DOCKETED	
Docket Number:	23-SB-02
Project Title:	SB X1-2 Implementation
TN #:	257497
Document Title:	Transportation Fuels Assessment and Transportation Fuels Transition Plan Transcript
Description:	N/A
Filer:	J Padilla
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	6/28/2024 12:25:33 PM
Docketed Date:	6/28/2024

CALIFORNIA ENERGY COMMISSION

In the matter of:

SB X1-2 IMPLEMENTATION	)	
	)	Docket No. 23-SB-02
	)	
_____	)	

TRANSPORTATION FUELS ASSESSMENT AND

TRANSPORTATION FUELS TRANSITION PLAN WORKSHOP

HYBRID VIA IN-PERSON AND ZOOM

FRIDAY, MAY 3, 2024

1:30 P.M.

Reported by:

Martha Nelson

APPEARANCES

COMMISSIONERS

Siva Gunda, California Energy Commission, Vice Chair

Patricia Monahan, California Energy Commission, Commissioner

Liane Randolph, Air Resources Board, Chair

Le-Quyen Nguyen, California Natural Resources Agency, Deputy Secretary for Energy

Sarah Izant, California Energy Protection Agency, Deputy Secretary for Climate Policy

CEC STAFF

Aleecia Gutierrez, Director, Energy Assessments Division

Drew Bohan, Executive Director

Brian Samuelson, California Energy Commission, Energy Assessments Division

PRESENTERS

Quentin Gee, California Energy Commission, Energy Assessments Division

Kathleen Kozawa, California Air Resources Board, Industrial Strategies Division

Quinn Langfitt, California Air Resources Board

PANEL MODERATOR

Aria Berliner, Special Advisor to Vice Chair Gunda

APPEARANCES

PANELISTS

Elena Krieger, PSC Health Energy

Connie Cho, Asian Pacific Environmental Network

Mike Smith, United Steelworkers

Catherine Reheis-Boyd, Western State Petroleum Association

PUBLIC COMMENT

Neil Koehler, Renewals Fuels Association

Dallas Gerber, Growth Energy

Amelia Keyes, Communities for a Better Environment

Alicia Rivera, Communities for a Better Environment

Woody Hastings, Climate Center

Stephen Rosenblum, Climate Action California

Julia Levin, Bioenergy Association of California

Jeff Wilkerson, Pearson Fuels

Jeremy Martin, Union of Concerned Scientists

Greg Karras, Community Energy Resource

INDEX

P R O C E E D I N G S

1:30 p.m.

FRIDAY, MAY 3, 2024

MS. GUTIERREZ: Good afternoon and welcome to our workshop to review the Transportation Fuels Assessment and also to kick off the proceeding for the Transportation Fuels Transition Plan. We're here today in the Rosenfeld Room at the Warren-Alquist Building and want to go over a few housekeeping items.

My name is Aleecia Gutierrez. I'm the Director for the Energy Assessments Division, where a lot of the SB X1-2 work is happening at the Energy Commission. We're joined here today. This is a joint workshop with our colleagues from the California Air Resources Board.

So for those that are here physically, if there is an emergency, we will evacuate the building and please follow the staff to Roosevelt Park, which is across the street diagonal to the building. And then we also have restrooms outside the doors to your left and at the corner of the atrium. And I think that is it.

We will be taking a brief break between the larger portions of the workshop and we'll let you know when that is and when to return.

So once again, welcome and thank you for joining us this afternoon. We're going to be going over the

Transportation Fuels Assessment which was developed under a Senate Bill X1-2. And we're also focusing on the methods and their feasibility to ensure the reliable supply of affordable and safe fuels, as well as the CARB Transition Plan to plan and monitor progress towards transition away from petroleum fuels.

So we will start this workshop with comments from our dais.

Vice Chair Gunda, I will turn to you.

VICE CHAIR GUNDA: Thank you, Aleecia, for getting us started today.

Welcome everybody in the room, but also everyone that's joining online for this workshop. We're doing this joint workshop today, as Aleecia noted, with the California Air Resources Board, but we also have a presentation both from EPA, CalEPA, and CNRA today. I'm really glad to have you join us.

Just at the top, I want to just announce that I have to jump out of the workshop for about an hour and Drew will take over the proceedings here, but I'll join back. Quentin, I just want to say thank you to you, Aleecia, EAD, you know, CCO, but also our colleagues at CARB, the DPMO, everybody who has weighed in on developing this joint work that we were able to put out. I'm really impressed with the amount of work that the Energy Commission, in

consultation and collaboration with the other agencies, was able to put out on this, on the Assessment. It's an important element of the overall SB X1-2 in really shedding the light on, you know, what are some of the core issues in the market, you know, how is the market organized, getting a high level snapshot of the landscape, and thinking through the various pathways and measures we could take in ultimately protecting the consumers through this transition that we're in.

It has been a very collaborative process, you know, thanks to the industry, labor, environmental justice groups, and other stakeholders who have continually attended these meetings, but also been a part of providing input as we develop the Assessment. So I just want to be reminded of, you know, the collective work we do as Californians and the stakeholders in this particular important element. And ultimately it's about making sure Californians are protected.

This, you know, Fuels Assessment will directly flow into the next major work in terms of the planning and policy ideas, which is the Transition Plan, and we look to CARB's leadership on that and we'll be closely working with CARB in developing that moving forward.

So I'm looking forward to daylighting the work in the Assessment, getting some feedback and get the

collective thoughts on the table.

With that, I would like to invite Chair Randolph for any opening comments you may have.

CHAIR RANDOLPH: Thank you so much, Vice Chair Gunda. And I want to thank the leadership and staff at the Energy Commission for all the ongoing collaboration with CARB as we are tackling these two critical reports.

When we did the 2022 Scoping Plan update, the Board directed CARB staff to include language about how to equitably transition away from fossil fuels and phase down the supply side as that transition took hold. And the two reports called for in the legislative special session contain many of the topics that we identified in that update as critical areas of review to evaluate and understand as we go through this process of moving away from fossil fuels.

The Scoping Plan showed a path that can reduce petroleum dependence by over 90 percent by 2045. The transportation sector, of course, as we all know, is the largest source of greenhouse gases and air pollution in the state, emphasizing the importance of moving towards zero-emission technologies.

Through our rules like Advanced Clean Trucks, Advanced Clean Cars, Advanced Clean Fleets, California is developing and deploying zero-emission vehicles across all

fleets and off-road applications.

And to aid in the transition away from fossil fuels, we need to continue ZEV deployment and critical build out of infrastructure. The low-carbon fuel standard is an important piece of that and it supports the transition by incentivizing lower-carbon fuels for existing combustion vehicles and for ZEVs. And so we need to prioritize the strategies that reduce demand for fossil fuels so that we can achieve both our climate goals and the air quality goals.

But combustion vehicles, you know, we all know, have long lifetimes. And even as we're increasing the percentage of ZEVs, there are many, many thousands of new vehicles just entering the roads now and in the coming years that will be combustion. So we know that this liquid fuels demand is going to persist for a few decades. And so we understand that we need to plan for a transition away from fossil fuels that takes into account the timeframes, adoption, and input from a broad range of stakeholders.

And we're doing this work, not just for air quality and for climate, but also for consumers. California consumers can be in a place where they are no longer beholden to prices driven by a small number of fuel producers. CEC's data has shown that the cost of crude oil and costs associated with refining, distribution, and

marketing were the main drivers of the rising cost of gasoline prices, and together have contributed 82 percent to the increase since 2019 when compared to retail prices in 2023. And we know that gas prices will continue to increase since extraction of crude from older and depleting wells will require more energy.

So we need to be addressing not just the demand, but the supply of fossil fuels and understand how we're going to be making that transition to less dependence on this fuel that causes climate change.

And so the workshop today on the Fuels Assessment and the subsequent development of the Transition Plan is California's next step as we think about this transition. And this discussion this afternoon, I think, will be a really helpful level set and help us embark on the deep discussion about that Transition Plan.

So thank you all for all the work leading up to this day and looking forward to the workshop.

VICE CHAIR GUNDA: Thank you, Chair Randolph.

We have Commissioner Monahan.

Commissioner Monahan, would you have any opening comments?

COMMISSIONER MONAHAN: Yeah, I'll be really brief because, I think, you, Vice Chair and Chair Randolph, have already set the scene for today's workshop.

I just want to emphasize that this workshop and these reports are an example of us trying to be as transparent as we can be and to do the best evaluation possible about what this transition is going to look like and what the impacts are going to be to Californians. We're very sensitive to the fact that as we transition to a 100 percent clean energy system, we need to be cognizant of impacts, especially to lower income families in the state. And this analysis is our best foot forward, I would say, in this workshop in terms of collecting data, again, being as transparent as possible, getting as much input as we can, and then putting our best foot forward.

So I want to thank you, Vice Chair, for your leadership in this space, Quentin Gee and Aleecia Gutierrez and others in EAD who have really been doing kind of groundbreaking, I would say, analysis, new analysis, and we welcome feedback on that.

So just looking forward to the day, looking forward to the conversation.

VICE CHAIR GUNDA: Thank you so much, Commissioner Monahan.

With that, I would go to Deputy Secretary Nguyen.

DEPUTY SECRETARY NGUYEN: Thank you, Vice Chair. Okay, I will be really brief because I think you all hit on all of like the key points to make here.

But just to reiterate from the high-level perspective of CNRA, you know as we transition away from fossil fuels, it's important that we do this in a thoughtful informed way really thinking about all of the possibilities, all the impacts -- direct and indirect and all the, you know, kind of like the nuances that need to take place so that we don't create additional issues. And so it's really important that, you know, not just that we achieve our goal of transitioning away from fossil fuels, but also doing it in a way that prioritizes affordability, equity, and reliability.

And so I'm super happy that, you know, the Energy Commission and CARB are thinking through all of these issues in their work, both on the Transportation Fuels Assessment and in the work that will be happening on the Transition Plan. So thank you again to CEC and CARB teams for all of your work that you've done so far and all of the work that will be to come.

And appreciate the stakeholders for engaging with us on this topic and making time to have these conversations and really think about how we do this in a holistic way without trying to increase impacts to anybody.

Thank you.

VICE CHAIR GUNDA: Thank you so much.

And welcome Deputy Secretary Izant. I apologize if I said your last name improperly. Thank you.

DEPUTY SECRETARY IZANT: Thank you. Thank you very much, Vice Chair. I will just say that it's great to be here with all of you and wonderful to see so much participation from the public on this workshop.

Really thank the CEC and CARB staff for all of their work on the Assessment and really looking forward to continuing to collaborate closely with the Air Resources Board and with the Energy Commission as we work on the Transportation and Fuels Transition Plan.

I'll leave it at that. Thank you.

VICE CHAIR GUNDA: Thank you so much.

And I have Director Bohan here from CEC.

EXECUTIVE DIRECTOR BOHAN: I just want to thank Aleecia, Jeremy, David Erne, and Quentin and Aria, our core team for all their work on this. Special shout out to Quentin who did the lion's share of the drafting and a lot of the research, and also to our sister agency, Air Resources Board, for the collaboration.

VICE CHAIR GUNDA: Thank you so much.

So we'll now move to the rest of the agenda here, but I just want to emphasize, you know, the collective sentiment here that has been expressed as the importance of having a transparent, thoughtful process that continues to

be in alignment with our climate and equity agenda in California. So I'm really looking forward to this conversation. Thank you.

Off to you, Quentin.

MR. GEE: Great. Thank you, Vice Chair Gunda, and thanks to everyone on the dais, and for all attendees that are here for this discussion today. I think it's going to be really fruitful and interesting.

We can get the slides up. We can go ahead and get started.

My name is Quentin Gee. I'm the Manager of Advanced Electrification Analysis in the Energy Assessments Division at the California Energy Commission. I have been sort of the lead author on this, but also a lot of additional work from a whole host of other people. We'll give a good thanks to them at the end.

But yeah, this Transportation Fuels Assessment is in the draft stages. We're looking forward to comment, but we've done a whole lot of work here and we're pretty proud of what we've been able to accomplish with this.

Next slide.

So just to kind of get everything out the door here and started, there's a lot of acronyms and initialisms and other notes that can oftentimes kind of fog up a screen. So we've posted the slides publicly and anytime

someone runs into an initialism or an acronym that they're kind of wondering what it is, feel free to keep an extra window with this page open or whatever works for you all. But, yeah, and, you know, as I go through this, I'll try to avoid the use. I'll try to actually read out the acronyms as they come on, you know, on those slides. But this is just a good reference page for you all.

And then also just a key point on notes, unless we otherwise indicate, all credits due to CEC staff on the notes except on areas where we highlight other sources as well.

Next slide.

So today, as we know, we're discussing the Transportation Fuels Assessment, and we're also going to have a lead-in discussion to the Transportation Fuels Transition Plan. There are a whole lot of other activities associated with the SB X1-2 work involved here. There's, you know, issues around data collection, issues around market analysis under the Division of Petroleum Market Oversight, refining margin, and other maintenance activities, all types of things that go into this. Today we want to kind of keep this focus on the Assessment, the findings of the Assessment, and then also on the Transition Plan.

But, yeah, SB X1-2 passed last year. It's a

pretty groundbreaking bill that has a whole lot of new activities on the part of the CEC to really get a hold of what's happening in this sector of our economy.

Next slide.

So, yeah, what we'll jump into right now is sort of the draft findings of the Transportation Fuels Assessment.

I guess maybe to start this off, I would say kind of like how we started off the Assessment is kind of from this perspective that California is a fuel island. And what do we mean by that? We kind of mean that there's -- we're kind of isolated in some really significant ways from the rest of the country in a way that is not really fully shared with other states. Some others, obviously, Hawaii is an island, so they have their own unique, you know, situation happening. But in many ways, California's fuel flows are limited. And on the next slide, we can sort of get a sense of what's happening here.

Next slide.

So, yeah, so this is a graphic that we developed to try to track the fuel flows. There's always a little bit of stuff happening here where it's a little bit complicated and there's some rounding errors. What we did was we tried to capture the fuel flows throughout 2022 and put them into one meaningful, useful metric. And

throughout the report, we're trying to do as much as we can to stay consistent with this single metric, which is 1,000 barrels per day on average. So, you know, there's, you know, some ships come in, they've got 300,000 barrels. Some ships come in, they've got, you know, fewer than that.

So there's a lot of different flows happening and pipeline flows out of the state, but there's really not sort of a -- I think that the TBD or the thousand barrels per day metric is kind of the one that can be really helpful for us to understand what's happening.

But what we mean by California as a fuel island is, okay, there is a sense in which we are producing crude oil, but we'll talk about that, but a lot of our crude oil is imported. That goes into refineries, and then the refineries produce particular output products, particularly transportation fuels.

There is a little bit of import of fuels that come into the state. However, that's going to have to occur, basically, by ship. We don't have pipelines that flow into the state. There's no pipeline for something that goes from Nevada into California. We have a pipeline that ships refined gasoline into Nevada, or a couple pipelines, but we don't have anything coming in.

So that's what we mean when we talk about us having a fuel island. What we really mean is there's not

really a whole lot of interconnection. If you take a look at the East Coast, you know, whatever, a state on the East Coast, pick your state, you see a broad network of pipeline flows, regular connections, lots of interconnections with other states and refineries. It's quite well-connected in a pretty robust system, whereas California is in a little bit of a different situation here.

Yeah, we do have some out-of-state exports by marine, a little bit of gasoline, a little bit of diesel, and a little bit of jet fuel flowing out, but not a whole lot when you take a look at how much we're actually producing in the state. So if you look at the in-state fuel production, you can get a sense we're producing a lot of gasoline to the CARB specification, CARBOB, California, CARBOB, California blendstock for -- hold on. Sorry. California oxygenated blendstocks for -- what? California -- sorry. You know where it's at, CARBOB. Yeah, I've been just saying CARBOB the whole time and now I'm getting -- there's always like the CA, so California blendstock for oxygenated blending. Sorry, it's been a long week. Anyway, but yeah, so we have this special specification that we need for the state to really maintain our air quality standards, specifically developed by the California Air Resources Board.

We also do produce standard BOB, RBOB,

reformulated blendstocks for oxygenate blendings, that's also exported. So when you see those exports going to Nevada or going to Arizona, that's a specification that is not the CARBOB specification. We also have diesel flows. We do produce a good amount of jet fuel. And, you know, we don't just produce fuels. We do produce some residual products as well. You can think of lubricants and other sorts of things like that.

We do have these flows into Nevada and Arizona. They are by pipeline only, and the pipelines go one direction. They don't go into California. So that's basically what sort of characterizes California as a fuel island.

Next slide.

On the flip side of this fuel island issue is that we are having a growth, a tremendous change in transportation unfolding this year -- excuse me, in the last few years and we're expecting to unfold throughout the next decade or so, and that is the shift towards zero-emission vehicles or ZEVs.

Here, we can see a chart showing the increasing percentage of new vehicle sales. So when a new vehicle is sold, it's registered by the DMV, staff at the California Energy Commission track those sales in broad terms and are able to detect that, you know, there's been a pretty

sizable signal and change to the point where in 2023, 25 percent of every single vehicle, 25 percent of all the vehicles sold in the year were zero-emission vehicles. There's been a little bit of a decline in quarter one of 2024. We think that this has to do with some subtle market dynamics around interest rates and maybe some hangups and carryovers with supply chains and some of the manufacturers getting up to speed.

But overall, we still feel pretty confident. A lot of our research and our analytical work focuses on forecasting these out, and we feel pretty confident that we are pretty well headed towards a ZEV future.

And then on top of that, we have the Advanced Clean Cars II to regulation from the California Air Resources Board that is going to put very stringent requirements on manufacturers to ensure that they fulfill this trajectory towards 100 percent zero-emission vehicle sales by 2035, and that's kind of where we're heading. Now, that's new vehicle sales. That does not mean that every vehicle in the state must be a zero-emission vehicle. But it does mean that we are on a pathway towards phasing these cars out. Cars get old, they break down, people fix them but eventually, you know, a lot of them end up leaving the population or the vehicle stock in the state.

So we believe that we are on a pretty strong

trajectory towards a zero-emission future. And we are dedicated to that as a state.

Next slide.

One thing that I think that is worth calling out is that this zero-emission future, in terms of new vehicle sales, is not uniformly shown throughout the entire state or seen throughout the state. As you can see in this chart, there are some areas in the state that actually do not have very high percentages of zero-emission vehicle sales.

And just as a quick note, we did modify San Bernardino and Riverside counties down there in the purple box to kind of characterize. Actually, if you look more at the western portion of those counties, they're at the higher percentage. And then the rest of those counties are at a lower percentage rate. We do that by a ZIP code analysis there.

But, yeah, we're looking at a pretty good concentration in certain areas of the state but not the entire state as a whole. So one of the things that we want to be thoughtful about is the way that we go towards this transition. And ensuring a reliable, safe, affordable supply of transportation fuels is not necessarily going to be the easiest for everyone. And so we want to be attentive to those that are in the most need, particularly

individuals that live in low-income communities.

Next slide.

So let's fast forward to our forecasting and future scenarios work that we have unfolding here. Let's imagine that we're looking at 2035. And depending on how you look at the Integrated Energy Policy Report that the CEC does, in the orange and the green, you can see, depending on the Energy Policy Report scenario that you're looking at, the IEPR scenarios, we're looking at about maybe 25 million, maybe 20 million, maybe even a bit fewer, but also under the CARB Scoping Plan scenario, you can also see how that is looking at closer to 16 million cars.

And we can compare that with the dashed line above, which is the amount of internal combustion engine vehicles today. So there's the internal combustion engine vehicles today. We're looking at a stage where we could end up going down quite a bit in terms of what it looks like in 2035.

Next slide.

So here's another thing that I think was pretty important that we have noticed in the Assessment, is that California is becoming – while fuel and oil imports, crude oil imports and fuel demand are both declining, or at least crude consumption is declining, the way – there is a particular and noticeable pattern in terms of imports.

And one of the things that we think about is kind of like energy security and ensuring, you know, thinking about ways that we can drive ourselves towards energy independence. And this trend of, you know, California is not producing as much crew to be used to. Alaska not shipping as much crude here if it used to and now we're more dependent on other regions of the world for the transportation fuels. And this is one of the things that we want to really be aware of that there's an opportunity here as we reach towards a ZEV transition that we can really be a bit more independent from some of the -- some of the trading areas that that have proven to be somewhat difficult and also the logistical matters associated with this as well. It's a little bit harder sometimes to get fuel from all over the world.

Next slide.

So here, what we did is we modeled out some of these scenarios. As I showed you, there was a slide where we had fewer internal combustion engine vehicles, either under CARB's Scoping Plan or under the CEC Integrated Energy Policy Report. But here, what we did is we actually mapped out the demand for gasoline for those. In CARB's scenario -- Scoping Plan, you can see that they are declining quite rapidly in terms of fuel demand. That's driven by not only zero-emission vehicles, but by

innovative strategies around reducing VMT that are going to be really critical for meeting climate goals.

If you look at the fast scenario, that fast scenario is the Integrated Energy Policy Report, what we call the advanced electrification analysis -- excuse me, advanced electric -- additional Achievable Transportation Electrification Scenario 3, it's a lot but just IEPR fast, I think, is a good way to think of it. That embodies the Advanced Clean Cars II Regulation but also does not embody some of those vehicle miles traveled rapid reductions there. And then the baseline, or that slow scenario, is if just, kind of, just the market just kind of goes unto itself and kind of slowly unfolds there.

So each of scenarios really help us understand the different sort of sensitivities that are going to be out there in terms of what is gasoline demand going to look like. How do we ensure that we are really thinking creatively around the policy ideas out there?

Next slide.

Another issue that I thought was worth highlighting in this, in the draft report, has to do with some of the retail dynamics. You may have heard, I'm sure folks who are familiar with the industry have heard this, up like a feather -- excuse me, up like a rocket, down like a feather phenomenon, a rapid increase, and then a slow

decline.

But what's interesting is that's not really as obvious if you look at just the spot market, the wholesale market that underlies this, or the production cost associated with it. It's really more seen in the retail sector. And we thought this was an interesting distinction worth showing, that you can see sometimes during a price spike, let's say all the production components really increase, all the other costs associated with producing increase, at the retail level, they're slow to kind of -- they kind of absorb a little bit of that increase in what we call the pinch. But then the spot market prices can decline, and yet the retailers are reluctant to lower their prices. They do. The market kind of forces them to kind of do that but they don't do it nearly as quickly. And we observed this a couple times in the last two price spikes that we saw in 2022 and in 2023.

Next slide.

So that was just a highlight of some of the interesting findings that we came out with in the draft Assessment. There's a lot of other important aspects around it. But sort of getting to what we're really looking at in the future is this sort of reliable supply of affordable and safe transportation fuels in California.

And there's a lot of things that are involved

with the Assessment work here. There's a lot in the report that's really interesting. I think Chapter 2 really goes into the weeds a lot on a lot of issues that are particularly of interest. But on the next slide, well, maybe real quick, maybe just, we do discuss a lot of these issues, branded and unbranded fuels. We discussed a little bit about fuel additives. We discussed a bit about how refineries operate. And the big one being price spike risk management. That's one of the key things that we are thinking about for the Assessment here. And that's what we're kind of discussing on the next few slides.

Next slide.

So here we have as a way to sort of set the stage here, is we're thinking about ensuring this reliable and safe affordable supply. I think it was critical for us to sort of evaluate what's the approximate amount of supply that we're looking at as far as in-state goes, and how does that contrast with sort of the demand spikes that we've seen?

So what we have in this chart here, you can see some grayed out refineries. Those refineries have either closed or converted to renewable fuel production. But then we have in the sort of bluish-tinted refineries, we have a very approximate and, I would say, intentionally coarse characterization of their production. We don't want to

give precise numbers here because those are protected under the Petroleum Industry Information Reporting Act. So we definitely don't intend to say this is exactly how much any of them are refining, but we know their stated capacities and we say about 60 percent or so is produced in the form of gasoline.

And so understanding that approximate characterization allows us to compare the total amount of supply, sort of represented at the top with Chevron Richmond sort of at the top of the stack there. And then we can look in that purple dotted -- purple big circle dot line, sort of the peak in month, peak demand for that year of gasoline demand. And you can see that it's pretty closely tight there. There's not a whole lot of additional refinery capacity available in addition to what was sort of demanded in a peak month.

There's a lot of more complicated dynamics, of course, around this but this sort of gives a broad characterization that as demand declines it's likely that some of these refineries are going to shut down and we have to be really thoughtful about managing, thinking about policies that will ensure that that tightness there is not something that contributes to price spikes or volatility in the retail market.

Next slide.

So when we were thinking about the framework for a reliable, safe, and affordable supply we came up with some ways to categorize these different options. There's some demand-side approaches here. There's some supply-side approaches here as well. And sort of within the supply, we wanted to think about three kind of basic approaches around that supply issue, which is sort of like production, storage, or imports.

Production is finding ways to get more fuel to consumers in the case of, let's say, a price spike. Storage would be a resource that would -- could be drawn upon for short-term abatement of a price spike. Imports, if we can rapidly get imports or reliably get imports, in a way maybe we can also limit the impact of a price spike there.

There's also some highly complex options out there, policy ideas that are out there that, you know, could be something that could contribute to, you know, price stability and an affordable reliable, safe, supply of fuels but will require, I think, a lot of dedicated effort and time. But they need to be -- sort of see the light of day so that people can begin thinking about these.

Next slide.

Okay, so when we're moving forward, we want to make sure that we, in presenting some of these policy

ideas, we want to make sure that we can understand that there's a lot of things to sort of balance out here. There's fiscal impacts. There are regulatory obligations and limits. And there's also, you know, public perceptions, you know, and other industry perceptions, all kinds of perceptions around how policies can change and how certain -- some policy options presented here could impact other policies that exist. And there's a tension there. We need to make sure that we can address that.

So these aren't just -- you can't just create all of these options all at once. You know, creating one policy or building up one policy may limit your ability to build up others, and so on and so forth.

But overall, for the next steps, before we get into the policies, kind of where we're thinking about going with these is continuing to work with CARB and the Division of Petroleum Market Oversight on a prioritization plan for the recommendations in the Assessment and also consider stakeholder feedback, you know, one of the reasons why we're having the discussion today.

Next slide.

So here's the kind of the list of them all. We kind of can roughly break these into demand strategies, the supply strategies, and then these highly complex implementation policies. And then there's another at the

bottom. You might argue that's kind of complex, as well, but let's go ahead and dig into each one of these one by one.

We don't have a whole lot of time. My time is limited. So I'll try to sort of briefly discuss and characterize some of these, but then we'll have to move on to the questions from the dais and public comment. But this will be also a useful frame, I think, for the panel discussion that we have as well.

Next slide.

Okay, so the first option, demand-side option, is enhanced ZEV access. Getting ZEV adoption, accelerating ZEV adoption even faster with steps, with state incentives that are equity focused.

One of the interesting things that we noted in this report is there's a lot of families that have two cars. And one of the interesting dynamics that there really hasn't been an opportunity to explore in, you know, in as much -- in a whole lot of detail because this is a new territory, but there may be a lot of families that have two cars, and if one of them is a zero-emission vehicle, that could create or introduce some demand elasticity or change the demand elasticity. That is, right now, demand for gasoline is not very elastic. If prices go up, people might consume a little bit less, they might try to be a

little bit more thoughtful, but people need to drive in this state. There's a lot of ways in which it's just really difficult for families to really adjust to that.

But if they have two cars and they can be a little bit more flexible, we're interested in thinking about how this could actually unfold and increasing the demand elasticity. Allowing people to be more flexible in the cases of a supply shock or some kind of price spike could be something that is pretty helpful in mitigating or at least helping in some ways families that would otherwise be impacted. So that's something that we really want to continue to pay attention to, especially for the next Assessment and as we see more zero-emission vehicles on the market there.

There are some cons here with this because, you know, these programs do cost money, but we are interested in fully exploring this and continuing this with our discussions with the Air Resources Board.

Next slide.

VMT reduction strategies, so vehicle miles traveled, we can reduce our VMT. There's a lot of options for doing that. Smart development, improved policies, local policies, state policies, a lot of options here. There are some limits with how much this can be done, but it's something that we want to make sure that we fully

explore. We think that these demand side approaches are probably the first ones we should go to. But yeah, it is difficult. There are some areas of the state that just are not as amenable to VMT reduction strategies.

Next slide.

We have fuel conservation measures. This would be a little bit more in response to a particular price spike. There's some balances that we have to think about with this as well. We are thinking about ways in which we might be able to get people to be a little bit more responsive by curtailing their demand. At the same time, we don't want to create programs that basically tell everybody to go out and fill up as soon as you can. But there are some ideas out there that we want to continue discussing and have put out there in the Assessment.

Next slide.

Storage strategies. There's actually several of these strategies discussed in more detail in the Assessment. But broadly speaking, storage, you know, you can see a big huge sort of storage facility out there. You can see some of these tanks out there. You know, if we have more of those or we're able to use some that are phasing out, or if necessary, you know, the state might consider building some new ones, there's a lot of different ways that we could go around this, but basically, it

creates a buffer. And you can draw upon that buffer during times of a supply incident, and you can basically live a little bit off of that or add a little bit more fuel to the market than would otherwise normally be, you know, if you're just looking at a just-in-time, like right out of the refinery into the pumps, right, that sort of thinking.

So a little bit more storage could be really helpful here. And this is an idea that I think is, depending on how, you know, there's a lot of different options of how you do storage, but that's one that we think stakeholders have expressed a particularly strong interest in.

Next slide.

Production enhancement strategies, this is another approach. Again, there are several options here, but thinking about different ways to get more supply out there, so that is separate from drawing on that storage reserve. So this would be finding ways to get additional fuel by, you know, certain production techniques. There's discussion also of a more unified alignment of fuel standards across different states. These different sorts of options out there could be helpful for us to increase the supply. At the same time, there is a critical environmental tradeoff. We don't necessarily want to, you know, make -- reduce standards in a way that is harmful to

Californians.

Next slide.

Alignment, so this kind of speaks to the other issue, the alignment of the gasoline for western states. This is a little bit distinct from some of the other supply measures that are discussed in the Assessment. But one of the big challenges here is making sure that we can work with the appropriate state partners to get the kind of agreement that we're looking for. We're hopeful that we could have a few discussions, but we will see where this leads us in the future.

Next slide.

Import strategies. This is another one that received, I think, a lot of stakeholder attention, trying strategies that can increase supply directly or indirectly by bringing fuel from refiners from outside of the state. This, again, is tricky. There's lots of different ways this can unfold. You could have sort of some regular shipments during a critical supply period where you're worried. You could have something that's a little bit more on call. You could have a reliable source that's available throughout the year. There are lots of things that could be useful here in terms of imports, creating incentives for additional imports from folks that already import.

There are challenges here. Imports cost more.

They do take time to get here. You know, there's a lot of imports, strangely, that, you know, most people might not be aware of this, but there's actually a lot of imports that we get from the Netherlands of CARBOB. That is not the closest location to California. So it might take a little bit of time. So there's lots of tradeoffs there and lots of issues around cost that have to be thought through a little bit more.

Next slide.

Gas price stabilization fund. What could be done in this situation is during times of lower gas prices, fees would be levied in a variable manner and then allow for reduced taxes or fees during times of high gas prices. So trying to sort of stabilize the price in a way that is more helpful for that sort of reliability that consumers need with prices.

Next slide.

A cost of service model is another approach, again, another highly complex implementation effort, but basically, yeah, regulate the operating rules, prices, rate of return of the petroleum fuel market. This is something that would take a lot, quite a bit of effort and involvement, but this may be something that is necessary as we're looking at an increasingly concentrated market.

One of the challenges here is that it's not quite

the same as a natural monopoly, which would be a little bit different. So you could think of like power lines as kind of like a natural monopoly. You can't just build tons and tons of, you know, Joe's power line and, you know, this other power. And you can't have, you know, 50 different power lines. You can have a bunch of different players in a market importing. So the natural monopoly isn't quite there in the exact same way, but it's not something that we want to rule out.

Next slide.

State-owned refineries. This would be a little bit more, a stronger reaction where the state would purchase and own refineries and run the refineries to manage the supply and the price of gasoline. This would be something that would allow a lot more control over how refineries operate and it could be useful as we think about a transition away from fossil fuels as well.

Next slide.

Retail margin management, so measure, publicize, potentially manage retail margins. This would be something that would allow -- sort of create a little bit more transparency to sort of help consumers be more informed. There were some problems that we noticed in the spot market in particular, and that's a little bit separate from the retail market. But where there's more transparency, we

think that it actually can be quite helpful. We have to be careful not to create a situation where, you know, private operators are just totally out in the open and there's weird, you know, competition issues that could be associated with that.

One challenge would be that it would be difficult to get the data. Right now, the way that the tax system operates is that it's not so the excise -- or the tax on gasoline works is that it's not the easiest thing to administer at this point at the at the local retail level.

Next slide.

So the final one is rail car replenishment. Basically, we would use rail cars to provide a conventional CARBOB or conventional BOB to California. This would be something that we're thinking of as not necessarily a regular policy, but something that we should be having our attention to, especially as the market becomes more concentrated. Smaller amounts of demand could mean that there's a little bit less resiliency in the system.

And should there be some kind of acute event, you know, it could be a large natural disaster that totally disrupts pipelines or something, or refineries, this is something that we want to have our attention to. It's a little bit outside of, like, kind of the response to the standard fuel price spikes that sort of, I think, spurred a

lot of the SB X1-2 work. But it's something that the CEC has had its eyes on in the future, because this is a really fundamental fuel for the state's economy at this point in time.

Yeah, so those are the, those are the policy options.

I think on the next slide, I think we're about done here or I'm about done with presenting the slides, you're not done, but, yeah, I did want to thank Aria Berliner, Bryan Hsieh, and also the PIIRA team at the CEC, in particular Alexander Wong who did a lot of writing on the report, Andrew Bailey, a lot of ton of coordination and data gathering, and Ryan Eggers, a lot of support from them. And then also we had some really great technical support from contractors from ICF and Stillwater and Associates.

Thanks.

MS. GUTIERREZ: Okay, so for the next segment, we've got our reactions panel with our stakeholders. So I'd like to introduce Aria Berliner, who is our moderator for the panel.

MS. BERLINER: Hi everyone. As Aleecia said, my name is Aria Berliner and I'm a Special Advisor to Vice Chair Gunda, supporting him on SB X1-2. Today I'm joined by Julia May, a Senior Scientist at CBE; Elena Krieger, the

Director of Research at PSC Healthy Energy; Connie Cho, the Just Transition Policy Strategist at APEN; Mike Smith, the Chair of United Steelworkers; and Cathy Reheis-Boyd, the president and CEO of the Western States Petroleum Association.

We only have, I think, about 45 minutes, so I do want to just kind of dive into questions.

Of the policy options presented in the Assessment, which do you think needs more investigation? And I'm going to start with Julia May.

MS. MAY: Thanks. I want to first preface that by saying, thank you so much for the hard work. This is hard stuff. We want to also emphasize the context that we need to focus on fossil fuel phase out and stopping the price gouging. It's doable and we need to escape the fossil fuel captivity by the oil industry.

But to answer the first question on assessment, we're interested in more evaluation of the Cost of Service Model number 9, which is basically a utility model. We need to regulate the oil industry supply, phase down the supply, as well as the pricing. And we're interested in more information on the utility model and exploring possibly other options for regulation of the industry by the state.

We're interested in storage options, as well, to

smooth out the supply as we phase out our refineries, and although we would like to see the onus put more on the oil industry instead of the state, but we'd like more information about those.

And we have other options to talk about we can talk about later.

MS. BERLINER: Thank you.

I'm going to bring it to the room. Elena, I have not forgotten about you, but I wanted to pose the same question to Cathy.

MS. REHEIS-BOYD: Good afternoon and happy Friday.

First of all, I just wanted to, you know, thank both the CEC and CARB and CNRA, Kelly P. (phonetic) and everyone else for being here and having this conversation because, for me, the intersection of the environment and the economy and transportation, this is all so important. I've actually been looking forward to kicking off this Fuels Assessment study so we can get to the conversation.

The other just quick intro I will make is that, you know, aspirational goals and the goals that we have in California are very important, but also the technical realities can get in the way of aspirational goals if we are not careful. So I think what I'm hearing today is actually giving me hope that we will be diving into the

many issues that are before us, and I love the presentation on the options because those are the things we really need to be talking about, so love that.

Just so you know, Turner, Mason & Company has been secured by us to also dive deep into this discussion, much like ICF and Stillwater. We're very happy to share the information from our lens of what that's looking like. We think it's informative, tracks with some of what the other consults are seeing as well. I think it'll be valuable for as we go through towards the fuel transition study.

And then just happy, so happy that, also, Commissioner Monahan is here, and obviously Chair Randolph. And just the whole IEPR discussion intersects so much here. So this is not just about the fuel assessment study. It's also about the IEPR and all of the intersection of liquid fuels, hydrogen, natural gas, renewable electricity. All of them are in here because it's not just molecules, it's electrons and molecules that are colliding in the transportation space. And so to get this right, we've got to address all of them.

And while I get into the first question, Aria, thank you very much, I'm just going to have Mark Nechodom on my staff pass out what we are using internally, which is what we call the placemat. It's literally just a graphic

representation. We actually laminated it so you could draw on it with pens. But we'll just pass it out because it's something we use internally as just a way to look at how supply moves through the transportation market from, you know, how it's stored to bulk delivery to meeting consumer demand, and so it's just something we utilize internally as we have this conversation.

So to the question, Aria, thank you very much, so what needs more investigation? I think we know that price spikes tend to come from rapid changes in supply, some of that, unplanned outages, obviously, at low inventory. But as we look at these policy options to prevent price spikes and looking at several options to reduce the magnitude and duration, as noted in the Assessment, the issue of storage infrastructure, supply, obviously critical, ensuring that we have consistent and reliable supply, and minimizing the structural obstacles that you see on the placemat to meet demand. That's going to be a very important area to dive deeper into under the storage infrastructure.

Capacity, I think Stillwater and ICF both pointed out, there is no significant excess capacity in the system. So we are interested in looking more into the storage infrastructure section.

The resupply compensation, which I think is Option 15, the state sharing in the commodity risk as a

market participant, interesting, probably needs more discussion, interesting.

Demand reduction scenarios, Option 1 through 3, I think it's absolutely important that CARB is diving in on options to reduce fuel demand with the CEC. Important area, obviously. Demand, supply, supply, demand.

Having a chapter, one suggestion, to have a chapter on each major element of the transportation energy system, and scheduled workshops for that deeper dive going forward on each of those elements we think would be critical. Ports and imports could be one of the first ones we do, bringing in the Port of L.A., the Port of Long Beach, up in the Bay Area, bringing in the shippers, having the conversation about what that looks like, since it's so prominent in this Assessment, I think would just be a excellent workshop to have so we can really dive into the issue.

And then I think if you could include an analysis of economic impacts on sectors like agriculture, manufacturing, and I would also put on the table asphalt, because how we end up going here could impact how asphalt is made and delivered. And so it's another area I think that could use given what we all use asphalt for, that we should dive into.

And then I think you already have this in there,

but just looking at the effects of a slower build-out of the electrical infrastructure, we all hope it's going to go the way. I love the different scenarios that we're looking at in case it doesn't.

And then how that, how, also, I think the rapidly increasing electric rates, electricity rates, you hear it a lot, you see it a lot, you feel it a lot, it's becoming quite prominent. So that's just in the mix of this whole area of what needs more investigation.

MS. BERLINER: Yeah, of course.

VICE CHAIR GUNDA: Thank you, Aria.

Cathy, just on that particular one, the intersection of electric rates and the refinery operations, is the electric consumption of the refineries a pretty big part of operational costs?

MS. REHEIS-BOYD: I can tell you that it's important enough that when we have rolling blackouts, we get calls from the administration to see what we could do to reduce that impact and put more on the grid. So I do think it's an area that we should really look at.

MS. BERLINER: Thank you.

And then, also, I do want to ask, Cathy, that you submit this placemat to our docket, just so that it can be shared with everyone joining at home.

MS. REHEIS-BOYD: Happy to do that.

MS. BERLINER: Thank you.

MS. REHEIS-BOYD: It's fun to draw on.

MS. BERLINER: Great.

Next up, Elena, we have the same question for you.

MS. KRIEGER: Great. First of all, again, thank you for all of the work and opportunity to speak.

I think I'm going to echo some of what Julia said here. I am certainly interested in thinking about options to create what effectively would be a public utility model or some other kind of oversight to better regulate fuel prices and rates of return, particularly as the number of refiners continues to decrease.

It is interesting to note that as we electrify, energy for transportation will inherently become something that becomes managed under the same way as the utilities. So it seems like there could be some coordination here to think about overarching regulatory structure that supports equitable and affordable fuel switching from gasoline to electricity, since these are currently regulated separately.

This actually might help align incentives and processes. You could target, for example, households that have high energy and transportation cost burdens with various kinds of interventions, fund the panel upgrades

that would help electrify cars and appliances, and hopefully improve the overall efficiency and effectiveness of these measures.

Increasing the fuel storage minimums at existing sites is also intriguing and I think would be valuable to continue to collect data to see what kind of cushion this would provide, both today and in the coming decade as total demand continues to decrease, which of course means that the percentage of demand that could be stored should theoretically increase.

I mentioned you have the option of expanding CARBOB gasoline to other nearby states. Of course, a lot of this is going to be outside of California's control. But if federal ozone standards are lowered in the coming years, which seems possible, this could actually provide some additional incentives for other states to switch over.

This is one of the more health-protective policies that is being proposed and stands in contrast to the proposals to switch to the winter fuel mix early and to enable non-CARBOB sales when prices spike. Both of these move in the wrong direction, loosening public health protections when we all know that most of the state is already out of attainment for air quality standards, and they set a very poor precedent if we decide to sacrifice public health every time there's an energy reliability or

security concern.

And then I think what the last couple of years and what this, you know, huge portfolio of options reminds us is that it's really hard to fix multi-to-cable structural problems with emergency stopgap measures. Transportation energy cost burdens aren't new, they're just getting exacerbated. So while we should pursue some measures to mitigate near-term price spikes, we do have to continue to pursue the long-term urban planning goals, such as transit-friendly low-cost housing and improve public transit and walkability that support a reduction in demand.

All these policies are important, but also take a lot of coordination across multiple jurisdictions and are often hard to achieve and slow to make progress. Prioritizing them now will help provide protections in the future.

Thanks. Back to you, Aria.

MS. BERLINER: Thank you.

Mike, same question.

MR. SMITH: All right. I'd also like to thank everyone for the opportunity to speak as a representative of the oil workers for the United Steelworkers in the state of California. Obviously, the energy transition here in the state has been, you know, detrimental to some of our members and the communities in which refineries have shut

down. And as you've seen in the chart with the multiple grade refineries that have shut down, those are thousands of our members who have lost their jobs and struggle to continue -- and continue to struggle to find jobs with equal pay benefits, family-sustaining jobs.

As to the question, some of the policies that we -- options that we kind of thought needed more investigation, looking at leasing and storage, we have probably a lot more questions to that. I know there are a couple of refineries that have transitioned but I still believe that, you know, I mean, I'd take for -- take them at their word that a lot of those tanks probably are in service and wouldn't necessarily provide enough to be able to prevent price spikes.

We are interested in, you know, kind of like the California -- I guess it would be like a California SPR, basically. But not understanding, California is not like Texas, where there's massive tank farms around that can control, or Cushing, or any of those areas in Oklahoma. We're kind of skeptical if the state would be, you know, willing to invest in producing, in manufacturing these tank farms with the overall goal, I think, as the energy transition and the fuels markets decline.

So, you know, while we think those are probably more feasible and we're kind of more comfortable than with

some of the other policy options, we think that those would need some -- we'd like to see some more investigation into those and understanding of how that's fed, how you're -- you know, are there imports coming into that? Are they actually bringing, you know, or are the California refineries providing the strategic petroleum reserve, I'll call it, for California? So there's a lot of questions as we dive in, and I'll leave it at that.

MS. BERLINER: Thanks.

Connie?

MS. CHO: Hello everyone. Thank you for including us in this conversation as well. I also want to thank the Energy Assessments Division and, of course, leadership for starting this incredibly important process with rigor, humility, and an eye towards both short- and long-term solutions.

So of the policy options presented, which do I think needs more investigation? In the longer term, so that means we should continue to investigate it now, start that process now, is certainly the cost-of-service model or utility regulatory model, recognizing that fuel is actually an essential product, an essential good that should be treated more like the public good that it is, especially as we are undergoing this absolutely necessary energy transition to meet the climate crisis.

And as for shorter-term options, the Strategic Petroleum Reserve or storage strategies also seem important and would need a lot more detail to be able to discern between them and making sure that we are also able to remain safe in the process for our frontline communities.

And of the demand-side measures, public transit is a huge -- incentives for public transit are a huge need for our communities that rely more heavily on public transit measures. Sometimes the demand for public transit looks low but, in fact, it would be higher but for the fact that there's low investment in public transit. So this is something we consistently hear across our communities and would put at the forefront of the demand side strategies.

And I suppose we'll get to the other questions.

But I do want to say, as an opening, this is a huge opportunity to address both the cataclysmic and existential threat that is the climate crisis. And I want that to be an important frame that we always keep in mind as we're discussing the other ripple effects of that transition or of this transition to meet that climate crisis.

And we are also able to at this moment in history address the systemic injustice of an ongoing public health crisis that has placed an overwhelmingly disproportionate burden of air pollution that has resulted in

disproportionately high rates of cancer, respiratory and cardiac disease, premature death in lower-income communities, predominantly communities of color. This is a critical moment in our history in this state and in the country to be able to address these communities that have borne the pollution that we all -- that we have all used. We have, on their backs, been able to fuel this economy and our travel day-to-day, so we actually have a chance to do something about it now.

MS. BERLINER: Thank you.

So I kind of want to follow up on a little bit of what Cathy said, because she was sort of talking about, a little bit, about policies that weren't included in the Assessment but kind of wish that they were.

So, with that, I'm going to start off with Connie. Are there any other, any policies in that, that you wish you had seen in the Assessment that weren't there?

MS. CHO: Thanks, Aria. Well, I had three, and I was really proud that I had three, but then Quentin presented, and now I have four.

But first, we believe there's really a missed opportunity to assess the dangers and, therefore, for the safety of refinery operations and combusted fuels on fence-line communities. Obviously, this Assessment has been a huge effort and we appreciate the thoughtful work on it.

But we do think that overall, because safety for our communities was a significant gap in how the policy options were analyzed or considered, and the Assessment of a safe supply is in the statutory language, we think that some of these policy options that weren't included would help address that.

And I'm here as an advocate and representative today, and I go back and speak to our communities, our youth, our elders, our working-age members, and they really asked me to -- what they really asked me to do as their representative here is that the Assessment should include a specific policy option that discusses regulation, prioritizing the safety and health of our communities by creating a reliable schedule of required milestones that track the phase down of total emissions/pollutants at refineries. So this policy option must be a part of the conversation at what it means to steward a just transition so that it is not only safe but equitable. Our communities are living on the front lines of dangerous explosions, fires, toxic leaks and spills, in addition to air and water pollution.

So instead of guessing or making assumptions about refiners business decisions as a part of a qualitative explanation, asking questions like, well, how much more export or biofuels would refiners really make, I

urge you to prioritize our communities and the importance of securing reductions in terms of cumulative pollution burdens.

And so this could be designed in a very broad way. The specifics would need a lot of investigation. It would need an administrative process. But we urge you to include it as a policy option here so that it is a part of the conversation. It is a way to make some of the language at the beginning of the Assessment about the importance of environmental justice and environmental impacts more real.

Second, it seems that we're missing policy options that squarely and directly address the impact of price spikes on consumers, so policy options that look towards directly paying our communities so that there is a greater ability to pay for those fluctuating prices for fuel or directly paying for safety net for communities and workers to make a transition, not just after a shutdown but prior to that crisis point for refinery workers and prior to the pain point for local public employees.

It's a tension for us too. The health impacts of a refinery -- refineries declining and closing and leading to total emissions declining results in health benefits. And health benefits aren't just about, you know, your body's condition, that also has a cascading impact on your ability to operate in the economy and in your social fear.

And so that is a cost-benefit analysis that have to be done for our communities. But still our communities are asking for these types of policies.

And the fourth item -- or I suppose this is still three policies, is I'm curious about policy options that more directly address, there was one, but more directly address why retailers don't adjust their prices as quickly. So are there policy strategies to break up the market power that refiners exercise over retailers in what I assume are their long-term contracts? And perhaps this is a question for CTFA, but I wonder if the CEC could at least identify whether that's something that's regulated at all in other states or what that relationship or what that policy arena looks like.

Thank you.

MS. BERLINER: Thank you. So I was going to give it to Julia because I felt like she probably was going to have some really good things to piggyback off of, but one policy option that I thought was really interesting was directly paying the consumers for the price spikes. And then, also, you talked about a little bit, and maybe I misheard, a little bit about the union members or labor that are losing their jobs, and so like as a result of refineries transitioning or closing down. So I actually want to pass it to Mike.

MR. SMITH: So kind of to address at least something that we would have liked to have seen is like a refinery modernization incentives something that would provide like financial incentives for refineries to modernize facilities to process alternative fuels or to implement more efficient and less polluting technologies. It could also include things like carbon capture and storage. But those investments, I think, would bring some stability to the to the to the sector in the state.

As the transition happens, as I think I've spoken before, it's going to be clunky because you're going to see refineries as a chunk shut down rather than the nice, you know, the slow demand decrease it's going to go down clunky and price spikes are going to happen. So the stability provided by investments into those modernization incentives we think would be something to look at.

As far as the impacted workers we've -- you know, there is a plan, and I don't know if it's necessarily part of this whole discussion but maybe it's part of the Transition Plan, I mean the state currently has a displaced Oil Worker and Gas Fund that we were successful in getting. But when you're talking about, I think, we've got, you know, $15,000 per member to help support -- to support our members, which is basically -- you know, which isn't very much to try to figure out what we've done.

There's plenty of reports out there that we've worked with universities on what the effect and impact to not only the workers but the communities, surrounding communities and how, you know, the percentage of our members who lost their jobs who are continued to be paid significantly less with no, like I said earlier, no benefits, no union benefits.

A lot of our contracts are 70, 80 years old. We're proud of the contracts that we bargained. A lot of the new transition technologies, it's not really defined yet. It's hard to say we're going to transition you to this, when we don't know what this is yet. The employers aren't there. Obviously, whether it's unionized or not, you know, a lot of the next technologies aren't and don't have the contracts, don't have the benefits. And asking somebody that's 45 or 50 years old to take the $15,000, take some training and then figure out how they're going to finish their kids last two years of college or any of things like that, so it's concerning.

So as we think it's important to protect the consumers, we are also consumers on price spikes. But I think a big discussion has to be the transition of the workers, the transition of those communities, the tax bases inside those communities. I came out of a of a refinery in a city that I think the tax base is a large percentage, and

so it would devastate not only the workers but the communities around services, emergency services, teachers and everything.

So the overall Assessment needs to be, I think, addressed as far as the workers and the communities of the transition. And, you know, to be honest the -- and I don't think one of the questions is what's concerned but, you know, when we when we see things like imports, incentivizing imports, I'm not sure of any products that we would have out would incentivize to import products.

Our members and our union have worked with the industry and the state around AB 32, low-carbon fuel standard process safety management regulations that we think lead the lead the world. We think that they are the cleanest and safest refineries in California for a reason, but we would hate -- the ability to incentivize the refiners to import fuels from Asia or the global south would basically be shipping our jobs here in California away.

So we obviously will provide the comments and really want to try to have a discussion around import, so that's it.

MS. BERLINER: Thank you.

Julia?

MS. MAY: Thanks. I want to agree with the

statements that Connie made earlier. And we also have extensive comments we can make in writing. So we'll try to be quicker about these.

We absolutely support the workers. And the oil industry has extracted billions of dollars from the public. and that leaves a lot of money that could be used to support worker transitions and refineries should be required to. But instead of looking at -- what we see, you know, supposedly refineries have, every time they do an expansion, they call it a modernization. They have been getting bigger over the decades in California and expanding, and we've worked hard on regulations to make them safer and reduce air pollution and put in control equipment. But these are dirty industries -- inherently dangerous.

So one thing missing from the plan is an assessment of safety. Our communities in Richmond and Wilmington and other refinery communities are blasted consistently by pollution from refineries. It is unsafe to use the fuels. Six of ten of the worst states for smog in the nation are in California, so we need to phase out these fuels for health. And we're facing catastrophic climate change.

So instead of looking at expanding refineries, we're saying a couple things. One, look at exports. We're

still exporting gasoline to other countries. And secondly, we proposed a different model for a more gradual phase down of refineries in line with the demand. The demand goes down more gradually. And one thing that the state has been worried about is when you have a whole refinery shut down, it leaves the workers -- it dumps a bunch of workers and it may not be a gradual decline that's in line with demand.

So instead of whole refinery shutdowns, we're asking that you also consider a partial refinery shutdown pathway. We've seen that several of the larger refineries have duplicate distillation and cracking units that make most of the gasoline. And so over the years, there's been expansion where we see a design to add that capacity, that duplicate capacity. We would essentially like to see reversing that design. So you could shut down some cracking and distillation units at larger refineries. It's not quite as simple as that. You need to design there's associated units, but you could do that, instead of shutting down an entire refinery, to more gradually reduce supply. We believe strongly supply must be managed by the state, not just demand reduction. And the workers need to be supported, as well as the communities, while we do this.

But we're far past the point of saying, should we do it? We're really facing catastrophic climate change. People cannot live with all the smog and toxics that they

breathe next to the refinery. There's regular explosions and constant invisible emissions.

There's one other thing I wanted to say is in addition to assessing safety, which includes not only refinery safety, but smog and climate safety, we think the baselines being considered should remove the outliers in the Assessment, the really high gasoline projections for the future. They include or they -- the highest one assumes that the Advanced Clean Fuels will not be carried out, not be implemented, and those are adopted regulations.

So we believe the Commission should ditch those really high outlier future demand forecasts so we can plan according to our existing policies, including that we already adopted advanced clean fuels and we need to manage the space down in a smooth way. There are other methods we identified in our partial refinery shutdown pathway that includes a way for all refineries to more gradually reduce, and we think you should consider that as well.

We'll have written comments as well on many other particulars. Thank you.

MS. BERLINER: Thank you.

I do want to flag that we only have about 15 minutes left on this. And I know I still want to get to Elena and Cathy on this point, but just flagging everyone for time.

Elena?

MS. KRIEGER: Thanks, Aria.

So briefly at first, I do like the idea of continuing to explore additional demand side measures that improve affordability. I think you are considering an option to make public transit free, for example, when there are price spikes, which could help reduce demand, even if the actual demand reductions come mostly from urban areas rather than from some of the rural areas where we may see some of the highest transportation cost burdens and where EV adoption is lagging behind.

I also think we should expand how we think about incentives for low- and moderate-income households to purchase electric vehicles. Right now, these are mostly in the form of, say, getting $7,000 to purchase a vehicle. But the state could also have a role in providing low-interest financing. Unlike a straight incentive approach, a low-interest financing model would ultimately provide a revolving fund that would not require reallocating funding every few years, which was one of cons that was highlighted for this option, and which might be more resilient to budget shortfalls. This would also be very valuable for more moderate-income households who do not qualify for current incentives but still struggle with transportation cost burdens and do not have the cash to afford an electric

vehicle.

And then echoing some of Julia's comments, we do need to wed this effort within a managed decline framework that has guardrails for workforce, public health, and other societal goals. Just letting market forces decide which refineries stay online will not inherently address longstanding public health concerns. I'm thinking, for example, of the cumulative burdens from the numerous refineries co-located here in the East Bay. Under market forces alone, many of these refineries might shift to exports or to biodiesel production, which has poorly characterized health impacts, although we're working on that, and might continue to propagate on-road emissions from burning biodiesel.

A managed decline framework could also help identify how to retire refineries in line with demand in a way that protects energy security while simultaneously protecting rather than exacerbating public health or workforce impacts. Connie suggested a version of this as a policy option, and I think this really might be best considered as an umbrella policy under which all of the other policies should fit.

And back to you.

MS. BERLINER: Thank you.

And Cathy?

MS. REHEIS-BOYD: Yes, thank you very much. And certainly, I think there's many, many things we are much more unified on than we are divided in this topic. And I'm very excited again about this conversation and where we're going. But there are also going to be things we don't with that we do not agree on.

Safety is the number one issue for our members, it is for our workers, and it is for the communities that surround our facilities. And we meet California demand every single day 24/7 in the most efficient and the most -- under the most strictest environmental regulations that there are, so just wanted to put that on the record as well.

We look at this in sort of what we call the five P's. So we've got production in the sense of crude oil. We've got pipelines, ports, permits, and people. So that's how we are thinking about these areas. And when we look at policies that we don't think were included that perhaps should be included crude, the production of crude oil is one of them. It is very absent in this report. And there's no serious treatment of the cost of displacing it and finding it elsewhere to meet the demands that are being, you know, projected here within the report.

The cost of import substitution is very underestimated. It's about $1.00 a barrel for domestic

crude, it's about $5.00 a barrel for Alaska crude, and it's about $6.00 a barrel for foreign imports. That has to be incorporated into it, regardless of how you feel about it or where it's going. If we're going to be transparent we need to look at that because those costs will be impactful as we talk about where we go. And then that every impact, every barrel of foreign crude adds, definitely, cents per gallon at the pump. So we will be submitting information on the details of that that has to be included.

There's also issues on the throughput limits at marine terminals. So the throughput limits at marine terminals will limit the amount of crude or product that can come in. So if your assertion is to replace domestic crude with imports, one has to look at, is that even possible? Because that is still a large amount of production that would have to be displaced if you were to eliminate domestic production.

So we also want to just encourage more discussion at the CARB at birth regs, because that intersection of those regs and the ports is an important conversation here, not saying or putting any judgment on the merit of the regs, but there is an intersection of those regs on the desire to do things at the port. So I think that's a really good, again, ports, ports, ports, ships, ships, ships, let's have the next conversation on that.

And I know you touched on it, but Arizona, Nevada, obviously something to be careful about, 33 percent of Arizona's fuel comes from California, 88 percent of Nevada fuel comes from California as well. So I think that's an area that, again, careful consideration on the impacts to two states that do not have refiners and rely on California.

Mike already tossed on the greater investment, so I won't talk about that.

And then I think the other one just, again, put on the table, any areas in cap and trade and low-carbon fuel standard that we can improve those programs to impact fuel supplies would be great, so that's an area of interest. Those are great programs, area of interest.

And also just, again, any impact of delayed state buildout of the electric grid relative to other electrifications, like industrial heating and building HVAC, just putting all that on the table in a very transparent way so we can really map this out in a way we can get from A to B.

MS. BERLINER: Thank you, Cathy.

So we only have about eight minutes left. And I'm going to kind of throw everyone a curve ball because I keep hearing about a policy surrounding safety, a policy option surrounding safety. And I'm just, I'm really

curious what that option should look like.

Any hands raised or -- okay. Go ahead, Julia.

MS. MAY: I'll jump in.

Our refineries are inherently unsafe. Our communities and our members who live around refineries in Wilmington, Carson, and Richmond have faced explosions continually. And flaring emissions despite regulation recently have increased with smoking flares that add particulate matter. We've kind of stagnated on our -- even despite hard work on regulations to reduce emissions, this energy source is inherently unsafe, despite the hard work of the workers who try, who are at ground zero and working really hard to operate the refineries safely. This is inherently a carbon-based structure that makes fuels that are inherently to be combusted and causing air pollution.

We are past the point of figuring out where we should be dithering about phasing them out, so we know -- so what we would like you to add is an evaluation of safety of fuels, and what that means is transition to zero-emission fuels. And I want to mention it again, the South Coast Air District found it will never meet smog standards without something like a 67 percent reduction in NOx beyond existing regulations by 2037. And they said they will not be able to do that without a broad move to zero-emission energy for both transportation and stationary sources. So

that essentially means we will not make smog standards ever without a phase out of fossil fuels. That's what safety is to us.

We understand that your staff has done an excellent job and has your work cut out for you, but there's a lot of existing materials that you could use to frame safety on climate, safety on smog, safety in communities who live near refineries. And we will certainly comment on that in our comments.

Thanks.

MR. SMITH: Okay, so, I mean, I'm going to go back to kind of the safety and the operation, I think it's going to require investments, which will -- in order to see that. But I think we need to have some more stability in the California refining sector to actually incentivize the employers to invest in modernization, invest in the better technologies in order to do that. We see newer technologies going out, you know, around in facilities around the world. We're not seeing -- I won't -- I don't -- it's not a scientific fact, but we're not seeing as many here, I think, and it's due to the instability of the refining sector here in the state because of the recent closures and the, I think, the constant fear of which one's going to be next.

So in order to run and operate safely, you need

the investments. In order for that, there needs to be confidence that the facility is going to be running into the future and ensure that. And we always, obviously, think there's other paths as far as operating safely California's process safety management regulation.

MS. REHEIS-BOYD: I would just say, any policy option on safety, let's just make sure we're having that conversation on every form of energy. This issue is applicable to any form of energy that's being utilized in any fashion. So if we're look at safety, and we'll put our safety record up against anyone's, but if we look at that, let's make sure we're looking at all forms of energy.

MS. BERLINER: Connie or Elena, do you guys want to add anything?

MS. KRIEGER: Just that I think that this would fit very neatly into a managed decline or sort of orderly retirement conversation, right, which is one of the components that should be considered as you're trying to figure out, how do we retire specific units in a way that is in line with the decline in demand? That should be prioritized in a way that reflects a track record of safety, as well as public health impacts both sort of individually and, as I said, collectively from multiple refineries in the same place on the communities around them.

MS. BERLINER: Thank you.

MS. CHO: Yeah. When we say we wanted to do the safety, have a policy around safety, the policy that I described earlier that is public health protective and really thinking about the cumulative and total pollution burdens I think is a part of how you get to safety as a predictable timeline, which also talks about predictable timelines of, you know, turnarounds and maintenance and not deferring maintenance, all of these, having predictable trajectories creates that kind of certainty in refiners.

And this goes to like also why this kind of public health protective policy as like a framework can be helpful because we're trying to, you know, safeguard against refiners with outsized market power making business decisions without regard for our communities and to avoid any unintended consequences of thinking about buttressing supply here too; right? It's this balance of trying to get to zero-emissions while also trying to make that responsible and smooth out supply so it's less lumpy. But the reality is that all of these things have to be considered together.

So, you know, we'd just reiterate that just because, you know, the emissions are coming from a barrel of carbide doesn't mean that we should disregard it. All of these production elements are important.

MS. BERLINER: Thank you.

I want to pass it to the dais if there are any questions or comments on either the presentation or for our panelists.

EXECUTIVE DIRECTOR BOHAN: Certainly thanks, Aria, and thanks to the panel for that feedback we got, both here in the room and online. Vice Chair Gunda has stepped out, as he suggested he would earlier. We expect him back in about an hour.

In the meantime, let's get questions from the dais. I'm going to go to one of my other bosses, Commissioner Monahan, and see if she has any questions. We'll just kind of go around the room.

COMMISSIONER MONAHAN: Well, I actually had a question for Quentin, but I really appreciated this panel discussion. It was really helpful and illuminating and just gave me a lot of good food for thought. So thanks to the panel for all your input into this process.

I'm curious, Quentin, on this strategy around storage. Can you talk more about like the challenges, the cons side? You talked about rotation of fuel for RVP purposes. I'm just curious, like how long can we store CARBOB in, or does it have to be sort of pre-CARBOB? Like what can we do in the storage side that -- I don't know, how long can we store it, basically?

MR. GEE: Yeah, great. Thanks, Commissioner Monahan. Good question. There's a few things that we can do on the storage side.

I guess what I would say is one option is for us to think about sort of mandatory minimum storage levels for folks that already do store gasoline, or maybe even certain blendstock that could allow us to rapidly, well, not gas, but blend stock to rapidly create more CARBOB stock or require minimum CARBOB stocks. So that would basically mean that, you know, maybe they're used to operating at, say, 50 percent of storage and instead you say, no, you've got to go and stay at 80. And then if there's a price spike, we say, okay, well, you know, now you can release, you can go down as low as you want for a certain period of time. And that might encourage them to release more product onto the market.

Other options would be sort of taking -- you know, as a refinery, if a refinery were to shut down, you know, that refinery is well-suited to distribution access points and, you know, we might be able to lease that storage.

And then the other option would be that you could build new storage. And in the options where we're building new storage or where we're using storage that would otherwise be shutting down, we're looking at a situation

where you do have to keep a continuous flow because you can't just set it in there and forget it until you need it later on. So you do need a sort of an inflow and outflow.

But, yeah, there are different approaches on how it could be implemented, but those are the three basic ones that we're looking at.

COMMISSIONER MONAHAN: Can you give a sense of how long you could store it without having to move it, or is it, when you say continuous, is it like from the second it gets into the storage tank, you still have to have some kind of flow?

MR. GEE: Yeah. So, yeah, we actually took a look, the CEC, I didn't, but the CEC looked at this way back in 2002. And, yeah, I think the idea was you could probably go for a few months, but you need to have a little bit of an inflow-outflow. And so if, let's say if you've got a storage tank that's holding, you know, whatever, 5,000 barrels or something like that, you would need to have that flow in, and then there needs to be a reliable flow out. But it wouldn't need to necessarily -- like you could let it sit for a while if you needed to. But there does need to be some kind of schedule for it to be released back into the fuel supply.

COMMISSIONER MONAHAN: And just one last question, then I'll pass it off is, is it true that in

general, and maybe we don't always, but in general, our price spikes are in the summer, so we're talking about storage for probably like three to four months on average?

MR. GEE: Yeah.

COMMISSIONER MONAHAN: Okay.

MR. GEE: Yeah. Yeah, I think, I mean, yeah, you would need to, you would need. That's the time when probably storage would be like a critical point. So, yeah, if there were some kind of storage minimum requirement, then you might want to maybe have that activated, you know, for a certain time period. If it were where we were using a certain amount of storage, it might be that maybe it's not at its full capacity during other times of the year, but you kind of build up in anticipation of high-risk periods. But you probably also want to keep a fairly reliable amount because prices can spike for a lot of other reasons.

I think one of the things we're really focused on in the report is prices that spike as a result of some kind of California-specific reason, like, for example, a refinery, unanticipated refinery shutdown, whereas, you know, if we're talking about, you know, the Russian invasion of Ukraine and prices spiked then, that had more to do with the crude situation as opposed to any refinery issue.

EXECUTIVE DIRECTOR BOHAN: Great. Thank you, Commissioner Monahan.

And I'll shift to my staff hat just for one second to say, I think another answer to your question is it depends. There's different use cases that would call for different amounts of storage, different volumes you'd need in storage to address those. If it's a short-term spike, it's a smaller volume. If it's something to manage prices over a longer period of time, it might be larger.

And I'll put my dais hat back on and hand it off to Chair Randolph and see if she has any questions.

CHAIR RANDOLPH: Yeah, I have two questions. One is a factual question and one is an options question.

The factual question, and this relates to something that Cathy was saying about the different costs of importing crude -- on slide nine there was sort of showing imports from other countries, imports from Alaska -- or crude from other countries, crude from Alaska, but there wasn't any lines for crude from other states in the continental U.S. And so I was just curious why those were not included, and if -- and, you know, I guess maybe kind of digging a little deeper into to the question of cost differentials, is it -- I assume the $1.00 that Cathy mentioned was Texas, Oklahoma, North Dakota; is that correct? And it sounds like there was like a $5.00

difference between Alaska and domestic. So I just wanted to clarify that.

MS. REHEIS-BOYD: Yeah, really it was California. Thank you, Chair Randolph. It was basically California, Alaska, and foreign -- were those price differentials, mostly on transportation. So, obviously, our refiners prefer California domestic crude. And, obviously, the logistic costs of Alaska and foreign sources are much greater. So what you see there is that is the picture of where crude imports come into California.

And I would say the one thing that I would ask the Air Resources Board to consider is in their current Scoping Plan there is an estimate of a one to two percent decline in production. We are at 15 percent decline, not because the reserves are not in California. We are blessed with reserves in California. The fact is we are not getting permits to develop them. So the picture could be very different if we were allowed to actually get permits for drilling in California.

And I do think if we're going to look at the scenario that CARB has put out there, we should run it at a 15 percent decline because those are CalGEM's current numbers, and it is certainly not 1 percent to 2 percent, which could change assumptions, forecasts, outcomes, pace, scale, all those things.

CHAIR RANDOLPH: Okay. And then sort of follow up to that question on the slide, are we seeing the same downward trends from Texas, Oklahoma, North Dakota? This is for CEC staff.

MS. REHEIS-BOYD: Oh, you're asking do they have a, oh, a slide on what the percentage of different crudes in different parts of the U.S.?

CHAIR RANDOLPH: Yeah. So I was just asking because the slide shows that the long-term trends are downward and I just wasn't sure if that was?

MS. REHEIS-BOYD: Well, the one that's not downward is --

CHAIR RANDOLPH: I just don't know. I can't tell if the domestic --

MS. REHEIS-BOYD: Yeah, right. Gotcha. I think it's, you know, I think you would benefit from a slide like that. The one on this slide that is not really declining is foreign imports. Alaska is declining. California is declining, again, not because we don't have it. We just can't produce it because we can't get permits. And so the one that will increase is foreign imports.

CHAIR RANDOLPH: Okay.

MS. BERLINER: Chair, this is Aria Berliner. I also do want to add we are asking staff to get that answer and if -- hopefully we'll have it soon, but if not, I will

send you an email with that answer.

But I also want to note that California refineries tend to use a heavier crude oil than what then say other states or other refineries use. So California and Alaska crude tend to be what they call a little bit more sour than sweet, and so I think that's partially why we are relying on imports from Alaska, as well as using our own in-state crude, even though we're reducing it.

CHAIR RANDOLPH: Okay. All right, the policy question relates to the option for kind of the heavy regulatory option. And one question I had was sort of the regulatory light option, which would be, you know -- so this question is in two parts. One, how much are price spikes related to unplanned outages? And I think Cathy referred to that. And if that is a significant factor in price spikes, is there discussion of a regulatory scheme related to maintenance and managing when refineries are closed for maintenance more directly? And that's a question for CEC staff.

MR. GEE: Yeah, thank you, Chair Randolph.

Yeah, so to answer your question on that point, we -- I think what we could say is that one of the factors that does contribute -- it's not necessarily just one particular, like an instantaneous refinery outage. One of the narratives in the 2022 price spike was actually that it

was extended maintenance periods for several refineries that kind of impacted onto each other. So, I mean, you're right in the sense that the refineries may not be operating, but it's always necessarily an accident so much as maybe a delay in standard refining maintenance. So that was one thing that contributed to it.

And, you know, we are thinking a little bit more. And one of the parts, one of the reporting that goes on, one of the reporting requirements in SB X1-2 is going to involve or it does involve the requirement to be a little bit -- be more transparent with the CEC about what refinery maintenance schedules are like. And that's an opportunity for us to understand this dynamic a little bit better.

Another challenge that we didn't quite get into in detail here in the presentation today, but we do think is critical and is the core activity of the Division of Petroleum Market Oversight, which was also created under SB X1-2, And that is spot markets and the kinds of activities that can go on there.

As noted in the report, and I'm sure as the Director of the Division of Petroleum Market Oversight would say, the spot market is a pretty opaque market, and the reporting that goes on there is not the most robust in terms of a lot of data points and a lot of known behavior. There's things that occur off the spot market and then

transactions that occur off the spot market. And then on top of that, spot market reporting is pretty much voluntary. And we've seen some kind of strange behavior there.

So there are some issues, definitely, within the sort of the way that the refineries operate and the schedules that work there, but also there are some issues where we are concerned, also, about the market itself, the reported market activity itself not always being the most solid to inform all participants about what's going on.

CHAIR RANDOLPH: So it sounds like there's opportunities to get more data around planned maintenance, more understanding of options there, as well as thinking about strategies around the spot market?

MR. GEE: Yes. Yes.

CHAIR RANDOLPH: Okay. Great. Thank you.

MR. GEE: I also did want to follow up real quick on your previous question. I just got word. We did get 600, just a few, some barrels of oil from North Dakota in 2023. But sort of on that import note, it's a little bit trickier to get. It's easy to get stuff from Alaska. It's a little bit harder to get stuff from the East Coast. You've got to either by rail, which is not a very common one, or by ships. And there's some issues around that with the Jones Act and other sorts of things like that, so it

can be kind of tricky.

EXECUTIVE DIRECTOR BOHAN: Chair Randolph, I'd just add one thing, which is another part of SB 2, not the subject of what we're talking about today, is a grant of authority to the Energy Commission to regulate the timing of those maintenance events. So if there were a number of them, let's say, scheduled at the same time during the summer at a time when the supply may be quite low, we're given the authority to take a look at that and make case-by-case decisions. We're just exploring that as we speak.

CHAIR RANDOLPH: Okay. Thank you.

EXECUTIVE DIRECTOR BOHAN: Anything else, Chair Reynolds?

CHAIR RANDOLPH: Those were my questions.

EXECUTIVE DIRECTOR BOHAN: Okay. Great.

Let me move to Deputy Secretary Izant, questions or comments?

DEPUTY SECRETARY IZANT: Well, just an appreciation for the presentation and for the panel. I think helpful to hear the discussion about the feedback on the various options.

Maybe one question. Just I know that there a mention of sort of the next steps being about, you know, prioritizing the recommendations from the Assessment, and I wanted to make sure I understood sort of what that process

looks like moving forward from here.

MR. GEE: Great. Thank you for your question there. Currently, we have a lot to sort of continue to coordinate on with the Air Resources Board and the Division of Petroleum Market Oversight. I would note that, you know, DPMO, or the Division of Petroleum Market Oversight, they are taking a deep dive into a lot of activity at this point, and we're trying to get more information there.

But in terms of some of the other policies, I think it's going to require some continued conversations, and also, I think, getting feedback from stakeholders and folks on the dais today that will help give us a little bit more guidance on how to pursue further work on the policy options. But, yeah, sorry we can't give a whole lot more precision on that, but it's a continuing conversation at this point.

DEPUTY SECRETARY IZANT: Thank you.

EXECUTIVE DIRECTOR BOHAN: Great. Let me hand it off to Deputy Secretary Nguyen.

DEPUTY SECRETARY NGUYEN: Thanks, Drew. No questions. My only question is on the next steps, as well, but it sounds like we'll get more information in the next few weeks.

EXECUTIVE DIRECTOR BOHAN: Great.

I will close this out with just one question for

Cathy. You look like you're going to speak, though.

MS. REHEIS-BOYD: I was but --

EXECUTIVE DIRECTOR BOHAN: Well, how about I ask you the question, and you can lead it if you want.

MS. REHEIS-BOYD: Okay.

EXECUTIVE DIRECTOR BOHAN: I was wondering if you had a reaction you care to share about the part of the report that was discussed today and some of your colleagues on the panel mentioned, and that was this idea of some sort of utility model of regulation for the industry? Obviously, this is something that, even assuming it were decided was a good idea, would take quite some time to implement. But do you have a reaction you'd care to share?

MS. REHEIS-BOYD: You must have been reading my mind because the two that we didn't get to, obviously, depended on time, was the one question on long-term impacts. And two things fall into that area to be cautious about as you investigate them further, and one is a state-owned refinery. As we look at instances across the world where this was tried by governments running refineries it typically resulted in three things, higher operating costs, lower reliability, and poor safety records. So that's one of the options you had listed.

The other one was the cost of service model, so turning the California fuel markets into a regulated

utility, basically. And some of the things, obviously, that would come to mind, would price at the pump be subject to CPUC rate making cases, as an example? What part of, in that model, what part of the value chain would actually be included? How would the state under that model regulate other market participants, like importers and traders and out-of-state refiners? Certainly there's no precedent under U.S. law relative to this option.

So I just think it's one to be cautious about. It's one to make sure you don't end up further isolating the state from the rest of the U.S. and the world relative to fuel markets.

EXECUTIVE DIRECTOR BOHAN: Thank you.

I think that's it for questions and comments from the dais at this part of our program.

Aleecia, are you going to take us to the next part?

MS. BERLINER: So I just want to -- thank you, Drew.

I just want to say that I just want to express my gratitude for the panel for joining me today. We've had people pretty much come from across the country today to join us, so I just want to say thank you. And thank you to our remote participants as well.

With that, we're going to open it up for public

comment.

MR. SAMUELSON: Thank you.

Now we'll move on to public comment period. As a reminder, one person per organization may comment, and comments are limited to three minutes per speaker. For in-person comments, please line up at the podium.

Do we have anyone in person that would make a comment?

MR. KOEHLER: Oh, sorry. Neil Koehler with the Renewable Fuels Association. We represent ethanol producers in the United States, and we really appreciate this work that's being done on fuel assessment.

Supply is critical. Supply of clean fuels is even more critical as we make this transition. And the low-carbon fuel standard that Liane mentioned at the beginning has been incredibly successful in bringing new fuels to the market.

I'd like to draw attention and support specifically in the Chapter 5 on production enhancement strategies. The number one listed strategy in that section was E15, which is a 15 percent ethanol blend. Today, California only allows up to ten percent. The EPA approved E15 back in 2011. Every state, other than California, actually has certified the use of E15. It not only gives you that obvious increase of five percent supply, but it

lowers emissions. We worked together with the California Air Resources Board and finished a study that showed not only the obvious reduction in greenhouse gases, but significant reductions in most all pollutants, and really, an eye-popping just going from 10 percent to 15 percent, an 18 percent statistically significant reduction in particulate emissions. So really bringing not only lower cost, up to 25 cents a gallon where E15 is used in other states, but lower criteria emissions as well as greenhouse gas.

The infrastructure exists today. We have the ten percent. There was questions in the report about that infrastructure, and it's there because it's commingled with the gasoline system. So as you bring in more ethanol into the system, you move tanks from gasoline into ethanol. So it's the infrastructure, whether it's rail, whether it's marine, whether it's the trucks and the pipes, it exists.

So it is the nearest-term opportunity we have today to increase the supply of a low-carbon and clean burning fuel that brings affordability to California consumers. And all it takes is the Air Resources Board certifying its use and would encourage that to happen, that rulemaking happen, almost immediately because I can't think of a quicker way to bring incremental supply of one of the lowest carbon fuels in the marketplace.

Thank you.

MR. SAMUELSON: Thank you. Was there anyone else in person? Looks like there's no one else in person.

We'll move on to the Zoom platform. For those using the raise-hand feature, I will call you out your name to let you know you're able to ask your -- or make your comments. Please state and spell your name and your affiliation for the record after you're unmuted.

Start off with Dallas Gerber. Your line is open.

MR. GERBER: Thank you. Dallas Gerber, D-A-L-L-A-S G-E-R-B-E-R, Director of State Government Affairs with Growth Energy. We are the nation's largest association of biofuels producers. We represent 97 biofuel producers who collectively produce more than 9.5 billion gallons of clean or burning renewable fuel annually and 117 businesses associated with the production process.

I'd like to appreciate the CEC's and CARB's consideration of E15's use in the draft Assessment for California. Approval of E15 will bring an affordable and environmentally beneficial option to the pump for California drivers. It's a fuel that can be used in more than 96 percent of legacy vehicles on the road today and consistently saves drivers $0.10 to $0.30 per gallon.

As far as infrastructure, any adjustments refiners may have to make for E15 are far outweighed by the

lower cost of ethanol relative to gasoline. As Mr. Koehler said, California is the sole remaining state that has yet to approve E15, but it is ready for the fuel. Existing California UST database shows that a significant percentage of tanks are already compatible for use with E15, and the vast majority of tanks built UL certified and installed in 1989 or later in the state are compatible with E15 storage.

And updating the retail level infrastructure is as simple as base model dispensers for the two largest manufacturers, which represent about 98 percent of the industry is at least E15 compatible. All Wayne dispensers and all fuel barcode dispensers since 2008 are compatible for E15 and some even higher. And most, if not all, of the midstream infrastructure bringing E10 and E85 to California is similarly capable of carrying E15.

So to echo what Mr. Koehler said, industry groups have submitted their tier three report to the Multimedia Working Group. And, obviously, we're currently in the middle of the process and we stand ready to assist to complete that process.

Research conducted for that report shows clear benefits to air quality through E15. The use of more bioethanol and bioethanol-blended fuels shows significant reductions in carbon monoxide, harmful particulates, and air toxics, on top of the nearly 50 percent reduction in

GHGs with ethanol compared to gasoline.

I'd like to close out by saying E15 can be a vital contributor to achieving GHG reductions, a simple switch from E10 to E15 statewide. So if E15 replaced E10 statewide, it would reduce greenhouse gas emissions by 1.8 million tons annually. This is the emissions reduction equivalent of taking more than 40,000 cars off the road each year. And that does not -- it would not impact a single driver while also providing a more affordable fuel for California drivers.

So thank you for your time and appreciate your consideration.

MR. SAMUELSON: Thank you.

Amelia Keyes, your line is open.

MS. KEYES: Hi, Amelia Keyes, A-M-E-L-I-A K-E-Y-E-S. I'm an attorney with Communities for a Better Environment's Nor Cal Program.

I want to express appreciation, first of all, for the CEC's thoughtful engagement and Assessment process. My comment focuses on some of the elements that should be added to the Assessment, reinforcing some points from the previous panel.

So the SB X1-2 statutory language tells CEC to, quote, "identify methods to ensure a reliable supply of affordable and safe transportation fuels in California."

Under this language, safe is just as important as affordable. So we encourage you to dig much deeper into how to achieve a safe supply of transportation fuels. Understanding that this Assessment takes a big effort and appreciating your thoughtful work on it already, we think safety is a big gap in the draft report.

I also want to emphasize that safety does not exclusively mean safer equipment at refineries. It also means addressing the inherent safety dangers of refining and combustion fuels. A recent report commissioned by the CPUC found that switching from fossil fuels to electric on-road transportation in California would avoid 2,265 premature deaths per year. And this combustion fuel death toll doesn't even account for the danger inflicted on communities from oil refining, from the major explosions and leaks to the everyday pollution that inflicts cancer, respiratory diseases, reproductive harms, and many other safety risks on our communities.

These problems are not getting resolved despite our current protections. For example, the Richmond Chevron refinery has had hundreds of violations of air quality standards in recent years.

Because these expansive safety issues are a critical aspect of SB X1-2, the Assessment should: one, discuss the impacts of the gasoline supply chain on safety

in California; two, evaluate each identified policy option based on its potential impact on safety; and three, as panelists have said already, the Assessment should add a policy option that explicitly prioritizes safety. This option should require and ensure the phase-down of oil refinery emissions as we move through the fossil fuel transition.

Thank you.

MR. SAMUELSON: Thank you.

Next is the Wilmington team. Your line is open.

MS. RIVERA: Can you hear me?

MR. SAMUELSON: Yes.

MS. RIVERA: Can you? Can you hear me?

MR. SAMUELSON: Yes, I can hear you.

MS. RIVERA: Yes, my name is Alicia Rivera. I'm a community organizer with Communities for a Better Environment. I'm a community organizer at the -- where there are so many refineries in Wilmington, and I appreciate the opportunity to give my comment.

Wilmington has the highest concentration of oil refineries in California, and we know that our community members in Richmond and other refinery neighborhoods, such as Wilmington, statewide, really suffer from refinery pollution too, and suffer from gasoline price doubting at the same time.

Many of you already know how bad the pollution is in oil refinery neighborhoods, with regular explosions, actual crude oil spills right on residential streets, frequent episodes of smoking flares, that's pretty much on a daily basis, including those that wake up our members in the middle of the night with smells and bright lights. One member thought her house was on fire, the flaring was so bright that it permeated through her wall. These are Black, Brown, Latino, Asian, indigenous communities of color suffering badly. But the same thing that will help EJ communities is also good for everyone in the state.

Oil refineries, as we know, are inherently dangerous. They cannot make clean energy, even though we have worked for decades on regulations to reduce the harm. Our members are low-income, and they really need you to set penalties for the oil refineries to keep the industry from causing gasoline price spikes. This is very important.

We do not want the fear-mongering that the oil industry always orchestrates to stop regulations of prices and pollution. You need to regulate oil refineries and penalize them to stop price gouging to reduce gas prices. This will help low-income communities throughout the state and help everyone, including small businesses.

In the meantime, we need the Fuel Assessment Report to add an evaluation of safety of fuel, which is

missing and required. Oil refineries are not safe to live next to or to work in.

The gasoline and diesel that oil refineries make are not safe fuels to use either. They cause California to have the worst smog in the nation and cause climate change. The future of climate change is so bad that we might not survive. We need to begin the gradual phase-out of fossil fuels, including oil refineries.

During heat waves, people in Wilmington really suffer. It makes the smoke worse too. The wildfire smoke is terrible and many people have asthma. We need you to begin evaluating how to phase out oil refineries while we introduce zero-emission transportation choices, including EVs and public transit, making them much more accessible to everyone. This takes planning, gradual phase out of oil refineries.

Thank you very much.

MR. SAMUELSON: Thank you.

Woody Hastings, you are available to ask your comments.

MR. HASTINGS: Great. Can you hear me? Can you hear me?

MR. SAMUELSON: Yes, we can hear you.

MR. HASTINGS: Great. Thank you so much.

Good afternoon, my name is Woody Hastings,

W-O-O-D-Y H-A-S-T-I-N-G-S. I'm with the Climate Center. The Climate Center is a statewide nonprofit working to reduce greenhouse gas emissions everywhere, starting in California.

First, I also want to thank the agencies and Energy Commission staff for the great start on the Transportation Fuels Assessment. This is important, complex, and much-needed work. The Climate Center sees SB X1-2 and this work as a way to escape the gasoline trap of price gouging, hazards to the fence-line communities, and climate disaster. The refineries and the oil industry in general are not going to do this voluntarily.

I want to generally align my comments with those of Julia May and Connie Cho. To meet state climate and health goals and identify the means to transition to a safe transportation system, we agree with the statements from Julia, Connie, and others not only supporting reducing demand through zero-emission vehicles and public transit, but also to fix the policy gap on supply through explicit refinery phase-out recognition, in short, a labor-friendly, equity-centered, managed decline and transition away from fossil fuels.

One of the Climate Center's guiding principles is environmental justice, and so we agree on the points that were brought up that there should be an added safety

Assessment, which was required under SB X1-2. And so we all are well aware of decades of experience that refineries, communities that have refineries, are not safe. Neither are those communities safe from the impacts of the use of fossil fuels in these transportations from the smog and the toxics due to that combustion of gasoline and diesel. And then the ultimate climate impacts.

So I think that is most of what I wanted to say. Thank you very much for the opportunity to comment.

MR. SAMUELSON: Stephen Rosenblum.

MR. ROSENBLUM: Good afternoon. Thank you very much to the staff of CEC, Dr. Gee for the excellent presentation of what the options might be to have a well-managed transition away from fossil fuels.

I'd like to mention two of the things that I think -- oh, I'm sorry, I didn't spell my name, S-T-E-P-H-E-N, R-O-S-E-N-B-L-U-M. I represent Climate Action California, environmental organization fighting climate change in the state of California.

So two of the options that made sense to me, the first was to switch to a public utility model for a refinery industry. I think that accomplishes several goals at the same time.

At the first, it controls prices and allows the regulation of safety. So this is really important, as

we've heard from other speakers, that refineries are dealing with explosive and volatile chemicals all the time. They're subject to upsets, flares, explosions. And the workers there, just recently, a worker lost his life at one of the refineries in the Bay Area due to an explosion during a maintenance operation. So I think we need better regulations.

The second thing is that the refineries generate billions of dollars in profits now. And a lot of that could be used to finance the just transition that's so necessary that was pointed out by Mike. Those workers have worked for years of their lives in well-paying jobs and doing important work for our country, but we need to make sure that they have a clear path to a future with training and benefits. And the refinery should finance that. They've benefited from the labor of these people for decades and they should help them to the next phase. As we know, we need to phase out fossil fuels and they need to be part of the solution and not part of the problem.

So the second point I'd like to make is about public transit. I think that was mentioned by Connie, and also mentioned in the presentation, but not really given a lot of weight. Public transit is really a critical solution that needs to be addressed, and it needs to be addressed with ZEVs, not only buses and trains that emit no

pollutants, but also new modes of transportation, such as shared vans that are on call, offering sort of quasi point-to-point on-demand service for communities that are more spread out, like in the L.A. area, which can't be really well covered by a traditional fixed-route bus system. So that would not only reduce pollution, but it would also reduce congestion, which is, you know, reducing vehicle miles traveled, so it's a win-win situation. So I think public transit using zero-emission vehicles has to be a critical part of the transition away from fossil fuels.

Thank you.

MR. SAMUELSON: Julia Levin, your line is open.

MS. LEVIN: Good afternoon, Julia Levin, J-U-L-I-A L-E-V-I-N with the Bioenergy Association of California. Thank you for this incredibly important workshop and all of the work of the various agencies staff.

Can you hear me?

MR. SAMUELSON: Yes, we can hear you.

MS. LEVIN: Okay, sorry. The speaker on your end is super faint now.

So I have three points I'd like to make. The first is in response to the CEC's presentation earlier. There was a lot of focus on moving away from petroleum, which we strongly endorse and hope can be accelerated. But there was very little -- and a lot of discussion about

electrification, but very little discussion, in fact, I'm not sure I ever heard the word hydrogen mentioned. And this seems like a really important fuel for the future to replace fossil fuels, especially in heavy duty vehicles, long haul trucks, airplanes potentially, and rail. So I'm hoping that in the modeling, in the transition strategy, hydrogen plays a much larger role. And within the category of hydrogen, how we will transition to renewable and very low carbon hydrogen as well.

And on the jobs front, hydrogen also has a really important role to play. My understanding from workers in the petroleum industry, the refineries, is their skills are not easily transferable to electric work, but they are very easily transferable to hydrogen. It's a lot of the same skills, a lot of the same trades, pipefitters and others, and so that makes for a much smoother work transition as well.

The second point I wanted to make is about imports. Again, there was a lot of discussion about imports and exports of petroleum products, very little about what we're doing with the alternatives. And I say that because the RPS does require delivery of electricity, and therefore electricity under the low-carbon fuel standard, it must also be delivered.

But biomethane and hydrogen have no delivery

requirement. And what that means is we're actually using fossil fuels in California, while California drivers are paying for the carbon reductions that are actually being achieved in other parts of the country. And this isn't just about carbon reductions. It's about converting organic waste to more beneficial end uses. It's about reducing wildfires. It's about reducing landfill waste and things like that. So I think it's really important as part of the transition to much cleaner, lower-carbon fuels that we also require those fuels that Californians are paying for to be delivered to California.

(Clears throat.) Excuse me.

My last point is on the safety issue, which a number of people have mentioned. And I want to say, as someone who lives in Contra Costa County, in sight of the Richmond refinery, I totally support all of the comments urging the agencies to shut down the refineries as quickly as possible, because they are huge safety risks.

At the same time, we have to look realistically at all the alternatives. Electricity is actually far more dangerous. It is causing far more deaths, both directly from the wildfires that electricity causes, as well as the air pollution from those fires. We know from CAL FIRE that electricity infrastructure and operations caused the majority of California's catastrophic fires.

So we need to look at the safety of all of the alternatives, not just refineries. And we need to consider them objectively.

Thank you.

MR. SAMUELSON: For our last comment before break, Jeff Wilkerson. You line is open.

MR. WILKERSON: Thank you. Jeff Wilkerson, J-E-F-F W-I-L-K-E-R-S-O-N, on behalf of Pearson Fuels, based in San Diego. Thank you for the opportunity to comment today.

I want to quickly highlight how the Energy Commission could help ease petroleum demand by utilizing clean transportation program funding for engine conversion technology to allow conventional ICE vehicles to instead run on 100 percent renewable fuel.

For background, Pearson Fuels is the largest E85 distributor in the state. We work with more than 370 retail gas station partners to offer E85 across California. E85 has historically consisted of 85 percent ethanol and 15 percent gasoline and been used in flex-fuel vehicles. However, more than a third of our E85 supplied to the market is now composed of ethanol and renewable naphtha instead of gasoline. This E85 allows us to dramatically reduce petroleum consumption in the light-duty fleet and is typically available to drivers for $1.50 to $2.00 per

gallon below California gasoline with up to 80 percent fewer lifecycle emissions.

The station network for E85 is growing rapidly. We anticipate the state will add at least 75 new sites in 2024, these stations will be in both high population areas and more rural regions where E85 has never been available, specifically to those CEC says may be most impacted by future gasoline price spikes.

As CEC notes, ICE vehicles will remain in the state's fleet for decades, but technology exists to mitigate the equity and emissions impacts of those vehicles. We urge CEC to use Clean Transportation Program funding to bring E85 conversion kit technology to the market in California by supporting testing efforts and installations.

This technology is already widely available in France where the government has incentivized its use. The kits can be utilized at very reasonable costs to allow consumers to choose something other than gasoline, even if they aren't immediately able to purchase an EV. Absent this innovation, these cars and trucks will continue to use petroleum with prices subject to wild price swings and spikes.

Thank you.

MR. SAMUELSON: Thank you, everyone, for their

public comments.

I also wanted to mention that we welcome written comments, and those comments are due by May 17th by 5:00 p.m. Instructions on how to provide written comments are included in the notice for this workshop as posted on the CEC's website.

We'll be taking a five-minute break at this time.

EXECUTIVE DIRECTOR BOHAN: Let me just thank, once again, our panelists for helping elucidate this conversation.

(Off the record at 3:49 p.m.)

(On the record at 3:55 p.m.)

MS. KOZAWA: Welcome back. Thanks for sticking with us on this Friday afternoon. My name is Kathleen Kozawa from the California Air Resources Board, and I'll be kind of shepherding us through the transportation Transition Plan portion of this workshop.

So to begin, let's just dive right into it. I'm going to introduce Quinn Langfitt, who will be providing the presentation.

MR. LANGFITT: All right. Thanks, Kathleen.

All right. Good afternoon, everybody. I'm Quinn Langfitt from the California Air Resources Board. Kathleen mentioned we're kicking off the process to develop our Transition Fuels Transition Plan. And, again, that's also

called for in SB X1-2. And this plan is actually a joint effort between CARB and CEC.

Next slide, please.

Every five years, CARB develops a Scoping Plan, which lays out the sector-by-sector roadmap for California to meet our climate targets. The most recent update was completed in 2022, and the 2022 Scoping Plan update set a path to achieve carbon neutrality by 2045 or earlier by outlining a technologically feasible, cost-effective, and equity-focused plan.

The Scoping Plan scenario shows a rapid uptake of zero-emission vehicles over the coming decades, which in turn reduces the demand for gasoline. Scoping Plan scenario envisions reduced in-state fuel production in line with that decreasing demand, I just mentioned. This reduced fuel production would reduce emissions associated with both the extraction and the refining of petroleum fuels in our state.

The graph on the left shows that under this scenario, there would be an 89 percent reduction in the greenhouse gas emissions from the oil and gas extraction sector in 2022 and 2045.

COMMISSIONER MONAHAN: I'm sorry. I'm sorry to interrupt, but I'm having a really hard time online hearing you. I don't know if anybody else on the dais is having or

on the phone is having troubles hearing.

MS. KOZAWA: Yeah. Yeah, the microphone is not quite picking up.

MR. LANGFITT: Okay, no worries. All right, I'll just go back slightly.

The graph on the left shows that under this scenario, there would be an 89 percent reduction in greenhouse gas emissions from the oil and gas extraction sector from 2022 to 2045. And the graph on the right shows an 85 percent reduction in petroleum refining sector emissions, or a 94 percent reduction if carbon capture and storage is also used.

It's important to note that the Scoping Plan calls for a phase-down but not a complete phaseout of both the demand and supply of fossil fuels within that 2045 timeframe. Given that some liquid fuel demand will persist past 2045, if we were to completely phase out in-state supply, it's possible that we'd have to increase our reliance on biofuels or, potentially, import fossil fuels to meet California's liquid fuel demand.

Next slide, please.

Californians use less gasoline and diesel, we need a plan to manage supply and demand and any related impact. The 2022 Scoping Plan identified the need for this type of transition planning, and that's summarized by the

quote on this slide that comes directly from the Scoping Plan. So it reads,

> "If the supply of fossil fuels is to decline along with demand, a multi-agency discussion is needed to systematically evaluate and plan for the transition to ensure that it is equitable."

Next slide.

Through the Scoping Plan process, a number of transition concerns were identified by stakeholders and our partner agencies that CARB acknowledged should be addressed through future work. These include the direct and indirect job and economic impacts, the fact that there will be ongoing demand for liquid fuels, that includes fossil gasoline and diesel, as well as renewable fuels, legal considerations around how the transition might occur, public health benefits that may accrue, and demand and supply strategies for petroleum fuels, including how to avoid short-term supply constraints that may especially impact low-income consumers.

Next slide.

So this leads us into the Transportation Fuels Transition Plan that we're kicking off in this presentation. Again, this plan was called for in Senate Bill X1-2, the same bill that called for the Transportation Fuels Assessment. And as I mentioned before, this

Transition Plan will be a joint effort between CARB and the CEC. The Plan will discuss how to ensure that the supply of petroleum and alternative transportation fuels is affordable, reliable, equitable, and adequate to meet the demand for those fuels that's described in the 2022 Scoping Plan.

The Transition Plan builds off of the information in the Transportation Fuels Assessment that CEC presented earlier. And it will also be prepared in the consultation with a multi-agency, multi-stakeholder work group. And that work group will ensure that the plan covers a wide range of viewpoints and expertise.

Next slide.

Initial topic areas that we're planning to address in the Transportation Fuels Transition Plan really key off those recommendations that were given in the Scoping Plan, and also from the content in the Transportation Fuels Assessment.

So the initial topic areas that we're envisioning will be focused on as part of this Transition Plan development are the policy levers to manage fuel supply and demand, which will be primarily coming from the Transportation Fuels Assessment that CEC presented on already, actions and strategies to protect communities, strategies to protect fuel affordability and availability,

especially for those who are less able to quickly transition to zero-emission vehicles, assessing potential refinery transition scenarios, discussing gaps in existing statutory and regulatory requirements for fuel supply, and discussing ideas for equitable transition of the fuel production workforce.

So although we're saving comments for the end, I did want to get everyone kind of thinking about some of the key questions that we'd like feedback on.

So the first one on this slide says, we'd like to know what it means to you to have a safe, equitable transition, especially as it relates to the initial topic ideas on this slide.

Next slide, please.

The Transition Plan will be informed by numerous efforts and sources of information. Together, these will ensure a strong technical foundation, and that we have meaningful input from affected individuals and organizations reflected in the Plan. So these sources of information include the 2022 Scoping Plan update for demand scenarios and transition considerations, the Transportation Fuels Assessment for analysis of options to manage supply and demand and prevent price spikes, future assessments of transition scenarios, too, for how refineries might respond to falling demand for fuels, the stakeholder workgroup that

I previously mentioned to, again, ensure that a diverse set of experts are providing input on the plan, and workshops and community meetings for CARB and CEC to both provide information and to receive feedback and ideas from the public.

We've already discussed the Scoping Plan and the Transportation Fuels Assessment, so in the next few slides I'll discuss the other three items here, the stakeholder workgroup, the workshops and community meetings, and the refinery scenario modeling in just a bit more detail.

Next slide, please.

The workgroup will be made up of a wide range of stakeholders representing many different interests. The makeup of this workgroup is actually specifically called for in the bill, in SB X1-2. And in the next slide I'll go over the types of organizations that will be participating in that workgroup.

We're working to get professional facilitation services for this workgroup through a third-party contractor to maximize the effectiveness of those workgroup meetings. We're planning to hold four workgroup meetings, each with a different overarching theme for discussion. We'll have questions prepared for the workgroup, and then the facilitator will moderate a discussion on those questions. Topics for discussion include at least planning

for how fuel suppliers might react to reductions in fuel demand, the best policy options to mitigate price spikes being off of the Transportation Fuels Assessment, and how to equitably transition the fuel production workforce.

Next slide.

So as I mentioned, SB X1-2 specifies what types of organizations need to be included in this workgroup. The text on this slide is a direct quote from the legislation as it was codified into law. So the workgroup members must include at least organizations representing environmental justice, labor, environmental protection, land use, public health, state's fuel producers and refiners, and relevant state, regional, and local agencies.

If you represent an organization and your organization is interested in joining this workgroup, please get in touch with us to talk about what that would entail. We're going to have our contact information at the end of the presentation, so we'd be happy to hear from you and talk about being on that workgroup.

Next slide.

Throughout the process of developing the Transportation Fuels Transition Plan, we'll be holding two types of public meetings. We'll hold daytime workshops where we'll be sharing publicly available preliminary results and that could include presentations by CARB and

CEC, as well as from any contractors that are also working with us on the effort. At the workshops there will also be the opportunity for public comment so that we can receive feedback from stakeholders who are primarily available during the daytime.

We'll also hold community meetings where we'll give brief presentations to share basic information about the Transition Plan, but really those meetings will be focused on collecting input from community members. And those meetings will take place in the evening to accommodate the schedules of those who can't attend a daytime event.

Next slide.

Part of the Transition Plan will be a technical analysis of possible refinery transition scenarios, so what that means is what may happen with refineries as demand for transportation fuel is reduced. There's multiple possible options for what could happen to refineries, such as transitioning to produce cleaner liquid fuels, shifting to exports, or closing down. You can see those potential options reflected in the question that I have on this slide. And, again, we've included this question just to get everyone thinking about the kind of feedback we're looking for.

This modeling work will consider estimated demand

for gasoline, jet, and other fuels in California and in neighboring states and regions, as well as the infrastructure constraints that exist for moving fuels. The work will also consider risks with authority, geography, regulatory implementation, and other similar issues.

We expect this work to primarily be done through a contract that was put out publicly for competitive bidding in February and for which we've released a Notice of Intent to award to ICF.

Okay, so that covers the overview of the Transition Fuels Transition Plan. Now, on to the next steps.

SB X1-2 calls for this Transition Plan to be completed by the end of the year, so we'll be working expeditiously to get this process moving along. Next steps are to assemble the workgroup, hold the first workgroup meeting, and hold the first community meeting. We'll also be beginning the technical work on the refinery transition modeling scenarios and starting to incorporate the information from the Transportation Fuels Assessment into the Transition Plan.

You can use the link at the bottom of this slide to access the SB X1-2 website and follow along the process. So this is where any publicly scheduled events will be

posted for both this effort and other SB X1-2 efforts as well.

Next slide, please.

So next up will be the questions and comments from the dais, but after that, we'll be opening up for public comment. The questions on this slide are just a few examples of the difficult issues that we want your feedback on. This list is in no way exhaustive. It's really just meant to jumpstart the conversation. So, of course, please feel free to comment on any issues relating to this planning process.

But the questions we have here are: Which strategies in the Transportation Fuels Assessment would best protect fuel affordability for low-income and rural communities? What are the key metrics for evaluating and tracking progress on equity issues during the transition? And what strategies can best support an equitable workforce transition?

Next slide, please.

All right, so if you have any questions on the Transition Plan or if you represent an organization that is interested in maybe serving on that workgroup, please get in touch with the contacts we have here on this slide.

So thank you, and I'll turn it back to Kathleen for questions and comments from the dais.

MS. KOZAWA: Thanks so much, Quinn.

At this point, I'd like to turn it over to the dais for comments, and I'm happy to answer any questions as well.

EXECUTIVE DIRECTOR BOHAN: Well, thank you, Kathleen and Quinn, excellent presentation. And you bought back a little bit of the time we had lost by going a little longer earlier, so thank you very much.

Let me again go through the dais members that are joining us virtually, and I'll start again with Commissioner Monahan.

COMMISSIONER MONAHAN: And actually, I'll pass it to Chair Randolph, since this is -- seems like CARB -- I mean, CARB is taking the lead on this one, although we're definitely going to be involved in this as well.

CHAIR RANDOLPH: Yeah, I guess I would say I have more of a comment than a question, which is, I really appreciate all the work that Kathleen and Quinn and other CARB staff have done on this. And kind of most importantly, it's really going to involve a lot coordination with the resources agency, EPA and, of course, the CEC. And so I want to make sure folks understand that this is, you know, kicking off a process where there's going to be a lot of opportunity for diving deep into these issues and I think the last panel really hit on some of the

key transition points we're going to need to be thinking about. And, you know, it was interesting hearing some creative thoughts about how we're thinking about that supply and demand kind of working together over time.

And I would also say that it is -- the legislation does say that the report needs to be done at the end of the year, but I also want to be mindful of the fact that we want to make sure we have robust input and plenty of opportunity for discussion, you know, within the workgroups and also in the community meetings. So I want to make sure that we allow enough time for all of this, that work that needs to happen. So I just want to make sure that we're not so focused on the calendar and much more focused on the substance and making sure where we get good input.

So those are my comments. I really appreciate this process being kicked off. I know there are a lot of organizations that have been eagerly awaiting this process to start and have already raised their hand to participate. And so we're looking forward to that continued engagement.

EXECUTIVE DIRECTOR BOHAN: Excellent. Thank you.

Deputy Secretary Izant.

DEPUTY SECRETARY IZANT: Thank you. I don't have any questions at this time.

EXECUTIVE DIRECTOR BOHAN: Great.

Commissioner Monahan, do you have anything you'd like to add or questions you'd like to ask?

COMMISSIONER MONAHAN: Well, just I really appreciated the thoroughness of the public engagement process that's being proposed here. I do think, as Chair Randolph said, it's really critically important that we hear from diverse constituents about what this means for labor, what this means for communities, what this means for low-income families, and really do the best job of synthesizing that input and helping us with a plan going forward.

So I'm just really impressed with the strategy that's being put forward and look forward to actually going out there and hearing from diverse stakeholders about what to do.

EXECUTIVE DIRECTOR BOHAN: Thank you.

And I'll pass it to you, Deputy Secretary Nguyen.

DEPUTY SECRETARY NGUYEN: Hi. Thank you.

So I just want to reiterate what I've -- what other dais members have already said. Thank you, again, to Kathleen and Quinn, Quentin, and the CEC and CARB teams for really pushing this effort forward. So, again, really, really appreciate that.

And also, calling out to you, I appreciate that you guys separated out workshops from community meetings on

this slide. I think that's really important. I think what we heard from what Chair Randolph said on the previous panel, we heard a lot of concerns about, you know, just involvement of community members and safety. And all of these things, I think, will be, you know, part of the discussions that we have with the workgroup and with the community members. So, again, really appreciate that you call that out separately so people understand that we are trying to get feedback on this and get participation to come up with this really robust Transition Plan.

EXECUTIVE DIRECTOR BOHAN: I'm expecting the Vice Chair any moment, but not seeing him. I will potentially close this part of the conversation before we get to public comment with one question.

I'm wondering, Kathleen, it's early, so maybe we haven't formulated this, but how are we thinking about the tension between the statutes requirement that we develop a plan to keep gasoline, safe, affordable, reliable, equitable for as long as California consumers demand it, which implies continuing refinery operations likely, with some of the concerns we heard in the earlier panel about the problems caused by refineries in the local communities where they reside?

MS. KOZAWA: I think that's a great question and I think that's something -- it's part of many hard

questions, I think, that we're going to have to work through in these workgroup discussions, and so that's why this call for participation in the workgroup. And we want to get as many voices in there as possible so we could have these discussions and really figure out how to find solutions for how that nexus does happen, like how does that phase-down happen and how do we protect communities and, you know, still maintain a little bit of fuel doubt that is going to be needed into the future.

EXECUTIVE DIRECTOR BOHAN: Great.

With that, I think we're ready for public comment for this portion of the workshop.

MR. SAMUELSON: All right. As a reminder one person per organization may make comments and comments are limited to three minutes per speaker. We will do the same order, in-person, then Zoom with the raised hand, and then we'll go to the phones. As a reminder for those on the phone, dial star nine to raise your hand and star nine to mute and unmute your phone.

We will begin, starting with in-person. Do we have anyone in-person that -- sorry.

Before that, remember to state and spell your name and affiliation.

Anyone in-person? No one in-person.

We'll go ahead and move on to Zoom.

Greg Karras, your line is open. Greg, you're on mute.

Okay, while we're waiting for --

MS. GUTIERREZ: You need to unmute on your end.

MR. SAMUELSON: Greg, have you unmuted on your end? Okay, while we're waiting for Greg, we'll go ahead and go to Jeremy Martin.

Jeremy, your line is open. We can't hear you, Jeremy.

MR. MARTIN: Can you hear me now?

MR. SAMUELSON: Yes, we can hear you now.

MR. MARTIN: Okay. Somehow it had selected a different microphone. Yes, I'm Jeremy Martin from the Union of Concerned Scientists, and I appreciate the thoughtful presentations and discussion, and I'm very much looking forward to this planning process. There's a lot of, you know, challenging and important issues to get through, and I look forward to following and contributing to these discussions.

So that's really my only comment. Thanks very much.

MR. SAMUELSON: Thank you.

Going back to Greg, if you are there, please make your comment.

MR. KARRAS: Hello, can you hear me?

MR. SAMUELSON: Yes.

MR. KARRAS: Thank you. This is Greg Karras. What had happened was I had raised my hand to speak at the end of the last session, and I got bounced to this one. I was away from my desk. But I do have a comment, and the same comment applies to both the definition of safety and how that relates to cost and urgency in one particular way.

It looks like there's a perceived tension or disincentive to do the kind of upgrades for safety that United Steelworkers representative Mike Smith was talking about in the earlier session, namely that, you know, companies want to keep running, keep making gasoline rather than park the unit so they can fully inspect and work on it. And sometimes they just don't want to spend the money on the upgrades. That's not a new thing. I probably don't need to go on long about it, but the problem is that it's coming back again now in a big way.

I joined in comments before, showing that deferred maintenance was one of the causal factors in the disastrous Chevron Richmond refinery fire in 2012 that sent 15,000 to the hospital's emergency rooms. It was also one of the factors in the disastrous explosion in 2015 of the ExxonMobil Torrance refinery that thankfully didn't kill any workers. It probably would have if they hadn't been on break. But the state had Rand Corporation do an estimate

of the full cost to the state's economy, $6.9 billion, with a B. And so these -- there's enough information to monetize this as part of the safety.

And in terms of the urgency, right now, despite all of the talk about storage and all of the CEC's great work to shine a spotlight on things like the low inventory that was part of the factors in the gas price spikes, inventory is running low now. It has been over the last few weeks for gasoline statewide, and that's in the run-up to the summer driving season.

Meanwhile, the refiners are still exporting several times. You know, making up that inventory, getting it back to the minimum levels, would be less than seven percent of the exports of gasoline that the refiners are doing to other states and nations. And they have the storage capacity. They had it, you know, last month or three months ago, they had it, you know, last year. We know they have tanks for that kind of storage. It's a small sliver of total production. So there's no real excuse for this.

The reason it's happening is that this industry is unregulated in many ways, including whether we even mind the store and make sure they keep inventory. And then they turn around and use it as an excuse, or we let them use it as an excuse, to defer maintenance, which could cause these

kinds of serious, life-threatening incidents in the second-most hazardous industry in the world after nuclear power plants.

And, you know, this is strong evidence that there is a lot of room to move in the positive direction with this Transition Plan if we actually take the word safety in the statute seriously and incorporate that fully into the Transition Plans.

Thank you for letting me speak.

MR. SAMUELSON: Thank you, Greg. I didn't catch the spelling of your name or the affiliation, if you wouldn't mind doing that?

MR. KARRAS: Yeah, it's G-R-E-G K-A-R-R-A-S. I'm with Community Energy Resource.

MR. SAMUELSON: Thank you, Greg.

There are no more raised hands on Zoom for public comment.

MS. GUTIERREZ: Okay, so we are at the end of our program.

Just wanted to remind everybody that's participating in the room and on Zoom that comments are due by the 17th to our docket if you'd like to comment on either the Assessment or the Transition Plan presentation.

And now I will turn it to Drew Bohan for closing remarks.

EXECUTIVE DIRECTOR BOHAN: Thanks, Aleecia. This was a great afternoon. Thank you to everybody who participated. The public comments were excellent. The panelists were really helpful. And hearing from colleagues from CARB who I haven't met, Quinn, thought you did a great job, so thank you all for taking the time.

And I will pass it off to my colleagues for closing comments.

I'll start on the dais with Deputy Secretary Nguyen.

DEPUTY SECRETARY NGUYEN: Oh, thank you.

Yes, thank you all for the workshop. It was really wonderful. It was really good to hear the panelists and hear the kind of conversation back and forth. The presentations were really great. I love that the first one had the pros and cons as we talked through each of the options.

And then, Quinn, thank you for walking us through all of the components of the Transition Plan or what we're hoping to do over the next few months through the end of the year, so thank you so much.

EXECUTIVE DIRECTOR BOHAN: Let's go to Chair Randolph.

CHAIR RANDOLPH: Just expressing my thanks, again, to staff and especially to the panelists that was a

really robust discussion and looking forward to the Transition Plan process.

EXECUTIVE DIRECTOR BOHAN: Commissioner Monahan?

COMMISSIONER MONAHAN: Well, I want to keep on thanks to staff for at both CARB and the CEC for all their hard work. I really am impressed with the Transportation Fuels Assessment, which I think did a really great job of laying out the options and doing a lay of the land, and that was a lot of work. So just congratulations to the staff for pulling that Assessment together and it really, I think, will help with the Transition Fuels Transition Plan in the next steps and public engagement. So look forward to continuing this discussion.

EXECUTIVE DIRECTOR BOHAN: Great.

Deputy Secretary Izant, why don't you close us up?

DEPUTY SECRETARY IZANT: All Well, I will echo the thanks of my fellow dais members here, just again acknowledging all of the work of the Energy Commission and Air Resources Board staff. We really do appreciate all the work that went into the reports themselves and the presentations today, and for providing this workshop an opportunity for members of the public to be engaged, and really looking forward to the coming months as the work continues on the Transition Fuels Transition Plan. Again,

we think there's a really good next step and path forward for having robust engagement, so thank you all very much.

EXECUTIVE DIRECTOR BOHAN: All right. Well, thank you all. Have a wonderful weekend. And we are adjourned.

(The workshop adjourned at 4:24 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 20th day of June, 2024.

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

June 20, 2024