, recommends Commission approval with applicable conditions described in previous slides.

CEC staff and I would like to thank the CCAs and POUs for their cooperation and commitment to meeting the LMIS regulations. They have been responsive and easy to work with. I and the LMS Team are available to answer any questions.

Thank you for your time and consideration. Thank you.

CHAIR HOCHSCHILD: Thank you.

Let's go to public comment on Item 9.

MS. BADIE: Thank you. The Commission welcomes public comment on Item 9 at this time. We'll start with folks in the room and then we'll transition over to Zoom. If you're in the room with us, we ask that you use the QR

code or visit the Public Advisor table in the back of the room. That will let us know you'd like to comment. And if you're on Zoom, you'll use the raise-hand feature, or star nine if joining by phone.

All right, in the room with us, we have Katharine Larson. Katharine, if you want to approach the podium? And just a reminder, it is helpful if you can state and spell your name for our court reporter to be part of the record. And then, also, we're asking for comments to be two minutes or less. There's going to be a timer on the screen.

MS. LARSON: Good morning, Commissioners. My name is Katharine Larson, that's K-A-T-H-A-R-I-N-E, Larson, L-A-R-S-O-N, and I'm with SMUD.

SMUD appreciates CEC staff's outreach and collaboration during the review of our Load Management Standards Compliance Plan, and we are comfortable with the outcome before you today with the proposed approval.

SMUD is embracing load flexibility as a key strategy to help us achieve our 2030 zero carbon plan goals and save our customers money. And we're very proud of the success we're already seeing in this space. Currently, we are focused on scaling up programs, including programs that can help reduce the need to purchase costly resource adequacy and to avoid the need to upgrade neighborhood

transformers as EV charging loads grow.

That said, we are watching the dynamic pricing space very closely. And as we said in our Compliance Plan, we plan to continue evaluating cost effectiveness and impacts as more information becomes available.

We would support a yes vote from the Commission on this item today. Thank you.

MS. BADIE: Thank you. And if there's no other one in the room, I'm going to transition over to Zoom.

All right, first, we have call-in user three. I'm going to open your line. If you would like to share your name and spell your name for the record, that will help our court reporter. We are asking for comments to be two minutes or less. There will be a timer on the screen. I'm going to open your line now.

MR. UHLER: Hello, Commissioners. This is Steve Uhler, U-H-L-E-R.

In SMUD's plan to use MIDAS, they don't seem to have a method to ensure that their data is correct in MIDAS. Even your staff don't seem to be aware that they have dates that have the wrong day of the week, which brings the question of, did they mean another date or did they just put the wrong day of the week?

And also getting back to the situation of automation via MIDAS, MIDAS has outages. They continue to

go. Your staff do not provide support to the public to meet the Commission's promise to maintain access by the public.

Another area is, as a ratepayer, I do not like the situation of you usurping the hearing statutes in the MUD Act that require the report from the general manager and a hearing before they can change any rate. This would mean, unless you have enough withstanding any other law, which we don't have, this would mean they cannot change rates. You cannot change a rate dynamically under the MUD Act. So stop asking for it. Stop expecting it.

The other area would be is when MIDAS is wrong, who's responsible? How many billing errors will be considered because MIDAS had the wrong value and somebody made a point-of-sale purchase because it was a point-of-sale system, how is that going to be handled? And SMUD has no plan for that. They think that once they send it to you, the Commission, their hands are free. They have no other procedures. So take that into account.

And once again, text MIDAS so we can use it. Thank you.

MS. BADIE: Thank you.

Next, we'll hear from Michael Quiroz. Michael, I'm going to open your line. You'll unmute on your end. And just a reminder, it is helpful if you can state and

spell your name for our record. And there will be a timer on the screen. We're asking for comments to be two minutes or less.

MR. QUIROZ: Hello. My name is Michael Quiros, M-I-C-H-A-E-L Q-U-I-R-O-Z. I'm on the Regulatory Team at Ava.

I just wanted to say thank you to Gavin, Stefanie, and all the other Energy Commission staff working on this for your collaboration and support. Event flexibility is a high priority for Ava and I really appreciate the Commission's efforts to collaborate with all stakeholders in identifying the most practical and impactful solutions to all the complexities involved.

Thank you.

MS. BADIE: Thank you.

And those are all the raised hands we have for this item. Back to you, Chair.

CHAIR HOCHSCHILD: Thank you. Let's resume with Commissioner discussions, starting with Commissioner McAllister.

COMMISSIONER MCALLISTER: Well, great. Well, thanks so much, Gavin. Great presentation. And a few comments to sort of provide some context. (Coughs.) Excuse me.

So first, I want to thank Ava and Clean Power

Alliance and LADWP and SMUD just for all the interaction with staff. We're doing something really new here with load management standards. You know, the authority has been longstanding, but we're really kind of using it, I think, in something close to its full potential through the elements proceeding and all the elements that you've been hearing about in terms of the regulations over the last few years and now their implementation.

And so, you know, we have a big diverse state. We're doing something new. We're sort of creating a new playing field and aligning that playing field, figuring out what the rules are, and in practice, implementing regulations; right? So there's a bit of translation. So in a big diverse state like ours, I think it's, you know, kind of logical that the diversity of CCAs and investment utilities and publicly owned utilities that are covered by the LMS regulations is something that we, I think, have learned to embrace. And I think staff has done a really great job of contextualizing and almost customizing the implementation or sort of the planning in each territory and really responding to the realities on the ground in each place.

And, you know, you heard, thanks, Heather, for your comments, Michael, as well. I think that that back and forth has been really useful. I think we've learned a

lot. I think the utilities actually have learned quite a bit, as well, and we've been able to sort of have that process as a cross-pollinization and understanding what's happening in different parts of the state and learning more. And I think the flexibility, both at the staff level to develop the implementation and sort of the ideas that then go into implementation plans and the flexibility in the covered entities and the four, certainly the four that are on the agenda today, is laudable. We all understand that load flexibility is a key resource and a resource class that we need to define and scale, and LMS can help us do that.

You know, there's this vision of prices to devices at sort of the simplest sort of understanding of what that might mean and what load management standards sort of -- you know, the initial idea. But I think we're finding that there's actually quite a rich landscape out there of efforts that are being used now.

You know, SMUD has a really robust, I think, programmatic and grounded programmatic approach to getting load flexibility from their customers and working with their customers, not necessarily through rates but through programs that sort of layer over rates. And we're seeing results there. And I think what we're trying to do is respect those experiences and kind of count them towards

compliance with the load management standards and now kind of, I think with this, with a greater understanding, figuring out maybe how, you know, not -- how MIDAS can certainly play a role, but also, you know, other technologies can help unlock this resource.

And so I think one of the areas of learning has been the statewide tool, so some flexibility is needed. I want to really thank Drew for, you know, your oversight of a lot of this and your sort of a lot of the responsibility for proposing shifts of implementation on your desk. So I really appreciate your attention to all this and your management.

So I'm super excited about this. I think, you know, we have -- we've already approved some. We have four more on the docket today. We have a bunch more coming. But I really think, you know, I'll just give a heads-up, it's likely we're going to sort of open an OIR and do some development of new ideas and potentially reopen the rules going forward. So just kind of not imminent, but something that we're thinking about and starting to frame together with the covered entities. In particular, maybe not expecting so much of the statewide tool or taking a different approach in the statewide tool. So we need to work through that in a public process.

So again, ongoing back and forth has just been

really, really vital and I think really productive. So it's given me a lot of optimism about the path forward.

I do want to thank you, Gavin, for your leadership. I mean, I know it's been a lot of relationship building, a lot of back and forth and really amazing, I think, partnership with all the different covered entities. And they all want to do the right thing. We do need to be conscious of the different sort of sizes and ability to bring resources to this. And so we've heard that from, I think, mostly the CCAs. But I think, you know, again, they have different approach and they're in kind of different context. And so we need to think about that and be responsive.

Heather, thank you for your leadership. Stephanie Whalen, for sure, just the expertise in-house that we have has been invaluable. Rajiv Dabir, as well, just having that real world experience means a lot or contributes a ton to the process and to the result.

Scott Blunk, Mike Sokol, overleading [sic] the division in these efforts at the management level. And I mentioned Drew. And then also Hughson Garnier in my office, he's been a tremendous sort of lead, representing sort of me and making sure that I'm on top of things and aware of all the different discussions and can sort of insert myself when needed.

So I'm very, again, optimistic about this. I obviously completely support this item and welcome any comment or interaction.

CHAIR HOCHSCHILD: Caan I just ask a question? Can you just help, just at a very high level, articulate where we would be, you know, without load management standard capability and where you think we'll be with it in terms of the material benefits for the state cost saving? Just any insight you can have on sort of the scope of the benefits it's expected to provide.

COMMISSIONER MCALLISTER: Absolutely. One thing I didn't mention in my comments just now is, you know, this is a newish assertion of our load management authority. I mean, a couple of attempts in the relatively distant past to leverage that authority, you know, in very specific ways, this is really the first true application sort of in, I think, the original intent.

A lot is -- well, sort of this is really being done and has to be done, must be done in partnership with our colleagues at the PUC. The CalFUSE rulemaking over there, they're developing time-dependent rates. They're looking at different approaches to send the signals to the customer that will allow the load management standard sort of infrastructure to actually produce benefit to the customer, so the automation, the unlocking of direct price

signals to devices, to meters, to end uses across the state. We did the pool pumps, for example, the Flexible Demand Appliance Standards. There will be more native load flexibility at the device and the customer level.

And so you can imagine as prices, you know, hourly prices, at least, that could be, you know, down to five-minute pricing, that automatically permeates throughout the state. You know, we've got all these digital devices connected. They can then modulate their load. They can accelerate, say, EV charging, water heating. They can pull it back if there's a critical peak. And all that can be automated in many, many different ways. I mean, I think the creativity we're seeing out in the marketplace around aggregating load flexibility is tremendous. Particularly, you know, I think the huge potential in the near term are EVs, EV charging. That's a massive new load.

You know, data centers are also part of this conversation. I mean, the flexibility conversation is a little bit different with them and the supply planning aspects. But you can imagine, you know, I won't put a number, but it's a large number of gigawatts. I think the sky's really kind of the limit. But it's certainly pushing up towards, you know, double-digit gigawatts potential over time to mobilize.

And I think to put a number on it, the idea that or the possibility of modulating load such that we improve utilization of the distribution grid particularly, you can imagine this being aggregated all the way up to the Western grid; right? All the way up to multiple states. But just improving load factor, the utilization of the distribution grid, for example, you can imagine that ticking up a few points, which has massive implications for the CapEx, for the capital investment that's needed to upgrade and the staging of investment that's needed to upgrade the grid.

So this really is kind of a fundamental improvement, I think, in the ability of the grid to respond to challenge, to be flexible, and to, you know, be optimized and do all the things we needed to do to keep the lights on and to manage affordability particularly, and also help us with our decarbonization journey.

CHAIR HOCHSCHILD: Yeah. Well, just to respond, I mean, I think the part you said that really got my attention is supporting automation to be able to have dispatchable things that can be automated that don't require a customer decision. Once you have a system in place, that's really the kind of tool we need. So thank you for all your work.

Yeah, Vice Chair, please.

VICE CHAIR GUNDA: Yeah. Thank you, Chair.

I just want to start by saying, Gavin, thank you so much for the presentation. I want to recognize, obviously, Mike, you know, the director of the Division, Scott, Rajiv, Heather, for your leadership, Stefanie, for your work.

I think I just wanted to kind of, maybe, add to what Commissioner McAllister was saying. I think there is a universal agreement that moving forward, the demand side management has a very important role in realizing the clean, reliable, affordable, and equitable energy system that we have been talking about.

And I think in pursuit of kind of that over the last couple of years, you know, I want to just thank Commissioner McAllister's leadership, you know, decades of leadership on this, both from data and the demand side work. But over the last couple of years, we have, as a Commission, adopted the 7 gigawatt goal, recognizing the opportunity.

I think part of the state's role here is trying to really figure out how best to serve the broader marketplace from being the most innovative and creative as possible. And it all kind of starts with data, ability to access data, ability to standardize data, ability to have platforms that have ability to, you know, work across architectures. I think the LMS, to me, is rooted in that

vision of making sure we have the most innovation possible to have the demand side resources come to the table.

We have been talking about three broad buckets of work here. We've been talking about load modifying and shaping the load over time, and how do you transform the customer behavior through automation and infrastructure. We've been talking about how do you incentivize additional, you know, ability of demand flex under operational criteria, whether it's resource adequacy or under reliability conditions. So I think overall, the platform provides us an opportunity to really have the most competitive and creative solutions coming to the table as we move forward.

I think, Commissioner McAllister, correct me if I'm wrong, I think from the previous presentations, the upside of the LMS is almost a quarter billion dollars over 15 years, if we were able to realize that kind of consumer benefit is what I remember.

So looking forward to supporting it. A lot of opportunity here. And thanks for all your work.

CHAIR HOCHSCHILD: Any other comments? Commissioner Skinner?

COMMISSIONER SKINNER: Thank you. Appreciate the comments by my colleagues. And appreciate SMUD's comments and their reference to part of what they're addressing in

their load management strategy is this increased electricity demand from EV charging. And I think those of us involved in that space know that we need EV charging installed.

The entities that are doing installations now are confronting these energization problems. And of course, load management will greatly assist us in addressing that. And rather than putting, say, installations on hold until such time that we do either distribution or grid upgrades. So I liked that SMUD acknowledged that directly. I know that these plans are addressing it and that's part of our focus on load management and our demand side activities.

And so I was happy to see the approval here and happy to see the more that we do in this area so that we do not have to sacrifice things like our EV charging installation goals or even the energization of new housing. So appreciate it. Thanks.

CHAIR HOCHSCHILD: Yeah.

COMMISSIONER MCALLISTER: I really appreciate those comments, Commissioner Skinner. And lately, it seems just more and more conversations are happening. And just the highlighting of new technologies, smart panels and smart EV chargers and the utilities and trade partners are, I think, doing a lot of innovation in opening the door to behind-the-meter controls, say, you know, in EV charging

where, okay, I've got a 100-amp panel, I want to put an EV. And up to now, it's been, okay, we've got to upgrade the panel to 200 amps. And that has all these upstream effects to force investment in the distribution grid and beyond.

And it turns out that, actually, you can do a lot with the headroom that's there and just modulate the EV charging and with an automated signal. And as long as the utility -- or the customer consents to that, it's going to get them their car charged by, you know, 5:00, 6:00, 7:00 a.m. when they need it. But it can also really improve the utilization of the grid. It can avoid transformer upgrades. It can do a lot of -- it can have a lot of very positive cost-saving implications and technical enhancements, even reliability improvement.

And so it's a win-win-win all around when it's done right. And so that's our goal, is to get it done right and really support the technologies and the automation infrastructure that's going to help that to happen. And there are some ongoing questions about whether we should get involved in interoperability. What kind of communications protocols? Do we leave that to the industry? Do we cajole? Do we regulate?

So I think, you know, it's all part of implementing something new. And I think staff is really doing a great job of understanding the issues and figuring

out solutions.

CHAIR HOCHSCHILD: All right, with that, I welcome a motion on Item 9 from Commissioner McAllister.

COMMISSIONER MCALLISTER: Move Item 9.

CHAIR HOCHSCHILD: Is there a second from Commissioner Skinner?

COMMISSIONER SKINNER: Second.

CHAIR HOCHSCHILD: All in favor, say aye.

Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Skinner?

COMMISSIONER SKINNER: Aye.

CHAIR HOCHSCHILD: Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: And I vote aye as well. Item 9 passes four to zero.

We'll turn now to Item 10, Publicly Owned Utility Integrated Resource Plans.

Welcome to Bryan Neff.

MR. NEFF: Good morning, Chair, Vice Chair, and Commissioners. I'm Bryan Neff, and I work in the Energy Assessments Division, leading the Publicly Owned Utility Integrated Resource Plan review process. Today, I'm presenting staff's review and Executive Director

determination, finding five Publicly Owned Utility Integrated Resource Plans consistent with Public Utilities Code section 9621.

Next slide, please.

Five POUs I am presenting here today. POUs are comprehensive planning documents prepared by utilities to help them manage their electricity resource portfolios. The IRP process is generally supported with a modeling effort that considers all the various planning assumptions from the utilities demand forecasts to future resource needs and yields potential resource procurement plans that are provided in the IRPs.

As part of SB 350, the 16 largest POUs are required to create IRPs every five years and submit them to the Energy Commission to ensure they are consistent with state policies. Staff reviews each IRP to make sure it's consistent with state regulations as documented in the POU IRP guidelines. Staff then provides its recommendation to the Executive Director, who provides a determination of consistency for each IRP. Staff's review of the IRPs and Executive Director determination are made available for a 45-day public comment period prior to being taken up at an Energy Commission business meeting for adoption.

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The guidelines follow statute as laid out in

Public Utilities Code section 9621. The statute specifies that the IRPs must demonstrate that the utility will meet policy targets of GHG emissions and renewable portfolio standard, support just and reasonable rates, minimize impacts of ratepayer bills, ensure system and local reliability, increase the localized air pollution with priorities on disadvantaged communities, and maintain a diverse portfolio of energy resources.

Next slide, please.

The five POU IRPs I am presenting today are from Los Angeles Department of Water and Power, Anaheim Public Utilities, Modesto Irrigation District, Turlock Irrigation District, and Roseville Electric Utility. Each utility has a representative available, either in person or attending virtually, to provide comments and answer questions at the conclusion of this presentation.

Next slide, please.

LADWP is the nation's largest municipal utility, home to over 4 million people and 1.55 million residential and commercial accounts. It also serves about 5,000 accounts in Owens Valley, and is its own balancing authority, including for its neighboring POUs, Burbank Water and Power and Glendale Water and Power.

LADWP's managed peak demand is 5,500 megawatts, with 0.5 percent average annual growth through 2030. The

utility provides roughly 24,000 megawatt hours annually to meet its net energy for load, which increases by an average of 0.9 percent annually through 2030.

Next slide, please.

This slide shows two graphs, total net energy for load by resource type and total dependable capacity by resource type. The two years shown represent the range of the study period for this IRP, 2024 representing the current resource mix and 2030 representing the future resource mix in that year. The left graph shows how much energy is provided by each resource type, while the right graph shows how much each resource type contributes to meeting the utility's peak demand.

LADWP has a significant and diverse portfolio, including wind from Washington, coal power from Utah, hydropower from Nevada, and nuclear from Arizona. LADWP also gets electricity from solar, geothermal, and small hydro resources, as well as operating its own pump storage system. LADWP relies on four in-basin natural gas plants for local reliability.

LADWP will meet its 2030 GHG target, largely with the transition of Intermountain Power Project from coal to natural gas fire generation in 2025. LADWP is investing in additional solar PV and battery energy storage, while maintaining its wind, geothermal, hydro, and natural gas

generation capacity.

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To summarize, LADWP plans to continue its investment in energy efficiency and building and vehicle electrification.

LADWP's investments in new solar, wind, storage, and solar plus storage will increase the amount of energy from renewable resources and their contribution to peak dependable capacity.

The phase-out of coal at Intermountain Power Project will also enable the replacement natural gas fire generator to run partially on hydrogen. LADWP also has modernization and plans for its Scattergood Generation Station to install a new unit that can run on 30 percent hydrogen by 2029.

LADWP has plentiful assets and capabilities to meet the state's goals, but will face challenges in decarbonizing its in-basin generation while maintaining local reliability. Success is not entirely in LADWP's control as decarbonizing gas generation by switching to hydrogen is dependent upon the commercial availability of that technology.

While LADWP is committed to maintaining reasonable rates, cost increases will necessitate increased revenue. LADWP estimates that its retail rates will

increase by an average of 4.8 percent annually between now and 2035.

The CEC received one docketed public comment from Natural Resources Defense Councill, NRDC. NRDC asked the CEC to incorporate Assembly Bill 2700 into the IRP guidelines to promote planning for distribution system investments to support transportation electrification in future IRPs, including LADWP's future IRPs. Among other things, Assembly Bill 2700 requires electric utilities to consider fleet data for mid and heavy-duty vehicle electrification in relevant distribution planning processes and identify resulting distribution system investments in their IRPs. This provision does not affect the consistency of LADWP's IRP with public utilities code section 9621.

CEC staff appreciate NRDC's comments and intend to update the IRP guidelines next year to include relevant portions of Assembly Bill 2700. CEC staff will publish draft IRP guidelines for public comment during that update process and welcome continued engagement from NRDC and other stakeholders on this matter.

Next slide, please.

The next utility, Anaheim Public Utilities, provides electricity and water to 350,000 residents and 15,000 businesses located in Orange County. Anaheim serves a peak demand of 600 megawatts and provides 2,400 gigawatt

hours of energy annually. Behind-the-meter solar installations and energy efficiency programs offset electricity vehicle demand. Peak demand growth is nearly flat, while energy is projected to increase by 0.6 percent annually.

Next slide, please.

Anaheim's 2024 portfolio relies mostly on coal from Intermountain Power Project, IPP, and its two natural gas fire generation facilities to meet both its energy and dependable capacity needs. Anaheim's resource portfolio also includes biofuels, geothermal, wind, solar, and small hydro.

IPP's switch from coal to natural gas this summer will eliminate coal from Anaheim's portfolio. Anaheim will further decrease its fossil fuel reliance as it will only take energy from this converted facility through June 2027, the original contract termination date. Instead, Anaheim will invest in new wind, solar, and solar plus storage to add to its renewable portfolio and offset the energy loss from IPP. But the utility will still need to purchase from the spot market to meet its total net energy needs.

Solar and storage will help Anaheim meet its 2030 capacity needs, but will also continue to rely on its two local gas fire generation facilities, Magnolia and Canyon, for dependable capacity. Anaheim plans to secure a

contract for renewable natural gas in 2031 when ample supplies are available to supply Magnolia and have that facility become RPS certified.

Next slide, please.

As Anaheim phases out coal, the utility will continue to invest in wind, solar, storage, and solar plus storage to meet renewable portfolio standard goals. Anaheim is continuing to invest in energy efficiency programs and infrastructure to support vehicle electrification. Anaheim anticipates that there will be 134 gigawatt hours of new EV load, which is more than double their 2018 IRP forecast.

Some challenges ahead for Anaheim include decarbonizing in-basin generation while maintaining reliability. Anaheim's preferred portfolio will require spot market purchases to meet net energy needs until 2035 when additional renewable resources are procured.

Next slide, please.

Modesto Irrigation District, or MID, provides electricity, irrigation water, and drinking water for the city of Modesto. MID has provided electricity service to Modesto and the area surrounding Modesto since 1923 and is represented by a locally elected board of directors. MID serves roughly 100,000 residential customers, 10,000 commercial customers, and 143 industrial customers.

The utility's highest one and two peak demand was 760 megawatts in 2022 and supplies roughly 2,800 gigawatt hours of net energy annually. Peak demand and net energy growth is expected to be small at 0.5 percent and 0.56 percent respectively due to an increase in vehicle electrification offset by customer-side solar generation.

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MID owns three natural gas-fired facilities and is a partial owner of hydroelectric facilities, including Don Pedro Dam. MID also has several wind and solar contracts and has been banking renewable energy credits. MID plans to increase its renewable procurement by contracting for solar, battery storage, wind, and baseload renewables.

MID receives asset-controlled suppliers specified energy, or ACS, from Bonneville Power Administration. ACS contracts are approved and registered through the California Air Resources Board with a different emissions factor, allowing MID to keep their GHG emissions low.

The utility expects to meet its GHG emissions target for 2030 by having fewer contracts for unspecified energy and fewer spot market purchases.

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In summary, MID projects their gas-burning generation plants to stay in service through their IRP

horizon to meet reliability requirements and peak demand. MID will maintain and increase its renewable portfolio, except for its high wind contract which expires in 2028. Increased ACS contracts will also help reduce MID's GHG emissions.

The utility also faces some challenges ahead. While MID procures minimal amounts of energy storage in this IRP, its board of directors adopted a policy stating that energy storage will only be considered on an economic basis because it is not currently needed for reliability or operational needs. Despite the small net energy increase, energy demand from electric vehicles is projected to increase 24 percent annually between 2024 and 2030. MID recently raised rates for the first time since 2012, increasing them by 7.5 percent in both 2023 and 2024.

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Moving to the next slide, Turlock Irrigation District, or TID, provides electricity service for 2,400,000 customers -- I'm sorry, 240,000 customers and 4,700 irrigation accounts in Stanislaus, Merced, and Tuolumne counties. TID is the balancing authority for its territory and for Merced Irrigation District. TID anticipates 0.6 percent annual growth in energy consumption and peak demand during 2024 to 2030.

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TID owns four gas generation facilities, six renewable facilities, and a 139-megawatt portion of Don Pedro Dam. TID also contracts for solar power and has an agreement with Western Area Power Administration for zero carbon resources and takes energy from four small hydro facilities.

Through 2030, TID expects to add 48 megawatts of geothermal, 41 megawatts of large hydro, 19 megawatts of solar, and 2 megawatts of wind, and a 50-megawatt battery storage system. These values are dependable capacity are available during peak load periods, not nameplate.

Emission decreases are coming from reduced consumption of gas fire generation as new RPS and zero carbon resources are added, including an increase of three units at Don Pedro Dam. This change is highlighted by the marked reduction in gas generation contributing to net energy in 2030, but the dependable peak capacity is still needed to meet peak demand.

TID plans to meet and exceed its California Air Resource Board greenhouse gas emissions reduction target for 2030. TID anticipates adequate generation over this period to meet capacity requirements, including a 15 percent planning reserve margin.

TID also anticipates its current distribution, transmission, and local generation will be adequate to

maintain reliability, but anticipates additional capacity will be needed after 2030 for reliability purposes.

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In summary, TID is reducing natural gas consumption by investing in new hydro, geothermal, solar, storage, and wind resources, and energy efficiency. TID anticipates local capacity additions will be needed for reliability after 2030. Over the 2024 to 2030 planning horizon, TID will rely more on short-term and spot market purchases to help meet its energy demand.

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Moving more locally here, Roseville Electric serves the city of Roseville, the largest city in Placer County, with 154,600 residents and 58,000 residential and 7,000 commercial accounts. The city owns its distribution system and is within territory managed by the balancing authority of Northern California.

Roseville's population is growing, yet energy efficiency savings and rooftop solar PV offset increased electrification, maintaining a modest compounded annual growth of 0.6 percent from 2023 to 2030.

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Roseville owns and operates two natural gas fired facilities, Roseville Energy Park and Roseville Power Plant II. Roseville is a member of Northern California Power

Agency, which jointly owns and operates geothermal, large hydro, and natural gas generation projects.

Roseville also has several long-term renewables contracts, including geothermal, small hydro, wind, and solar. Roseville plans to procure new renewables with a mix of generic solar, wind, geothermal, and small hydro while maintaining current renewable resources. Energy and capacity from natural gas decrease over the forecast period as non-GHG resources are added to the portfolio.

In 2024, there is a wind energy generation but no dependable capacity as this is from an energy-only contract. This contract expires in 2028 and is partially replaced with a generic wind resource that will contribute both energy and capacity to Roseville's portfolio.

Roseville's new resource procurement will increase its dependable capacity so that by 2029, the utility will no longer rely on spot market capacity purchases to meet its peak demand. However, Roseville will still rely on energy purchases from the spot market.

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Between now and 2030, Roseville intends to procure a mix of new solar, wind, hydroelectric, and geothermal resources. Roseville intends to use its newly available advanced metering infrastructure data to expand its demand-side management offerings in the area of

electric vehicles, distributed generation, and advanced energy efficiency and demand response programs. Roseville's technology roadmap will include a comprehensive and proactive strategy to enable solutions for customer-to-grid benefits.

Roseville investments in its gas generation help maintain reliability and affordability, so transitioning away from these resources will be a challenge. To ensure reliability, Roseville recently took ownership of two 30-megawatt gas-fired backup generators from California Department of Water Resources that are designed for emergency use only during grid stress events.

Roseville's significant energy supply from hydro resources makes it susceptible to low production during dry years. While the utility-scale storage is a future resource option, it was not selected in Roseville's preferred portfolio due to costs. Roseville projects a cumulative rate increase of 7 to 12 percent between now and 2035.

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In conclusion, staff found that each of the five POU IRP filings is consistent with the statutory requirements of Public Utilities Code section 9621, including meeting its GHG targets, PS goals, just and reasonable rates, system reliability, and reducing air

pollutants.

I'd like to take a moment to thank my fellow staff who helped review these POU IRPs, Allen Lee, Allysa Tavares, Joseph Merrill, Angela Tanghetti, Justin Szsaz, Ingrid Neumann, Cynthia Rogers, Brian Samuelson, Usman Mohammad, Nicholas Janusch, Charles Smith, and staff from the Fuels and Transportation Division. I would also like to thank Mikayla Roberts for administrative assistance.

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Staff recommends the Commission approve the order adopting the determinations that the IRP filings of Los Angeles Department of Water and Power, Anaheim Public Utilities, Modesto Irrigation District, Turlock Irrigation District, and Roseville Electric Utility are consistent with the requirements of public utilities code section 9621.

Thank you for your time. Again, utility representatives are available to answer questions and make public comments.

CHAIR HOCHSCHILD: Oh, hey, thank you, Bryan, for that command performance. That was a lot to get through. Appreciate that.

With that, we'll go to public comment on Item 10.

MS. BADIE: Thank you. The Commission welcomes public comment on Item 10 at

this time. If you're in the room with us, we ask that you use the QR code located in the back of the room or visit the Public Advisors table. If you're on Zoom, you'll use the raise-hand feature on your screen, it looks like an open palm, or if joining by phone, you'll press star nine. That's going to let us know you'd like to comment on this item. All right. Just giving that a moment.

I am not seeing any raised hands for Item 10, so back to you, Chair.

CHAIR HOCHSCHILD: Thank you.

Let's begin with Commissioner discussion, starting with the Vice Chair.

VICE CHAIR GUNDA: Thank you, Chair.

I want to thank Bryan, you know, for that detailed presentation. I've benefited from briefing intimately, so, you know, I'm tracking much of the information and thank you for all the work.

I want to just extend the thank yous to Drew and an extensive team of EAD Team, Elise Ursoy, Liz Gill, David Erne, Aleecia Gutierrez, Mikayla Roberts, Angela Tanghetti, informally known as the coach, Alyssa Tavares, Brian McCullough, Allen Lee and Joseph Merrill. Thank you to all of you for a lot of work that goes behind the scenes on this.

Again, you know, I continue to appreciate the POU's leadership on moving forward with the IRPs. I'm really kind of thrilled to see the different strategies that are being taken to meet the decarbonization goals of the state while maintaining affordability and reliability.

Before I complete my comments, you know, Bryan, just wanted to ask, you know, maybe one question. You know, one of the things I saw is, you know, an increase in rates projection across. Is there anything you want to add there in terms of the broad summary on, you know, affordability in terms of POUs, in terms of rate increases?

MR. NEFF: Most have been fairly successful at keeping their rates reasonable. What we're seeing is somewhere typically four to five percent annually on the high end, which seems to be fairly consistent across a number of the utilities and is, I think, lower than we're seeing on the IOU end.

VICE CHAIR GUNDA: Thank you. I think it was kind of a striking thing for me to note that, you know, we're going to have that, you know, continued investment that's needed, you know, to meet these and it will have impact on the rates across the state in a variety of ranges.

So I think another thing I want to just note, POUs under, you know, public agencies, you know, just

recognize the public servants and all the POUs who go day in and day out to continue to work to support the consumers. We have to kind of, when I look at the summary of all of that, different balancing authorities, different ranges of load, you know, we have anywhere from 335 megawatts to 5,500 with LADWP and different peak loads that they have to manage. The generation assets and the strategies, whether it's transmission, whether it's contracting resources or actually building new resources are different for each one of them, different rate structures.

So all kind of recognizes the range and diversity of POUs and how to incorporate these goals, also, on the solutions that are hydrogen blending that I've seen consistently, energy storage, geothermal and, you know, continued push for demand side management and AMI infrastructure. So all of that, it looks like there's a lot we can learn and provide support in making sure the POUs are able to reach their goals.

I want to also highlight, you know, the work that, you know, IOUs are doing and in providing data on IRPs at the PUC and the ability to learn from each other's creative processes and strategies to get to our final goals here.

So I'm really, really appreciative of the staff

for all the work. And, you know, we at CEC have an important role to continue to foster collaboration and move these things forward, so thank you.

CHAIR HOCHSCHILD: All right, unless there are other comments, I don't know, Commissioner Skinner, is there anything else you wanted to add? If not --

COMMISSIONER SKINNER: No comments.

CHAIR HOCHSCHILD: -- I would welcome a motion on Item 10 from the Vice Chair.

VICE CHAIR GUNDA: Move Item 10.

CHAIR HOCHSCHILD: Is there a second from Commissioner Skinner?

COMMISSIONER SKINNER: Second.

CHAIR HOCHSCHILD: All in favor, say aye.

Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner Skinner?

COMMISSIONER SKINNER: Aye.

CHAIR HOCHSCHILD: And I vote aye as well. That item passes three to zero.

With that, I'd go to our Chief Counsel to prep us for closed sessions.

MR. RANCHOD: Thank you, Chair.

The Commission will now go into closed session to discuss Item 16B, pursuant to Government Code section

11126(e)(1), the CEC may adjourn to closed session with its legal counsel to discuss pending litigation matters that are stated in the published agenda.

CHAIR HOCHSCHILD: Okay, and we'll plan to reconvene here at 1:30. Thank you.

(Closed session from 12:11 p.m. until 1:34 p.m.)

CHAIR HOCHSCHILD: Okay, welcome back, everyone. We are here. Vice Chair Gunda will be with us momentarily. We had completed Item 10.

Sanjay, we don't have to report out anything from closed session; correct? Nothing to report from closed session.

So with that, let's move on to Item 11. I welcome Elyse Kedzie to present on energy storage innovations to support grid reliability.

MS. KEDZIE: Thank you. Waiting for those. Thank you.

Good afternoon, Chair, Vice Chair, and Commissioners. My name is Elyse Kedzie and I'm an engineer in our Energy Research and Development Division. Today, staff is seeking approval for four proposed awards under the solicitation titled Energy Storage Innovations to Support Grid Reliability.

Next slide.

Grid-scale energy storage has become an

increasingly important part of California's renewable energy portfolio, enabling the storage of solar and wind in times of surplus and providing grid reliability during times of peak demand. California currently leads the nation with over 15 gigawatts of battery energy storage capacity installed, and we expect this number to grow as the state targets carbon neutrality by 2045. New innovations in storage technologies, materials, and designs are poised to lower costs, improve supply chain resilience, and improve the safety of these systems.

The purpose of this solicitation is to advance short- and long-duration energy storage, specifically targeting stationary applications to enable better integration of renewable energy and improve overall grid reliability. In this solicitation, there were two funding groups, one for applied research and development to improve on existing or novel energy storage technologies, and the other for demonstration projects exploring innovative combinations of technology, location, and grid services to optimize customer and grid benefits.

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These projects will provide much-needed funding to accelerate the research, development, and scale-up of novel energy storage technologies for grid applications.

In addition, the demonstration projects will

increase the value of energy storage systems by offering multiple grid services, such as backup power, frequency regulation, and deferral of costly grid infrastructure upgrades.

Energy storage demonstrations will also improve the local energy resiliency in event of grid outages, improving outcomes for vulnerable communities.

Once deployed, these systems will also reduce the curtailment of renewable energy, which will lower the cost of the clean energy transition for California ratepayers and lower emissions and pollutants associated with fossil-based generation.

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On this slide, you can see the summary of the four proposed projects, with CEC funding totaling just over $18 million.

I'll now go over each of the projects individually.

Next slide, please.

So our first proposed award is with Enzinc. Building off of previous CalSEED and BRIDGE awards, this proposed project will further the development of a rechargeable nickel zinc battery with their proprietary zinc sponge anode for stationary storage applications. The three-dimensional zinc sponge architecture prevents the

formation of dendrites during charging, which is a common issue in zinc-based batteries and can impact the efficiency, the cycle life, and performance of the cell. This project will build out their process to manufacture and embed the zinc anode into the current collector, which will improve battery performance. Once the process is built and optimized, these second-generation anodes will be tested in a 100-amp-hour battery system at a testing lab at UC Riverside.

This project aims to lower the manufacturing cost of nickel zinc batteries and reach a longer cycle life of 5,000 cycles, which is 16 times longer than what's been currently demonstrated. If commercialized, this technology could convert existing lead acid manufacturing facilities to zinc ion, thereby enabling a domestic supply chain. Enzinc projects that they will deploy 396 megawatts of their systems by 2035, which would lead to energy cost savings of $46 million.

This project also benefits local communities around Richmond and Oakland, California, through educational science programming and college scholarships to local high school students.

Next slide, please.

The second proposed award is with DarmokTech, located in Livermore, California. This project will

develop a high-energy density, solid-state sodium ion battery for use in grid reliability and stationary applications.

The project is targeting two key innovations. First, they will partner with Lawrence Livermore National Lab to screen and optimize for electrolyte formulations with increased conductivity and stability. Second, the project will design a recyclable battery architecture that enables easy disassembly at the end of life, increasing the efficiency and value proposition for battery recycling.

The applicant will first construct single-layer, small-scale cells on the order of 10 to 50 milliamp hours. And by the end of the project, they will scale up to larger 5 to 10 amp hour cells with a third-party manufacturer. These cells will also be recycled with their non-shredding disassembly process, and the material will be recovered for use in new cells. This process is expected to reduce emissions associated with conventional battery recycling by 80 percent.

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The next proposed project is with Renewell Energy. Renewell will repurpose idle oil and gas wells into gravity-based storage assets. The project will build a network of five 36-kilowatt/36-kilowatt-hour gravity wells in Kern County.

These systems work by raising and lowering a weight in a fluid-filled well bore, converting potential energy into electricity for durations of up to five hours. This technology solves two emerging issues, one being decommissioning idle oil and gas wells, and the second being building a diverse energy storage portfolio.

Since much of the infrastructure utilized will be legacy oil and gas equipment, gravity well installations will leverage the specialized oil and gas workforce to build out these projects.

In addition, the use of pre-existing infrastructure, including the wells and the electrical systems, will significantly lower the system's CapEx, thereby increasing the technology's scalability.

It's expected that this project will result in almost $350,000 in distribution upgrade deferral savings, which will be passed on to the local customers.

Next slide, please.

Our final proposed award today is a demonstration project with Long Hill Energy Partners. This project will demonstrate a 500-kilowatt/5-megawatt-hour quinone-based organic redox flow battery provided by Quino Energy. Quino has developed a novel zero-waste process for synthesizing its redox-active molecules, which, when deployed in a flow battery, demonstrate very low degradation, a high roundtrip

efficiency of around 70 percent, long system lifetimes, and a pathway to reach a levelized cost of $0.05 a kilowatt-hour. This system benefits from a non-flammable technology with no toxic or hazardous gases generated during operation and a low-risk domestic battery supply chain.

This battery will be deployed at the High Desert Regional Health Center, which is located in Lancaster, California, in a disadvantaged and low-income community, as well as a very high fire severity zone. The anticipated benefits of this technology include a reduction in electricity costs for the health care center, about $300,000 in the first year of operation, increased energy resilience for a critical facility, and reduction in greenhouse gas emissions.

As the first validation of the technology in the field, this project will test the system's ability to stack multiple grid and customer services like time-of-use management, backup power, and islanding capabilities. And it will analyze the economic savings and energy resiliency benefits delivered to the facility.

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While the first two R&D projects are expected to advance the technologies at lab scale, these last two demonstration project technologies have significant potential to impact the energy storage markets in

California and beyond. Long Hill Energy Partners' 5-megawatt-hour demonstration at the High Desert Health Center is estimated to provide over $10 million in savings over the system's 25-year lifetime from time-of-use savings and demand charge reduction. If this technology is deployed at 25 percent of the critical community facilities in Los Angeles County, it would result in cost savings of over $700 million, which would provide great benefit to local ratepayers.

In addition, California currently has over 38,000 idle oil and gas wells across the state. If Renewell's gravity well technology is applied to 25 percent of these wells, this would result in 124-gigawatt-hours of energy storage annually and would contribute to improved grid reliability through peak shaving, energy shifting, and ancillary services. The corresponding costs saved over the system lifetimes would be -- would total as much as $1 billion across the state.

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In summary, staff recommends the approval of these four agreements and adoption of staff's determination that these projects are exempt from CEQA.

That concludes my presentation, and I'm happy to take any questions. We also have representatives from each of the project teams on the line if you have any additional

questions. Thank you.

CHAIR HOCHSCHILD: Terrific.

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

MS. BADIE: Thank you, Chair.

The Commission welcomes public comment on Item 11 at this time. If you're in the room with us, we're asking folks to use the QR code located at the Public Advisor table in the back of the room. If you're on Zoom, you'll use the raise-hand feature. It looks like an open palm on your screen. And if you're joining by phone, you'll press star nine.

All right, we don't have anyone in the room with us, so I'm going to transition to Zoom.

Mike G., I'm going to open your line. You'll unmute on your end. And just a reminder, we'll have a two-minute timer on the screen. And if you would like to share your name and spell it for the record, our reporter would appreciate that as well.

MR. GALLUZZO: Yes, this is Michael Galluzzo, spelled M-I-C-H-A-E-L G-A-L-L-U-Z-Z-O. And I'm Chief Scientist with Enzinc.

I just wanted to comment and say that Enzinc is thrilled to receive this award from the CEC to support a more resilient grid in California. We believe that zinc batteries will be a key technology to enable grid

resiliency while reducing our dependency on lithium-ion batteries that are typically manufactured overseas.

So we greatly appreciate the continued support by the CEC as well as California rate payers towards this technological development and look forward to working with the CEC to apply our technology in this critical area.

So thanks again.

MS. BADIE: Thank you.

Next, we'll hear from Deepak at DarmokTech. I'm going to open your line.

MR. UPADHYAY: Thank you. My name is Deepak Upadhyay, D-E-E-P-A-K. Last name is Upadhyay, U-P-A-D-H-Y-A-Y. I'm CEO of DarmokTech.

On behalf of our project partner, Lawrence Livermore National Lab and the entire DarmokTech team, I sincerely thank project manager Bryan Lee and the entire CEC project evaluation team for their huge effort in bringing this project to this stage.

I also want to thank the CEC board members for advancing that program and for asking thoughtful and relevant questions. Thank you for supporting technology that can truly make a real and meaningful impact.

Thank you.

MS. BADIE: Thank you.

And those are all the raised hands we have for

this item. Back to you, Chair.

CHAIR HOCHSCHILD: Well, thank you so much. Thanks for the presentation. And thanks to all the hard work from the staff. Looks like a great lineup of chemistries and companies. I've been to Enzinc and I'm really impressed with theirs.

And, you know, these are all non-lithium chemistries. Obviously, we're very, very far down the path with lithium and that is what's been deployed across the grid in California. That fleet is performing very, very successfully. And I think we're seeing good trends in terms of cost reduction, also time to build and so on. But it is still really strategic to play some bets with these non-lithium chemistries.

One question I had for you, when you sort of look at the ability to manufacture these and have a domestic supply chain and do that, you know, within the United States, looking across this suite of four, you know, companies we're supporting, how does that look in terms of domestic supply chain, and then also vulnerability to tariffs, you know, versus lithium?

I mean, obviously, the energy storage space seems to have been fortunate in terms of escaping the cuts to be made to the tax credits we're seeing for solar and wind and electric vehicles and heat pumps and so on. But tariffs

are still a vulnerability. So I wonder if you could just speak to how it looks, you know, for tariffs and domestic supply chain for these chemistries?

MS. KEDZIE: Yeah, so all of these, as you mentioned, all of these technologies are non-lithium. And the goal of the solicitation was to advance pre-commercial technology. So because lithium-ion is already at the commercial stage, we wanted to target our investments towards some of these more novel technologies that are earlier stage. And because these are earlier stage technologies, the supply chains haven't been set up or stood up until -- and they plan to be once they reach a scaled commercial -- commercial scale, I guess.

So a lot of the materials that would be found in these technologies, so like zinc, sodium, the quinone-based chemical, those can be mined domestically, but historically they've been sent overseas for processing. We don't do a lot of mineral processing in our country.

So I think in the long-term, and this is a conversation that maybe involves like, you know, the federal government as well, I don't know if I'm poised to answer all of these topics, but we would eventually set up, you know, more domestic materials processing capabilities in this country, more mining, because we do have the resources in the United States for a lot of these critical

minerals. But currently there is not a huge material supply chain available right now.

That being said, there is opportunity there. I know for the project with Quino Energy, they're working on making their quinone-based product in the United States in New York. They have a facility where they convert their redox-active compound into the battery chemical that they use, their electrolytes. So I think there's work that's being done, but obviously there's still a lot to do in that realm.

CHAIR HOCHSCHILD: Yeah, that's helpful.

And then I think the other request I would have is, these are pretty varied in their approach. We're talking about everything from gravitational batteries to flow batteries to zinc and so on. And, you know, by the way, this is a long, proud tradition we have had and placing a lot of bets over many, many years. When I started the Energy Commission 12 years ago, we were doing iron, chromium and vanadium chemistries and so on.

I would appreciate some kind of reporting back from your team on how to compare and contrast the different features here. And some of them, you know, may be very specific to, you know, these well sites that we have that may lend themselves. So maybe gravitational storage has a special advantage here because we have a lot of wells in

ways that other states don't. But some way for us as a Commission to better understand how to compare and contrast the assets and advantages that each of these chemistries and approaches brings, so we can maybe refine a little bit further.

I mean, the Long Duration Storage Program we've had has been pretty open-ended in that, you know, we're basically everything from eight to 100 hours. But just to maybe come back when we have some findings, you know, that could be helpful for us to think about how we place our non-lithium, you know, investments.

Let me just open up to my colleagues here. Commissioner McAllister?

COMMISSIONER MCALLISTER: Yeah, just I don't want to repeat what the Chair just said, but I agree with everything.

And, yeah, I think the contextualizing, I've really appreciated the briefings I've gotten in the past from the storage team, generally. I mean, we have incredible expertise, including yourself, Elyse, and others on the team just that understand all the different storage sort of verticals and the applications and, you know, benefits and challenges.

I really love -- there's a lot of interesting innovation going on with repurposing old wells. And I

really love this project. And, you know, gravity is something that we have plentiful supply of and you can't beat -- it doesn't have to be imported, so nice to have that homegrown resource. And, you know, would really love to keep tabs on these projects as they go forward. And particularly the spent wells, we've sort of had discussions on and off about those over the years.

And it's nice to see an application coming to fruition. And there's some other really interesting things percolating out there. So hopefully we'll get more of that, but agree with the diversity. And I mean, the flow back, this is long -- some of these are longer duration, more than four hours, but really I'm interested in technologies that have the potential to really be truly long duration and help us sort of approach the multi-day, multi-week even, and eventually seasonal need for storage.

So definitely interested, supportive and interested in how these go forward, so thanks.

CHAIR HOCHSCHILD: Vice Chair?

VICE CHAIR GUNDA: Okay. Thank you, Chair.

Thanks, Elyse, for the presentation. And I know Aria and Vera (phonetic) for your leadership, as well, in the broader portfolio of work. I really appreciate the diversity of the projects.

I'm particularly interested on the Renewell, you

know, the oil wells in Kern County. I don't know if you're able to answer these questions or if we have somebody from the company. A couple of pieces on this.

Just on -- let me get a step back and say, there's a lot of, you know, issue with idle wells that are abandoned; right? So like we have the abandoned wells issue around Kern County and elsewhere. And I think there's an opportunity here for just transition given the workforce transition.

So with that background, any findings on previous projects or other projects from the company? And also, just on handling safety, I think, you know, a big part of the community concerns have been around repurposing in terms of safety and potential other issues that are CEQA related. So wanted to get a sense of any learnings from other projects and, generally, how are we thinking about decommissioning and safety? And we can also follow up with, just very curious, and are we working with CalGEM, you know, to just get some input from them on the opportunity in the broader petroleum transition?

MS. KEDZIE: Yeah, those are great questions. I wonder if anyone from Renewell is on the line to answer them? I can speak to a little bit of that. I know they have a current pilot demonstration in -- it's not Kern County, I can't remember where, but it's a single well. So

they've done one pilot demonstration in the fields. And this would be a system of five wells.

I know, also, that this is kind of an alternative to the -- well, it fulfills the requirements of CalGEM's plug and abandonment requirements. So this is an alternative for well owners to continue getting revenue from these wells by producing electricity. So in the process of converting the well from an idle well into this gravity storage well, they're going through the sealing of the well, the concrete plugs, they're going through the, you know, remediation to that extent to mitigate any environmental hazards and prevent any, you know, prolonged methane leakage in the long-term.

So they are satisfying those requirements and then producing and turning it into an energy storage asset at the same time. So it's a new revenue stream for these well owners. So that's one of the motivations.

VICE CHAIR GUNDA: Can you, Elyse, can you speak to -- I mean, I'm just kind of -- given that we're using the wells, there are no CEQA implications at all?

MS. KEDZIE: That's a good question. I'm sure that's --

VICE CHAIR GUNDA: Yeah, I mean, I completely defer to the determination of the --

MS. BADIE: We have an attendee identified as

Sarah that's raised their hand.

MS. KEDZIE: Yes. Yes, that would be --

MS. BADIE: If I can open that line?

MS. KEDZIE: Sarah, come join us.

MS. DOUGLAS: Hello, I don't know if you still need like my name, but Sarah Douglas, S-A-R-A-H D-O-U-G-L-A-S, from Renewell Energy. And happy to answer those questions.

As Elyse has mentioned, our main goal is to turn liabilities economically and environmentally into assets. So all of our systems are monitored for methane and pressure leaks in compliance with what CalGEM has established as the plug and abandonment requirements. We actually have a bill running in the California legislature currently, it's Bill 567, that will formally establish a pilot that CalGEM will be regulating for the regulation of these systems. So that's something we're anticipating very soon.

If you can remind me what your other questions were, I'm happy to answer.

VICE CHAIR GUNDA: Just a quick comment on the CEQA exemption.

MS. DOUGLAS: Yes. We have spoken with -- so our location is Kern County. We have spoken with the Kern County Board. And, actually, our previous pilot was also

in Kern County, so we received CEQA exemption for that one well pilot. We are in discussion and should be receiving CEQA exemption for the five well pilot as well.

As far as permitting, we will get a permit from CalGEM for the well rework, which is the cement plug that we'll place at the bottom of the well to isolate the reservoir from the atmosphere. And then we'll get a separate permit through county and CEQA to do our surface work.

VICE CHAIR GUNDA: Sorry, just kind of one very short question here. So in terms of the revenue sharing, so you are going to be participating at a good level asset in the long term with leasing of the wells?

MS. DOUGLAS: Yes. The current business model is we retain ownership of our systems. The well owner retains ownership of the well assets and we essentially lease the wells under a contract for a predetermined amount of time. Currently, we've been designing for a 30-year lifetime, so all of our system components are built to last at least 30 years.

And the second part of that question, do you mind reminding me?

VICE CHAIR GUNDA: No, no, I think you did answer. Thanks. I think that's really helpful. I think I just wanted to get a sense of how this will be implemented.

That's super helpful. Thanks Sarah.

MS. DOUGLAS: Great. Thanks.

CHAIR HOCHSCHILD: I would just say, Elyse, for this one, I've never seen that kind of technology in operation. And when there's, you know, something to see for a site visit, when I'm in Kern County, and I know the Vice Chair is down there frequently, maybe we could follow up --

MS. KEDZIE: Sure.

CHAIR HOCHSCHILD: -- so whenever that is.

Yeah, please, Commissioner.

COMMISSIONER MCALLISTER: I wonder, Elyse or possibly Sarah, could talk about the sort of controls and optimization aspect of the project, like you have five wells, each one with a certain capacity and sort of what you envision long-term being sort of the ability to sort of aggregate and, you know, use AI, whatever, you know, automate to really respond to real-time grid conditions and accelerate or decelerate the deployment and, you know, just kind of where the -- where you see the model evolving, assuming this project's successful? And as it scales, it's kind of a beautiful thing to imagine, but I imagine that you've thought about this in terms of your business model.

But without giving it too many details, I'd love to hear that vision.

MS. DOUGLAS: That's a great question. And I wish our controls engineer were online now, but he actually just got ACL surgery, so he is out of commission currently.

One aspect of the tasks for this grant is actually refining our controls and telemetry system. And the goal of this system is to be able to operate all of our wells in any combination between in parallel. So we want maximum power in the grid and in series. So we want a -- we have ultimately 15, 20, 30 wells in a field and we can give 15, 20, 30 hours of storage with that type of operation.

So ultimately the goal of the controls is to keep it as open-ended as possible to really be able to be receptive to current and future grid needs. That's about as detailed as I can go. I am not the one building these controls, but it is definitely something that is on the close horizon for us.

COMMISSIONER MCALLISTER: No worries. Really appreciate that and hope your lead engineer there, controls engineer, recovers quickly. So thanks.

CHAIR HOCHSCHILD: Great. Okay. Thank you.

With that, unless there's further comments, I'd welcome a motion on Item 11 from the Vice Chair.

VICE CHAIR GUNDA: I move Item 11.

CHAIR HOCHSCHILD: Is there a second from

Commissioner McAllister?

COMMISSIONER MCALLISTER: Second.

CHAIR HOCHSCHILD: All in favor, say aye.

Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Skinner?

COMMISSIONER SKINNER: Aye.

CHAIR HOCHSCHILD: And I vote aye as well. Item 11 passes forward to nothing. Thank you.

We'll turn now to Item 12, PacifiCorp. Welcome to Tanner.

MR. KURAL: Good afternoon, Chair, Vice Chair, Commissioners. My name is Taner Kural. I'm Grid Resilience Specialist at the Energy Research and Development Division, here to present this agreement with PacifiCorp recommended for award under the Community Energy Reliability and Resilience Investment Program.

Next slide, please.

This program is acronymed as CERRI, and this is federally funded under the Infrastructure Investment and Jobs Act under -- also known as the Bipartisan Infrastructure Law under section 40101(d), Grid Resilience Formula Funding for States and Tribes. California has been

awarded $106 million thus far. And if funding continues, we expect to receive approximately $180 million in total.

CERRI is a competitive grant program that primarily funds grid hardening projects that reduce frequency and duration of outages for communities across California, strengthens those communities ability to function during power outages. Additionally, projects can enhance electric system adaptive capacity to prevent outages in the first place.

Next slide, please.

So this program's first round of funding closed in October 2024. Round two is currently open, set to close August 29th. Under Round 1, we had $64 million available in funding and expect and intend to fund $50 million under this round.

Projects, as a review, projects must increase community energy reliability and resilience, support California's energy policy and goals, provide community benefits, and create good paying jobs. Round 1 proposed four projects for award and three of these four projects have been approved by the US Department of Energy. The PacifiCorp Project is the first of these projects to be brought to a business meeting with the City of Anaheim and scale microgrids to follow in an upcoming business meeting.

Next slide, please.

Under PacifiCorp scope, they have two main parts. The first part is that they will upgrade 20 miles of existing 12 kV distribution lines with cover conductor material. Cover conductor reduces the face-to-face contacts that can cause outages or potentially ignite a wildfire. This reconductoring upgrade is designed to be safely operational during high dry wind conditions up to 56 miles per hour for most segments of the line.

The second part of this project is to install advanced metering infrastructure, including 4,500 smart meters that will provide enhanced situational awareness for fault location by better pinpointing energized-down conductors.

And so on these maps here, the upper left slide shows where the AMI infrastructure upgrades will be installed. The green lines represent the circuits where the AMI will be installed and it's across their service territory along the Northern California rural area bordering Oregon. This area is a high fire threat district and is impacted by frequent outages, five times the state average.

The cover conductor portion is shown on the lower right map by the yellow line. This is the existing rights of way where they're going to be doing reconductoring. And this line -- these cover conductor upgrades will be

installed and serve the happy camp community in that area as well as the Karuk tribe in that area as well.

Next slide, please.

Expected programs -- sorry. Expected benefits from this project include reducing the risk of utility-caused wildfire in the region and reducing occurrences of power shutoffs. Project activities will occur and will benefit communities that are identified as disadvantaged across the service area. And project activities will directly support the Karuk Tribe, a federally recognized Native American tribe. Project upgrades will reduce dispatch time and expedite service restoration.

In addition, the project will include workforce development benefits, which include partnering with the local Electric Workers Union to fund paid apprenticeship programs and tuition assistance. Half of the workforce under this project will be registered apprentices.

Next slide, please.

Staff recommends approval of the PacifiCorp Grant Agreement under the CERRI Program and adoption of staff's determination that this project is exempt from CEQA.

I'm available for any questions. Additionally, representatives of the grant recipient are present online.

This concludes my presentation. Thank you.

CHAIR HOCHSCHILD: Thank you so much.

We'll go now to public comment on Item 12.

MS. BADIE: Thank you.

The Commission welcomes public comment on Item 12. If you're in the room, you can raise your hand. If you're on Zoom, you'll use the raise-hand feature that's on your screen, or star nine if joining by phone. That's going to let us know you'd like to comment on this item. And just giving that a moment.

All right. We do not have any raised hands for Item 12. Back to you, Chair.

CHAIR HOCHSCHILD: Good.

Just want to say, I'm thrilled to see this and very happy to see this funding landing, much, much needed. It seems like a really well-crafted proposal, so delighted to support.

And unless there are other comments?

Oh, Commissioner?

COMMISSIONER MCALLISTER: Yeah, I just want to say thanks, Tanner, for the briefing and I'm following this. And it's great to see this funding, you know, this project and others upcoming to really be spread across the whole top to bottom of the state, and particularly in our rural areas and tribal areas where just so many challenges managing the grid. Great to see covering conductors getting a lot of play. You know, a lot of talk about

undergrounding, but cover conductors are also a really awesome solution to wildfire mitigation and much cheaper.

So anyway, supportive of this project. Thanks a lot.

CHAIR HOCHSCHILD: I'll just add, you know, I was at the Tribal Energy Summit with Commissioner Gallardo and Commissioner Houck a few days ago. You know, you mentioned the Karuk tribe. I mean, some these tribes are losing power up to 10 times a year or more. So this kind of thing is really especially needed.

So unless there's -- oh yeah, Vice Chair, please.

VICE CHAIR GUNDA: I think all the points have been covered.

I just wanted to say thank you for the presentation. And I want to just recognize Alex, both Alex's for their work on this. And I think, you know, just to emphasize, I think the residency aspect of this and the distribution side is very helpful and exciting. Thanks.

CHAIR HOCHSCHILD: Are you excited enough to move the item?

VICE CHAIR GUNDA: Yes, move the item.

CHAIR HOCHSCHILD: All right.

COMMISSIONER MCALLISTER: Second.

CHAIR HOCHSCHILD: Is there a second from Commissioner McAllister? All right. All in favor, say

aye.

Vice Chair Gunda?

VICE CHAIR GUNDA: Aye.

CHAIR HOCHSCHILD: Commissioner McAllister?

COMMISSIONER MCALLISTER: Aye.

CHAIR HOCHSCHILD: Commissioner Skinner?

COMMISSIONER SKINNER: Aye.

CHAIR HOCHSCHILD: And I vote aye as well. Item 12 passes four to zero. Thank you so much.

Before we get to Lead Commissioner Reports, I want to just take a moment to reflect on the passing of former Chair Bob Weisenmiller, which was very sad news that we got quite unexpectedly last month.

And I just want to say I'm incredibly grateful to Chair Weisenmiller, appreciative of his, you know, remarkable trajectory throughout his career. And, you know, he had a brilliant mind on energy.

And he also had quite a good sense of humor. I remember early when I started and I was asking him different people I should talk to, to get up to speed on different issues. And he told me, oh yeah, go listen to everything this guy says, you know, and some of it may even be true. He had a very wry sense of humor.

And he came into the job at a time when our agency was sort of in peril. We'd had a lot of struggle

with the ARRA money, getting that out. And there were questions in the legislature about whether the Energy Commission should even exist. And so Governor Brown really, you know, brought him here to steady the ship. And I know while Bob's not with us any longer, I think he'd be really proud of how far we've come and how much we've done and, you know, his amazing role in really bringing to fruition the dream of what the Energy Commission was intended to be.

And I remember my first month in the job, I asked Bob, you know, for an introduction to Charlie Warren, who wrote the law that created the Energy Commission. And Bob connected us and went out to lunch. And that was just one of the most inspiring visits I had ever had. And it reminded me of the sort of bold DNA that's in the bones of the Energy Commission to think big and solve big problems and aim high.

And so anyway, Bob will be celebrated much more thoroughly at our 50th anniversary symposium next month. We're dedicating that symposium in his honor. And I've invited his longtime friend and business partner, Dan Richard, to come make some remarks about Bob's legacy.

But I wanted to just pause here and just go down the line for any reflections on Bob's life and legacy.

Do you want to start here, Commissioner?

COMMISSIONER MCALLISTER: Yeah, please. Thanks, Chair. I really appreciate having some time today. We don't have to -- I think we'll have ample opportunity to celebrate him at the 50th.

But this is very, very personal. It's both professional and personal for me just remembering Bob. And I was fortunate recently to take a vacation, do something that's been on my bucket list for much of my life, which is right around following the Tour de France and riding my bike in some big, beautiful places. And Bob actually passed away on Bastille Day. And then I happened to be in France, you know, right after that for a week and a half and just had a lot of opportunity to appreciate his role, multiple roles, but just a lot of contemplative time, sweating on the bike.

And, you know, he was just a giant. And he was at the Energy Commission near its inception, you know, in the early days as a senior manager, senior leader within the Commission itself, and went off and had an incredible career.

He was the most knowledgeable person on all things energy that I've ever met. He had a photographic memory. You know, we all have our own themes. And, you know, one of four of us have our own sort of silos that we're in. He remembered everything across all of them.

And, you know, remembered, you know, just page and verse and chapter of every report that the Energy Commission went out. He was just an incredible resource. And you'd think that he would have, you know, sort of -- I mean, he could be very intimidating in that way to some people. Like he could be kind of, you know, a little bit imposing. I mean, I think, you know, you all remember he was so smart. It was like, oh my God, I really gotta be on my game. But he did it.

I think what a lot of people didn't realize is that he was so empathetic with everyone, but certainly with his colleagues. And I just benefited so much from having him in my life. He was an amazing mentor, arguably the best mentor I've ever had, and enabled me to do all sorts of things that I couldn't even have imagined. When I came, he was supportive of my coming to the Commission, you know, and sort of helped Governor Brown get there and support me in the right ways when I first came here, you know, which is a transition, as you all know.

So when I went through some very difficult personal times, that's when I really saw Bob, his humanity and his empathy just in full glory. He stepped in. He intuitively knew what I needed, you know, all along the way for a couple of years, you know, really, and what my family needed. He remembered milestones in my family. We like

proactively said, hey, you know, it feels like you need time, you know, like go, you know, do what you need to do, which is not, you know, my natural state. And he just saw it even more than I did myself.

So just, you know, to those who sort of thought he was kind of inscrutable, it was based in a total posture of love. And I loved Bob, I really did.

He wanted to spend more time in Europe. That's one of the things he wanted to do with his retirement. And, you know, his wife Cheryl passed away a few years before. And so that sort of reoriented his life. And he really wanted to, you know, spend more time in Italy, where he had roots, and Greece, and I think was going to retire there if he could. So it's such a bummer that, so tragic, really, that he wasn't able to sort of execute those plans.

And he had really worked on his health, you know, and looked great. I was able to spend a day with him at the Energy and Resources Group's 50th anniversary in May, you know, sat with him and we caught up pretty thoroughly, and he looked good and he seemed like he was weathering things well.

But that's another sort of -- I would just wrap up by pointing out, you know, that the Energy Resources Group at UC Berkeley, you know, kind of was in that. So that same, like the CARB and CEC and, you know, energy

related, you know, responses to the oil shocks in the '70s, and it was becoming institutionalized at UC Berkeley during the course of his graduate studies in chemical engineering, and he saw the value, he took classes. He could have jumped over to get his PhD in energy resources.

He opted not to because, you know, it was kind of an early program that didn't have -- nobody knew where it was going or even if it was going to persist. And, you know, it was the best chemical engineering, you know, program in the country. So clearly he would stick there. But he was so supportive across the years of ERG, which has become, you know, a flagship program for energy studies in a country, in the world.

So anyway, I just -- the world has really lost an incredible human being and positive force, certainly California and the clean energy transition, but just far, far beyond that. Bob was just such a -- his ability to maintain relationships, like I think that speaks volumes. You know, like he texted anybody and everybody at all hours with personal details, like wishing them luck on something. or just he always had this machine making connections all the time. And it's hard for me, it's still hard for me to get my head around not getting texts from Bob anymore. I kind of expect him to keep coming.

But anyway, I just am really grateful for Bob and

his legacy. So thanks for the opportunity.

CHAIR HOCHSCHILD: Thank you.

Vice Chair?

VICE CHAIR GUNDA: Yeah, Chair and Commissioner McAllister, I think you kind of shared a lot of things that -- and I didn't really have a lot of relationship with Vice Chair Weisenmiller outside of me being staff. So I kind of, I knew all of you.

COMMISSIONER MCALLISTER: Can I say something, actually --

VICE CHAIR GUNDA: Yeah.

COMMISSIONER MCALLISTER: -- about that?

He was so protective of you. You may not know. You may not know this, but when you first came to the Commission, he sort of, he asked me to sort of like make sure you were okay, you know? And he really wanted you to succeed. And he knew the value that you were bringing to the Commission. And I don't know if he ever communicated that directly to you, but I imagine he probably did. But, you know, it's just, it's amazing, really. He was so sharing and generous in that way. And he gave his knowledge, but he also just gave of his heart, you know? It's really an example.

VICE CHAIR GUNDA: Yeah, I was going to share that. I mean, I think I didn't really know him outside of

him being the Chair and the Lead Commissioner for our division when I was in EAD. And so my kind of interactions outside of the EAD was I knew all of you as just Commissioners, Commissioner McAllister, you know, Commissioner Hochschild. I was just excited. I was starstruck, right, you know, meeting all of you and coming here and working for all of you.

And I think Chair Weisenmiller, to your point, was very intimidating, intimidating because you, you know, you go into the meeting and, you know, you gave him a 30-page briefing document and he remembers every page and every word on the 30 pages. And you're like, I'm going to now go to 27 page, you know, paragraph three, these two words, why did you choose these two words? And I'm like, okay. You know, so I think I just appreciated and really admired how intelligent and smart and rigorous he was. And

I think I was going to close off by saying when I got the Commissioner role, you gave me his phone number so I can call him and just let him know and get his advice. And he did tell me that he was really hoping that, you know, I kind of succeed at CEC, and wished me all my luck and gave me pointers on how to do this job. So I just really appreciate.

And I think you both really summarized it. And to me, it's, you know, an amazing human being. And I think

I saw him as he was retiring, his loss in his life, you know, with his wife and his help. It was hard to see what he was going through. And, yeah, I feel a loss. And hopefully we can continue to celebrate him.

CHAIR HOCHSCHILD: Thank you.

CHAIR HOCHSCHILD: Commissioner Skinner?

COMMISSIONER SKINNER: Thank you. While I would call it more of an acquaintance of Chair Weisenmiller, I did not have a relationship with him, for example, Commissioner McAllister that you did, or even yours, Vice Chair. But I would interact with him a good deal while I was in the legislature, given that he was Chair of the Commission and I carried some legislation that affected the Commission. And they were always very, very productive and positive interactions.

I would also run into him. And he lived in Berkeley like I do. But where I was amazed to run into him, but this does reflect Commissioner McAllister's comments about his real love for and interest in his ancestral roots in Italy, I ran into him in Italy twice. Yeah. And he would be on different study tours, and it was fascinating, his knowledge of the things that he was studying in those study tours.

So while you speak of his incredible depth and energy, he also did, in Florentine art, for example,

different Italian Renaissance art issues, so he definitely will be missed.

CHAIR HOCHSCHILD: Thank you.

With that, let's get into Lead Commissioner and Presiding Member Reports.

Commissioner McAllister?

COMMISSIONER MCALLISTER: I think, actually, I mostly wanted to talk about Bob.

So I think that I did want to just point out that there's a lot of amazing just advance what's happening. I want to give kudos to both the RREDI Division for just cranking through the implementation of the building decarbonization programs, you know, both the state funded programs and the federal funded programs. There are plenty of challenges with those programs as you might imagine. And we think the funding is safe, but the process is not, you know, as maybe straightforward as it once was, just given the cuts in staff at Department of Energy and just the details of that, sort of the impacts of some of that uncertainty. But the trains are running.

And I just want to give the team, you know, Deana and Jen, Miriam, Savi, the whole team at the RREDI Division, kudos for keeping everything running. A good workshop the other day on the pay for performance component of the HOMES Program, one of the federally-funded programs.

So, you know, we're hopeful that that will bear some fruit and sort of stimulate the market for home energy upgrades and retrofits electrification projects.

And then also the Efficiency Division, also dealing with a fair amount of uncertainty. Also, we think the funds from -- the workforce training compliance funds, we think they're still flowing. And so staff is doing a great job, I think, preparing those programs and moving them forward to the extent they can, given the uncertainty. And then also even the legislative kind of action, this session has also kind of caused the Efficiency Division, particularly Standards Branch, the Building Standards Branch to have to pivot a little bit and which they're doing so in very fluidly and effectively, I think.

So just kudos to the team, both those teams in those two divisions.

But I was on, as I said, I was on vacation for a chunk of the time between last business meeting and now, so getting back into it, and going to Mexico this evening for an event down in Ensenada, trying to keep those cross-border relationships vital.

CHAIR HOCHSCHILD: Well, speaking of cross-border relationships, I want to just read an update from our friend and colleague, Commissioner Gallardo, who is in Africa, where she's representing the Energy Commission on a

delegation led by Transportation Secretary Toks Omishakin, focused on establishing partnerships, particularly with Kenya and Nigeria around climate and the economy.

In Kenya yesterday, she met with the President, Dr. William Ruto, who is eager to partner on clean energy. She said Kenya is now at 93 percent clean energy and aiming for 100 percent in the next couple of years, focusing on geothermal, solar and storage. And today she's in Nigeria leading this delegation to meet with the Minister of Power to discuss their transition to clean energy. Nigeria is seeking to reach net zero by 2060 and at least 80 percent renewables by 2050. Both countries are interested in e-mobility, energy efficiency and increasing access for rural communities.

So that's her readout.

So, Vice Chair, over to you.

VICE CHAIR GUNDA: Yeah. Thank you. I will keep it short.

Just want to begin by, since the last business meeting, we had the CEH (phonetic) Awards. So I just want to thank our executive office and the entire team for putting those awards together. And I also have big thanks to all the staff and congratulations to everybody who won.

Also want to note, I think Armand, we had, you know, his retirement party on the same day of the CEH

Awards. You know, he's been, you know, somebody who was visible in promoting a lot of -- I think for me, he is such a good cheerleader for the Energy Commission. And I think we'll miss him as well.

Between the last business meeting and this, we've had a couple of IEPR workshops, one on the clean firm resources as it pertains to 423. Thanks to staff. I think much of the discussion there was the value proposition of the clean firm resources and the various technologies and what should be considered as we move forward.

The second hyper was around the forecasting and the energization needs. Thanks to Commissioner McAllister on both of them. I think we both had a lot of discussions, both on those IEPRs, but also being participating in some demand flex conversations at various places. So really fruitful conversations around the demand flexibility and how to frame the conversation, so really excited about that. And thanks to all the staff.

Third, just on reliability, I think the grid has been looking pretty good up until now. You know, we have a couple more months to go here. September is usually our tightest month. But as of now, the RA looks good, you know, the showings are good. The temperature seems, you know, about -- yeah, go ahead.

COMMISSIONER MCALLISTER: So have you seen any

analysis or asked for any analysis, gotten any that -- just sort of comparing so far this summer? It's been a relatively mild summer; right? And so kind of where are we in the sort of the, you know, standard deviation, I guess, of weather for this year and how much that's helped us?

VICE CHAIR GUNDA: We're constantly coming below one and two.

COMMISSIONER MCALLISTER: Yeah.

VICE CHAIR GUNDA: And we haven't really come close to the audit requirements yet on the grid, even with the last heat wave. We've had a couple of incidents with fire being close to transmission but nothing acute. Overall, it seems to be pretty moderate. You know, again, I'm an optimist, I tend to be optimistic, but going into September, things are looking okay. So I just want to flag that again. That did not happen in vacuum. There's a lot of interagency staff working super hard to make sure that the grid is reliable.

And finally, on petroleum, much of our time has been meeting, going to legislative meetings and different conferences to provide insight into the letter, the response letter we wrote to the governor and the framing of the mid-transition. So we've been at a lot of conferences. I've been traveling a lot.

And lastly, I want to just call out Vanike

(phonetic), who is in the back right there. He's a new intern in our office from UC Davis. Excited to have him. And we'll introduce him more formally next business meeting.

So thank you.

CHAIR HOCHSCHILD: Thanks.

CHAIR HOCHSCHILD: Commissioner Skinner?

Thanks. It was lovely to attend the staff awards event. So kudos to all the staff who received awards. And my appreciation for the staff involved in putting it on because it was quite a to-do but I'm sure very uplifting for the friends and family and the staff themselves and, of course, for me as an attendee.

Over the past month, have been collaborating a lot with our sister agencies on developing recommendations in response to the governor's zero-emission vehicle executive order. And that response is due this week. There were listening sessions that the Air Resources Board organized in Fresno, Sacramento, and Long Beach. And there was also a virtual one. There were also lots of collaborations just between the agencies. And then internally, the CEC, FTD staff, we did a deep dive into what are some of the things that we could do to really move the needle to keep our acquisitions, Californians acquisitions of zero-emission vehicles on track, given that

there's lots of efforts to try to derail us.

So there was a lot of good work done in this month around that, over this past month rather. And there's going to be a press release with a broad overview of some of the recommendations that will probably go out this week.

We got some good input when I attended UC Davis's Institute of Transportation Studies biannual conference in Asilomar, where the large cross section of ZEV ecosystem folks were there, I mean, whether it was OEMs or charging folks or researchers, advocates, you name it, and many of us, including our Vice Chair.

I also got to go on a tour of a -- CEC did not provide a direct grant to this facility, but funded its technologies application in some other, and that is the Bellwether Coffee. And Bellwether Coffee has developed an all-electric coffee bean roaster, that is, as I mentioned, electric, ventless, no gas lines, and compact. So it can be put right in a café, so a cafe that wants to roast their beans directly, and it does not have to -- you know, it's automated. And it's very efficient. It requires about the same level of electricity as a commercial espresso maker.

And through our Food Production Improvement Program, the FPIP, we funded two companies, Red Bay Coffee and Heirloom Coffee, that were some of the first companies

to acquire this technology, and in fact, go off gas for their coffee bean roasting process. So it was very, very impressive.

We also held today, and I say we meaning FTD held today, the -- well, it's probably the Administrative Law Office that really coordinated it, but it was the hearing for our charger reliability regulations, because they're now in their final process. So they're in the AOL's hands, and that hearing was held today. The public -- or excuse me, the written comments were all due by yesterday, but today's virtual hearing enabled additional verbal comments. And so those will be assembled, and we'll see if there's any revisions we have to make, or whether the regulations can proceed as is.

And that's what's been going on.

CHAIR HOCHSCHILD: That's great. Okay. I will clean up here. Bellwether Coffee is a great tour. I recommend it for folks who haven't seen it yet.

So a couple updates. First of all, tomorrow, I'm doing a visit to Gonzaga Wind in Gilroy, which will be the largest terrestrial wind turbines I've ever seen. Most of the wind turbines you see driving around California are one and a half megawatts, maybe a megawatt. These are, I think, just under five megawatts.

And, you know, this is -- one of the things

that's happening as we're advancing technology is you get to be able to do these repowers. And typically, when you do these, you can, you know, more than triple the energy production and actually have fewer turbines, which is one of the things that's happening across the state with these wind repowers. So I've never seen a wind turbine that size before, going down with my chief of staff to see that.

A couple other updates I want to share. We are going to be awarding this $25 million for a new battery hub. We heard today from these non-lithium chemistries, there's an awardee who's getting this for really advanced lithium. And that will be happening this fall. So really excited to do this as sort of a shared resource for all the other innovators in the space to actually be able to share some resources. And I just want to thank Cammy Peterson, in particular, who has been wonderful on that.

Last week, I attended the Tribal Energy Summit, which is something that our formal tribal advisor, former Tribal Advisor Tom Gates, helped get going. It's funded and supported organized by all the investor-owned utilities, but huge turnout from all the tribes. I was there with Commissioner Houck, Commissioner Gallardo, Sierra Graves, and so on.

They had about 20 cutting edge kind of new types of electric service vehicles that you could drive and try.

So I got to drive the country's first all-electric garbage truck and loved it. It was a lot of fun. So just -- but everything from electric street sweepers to delivery vans and so on. And so that was a great event.

And, again, just our tribal work has been extraordinary. We've now funded at CEC in excess of $130 million for 35 different Native American tribes in California and more to come.

Yesterday, I was at the EPRI Summit in San Diego with all the utility CEOs, really focused on AI. And so by some estimates, data centers and AI are going to constitute half of global electric demand by mid-century. And even that could be low, You know, it's interesting, a lot of it depends on whether quantum computing actually comes to fruition or not. If it does, that will deliver a lot of energy savings. If not, it's just going to be a huge, huge part of our load. And we got to plan for that.

And the Vice Chair and I were speaking yesterday. We only have like a gigawatt of data center load in the state now, but ramping up fast and, you know, it could be a real hockey stick. So monitoring that closely and got to, you know, make sure we're building as much flexibility as we can.

I will stop there. And then let's go, if we could, to Item 14, Executive Director's Report.

EXECUTIVE DIRECTOR BOHAN: No report, but I thought I'd just offer a quick observation about Bob, as well.

I don't think I've met any expert that was as much of an expert in their field of expertise as Bob Weisenmiller. Rob Oglesby and I used to joke that he'd wake up in the morning thinking about energy. He'd go through his day thinking about energy. He'd go to sleep at night, dream about energy, and then repeat, you know, the next day.

I took it as a personal mission to bring issues to him in energy that he'd never heard of. And after six or seven tries, unsuccessful, I gave up. But he was just a giant and then always very willing to share his time then on topics that I thought I'd stump him on. And then he would wax eloquent for quite some time about those.

So we'll miss him.

CHAIR HOCHSCHILD: Well, thank you, Drew. Appreciate you sharing that.

Let's go to Item 15, Public Advisors Report.

MS. BADIE: Thank you. I just want to announce that this Friday, August 15th, there's going to be a meeting of the CEC-CPUC Disadvantaged Communities Advisory Group, also called DACAG. It's going to be hybrid via Zoom. And then we'll have an in-person location upstairs

in this building.

On the agenda will be a presentation on SCE's proposed pilot related to the CPUC Environmental and Social Justice Pilot Study Plan for Risk Assessment Mitigation phase. And also DACAG will take the time to thank previous DACAG Member Stephanie Chen for her service.

And that concludes my report.

CHAIR HOCHSCHILD: Let's go to Item 16, Chief Counsel's Report.

MR. RANCHOD: Thank you, Chair. I have a brief report, the purpose of which is to welcome three members of your Legal Team who started with the Chief Counsel's Office last month and already are helping us develop pragmatic solutions-oriented legal advice for the agency.

Barbara Borkowski, an Attorney III in our Advisory and Compliance Unit, she most recently worked at a renewable energy development company that she co-founded. She's also served on Orange County's Assessment Appeals Board, and previously worked as a Special Assistant U.S. Attorney here in Sacramento.

Christina Adkins (phonetic) is a Legal Assistant in our Administrative Unit. She joined CEC from the private sector where she recently supported attorneys at a law firm that specialized in workers' compensation law. She previously also worked in the Court Systems Criminal

Division.

And finally, James Strange is an Attorney III in our Transactions Unit. He joined CEC from the U.S. Department of Energy where he was a senior advisor in the Office of Energy Justice and Equity and led the agency's committee that oversaw community benefits plan implementation. James also previously served as a Director and Associate General Counsel at the Center for Sustainable Energy.

We're lucky to have all three of them. Welcome, Barbara, Christina, and James. That concludes my report.

CHAIR HOCHSCHILD: Great. Thank you. And feel free to have those guys come introduce themselves in person. And congrats on getting all the talent. I'd love to see that.

I think, with that, we're adjourned. Thanks, everybody.

(The meeting adjourned at 2:41 p.m.)

CERTIFICATE OF REPORTER

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

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

IN WITNESS WHEREOF, I have hereunto set my hand this 18th day of September, 2025.

MARTHA L. NELSON, CERT**367

CERTIFICATE OF TRANSCRIBER

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 transcribed by me, a certified transcriber and a disinterested person, and was under my supervision thereafter transcribed into typewriting.

And I further certify that I am not of counsel or attorney for either or any of the parties to said hearing nor in any way interested in the outcome of the cause named in said caption.

I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.

MARTHA L. NELSON, CERT**367

September 18, 2025